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Cognitive Flexibility in Early Childhood: A Contemporary View of the Development of Flexible Goal-Oriented Behavior

Erken Çocukluk Döneminde Bilişsel Esneklik: Esnek Amaç- Odaklı Davranış Gelişimine Güncel Bakış

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ABSTRACT

Cognitive flexibility is usually described as a skill that allows us to revise our behaviors or ideas as the task objective or the environment changes. Over 20 years, in addition to inhibitory control and working memory, cognitive flexibility has been presented as one of the main executive functions and has been considered to develop at around three to four years of age when children learn to easily switch from sorting cards according to one rule (e.g., shape) to the other rule (e.g., colour). This classic view of cognitive flexibility has been highly influential in improving our knowledge about the development of cognitive flexibility. However, in recent years, the way cognitive flexibility is understood has changed remarkably that leads the way that it should be thought and studied has also changed. The present paper aims to present a contemporary view of cognitive flexibility by reviewing recent advances in methodological and analytical techniques used to study cognitive flexibility. Particularly, recent research has started to use less constrained rule-switching tasks to assess cognitive flexibility and use more advanced modelling-based statistical approaches to analyse cognitive flexibility. These recent advances suggest that cognitive flexibility is not a stand-alone skill that emerges during the preschool years. Instead, cognitive flexibility is the culmination of the development of controlled, goal-oriented behavior that happens across a broader age span and in a much more diverse range of contexts than previously thought. While the earlier developments in cognitive flexibility in the first two years of life are underpinned by attention and language, the later developments in cognitive flexibility from around three years onwards are underpinned by inhibitory control and working memory.

Keywords: Cognitive flexibility, inhibitory control, working memory

ÖZ

Bilişsel esneklik değişen hedefler ya da çevresel etkilere bağlı olarak düşünce ya da davranışlarımızı güncellememize olanak sağlayan yetenek olarak tanımlanabilir. Yirmi yılı aşkın süredir bilişsel esneklik, engelleyici kontrol ve çalışan bellek ile birlikte üç ana yürütücü işlevden biri olarak sunulmakta ve bilişsel esnekliğin çocukların belli kartları bir kuraldan (örn., şekil) diğer kurala (örn., renk) göre esnek bir şekilde sınıflandırmayı öğrendiği üç ile dört yaşları arasında geliştiği düşünülmektedir. Bilişsel esnekliğin üç ana yürütücü işlevden biri olduğunu ve üç ile dört yaşları arasında geliştiğini savunan bu klasik görüş, bilişsel esnekliğin gelişimini anlamamızda uzun yıllar etkili olmuştur. Fakat son yıllarda bilişsel esneklik konusundaki anlayışımız önemli ölçüde değişmiştir ve bu değişiklik bilişsel esnekliği daha iyi anlamamız ve daha iyi çalışmamız konusundaki değişikliklere de ön ayak olmuştur. Bu araştırma, bilişsel esnekliği çalışırken kullanılan yöntem ve analitik tekniklerdeki güncel gelişmeleri tarayarak bilişsel esneklik konusundaki güncel görüşü sunmayı amaçlamaktadır. Özellikle, son zamanlarda yapılan araştırmalar bilişsel esnekliği ölçmek için daha az sınırlandırılmış kural-değiştirme bataryaları geliştirmekte ve bilişsel esnekliği analiz etmek için daha ileri modelleme analiz yöntemlerini kullanmaktadır. Yapılan son çalışmalar, bilişsel esnekliğin okul öncesi çağda ortaya çıkan tek başına bir yürütücü işlev olmadığını göstermektedir. Aksine, son çalışmalar bilişsel esnekliğin düşünüldenden daha geniş zamana yayılan ve daha farklı şekillerde ortaya çıkan kontrollü, amaç-odaklı davranış gelişiminin son basamağı olduğunu göstermektedir. Güncel veriler, uzun gelişim evresine sahip bilişsel esnekliğin yaşamın ilk iki yılındaki erken gelişim dönemlerinin dikkat ve dil yetenekleri tarafından desteklenirken, üç yaş ve sonrası ileri gelişim dönemlerinin engelleyici kontrol ve çalışan bellek yetenekleri tarafından desteklendiğini göstermektedir.

Anahtar Kelimeler: Bilişsel esneklik, engelleyici kontrol, çalışan bellek

Cognitive flexibility (CF) is a skill that enables us to revise our ideas or behaviors as the environment or task objective changes (Chevalier et al., 2012). It is an early-emerging ability and is important both because it reflects the onset of complex, systematic, goal-oriented behavior in children, and because early CF is associated with a number of significant developmental abilities. For example, CF is positively associated with an enhanced theory of mind abilities (Marcovitch et al., 2015), better comprehension of emotions (Wang et al., 2021) and increased success at school (Clark et al., 2013). This emphasizes the significance of discerning the development of CF during the early years of life.

Research into the development of CF first emerged in the 1990s and 2000s (Towse et al., 2000; Zelazo et al., 1996), and much of the foundation of what is known about dynamic goal-oriented behavior in children comes from this pioneering early work. However, in recent years, the way CF is understood has changed enormously – and as a result, the way that CF needs to be thought and studied has changed. This paper begins by briefly outlining the “classic” view of CF, a view derived from this early research, and centered on an age period that used to be thought of as the three- to four-year-old shift. It then presents a selective review of recent research covering the first six years of life that frames CF *not* as a stand-alone ability that emerges during the preschool years but rather, as the culmination of the development of a controlled, goal-oriented behavior. Within this context, it will be apparent that CF emerges across a much broader age span, and in a much more diverse range of contexts, than previously thought. The paper then highlights the domain-general processes that are shown to play a role in the development of flexible behavior in children. And finally, it presents a conclusion and outlines a number of principles for future CF research to follow.

The Classic View of Cognitive Flexibility

When research into CF first emerged, CF itself was presented as one of the main executive functions, in addition to inhibitory control and working memory (Garon et al., 2008; Garon et al., 2014; Miyake et al., 2000). These three executive functions were said to emerge during the preschool years, and while each one was independent, they could be deployed together to create flexible, goal-oriented behavior. This classic view of CF suggests that CF develops between the ages of three and four years when children learn to flexibly adjust their behavior based on a changing task goal such as a rule (Diamond et al., 2005). During this process, children learn to follow an explicit rule and

following that children learn to flexibly update their behavior in response to a different rule (Muller et al., 2006). This view of how CF develops in early childhood is derived from the most commonly used tasks to measure CF during this period, such as the Shape School Task (Espy, 1997) or the Dimensional Change Card Sorting Task (DCCS; Zelazo, 2006). For example, the DCCS is a two-phase rule-switching task in which children must sort complex bidimensional cards first by one dimension (e.g., shape), and then by another dimension (e.g., color). Thus, the core demand of tasks such as this is the need to modify behavior in line with the rule change (Zelazo et al., 1996).

Findings from the DCCS are robust and consistent; when asked to sort complex stimuli, three-year-olds usually sort these stimuli by an initial rule, regardless of whether it is *shape* or *color*. However, when asked to switch to a new rule, the majority of three-year-olds are unable to do this, and instead keep sorting according to the initial rule (Zelazo, 2006). That is, when asked to switch rules, most three-year-olds *perseverate* with their initial response tendency. Conversely, by around the age of four years, children can usually sort stimuli according to the new rule. Thus, the view that developed from research with the DCCS task tended to see the most critical age period in CF development as around three to four years of age; and to see the most crucial developmental advancement being the ability to overcome perseveration (Munakata et al., 2012).

Three-year-olds' failure to switch is particularly striking, given that these children are able to verbally report what rule they should be sorting by (Yerys & Munakata, 2006). To date, different theories are offered to explain why three-year-olds fail to switch to the new rule. For example, cognitive complexity and control theory suggests that three-year-olds fail to switch to the new rule even if they know that the rule is changed because three-year-olds are unable to combine different pieces of information into complex higher-order rule structure (Zelazo, 2006; Zelazo, 2015). Alternatively, Perner and Lang (2002) suggested that three-year-olds perseverate with the old rule when the rule changed because three-year-olds were unable to exert multidimensionality of mental representations to redescribe the stimuli in a different way in line with the new rule. Other researchers suggested that three-year-olds' failure to switch to the new rule is related to the deficits in inhibiting the previous rule (Kirkham et al., 2003; Rennie et al., 2004) or deficits in maintaining the new rule in mind (Morton & Munakata, 2002). These theories offered important insights on why three-year-olds perseverate while

switching rules. One important point to keep in mind is that while explaining CF development, these theories usually target one change in switching behavior from perseverating with the old rule to switching the rule successfully between the ages of three and four. However, in the contemporary view of the CF in the following sections, younger children also engage in basic forms of CF through mastering errors of inattention (Blakey et al., 2016). Even though it is outside the scope of this manuscript, CF development continues to occur in older children and adolescence (Best & Miller, 2010; Cragg & Chevalier, 2012). These existing theories do not consider the CF changes occurring in more diverse types of performance across broader age ranges (Carroll et al., 2016).

Presenting a Contemporary View of Cognitive Flexibility

The findings from the DCCS proved to be highly influential (Doebel & Zelazo, 2015). However, in recent years it is clear that CF develops in a more complicated and protracted manner than the classic view would suggest. A number of methodological innovations emerged. For example, rule-switching tasks were developed with an increased number of response options to measure more diverse kinds of switching behavior with simpler instructions and response requirements to measure CF in a wider, younger age range of children. These innovations demonstrated that the beginning of CF emerges much earlier than previously thought. The changes in how CF is conceived led to it being viewed no longer as a stand-alone executive function that emerges from nowhere during the preschool years, but rather as an integral part of children's ability to act in a systematic goal-oriented way (Ionescu, 2017; Ionescu, 2019). In particular, the contemporary view of CF sees the kind of behavior measured by the DCCS task – that is, explicit rule-based sorting of complex stimuli – as just *one example* of intentional goal-oriented behavior; this behavior emerges gradually and becomes increasingly stable and complex with time.

The paper now presents a short review of some of the key studies tracing the emergence of stable, goal-oriented behavior that led to this revised, contemporary view of CF. This behavior first starts to emerge during infancy and is developed and refined during the preschool and early school years. The most important point to make is that CF is not a stand-alone ability that emerges at around four years of age, but rather an integrated part of a child's ability to act in an intentional, planned, and systematic way. A child's ability to flexibly switch rules is founded on the ability to reliably respond according to a rule; on the ability to focus their attention on selected aspects of a situation;

and the ability to overcome distractors. As the paper will now show, these abilities emerge gradually, during the first six years of life.

Precursors to Cognitive Flexibility from Birth to Two Years

The emergence of goal-oriented behavior begins in the first year of life (Hendry et al., 2016). During this time, infants demonstrate little evidence of intentional, reflective, planned behavior. Nevertheless, they do begin to control their looking reaching behavior in response to increasing muscle maturation (Ellis & Oakes, 2006). The developments in controlling looking and reaching are treated as important precursors to CF since they reflect an infants' accumulated learning to exert attention control towards external elements, and to direct their attention towards and away from key aspects of their environment.

Assessing infants' goal-oriented behavior is not trivial because existing CF measurements require a high level of motor and language demands, which is limited in infants. Thus, researchers used different measures that are designed to capture looking and reaching control in order to assess CF in infancy. These measures are highlighted on the ability to allow infants to learn to give a response to a certain stimulus; afterwards, to update this response based on a change in the stimulus. Around four to six-months of age, infants learn to update their response to changing stimuli (Hendry et al., 2016).

Early in the first year of life is when controlled goal-oriented behavior is first observed. That is, infants start to control their gaze to focus on a single stimulus and away from another stimulus. Such controlled looking can be treated as one of the first instances of infants' showing implicit goal-oriented behavior, because whether infants are clearly thinking about a goal to achieve is not definite at this stage of development (Johnson et al., 1991). However, implicit goal-oriented behavior shows the ability to *volitionally* shift attention between different stimuli, rather than simply having one's attention involuntarily captured by the most salient stimuli in one's environment (Evans & Stanovich, 2013). For example, the Fixation-Shift tasks examine an infants' ability to shift their visual focus (Atkinson et al., 1992). These tasks involve an appealing object presented in the middle of a screen for the infant to focus on. After that, additional stimuli are shown on each side of the screen, either with or without the central primary object. The outcome variable is to test whether infants can change their focus of attention from the central to the peripheral objects on each side. It is around the age of four

months when infants are able to shift their attention from a focal point on the screen to peripheral objects. Furthermore, with age infants spend less time in diverting their attention away from the main object (Hunnus et al., 2006; Kulke et al., 2015). While this simple index of directed attention might seem more basic than the kinds of complex volitional behavior associated with CF, it should be noted that infants' high scores on attentional control tasks predict higher scores on CF tasks later in life (Holmboe et al., 2008).

Another type of test for goal-oriented behavior in infancy is directed reaching tasks, typically used with children from around eight months. Controlled reaching is treated as one of the first examples of explicit goal-oriented behavior because infants are able to intentionally initiate an object-oriented motor response (e.g., urging to find a hidden toy), which is a clear antecedent of later CF (Clearfield et al., 2006). The A-not-B task, in which the infant witnessed an experimenter putting a toy in one of two boxes, is a typical illustration of this (Piaget, 1954). The infant was then permitted access to the toy. The toy was initially hidden in the first box (location A) for a number of trials, and then was moved to a second box (location B). Again, the infant was permitted access to the toy from the new place. Eight-month-old infants typically continued to look for the toy in the initial "A" location, thus making the classic Piagetian perseverative error. Errors made by eight-month-olds in the task were usually labeled as executive, indicating challenges with suppressing the infant's focus to the prior location or challenges with updating the representation of the toy's hiding location (Diamond, 1985). However, by around the age of 12 months, infants can reach the new location to retrieve the toy – thus demonstrating a robust ability to direct an action based on an updated task representation. Thus, one of the essential foundations of later CF – namely, the ability to *update* a mental representation as the basis for intentional action – starts to become apparent by the end of the first year of life (Clearfield & Niman, 2012).

The last ability that contributes to goal-oriented behavior during infancy is seen at 20 months of age when infants begin to demonstrate the ability to disregard distractions that are not important to their task. For instance, researchers looked into how well young children could mimic an experimenter's activity sequences (Wiebe et al., 2010). Infants in the experiment initially observed the experimenter carries out two distinct three-step activities. That is, the experimenter arranged a seesaw, placed a toy fish on it, and pressed one edge of the seesaw in order to see the fish jump. After that, the experimenter

assembled a peg top, placed the toy dog on it, and spun the peg top in order to make the dog dance. Then, all the toys (the seesaw and the fish) that allow infants to mimic the first activity were given to them, along with just one toy that allows infants to mimic the second activity (the peg top). Infants could therefore only fully mimic the first activity, but not the second. The peg top is now a distracting toy as a result. Researchers found that by disregarding the distractor toy, infants can successfully mimic the first activity of the experimenter at the age of 20 months.

In the light of this information, it can be concluded that important antecedents of CF, such as controlling of gaze and controlling of reaching start to develop as early as infancy. The reason these behaviors can be considered as important antecedents of CF is because they reflect infants' attentional control abilities for changing external elements (Phipps et al., 2019).

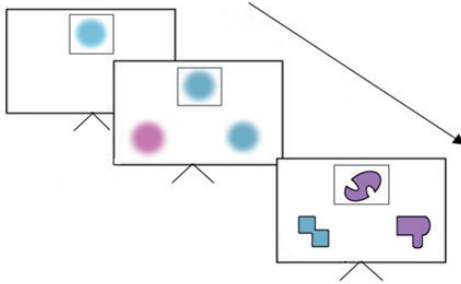
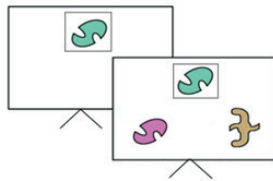
Cognitive Flexibility from Two to Three Years

From around two years of age, children begin to display early forms of deliberate and explicit goal-oriented behaviors (Wiebe & Bauer, 2005). These behaviors are relatively simple and tend to be prone to disruption at every stage whether by salient aspects of the environment around them, or simply from inattention on the part of the child (Carroll et al., 2016). Nevertheless, it is at this age that children start to demonstrate the ability to act systematically in response to instructions from someone else (Brooks et al., 2003). As it will be shown, these behaviors are important antecedents of developing CF as they establish a basis of consistent goal-oriented behavior which two-year-olds can subsequently learn to adapt (Blakey et al., 2016).

Two-year-old children are able to act reliably following simple rules that they are given (Johansson et al., 2016). This is a simple but essential landmark in the development of CF, since the ability to switch from one sorting rule to another – as seen later on tasks like the DCCS – is obviously dependent on the ability to sort reliably by a single sorting rule in the first place. Importantly in terms of CF, however, two-year-olds also start to show the ability to *update* their rule-oriented behavior, so that their initial sorting behavior can be changed (Wiebe & Bauer, 2005). To illustrate this with an example, the Reverse Categorization Task asks two-year-old children to classify cubes with different colors into boxes with different colors (Carlson et al., 2004). Specifically, children are initially asked to classify cubes according to a simple rule (e.g., “blue cubes go to the

blue box and yellow cubes go to the yellow box”), and then they are asked to classify the cubes according to the reversed form of that rule (e.g., “blue cubes go to the yellow box and yellow cubes go to the blue box”). When the rule changed, two-year-olds performed well at both the first task of putting the cubes into the corresponding boxes and the subsequent task of doing the reverse. Two-year-olds’ performance on this task shows that around two years of age, children become able to update their behavior – though only when the objects they are sorting are simple, and when the rule they must update is a straightforward reversal of their initial behavior.

By the end of two years of age, children’s ability to update their behavior further improves in a way that when presented with distracting information, two-and-a-half-year-olds begin to demonstrate the ability to modify their behavior (Blakey et al., 2016). This is an important development, given that young children’s behavior is frequently prone to disruption from distraction and inattention. So, the ability to sort systematically when there is distracting information is a significant advance. To test this, Blakey and colleagues (2016) developed a computer-based rule-switching task called the Switching, Inhibition, and Flexibility Task (SwIFT), that asks two-and-a-half-year-olds to select one of the two colorful shapes that corresponds to a prompt image according to the relevant rule on each trial. The task involved a pre-switch phase, where children sorted in accordance with one rule (e.g., colour), and a post-switch phase, where they sorted in accordance with another rule (e.g., shape; see Figure 1 for an example trial). This task was simpler than the DCCS, since the incorrect response on any given trial did *not* correspond to the prompt image according to the previous rule – thus, the stimuli to be sorted were less likely to induce the child to incorrectly sort by the old rule. Nevertheless, by sorting successfully on the task, two-and-a-half-year-olds showed that they could explicitly update their sorting behavior, through flexibly changing the rule that they use to sort different stimuli. This is a clear demonstration of explicit CF in two-year-olds and shows that the developmental trajectory of CF is longer, and starts earlier, than previously thought.

Figure 1*Distracting Version of the Switching, Inhibition, and Flexibility Task (SwIFT) (Blakey et al., 2016)***Pre-switch phase (12 trials): “Touch the one that’s the same colour”****Post-switch phase (10 trials): “Touch the one that’s the same shape”**

Note. In the Distracting version of the Switching, Inhibition, and Flexibility Task (SwIFT), children are prompted to select one of the colorful images presented at the bottom of the screen that corresponds to the prompt image in line with the relevant rule “Touch the one that’s the same [colour/shape]”. In the Distracting SwIFT, the post-switch phase does not involve a colorful image that corresponds to the prompt image according to the previous rule.

Cognitive Flexibility from Three to Four years

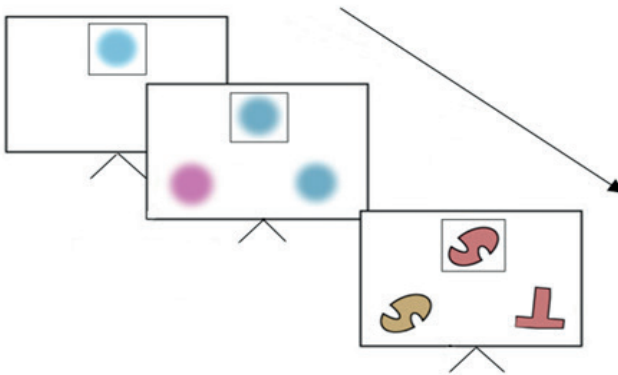
As preschoolers grow old, they start to cope with sorting more challenging stimuli (Espy, 1997; Zelazo, 2006). Most notably, they become able to flexibly sort stimuli that display *response conflict*. Response conflict is the term used to describe stimuli on switching tasks that could be sorted either based on the initial pre-switch rule or based on the post-switch rule (see Figure 2 for an example). Sorting stimuli with response conflict is particularly challenging for young children, since as well as requiring children to switch to another rule, it also requires them to adjust their focus within an object by initially paying attention only to one aspect of a stimuli (e.g., its colour), and then, following a change in the rule, shifting their focus to the other aspect of the stimuli (e.g., its shape). This makes it particularly hard for children to ignore the initial rule, since they will have sorted by this rule in the whole pre-switch phase. Due to the fact that the stimuli contain information related to both colour and shape, both of the rules will be activated in the post-switch phase. That is why in order to succeed on the task, children need to overcome this response conflict. Between the ages of three and four years, chil-

dren become able to switch to the new rule flexibly by resolving the conflict between responses (Blakey et al., 2016; Doebel & Zelazo, 2015). Three-year-olds typically find this challenging; it is common on many switching tasks for them to fail to resolve this conflict between responses, and therefore to keep sorting based on the pre-switch rule when the rule changes. Conversely, four-year-olds have developed the ability to resolve response conflict and are able to update their basis for sorting accordingly.

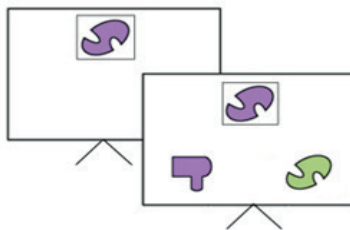
Figure 2

Conflicting Version of the Switching, Inhibition, and Flexibility Task (SwIFT) (Blakey et al., 2016)

Pre-switch phase (12 trials): “Touch the one that’s the same colour”



Post-switch phase (10 trials): “Touch the one that’s the same shape”



Note. In the Conflicting version of the Switching, Inhibition, and Flexibility Task (SwIFT), children are prompted to select one of the colorful images presented at the bottom of the screen that corresponds to the prompt image in line with the relevant rule “Touch the one that’s the same [colour/shape]”. In the Conflicting SwIFT, the post-switch phase involves a colorful image that corresponds to the prompt image according to the previous rule.

Research testing how children successfully switch the rules by resolving the response conflict between the ages of three and four-years has been enormous. Particularly, different versions of the DCCS have been designed to test how experimental variations help children resolve the response conflict better (Doebel & Zelazo, 2015). For example, children were found to switch better when they label the cards to be sorted

explicitly by themselves (for “card-labelling” versions: Doebel & Zelazo, 2013; Muller et al., 2004). In addition, when the post-switch dimension is made more salient, children’s switching performance increases whereas when the post-switch dimension is made less salient, children’s switching performance decreases (for “perceptual salience” versions: Fisher, 2011a, 2011b; Jordan & Morton, 2008). Furthermore, physically segregating the values for different dimensions (separating the colour information and the shape information such as a yellow-filled circle presented next to an outline of a car) was related to better switching ability in a way that full degree of segregation yielded the most successful outcomes (for “dimensional separation” versions: Diamond et al., 2005; Kloo & Perner, 2005; Kloo et al., 2010). These experimental versions of the DCCS are important in helping us better eliminate the various ways through which children can avoid making perseverative errors by resolving the response conflict.

However, the contemporary view of CF suggests that in addition to making perseverative errors, children can make switching errors for different reasons. That is, children can make switching errors due to inattention or distraction (Carroll et al., 2016) and thus characterizing CF as only being able to resolve the response conflict seems to be problematic. To illustrate, Chevalier and Blaye (2008) developed the Preschool Attentional Switching Task-3 (PAST-3) which is a three-item task array that asks children to perform an intra-dimensional switch. That is, in the PAST-3, instead of switching from shape to colour, children are asked to switch within the same dimension such as switching from choosing blue items to choosing yellow items. Crucially, the task array had three different response options that reveal a different type of response: Selecting the yellow object would count as a successful switch; selecting a blue object would count as perseverating with the original rule; and selecting a green object would count as making a distraction error – in other words, neither a successful switch nor perseveration. When children were given the chance to respond to this less constrained task, the researchers found that three-year-old children committed a similar proportion of distraction errors and perseverative errors. Hence importantly, CF tasks that solely assess perseveration tend to omit a crucial aspect of CF behavior that children could display (Chevalier & Blaye, 2008; Deak & Narasimham, 2003).

When switching tasks allow for different kinds of error, the eventual data is likely to be richer compared to the data derived from the typical CF tasks. To be able to analyse this kind of data, an analysis that could detect the important information behind chil-

dren's different kinds of switching errors - beyond the number of correct responses would be needed (Carroll et al., 2016). One way of doing this is to distinguish between various performance patterns in the data, which describes qualitatively different switching performances (van der Maas & Straatemeier, 2008). By observing children's whole post-switch performance, different patterns of performance can be detected such as whether children successfully switch during all trials of the post-switch phase, or whether children consistently perseverate during all trials of the post-switch phase or whether children change between switching and perseverating during all trials of the post-switch phase. An important example of this was seen in work that used the Latent Markov Models to observe children's switching performance during the whole post-switch phase (van Bers et al., 2011). That is, when three to five-year-olds' performance in all trials during the post-switch phase was observed, three different performance patterns were detected. These performance patterns include children who successfully sorted by the new rule in all trials of the post-switch phase, children who perseverated by the previous rule in all trials of the post-switch phase, and children who changed back and forth between sorting successfully by the new rule and perseverating by the previous rule.

More various performance patterns were also observed in two to four-year-olds. Blakey and colleagues (2016) assessed CF in young children by using the 'Conflicting SwIFT' where children must overcome the response conflict in order to switch the rules successfully and the 'Distracting SwIFT' where children must ignore distracting unrelated information in order to switch the rules successfully. Researchers examined two to four-year-olds' performance across all trials of the post-switch phase by using the Latent Markov Models and the results yielded three different performance patterns. These performance patterns include children who switched to the new rule successfully, children who perseverated by keep using the no-longer relevant rule, and children who alternated between sorting correctly and sorting perseveratively along the course of the post-switch trials (For comparable work in older children, see also Dauvier et al., 2012).

Cognitive Flexibility from Five to Six years

Around the age of five years, children are capable of more enhanced forms of switching, and are much more dynamic in the types of behavior they display. By this age, five to six-year-olds have typically mastered switching from one rule to another and started to display the ability to switch multiple times, back and forth, between different rules.

At the age of five to six years, children can also concentrate on tasks for longer periods of time and comprehend instructions for more complicated tasks (Cragg & Chevalier, 2012). They are obviously not yet at adult levels of switching, and there remain a number of important developments children are still to undergo, in terms of the speed and consistency of their switching (Chevalier & Blaye, 2009). However, these developments are arguably more quantitative in nature than qualitative.

One classic method to examine CF in children with five-year-olds is to use the border/star version of the DCCS where children need to remember when to sort by different rules. In the border/star version of the DCCS, children need to sort by one rule (e.g., colour) when there is a border/star around the test card while children need to sort by the other rule (e.g., shape) when there is no border/star around the test card (Zelazo, 2006). This more challenging version of the DCCS is used to examine developmental changes in the switching ability of older children and adults. Studies using this version found that the number of the correct post-switch responses of five to six-year-olds was significantly higher than the number of the correct post-switch responses of four-year-olds (Hongwanishkul et al., 2016). The results reflected significant age-related development on the number of correct switching from five to six-years of age (Carlson, 2005). The quantitative increase in the number of correct switching during five to six-years of ages in this version suggests that CF continues to develop during school period in which CF is supported by the improvements in executive functions. That is, individual differences in the ability to maintain information in mind is likely to differentiate whether children switch correctly or not (Chevalier & Blaye, 2009).

It is around six years that we see a methodological improvement, from using accuracy and error rates as the basis of task performance, to using response time. To examine developments in CF after five years of age, researchers have started to use different computerized paradigms involving multiple rule switches, and where the indices of task performance are based on calculations derived from response time, rather than accuracy (Best et al., 2009). CF in this period is likely to be tested by investigating *switch costs* and *mixing costs* (Cragg & Nation, 2009). Switch costs are described as the additional processing required to sort by a rule, having on the previous trial sorted by a different rule. Switch costs are usually measured by deducting the average response time on *non-switch* trials from the average response time on *switch* trials. On the other hand, mixing costs are a monitoring cost, characterized as the cost of having to maintain the option to

switch. Mixing costs are calculated by deducting the average response time on non-switch trials where the sorting rule does not change from the average response time on non-switch trials where the sorting rule could change, but this did not occur. From five to 11-years of ages, switch and mixing costs start to decline significantly (Chevalier & Blaye, 2009; Davidson et al., 2006). These studies indicate that assessing CF through computerized tasks is likely to be helpful because this method enables researchers to make very precise assessments about behavioral outcomes of CF by noting subtle differences in response time. However, as the manuscript focuses on early CF development where response times are less reliable, the importance of response time in CF will not be discussed further.

However, five to six-years of age is not the end point of CF development, and there remain a number of important developments still to occur during adolescence and adulthood (Best & Miller, 2010). For example, thinking and acting become more flexible (e.g., being able to switch consistently between an increased number of rules) and the switching costs continue to decrease during adolescence and adulthood (Davidson et al., 2006; Reimers & Maylor, 2005). The development of CF in adolescence and adulthood is usually assessed by using Wisconsin Card Sorting Task (WCST; Grant & Berg, 1948), which is similar to the DCCS in terms of sorting cards based on different rules. However, unlike the DCCS, the rules are required to be determined by interpreting the feedback from the experimenter in the WCST (Buchsbaum et al., 2005). Alternatively, the Minnesota Executive Function Scale (MEFS; Carlson & Zelazo, 2014) has been more recently developed to assess executive functions in general, including CF from two to 80-years of age through different computerized tasks. Studies using these tasks show that CF continues to develop in adolescence and adulthood (Huizinga & van der Molen, 2007; Perone et al., 2018). Nevertheless, because the focus of the current paper is on early childhood and presenting a revised understanding of how CF first emerges, the developments occurring during adolescence and adulthood will not be further covered in this section.

The Contribution of Domain-General Skills to Cognitive Flexibility

The paper has discussed age-related changes in CF, and it will now talk more broadly about the domain general skills that underpin CF. Developments in CF are known to be underpinned by improvements in a range of domain-general skills (Blakey et al., 2016). The most important skills in this regard are basic control of attention and early

representational skills such as language, which underpin the development of CF in the first two years of life; as well as inhibitory control and working memory, which support the development of CF from around three years onwards.

During the first two years of life, early CF skills are supported by attentional control abilities and language. Both of these abilities have been shown to be important for the early development of goal-oriented actions (Hendry et al., 2016). That is, as children direct their attention to and verbalize the relevant aspect of a stimulus, they tend to have greater mental representations of the relevant information about the stimulus (Marcovitch & Zelazo, 2009). As a result of the greater mental representations, children can display increased control on directing or modifying their behavior (Kuhn et al., 2016). For instance, Miller and Marcovitch (2015) examined how attention and language abilities of 14-month-olds are related to executive function abilities of those children when they are 18 months of age. The findings demonstrated a positive correlation between children's performance on a variety of executive function measures and their attentional and language abilities, as measured by the frequency of focusing on others' behaviors and early vocabulary, respectively. Even in younger children, correlations between executive functioning and attention have been documented. Researchers showed that executive function abilities of 14-month-olds were significantly predicted by the attentional abilities of those children when they were at four months of age (Devine et al., 2019). Thus, the foundation of CF is supported early in life by attentional and linguistic processes.

Inhibitory control and working memory have been found to underpin CF development from around three years, with each making a distinct contribution to successful switching behavior. For instance, Blakey and colleagues (2016) tested how inhibitory control and working memory contribute to two- to four-year-olds' switching behavior by using different versions of the SwIFT: A *Distracting* SwIFT and a *Conflicting* SwIFT. In the *Distracting* SwIFT, without having the need of resolving the response conflict, children should update their sorting from the old rule to the new rule. Conversely, in the *Conflicting* SwIFT, children should update their sorting rule while also considering the response conflict because in that version of the SwIFT children could continue to sort by the previous rule when the rule changed. It was found that switching when there is no conflict to resolve was associated with higher *inhibitory control* scores. On the other hand, switching when there is a conflict to resolve was associated with higher *working*

memory scores (Blakey et al., 2016). This offers that inhibitory control tends to contribute to CF through allowing children to disregard task-unrelated information while working memory tends to contribute to CF through allowing children to maintain and update the new sorting rule.

Conclusion and Future Directions in Cognitive Flexibility Research

The present paper has reviewed the development of CF and has outlined important recent advances in its assessment and analysis. It concludes that CF is best conceived of as an example of the flexible goal-oriented behavior that children learn to produce gradually during the first six years. It also highlights the importance of recognizing the complexity of children's switching behavior. As a consequence, when assessing this behavior, it is essential that researchers use tasks that allow children to respond freely, and analytic techniques capable of capturing the complexity of such responses. In the light of these recent developments, the existing theories of CF need to be updated so that they offer explanations about the development of CF more inclusively; through considering different kinds of switching behavior (e.g., overcoming distractions) that happens across a broader age range (e.g., from infancy and toddlerhood and to adolescence) and that is supported by more diverse kinds of abilities (e.g., attention and language in addition to inhibitory control and working memory).

Recent advances in CF research have highlighted a number of important points to be taken on board in future research. First, it is important to see CF not as a stand-alone executive function that emerges spontaneously at around three to four years of age; but rather as an integral part of the kind of flexible goal-oriented behavior that emerges gradually during the first six years of life (also see Doebel, 2020). This point bears emphasizing, not merely to situate research within an appropriate context, but also to avoid any tendency to rely on single tasks as the "best" measure of CF. Indeed, it is important for future research to develop multiple measures of CF that can be used in early childhood, as using multiple tasks and creating latent variables help minimize any error due to task impurity (Best et al., 2009; Hughes & Graham, 2002; Miyake et al., 2000).

Second, when studying the development of CF, it is essential to realize that children can respond to switching tasks in a variety of ways. Therefore, the tasks used to assess CF should reflect this variety. A criticism consistently levelled at the DCCS task is that its design only allows children to make perseverative errors since the two possible re-

response options are to sort correctly by the post-switch rule, or incorrectly by the pre-switch rule (Carroll et al., 2016). It is known that children can make distraction errors or errors of inattention, so researchers should opt to use switching tasks that allow a broader range of behaviors.

Third, because children are capable of responding in qualitatively different ways when attempting to switch, researchers need advanced analytic techniques that can capture these differences. It is apparent from the line of work that was explained in previous sections that simply calculating the total number of successful switches in a block of trials is likely to miss crucial and informative aspects of children's performance so more precise analytic approaches should be considered.

Fourth, to properly unpick the mechanisms underpinning flexible goal-oriented behavior in children, it is essential to look at contributing domain-general processes. It is known that inhibitory control and working memory promote switching in the preschool and early school years. Conversely, there are a number of studies that show early goal-oriented behavior is supported by attentional control and language abilities, though the precise nature and duration of this support remains to be elucidated by future research.

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Nursing Students' Attitudes Toward the Elderly: A Systematic Review Based on Studies Conducted in Türkiye*

Hemşirelik Öğrencilerinin Yaşlı Bireylere Yönelik Tutumları: Türkiye'de Yapılan Çalışmalara Dayalı Sistematik Bir Derleme

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ABSTRACT

The older population is increasing rapidly in the world and this increase brings along problems that need to be solved due to old age. Ageism, which is one of these problems, is a stereotyping, prejudice, and discrimination against people on the basis of their age. Ageism has serious negative consequences for older people's health and well-being. Nursing is one of the main professions to care for older people and nursing students will be potential members of this profession in the future. For this reason, it is important to know nursing students' attitudes toward ageism and the factors affecting it. This study aims to determine nursing students' attitudes toward older adults by examining studies conducted in Türkiye. The review was conducted between September and November 2021 using search databases of Google Academics, PubMed, ProQuest, and Turkey Citation Index. In the search, the keywords "nursing students", "attitude towards elderlies", "elderly discrimination", "ageism," and "Turkey" were used in different combinations in Turkish and English. Of the 5,443 studies identified at baseline, 35 were included in the study. The sample of the studies consisted of 10,636 nursing students. In the studies reviewed, the Ageism Attitude Scale (AAS), the Kogan's Attitudes Toward Old People Scale (Kogan OP Scale), and the UCLA Geriatrics Attitudes (UCLA-GA) scale were used to assess ageism. According to the results of this systematic review, nursing students' attitudes toward the elderly were mostly positive, and various factors were associated with these attitudes. It is recommended to include courses on elderly health in the nursing undergraduate curriculum, to carry out projects to increase interaction with the elderly, and to conduct experimental studies aiming to demonstrate the effectiveness of various interventions to increase positive attitudes.

Keywords: Elderly, attitude toward elderlies, ageism, nursing student

ÖZ

Dünyada yaşlı nüfus hızla artmakta ve bu artış yaşlılık nedeniyle çözülmesi gereken sorunları da beraberinde getirmektedir. Bu sorunlardan birisi olan yaşlı ayrımcılığı, insanlara yaşlarına dayalı olarak gösterilen klişeleştirme, önyargı ve ayrımcılık içeren davranışlar olarak tanımlanmaktadır. Yaş ayrımcılığının yaşlı insanların sağlığı ve iyilik hali üzerinde ciddi olumsuz sonuçları vardır. Hemşirelik, yaşlılara bakım veren temel mesleklerden birisidir ve gelecekte hemşirelik öğrencileri bu mesleğin potansiyel birer üyesi olacaktır. Bu nedenle hemşirelik öğrencilerinin yaşlı ayrımcılığına yönelik tutumlarının ve bunu etkileyen faktörlerin bilinmesi önemlidir. Bu araştırma, Türkiye’de yapılan çalışmaları inceleyerek hemşirelik öğrencilerinin yaşlı yetişkinlere yönelik tutumlarını belirlemeyi amaçlamıştır. İnceleme, Eylül ve Kasım 2021 arasında Google Academics, PubMed, ProQuest ve Turkey Citation Index arama veri tabanları kullanılarak yapılmıştır. Araştırmada “hemşirelik öğrencileri”, “yaşlılara karşı tutum”, “yaşlı ayrımcılığı”, “ageism” ve “Türkiye” anahtar kelimeleri Türkçe ve İngilizce olarak farklı kombinasyonlarda kullanılmıştır. Başlangıçta belirlenen 5443 çalışmadan 35’i çalışmaya dahil edilmiştir Çalışmaya dahil edilen araştırmaların örneklemini 10.636 hemşirelik öğrencisi oluşturmuştur. İncelenen araştırmalarda yaşlı ayrımcılığının değerlendirilmesinde en sık Yaşlı Ayrımcılığı Tutum Ölçeğinin (YATÖ), Kogan’ın Yaşlı İnsanlara Karşı Tutum Ölçeğinin (Kogan OP Ölçeği) ve UCLA Geriatrik Tutum Ölçeğinin (UCLA-GA) kullanıldığı belirlenmiştir. Bu sistematik derlemenin sonuçlarına göre, hemşirelik öğrencilerinin yaşlılara yönelik tutumları çoğunlukla olumludur ve bu tutum çeşitli faktörler ile ilişkilidir. Bu nedenle hemşirelik öğrencilerinin olumlu tutumlarını artırmak için, hemşirelik lisans müfredatında yaşlı sağlığı ile ilgili derslerin yer alması, yaşlılarla olumlu etkileşimi artırmaya yönelik projelerin yürütülmesi ve yaşlılara yönelik olumlu tutumu artırmada çeşitli müdahalelerin etkinliğini göstermeyi amaçlayan deneysel çalışmaların yapılması önerilebilir.

Anahtar Kelimeler: Yaşlı, yaşlıya karşı tutum, yaşlı ayrımcılığı, hemşirelik öğrencisi

The population tends to age in almost all countries, including Türkiye (UN, 2022). While the older population aged 65 and over in Türkiye was 8.2% in 2015, it increased to 9.5% in 2020. According to population projections, the aging population is estimated to be 12.9% in 2030, in a 2040 report (TUIK, 2021). These demographic changes have led to the recognition of “old” subcategories in the elderly classification. Accordingly, those aged 65-74 are defined as “youngest-old”, those aged 75-84 as “middle-old”, and those aged 85 and over are defined as “oldest-old” (Kydd & Fleming, 2015). Considering the increase in the aging population, it is very important to ensure adequate well-being and protect the health of the elderly (Marques et al., 2020). However, ageism against older adults is seen as an important obstacle to the healthy aging of the elderly and is accepted as an important public health problem (Officer et al., 2020). The concept of ageism, first defined by Butler in the late 1960s, refers to discrimination against people simply because they are ‘old’ (Kydd & Fleming, 2015). Ageism, is defined as a multifaceted concept that includes three different dimensions: Cognitive (stereotypes), emotional (bias), and behavioral (discrimination) dimensions (Marques et al., 2020). Here, the term age discrimination is handled differently from the general ageism concept, as it represents only behavioral elements (Stypińska & Nikander, 2018).

Ageism is a widespread problem and expected to expand in the context of a growing aging population around the world (Burnes et al., 2019). Globally, one in two people exhibits age-discriminatory attitudes toward older adults (Marques et al., 2020). However, ageism is widely recognized as a major threat to the well-being of older adults (Kang & Kim, 2022). It has been emphasized in the literature that an estimated 6.3 million cases of depression worldwide may be due to ageism (Jackson et al., 2019).

Nursing is one of the main professions to care for older people and nursing students will be potential members of this profession in the future. As the population is aging rapidly, students are expected to encounter older individuals more frequently in their field of practice or later in their professional life. To provide quality care to the aging population, it is essential to synthesize the research on students’ attitudes toward the elderly. Although there are reviews in the literature investigating the ageism attitudes of healthcare professionals or university students (Helvacı, 2018; Kaya & Örsal, 2018), no study was found focusing on the ageism attitudes of nursing students in Türkiye. Therefore, the main aim of the current research is to examine the studies conducted in Türkiye to determine the attitudes of nursing students toward the elderly and related factors.

With this systematic review, it is aimed to contribute to the literature by examining the ageism attitudes of nursing students, which will be an important part of the provision of health services in the future, in line with the related research.

Ageism

The effects of the demographic change experienced with the increase in the elderly population are seen in different ways in societies. The sociocultural structure of the society, and changes in attitudes and behaviors can affect the perception of individuals and society toward the elderly and old age (Akdemir et al., 2007). Individuals' attitudes toward older people can be positive or negative. While it is accepted as positive attitudes toward the elderly that individuals see the elderly as knowledgeable and loving individuals; seeing the elderly as sick, dependent and ugly is among the negative attitudes. Ageism includes all of these positive and negative attitudes (Bulut & Çilingir, 2016). Although the term ageism was first defined by Robert Butler (1969, p. 243) as "to prejudice by one age group toward other age groups", this definition has evolved over the years. The World Health Organization (WHO, 2021), on the other hand, defines ageism as referring to the stereotypes (how we think), prejudice (how we feel) and discrimination (how we act) toward others or oneself based on age. By definition, it is accepted that age discrimination can be directed at any age group, but age discrimination against the elderly draws more attention in the literature (Ayalon & Tesch Römer, 2018).

Age discrimination has been defined as a worldwide crisis (Levy et al., 2022). However, despite its size and adverse effects on the health and functioning of older people, it is not yet seen as a public health priority. In a study conducted with 83,034 people in 57 countries, it was stated that one out of every two people has a moderate or high degree of age discrimination (Officer et al., 2020). Ageism, being such a widespread problem, poses a significant threat to the well-being of older people (Marques et al., 2020). A systematic review of 422 studies from 45 countries revealed ageism is associated with many negative outcomes, including unhealthy diet, risky health behaviors such as drug non-adherence, excessive alcohol use, smoking, and cognitive impairment (Mikton et al., 2021).

Ageism and Nursing

While attitudes toward ageism can be encountered in all areas of life, one of the areas with the highest number of studies is considered to be health services. Elderly indi-

viduals apply to health institutions to receive health services due to the increase in health problems, and nurses are the group with which individuals interact the most during the health care services process (Bulut & Çilingir, 2016). Nurses form a large part of the group of health professionals who play an important role in meeting the care needs and promoting the psychological and physical well-being of senior adults (Grady, 2011). However, there are studies in the literature that suggest that nurses do not want to take part in the care of the elderly and that they have some negative prejudices toward the elderly (Ben Harush et al., 2016; Heydari et al., 2019). In a systematic review examining nurses' attitudes toward the care of the elderly, nurses had positive and negative attitudes toward elderly care; negative attitudes were related to the characteristics and care demands of the elderly, which is reflected in the care approaches of nurses. Also, it has been reported that there is a lack of research on the subject in the same study (Rush et al., 2017). Negative attitudes of nurses and other health professionals toward elderly individuals are reflected in the quality of care provided, thus leading to negative health outcomes (Chang et al., 2020). For this reason, it is important to gain a positive attitude toward the elderly to nursing students, who are the nurses of the future. Nursing education generally has positive effects on nurses' attitudes toward elderly care (Rush et al., 2017). However, studies in the literature have reported that students, who are the nurses of the future, have negative attitudes toward the elderly (Ayalon et al., 2019; Chang et al., 2020), and do not prefer to work with older patients (Kalánková et al., 2021; WHO, 2021).

It is thought that it is important for the quality of care to be carried out by conducting studies on the negative attitudes of nursing students who play a role in the provision of health services to the elderly, toward ageism, and for the services provided to the elderly to be effective. In addition, it is thought that it is important to address the issue of ageism at the beginning of their nursing careers and to help combat the unequal care of seniors. In line with the results of this study, the ageism attitudes of nursing students will be determined, and it will be a guide for interventions to improve the attitudes of students in a positive way. When effective interventions are implemented, they can display a more positive approach toward the elderly when they take an active role in health services in the future. In this context, this study aims to examine studies conducted in Türkiye to determine nursing students' attitudes toward the elderly. Two primary questions are addressed in this research: "What are the attitudes of nursing students toward the elderly in Türkiye?" and "What are the factors affecting attitudes toward the elderly?"

Method

Study Design and Review Strategy

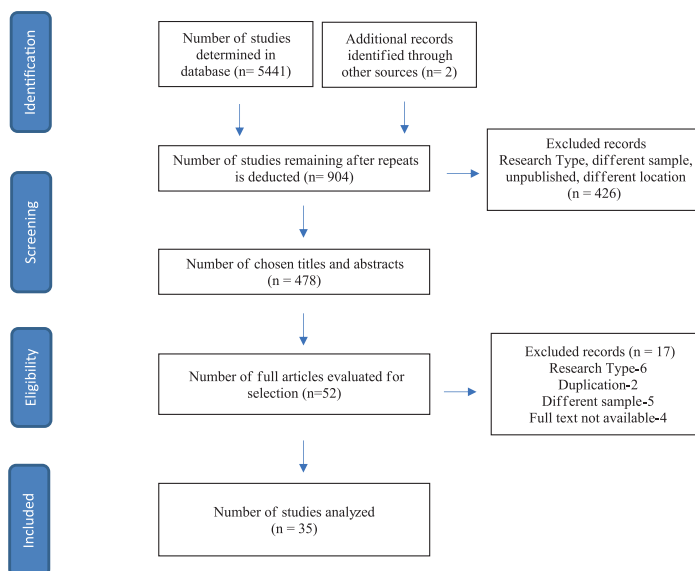
This systematic review was carried out according to the “Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)” (Moher et al., 2009). The review was conducted between September and November 2021 using search databases of Google Academics, PubMed, ProQuest, and Turkey Citation Index. In the search, the keywords “nursing students”, “attitude towards elderly”, “elderly discrimination”, “ageism,” and “Turkey” were used in different combinations.

Identification and Selection of Studies

Quantitative studies conducted in Türkiye and published as articles investigating nursing students' attitudes toward the elderly and/or affecting factors were included in the systematic review. Details of the article selection process are given in Figure 1.

Figure 1

PRISMA Chart of Search Strategy and Identification of Articles Included



Inclusion and Exclusion Criteria

Inclusion and exclusion criteria were determined according to the PICOS method. PICOS consists of Population (P), Intervention (I), Comparison group (C), Outcomes (O), and Study design (S) (Methley et al., 2014). Intervention (I) and Comparison group

(C) criteria did not apply and were not used in this study. According to the inclusion criteria, Population consist of students enrolled in the nursing department of any university in Türkiye. Outcomes consist of attitudes toward the elderly and/or influencing factors. Also, the study design consists of original quantitative studies (descriptive, cross-sectional, cohort, and case-control) published in Turkish or English in national and international journals. As the exclusion criteria of this study, studies not published in full text and not suitable for the type of research were excluded.

Evaluation of the Methodological Quality of Studies

The methodological quality of the articles included in this systematic review was evaluated by both of the authors. STROBE (STrengthening the Reporting of OBservational studies in Epidemiology) was used to evaluate the quality of the studies (Karaçam et al., 2014). Each item listed in the STROBE statement was scored by giving “0” or “1”. A score of “1” was given if the item mentioned above was met, and “0” was given if it was not. Most studies had a score of 18 (27/35) and above.

Data Analysis

A data extraction tool developed by the researchers was used to access the research data. Information about the type of research, sample size, the measurement tool which determines the attitude toward ageism, attitudes toward ageism, and related factors were included in the data extraction tool to define the studies included in the research.

Results

Descriptive Features

After excluding duplicates and studies that did not meet the inclusion criteria from 5,443 studies, the remaining 35 studies were included in the systematic review. The sample of the studies consisted of a total of 10,636 nursing students. In the studies examined, together with the students of the nursing department, medical students in two studies (Ayoğlu et al., 2014; Koc et al., 2020), physical education students in one study (Bayraktar et al., 2015), physiotherapy students in one study (Can et al., 2020), aged care students in two studies (Tosunöz & Güngör, 2021; Yılmaz & İnce, 2017) and students studying in different departments in health sciences in two studies (Köse et al., 2015; Yazıcı et al., 2016) were included in the sample. In these studies, the results of nursing students about ageism were discussed (Table 1).

Ageism Attitudes of Nursing Students

In the studies reviewed, the Ageism Attitude Scale (AAS) (62.9%; $N = 22$), Kogan's Attitude toward Old People Scale (the Kogan OP Scale) (34.2%; $N = 12$), and the UCLA Geriatrics Attitudes Scale (UCLA-GA) (2.9%; $N = 1$) were used to assess ageism (See Table 1). High scores in all three scales mean a positive attitude toward the elderly. The minimum and maximum scores obtained from the AAS were 23 and 115, respectively (Vefikuluçay Yılmaz & Terzioglu, 2011). AAS scores were between 50.00 ± 5.9 and 100.92 ± 5.6 . The Kogan OP Scale score ranged between 34 and 204 points (Kılıç & Adıbelli, 2011). Mean Kogan OP Scale scores were between 80.21 ± 11.61 and 154.73 ± 22.08 . The scores obtained from the UCLA-GA scale were between 14 and 70 (Sahin et al., 2012). In one study, the scale score was 44.76 ± 5.83 . When the attitudes toward the elderly were evaluated as positive or negative according to the score obtained from the scale, 74.9% ($N = 26$) of the studies were positive, 11.4% ($N = 4$) were partially positive, 11.4% ($N = 4$) were moderate, and 2.9% ($N = 1$) were negative (See Table 1).

Factors Related to Ageism Attitudes

The associated factors identified in the studies are summarized in Table 1. In terms of socio-demographic variables, while the gender of students was associated with age discrimination in 11 studies (Ayoğlu et al., 2014; Can et al., 2020; Kaplan et al., 2021; Koc et al., 2020; Köse et al., 2015; Özer & Terkeş, 2014; Salman et al., 2018; Şahin & Erdem, 2017; Toygar & Kardakovan, 2020; Usta et al., 2012; Yardımcı Gürel, 2019), it

Table 1
Summaries of Included Articles

Author (Year)	Sample	Measurement Tool	Scale Score	Conclusion
Adıbelli et al., 2013	309	Kogan OP Scale	99.49 ± 11.12	Students' attitudes toward the elderly were positive, and 4.2% of the students wanted to work with the elderly after graduation.
Alkaya & Okuyan, 2017	432	Kogan OP Scale	121.1 ± 10.7	Students' attitudes toward the elderly were positive and the scale scores of the students who lived with the elderly at home, cared for elderly family members, and wanted to care for the elderly in the future were higher.
Altay & Aydın, 2015	298	Ageism Attitude Scale	68.82 ± 8.54	Students' attitudes toward the elderly were positive, and the mother's educational status, the working status of the father, and the desire to work with the elderly after graduation were related to the total score.

Ayođlu et al., 2014	339	Kogan OP Scale	125.70±15.13	Students had positive attitudes toward the elderly; medical students had more positive attitudes toward the elderly than nursing students. Furthermore, female students, those with a positive income/ expenses balance, and those who did not want to work with the elderly after graduation had less positive attitudes.
Bahadir Yilmaz, 2018	275	Ageism Attitude Scale	82.7±8.8	Students' attitudes toward the elderly were positive. Being a 4 th -grade student, living in the district, and volunteering to work with the elderly after graduation positively affected the scores of the students. In addition, there was a relationship between the professional values of nursing students and their attitudes toward ageism.
Bayraktar et al., 2015	721	Kogan OP Scale	150.03 ±21.88	Students had a positive attitude, and the students who wanted to live in the same house with an elderly person had a more positive attitude toward the elderly.
Baysal et al., 2019	220	Kogan OP Scale	136.18±9.17	Students' elderly attitudes and empathic approach skills were partially positive, and the results differed significantly depending on whether they wanted to work in the elderly care unit and took geriatrics courses.
Bozdođan Yeşilot et al., 2020	851	Ageism Attitude Scale	80.78±8.67	Students had a positive attitude and a significant relationship existed between attitudes and the class, place of birth, family type, and scale scores.
Bulut et al., 2017	344	Ageism Attitude Scale	87.2±4.6	Attitudes toward ageism were positive, and those who lived with an elderly person in their family had high sub-dimension mean scores.
Can et al., 2020	331	Ageism Attitude Scale	84.45±9.74	It was observed that students had positive attitudes toward ageism, and physiotherapy students had more positive attitudes toward the elderly. Women's attitudes, those who had an extended family, and those who wanted to live with their families in the future were more positive. There was no significant difference regarding marital status, study-grade, income level, the place where they lived the longest, or scale mean scores (p>0.05).
Darling et al., 2018	468	Kogan OP Scale	118.83±11.34	Students' attitudes toward ageism were less favorable. Positive attitudes decreased as the age of the student increased, and students who wanted to work with the elderly had better scores.
Demir et al., 2016	293	Ageism Attitude Scale	79.49±9.04	Students had attitudes toward ageism and that their class, family structure, and willingness to work with the elderly were associated with age discrimination.
Kaplan, Serin, & Tülüce, 2021	229	Ageism Attitude Scale	68.59±5.67	Students had a moderate attitude toward ageism, and a high empathic approach was associated with age discrimination.
Kaplan et al., 2021	102	Ageism Attitude Scale	86.76±11.59	Students' attitudes toward ageism were positive, and the average scores of the fourth-grade students and female students were higher than the averages of male students.

Karadağ et al., 2012	85	Ageism Attitude Scale	83.67±9.25	The subscale-items of the scale showed positive attitudes toward ageism, caring for the elderly, and wanting to live with their parents in the future. There was no statistically significant difference between the class and where they stayed the longest.
Kızılcı et al., 2013	417	Kogan OP Scale	154.73±22.08	Nursing students' attitudes toward ageism were positive; the classroom and living with an elderly relative affected students' attitudes positively.
Koc et al., 2020	328	Ageism Attitude Scale	86.51±8.22	Students had positive attitudes toward the elderly and gender was significant in the sub-dimensions of the scale.
Köse et al., 2015	85	Ageism Attitude Scale	50.00 ± 5.9	Students' attitudes toward the elderly were negative. Female students' attitudes toward the elderly were more negative than the male students. In addition, students did not want to work in the geriatric clinic, and those who did not want to work with geriatric patients had more negative attitudes toward the elderly.
Meriç et al., 2019	318	Ageism Attitude Scale	71.5±10.2	Students' attitudes toward ageism were slightly above the average and their attitudes toward ageism were significantly related to their views on home care services.
Okuyan et al., 2018	213	Kogan OP Scale	119.7±9.9	Finnish and Turkish nursing students had a moderate attitude toward the elderly, and Finnish students had a significantly higher average score of negative attitudes.
Olak & Tümer, 2018	233	Ageism Attitude Scale	69.51±7.13	Students had a moderate attitude toward age discrimination, and the difference between the first and fourth-grade total scale scores was statistically significant ($p<0.05$). In addition, the difference in the mean score of the scale according to gender, income status, education level of parents, and living with an elderly was not statistically significant ($p>0.05$).
Ozkaptan et al., 2012	192	Kogan OP Scale	121.56±13.60	Nursing students' attitudes toward the elderly were somewhat positive, and students who did not have an elderly at home had a more positive attitude ($p<0.05$). In addition, there was no significant difference between the scores of the students from the scale according to age, class, and place of residence ($p>0.05$).
Özer & Terkeş, 2014	285	Ageism Attitude Scale	68.27±6.88	Nursing students' attitudes toward ageism were positive, and age discrimination attitude scale scores differed significantly between study grade, gender, and living with family members aged 65 and over.
Sağır & Özkaptan, 2016	180	Kogan OP Scale	124.32±42.99	Nursing students had positive attitudes toward elderly individuals and their empathic tendencies were above the moderate level. In addition, a significant difference was found between the empathic tendencies of the students who had positive attitudes toward the elderly and the students who had negative attitudes toward the elderly ($p<0.05$).

Salman et al., 2018	472	Kogan OP Scale	80.21 ± 11.61	Nursing students had positive attitudes toward the elderly, and 4 th -grade students, married students, and those who had experience of living with the elderly had more positive attitudes toward the elderly. In addition, male students' attitudes toward the elderly were more positive than the attitudes of female students.
Şahin & Erdem, 2017	321	UCLA-GA Scale	44.76±5.83	Students' attitudes toward the elderly were generally at a moderate level, and there was a significant relationship between gender and class and the total score of the scale. There was no significant relationship between the place where one lived for the longest time, the living status of an elderly individual at home, and the total scale score.
Tosunöz & Güngör, 2021	346	Ageism Attitude Scale	83.65±0.40	Students had a positive attitude toward ageism and the negative beliefs and perceptions of the nursing students toward the elderly were lower than the elderly care students.
Toygar & Karadakovan, 2020	509	Ageism Attitude Scale	83.97±7.72	Students had positive attitudes toward ageism, and gender, years at school, caring for the elderly, and living with an elderly relative were associated with ageism attitudes.
Usta et al., 2012	145	Ageism Attitude Scale	84.01 ± 7.61	Students had a positive attitude toward ageism, and age discrimination attitudes were associated with class, gender, having taken courses on elderly health, wanting to live with elderly parents in the future, and living with an elderly person.
Ünsar et al., 2015	319	Ageism Attitude Scale	84.8±9.32	Students had a positive attitude toward ageism, and their class, living with the elderly, and caring for elderly people significantly affected their attitudes toward ageism (p<0.05). The gender of the students did not affect their attitudes toward ageism (p > 0.05)
Yardımcı Gürel, 2019	312	Ageism Attitude Scale	85.18±7.99	Students' attitudes toward ageism were positive, and there was a relationship between gender, maternal employment status, and their willingness to work with the elderly after graduation.
Yazıcı et al., 2016	310	Kogan OP Scale	126.8±15.48	Students studying in health-related departments had a positive attitude toward ageism.
Yılmaz & Özkan, 2010	167	Ageism Attitude Scale	100.92±5.62	Nursing students had a positive attitude toward ageism, and a statistically significant difference was found between the scale total score average and the class they attended.
Yılmaz and İnce, 2017	71	Ageism Attitude Scale	86.72±7.616	Nursing students had a positive attitude toward ageism, and the average score of nursing department students was higher than that of elderly care students, and as the grade level increased, their positive attitudes toward the elderly increased.
Zaybak et al., 2017	116	Ageism Attitude Scale	85.75±10.35	Students' attitudes toward ageism were positive, and there was no statistically significant difference between the mean scores obtained according to age, gender, living with an elderly person, and wanting to work with older people after graduation.

was not related in three studies (Olak & Tümer, 2018; Ünsar et al., 2015; Zaybak et al., 2017). Marital status was associated with ageism in one study (Salman et al., 2018), and not related to in another study (Can et al., 2020). While the income level of nursing students was related to ageism in one study (Ayoğlu et al., 2014), it was not related in two studies (Can et al., 2020; Olak & Tümer, 2018). Additionally, the working status of the mothers/fathers of nursing students were related to ageism in two studies (Altay & Aydın, 2015; Yardımcı Gürel, 2019) and the educational status of the mother in one study (Altay & Aydın, 2015), the education level of the parents was not associated with ageism in the study conducted by Olak and Tümer (2018). The family type of the students was associated with the attitude of ageism in three studies (Bozdoğan Yeşilot et al., 2020; Can et al., 2020; Demir et al., 2016) and living with an elderly person at home was associated with the positive attitude toward the elderly in eight studies (Alkaya & Okuyan, 2017; Bulut et al., 2017; Kizilci et al., 2013; Özer & Terkeş, 2014; Salman et al., 2018; Toygar & Kardakovan, 2020; Usta et al., 2012; Ünsar et al., 2015). In a study conducted by Ozkaptan and colleagues (2012), students who did not have an elderly person in their family had more positive attitudes toward the elderly than students who had an elderly person in their family. However, in two studies, no significant relationship was found between living with an elderly person and ageism (Olak & Tümer, 2018; Zaybak et al., 2017). Additionally, it has been reported that students who want to live with their elderly family members in the future have more positive attitudes toward the elderly (Bahadır Yılmaz, 2018; Can et al., 2020; Karadağ et al., 2012; Usta et al., 2012). Furthermore, while the place lived in for the majority of life was associated with ageism in two studies (Bahadır Yılmaz, 2018; Bozdoğan Yeşilot, 2020) no correlation was found in three studies (Can et al., 2020; Olak & Tümer, 2018; Ozkaptan et al., 2012).

Class level, one of the most frequently examined variables, was related with positive ageism in 12 studies (Bahadır Yılmaz, 2018; Bozdoğan Yeşilot et al., 2020; Demir et al., 2016; Kaplan et al., 2021; Kizilci et al., 2013; Olak & Tümer, 2018; Özer & Terkeş, 2018; Toygar & Kardakovan, 2020; Usta et al., 2012; Ünsar et al., 2015; Yılmaz & İnce, 2017; Yılmaz & Özkan, 2010), but not in two studies (Can et al., 2020; Karadağ et al., 2012). Also, caring for the elderly was associated with a positive attitude toward older adults in four studies (Altay & Aydın, 2015; Karadağ et al., 2012; Toygar & Kardakovan, 2020; Ünsar et al., 2015) taking courses on geriatric health in two studies (Bayraktar et al., 2015; Bozdoğan Yeşilot et al., 2020) and wanting to work with older adults

after graduation in eight studies (Alkaya & Okuyan, 2017; Altay & Aydın, 2015; Bahadır Yılmaz, 2018; Baysal et al., 2019; Darling et al., 2018; Demir et al., 2016; Köse et al., 2015; Yardımcı Gürel et al., 2019). In a study by Zaybak and colleagues (2017), no significant difference was found regarding the desire to work with the elderly and the attitude of ageism. Additionally, studies have shown that nursing students' views on home care services (Meriç et al., 2019), their professional values (Bahadır Yılmaz, 2018), and empathetic approaches (Kaplan Serin & Tülüce, 2021; Sağır & Özkaptan, 2016) are associated with ageism (See Table 1).

Discussion

In this systematic review, 35 studies conducted in Türkiye to determine nursing students' attitudes toward the elderly were analyzed. In all studies examined, scales with validity and reliability were used to evaluate attitudes toward the elderly. In another systematic review, it was stated that most of the scales used to evaluate the attitude toward the elderly did not have sufficient scope and psychometric validity (Ayalon et al., 2019). The use of validated and reliable scales in the studies included in this systematic review is thought to be one of the strengths of the study.

In this study, it was observed that the attitudes of nursing students toward the elderly were positive in most of the studies. Similar to this study, in another systematic review the majority of studies reported positive attitudes (Liu et al., 2013). In a systematic review conducted by Hanson (2014), some nurses culturally showed positive or negative age discrimination. It is desirable for nursing students to have a positive attitude. Therefore, effective interventions should be carried out in order to increase the positive attitudes of students toward the elderly and to change the negative ones. As a matter of fact, in a systematic review, initiatives to increase education and intergenerational contact were among the most effective interventions in increasing positive attitudes (Burnes et al., 2019). It is thought that the inclusion of geriatric and gerontology nursing courses in the nursing curriculum is an important approach. As to the study by Abudu Birresborn and colleagues (2019), an undergraduate curriculum rich in geriatrics and gerontology improved students' knowledge of the elderly and alleviated age discrimination attitudes. In another systematic review analyzing educational interventions, the combination of information with an experiential activity (e.g., service learning) was noted as the most common pedagogical approach that changes student attitudes (Chonody, 2015).

Studies included in the systematic review in this study showed some variables associated with nursing students' attitudes toward the elderly. In most of the studies included in the systematic review, variables such as gender, marital status, income status, social class, family type, education and working status of their parents, living or wanting to live with an elderly person, caring for the elderly, taking courses on elderly health, and wanting to work with the elderly after graduation were among the factors associated with ageism. However, a variable found significant in some studies could be nonsignificant in another study. For example, when gender is considered, one study suggested that female students' attitudes toward older individuals were more positive (Can et al., 2020), while in another study, male students' attitudes were stated to be more positive (Ayoğlu et al., 2014). These inconsistencies show that more studies on the subject are needed. Again, in this study, variables such as living with the elderly, caring for the elderly, taking courses in elderly health, and wanting to work with the elderly after graduation were found to be positively related to a decrease in ageism. In line with this, in a systematic review conducted by Liu and colleagues (2013), age, gender, educational level of nurses, and their preference to work with elderlies were associated with positive attitudes toward the elderly.

The strengths of this study are the inclusion of many studies in the systematic review, the large sample size, and the validity and reliability of the instruments used to measure attitudes toward the elderly. However, the study also has some limitations. First, most of the studies were carried out with small sample sizes using nonprobability sampling methods. Second, since the studies included in the systematic review are descriptive research designs, these studies are insufficient to explain causality.

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Physical Symptoms or Somatisation? Turkish Immigrants' Experiences and Understandings of Common Mental Health Difficulties: A Systematic Review (Thematic Synthesis)

Fiziksel Semptom mu yoksa Somatizasyon mu? Türk Göçmenlerin Yaygın Ruh Sağlığı Rahatsızlıklarına İlişkin Algıları ve Tecrübeleri: Bir Sistematik Derleme (Tematik Sentez) Çalışması

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ABSTRACT

There is scarce and conflicting information on how Turkish immigrants express, experience, and understand common mental health difficulties (CMHDs) as well as their preferences and needs. This conflict often emerges in the literature around symptom presentation and the causal attributions of CMHDs. Since inconsistent information may have real life consequences for Turkish immigrants it is important to investigate this area. The aim of this review was to explore the experiences and understandings of common mental health difficulties of Turkish immigrants. A systematic review using thematic synthesis adopted from Thomas & Harden (2008) was conducted to evaluate the existing literature. CINAHL, MEDLINE, PsycArticles and PsychInfo were searched. Only qualitative studies conducted with Turkish immigrants with lived experience were included (n = 10). The analysis was data-driven (inductive) leading to three themes with twelve subthemes being generated. Participants reported experiencing both emotional and physical symptoms. They linked their distress to significant life events and chronic adverse conditions, interpersonal conflict, immigration and discrimination related problems and problematic encounters with healthcare workers. Traditional/spiritual and biological understandings of mental health were also discussed. Family and social support, personal resources, and the utilisation of medical and traditional/spiritual resources were reported as coping strategies, though some were sceptical about the latter. This review found that Turkish immigrants experienced and expressed their distress in both emotional and physical terms, just like many other communities. Their understandings were mainly psychosocial but contained elements of biomedical and traditional models. Since research in this area is limited, further and better research is recommended. Policy makers and practitioners are also advised to provide meaningful and effective care for every community, including Turkish immigrants.

Keywords: Depression, anxiety, common mental health disorders, explanatory models, causal attributions, somatisation, culture

ÖZ

Türk göçmenlerin, yaygın ruh sağlığı rahatsızlıklarını nasıl ifade ettiği, deneyimlediği, algıladığı ve bu mevzudaki tercihleri ve ihtiyaçları hakkında literatürde az sayıda ve birbiriyle çelişen çalışma bulunmaktadır. Bu çelişki genellikle tecrübe edilen semptomların ve rahatsızlıkların nedenlerinin neye bağlandığıyla ilişkilidir. Literatürdeki bu tutarsızlık Türk göçmenlere sunulan ruh sağlığı hizmetlerinde istenmedik sonuçlara yol açabilir, bu sebeple bu mevzuyu araştırmak önem arz etmektedir. Bu çalışmanın amacı, Türk göçmenlerin yaygın ruh sağlığı rahatsızlıklarına ilişkin anlayışlarını/algılarını ve deneyimlerini incelemektir. Var olan literatürü değerlendirmek üzere sistematik bir derleme çalışması, Thomas ve Harden'den (2008) uyarlanan tematik sentez tekniği kullanılarak yapılmıştır. Bu amaçla, CINAHL, MEDLINE, PsycArticles ve PsychInfo veritabanları taranmıştır. Tarama sürecinde yalnızca yaygın ruh sağlığı rahatsızlığı yaşamış Türk göçmenlerle yapılan nitel araştırmalar mevcut çalışmaya dahil edilmiştir (n = 10). Analiz tümevarım tekniğiyle gerçekleştirilmiştir. On iki alt temalı üç ana tema oluşturulmuştur. Katılımcılar hem fiziksel hem de duygusal semptomlar yaşadıklarını ifade etmişlerdir. Psikolojik sıkıntılarını, yaşadıkları önemli olaylara ve kronikleşmiş kötü yaşam koşullarına, kişilerarası geçimsizliklere, göçmenliğe ve ayrımcılığa ilişkin problemlere ve sağlık hizmetleriyle yaşadıkları sorunlara bağladıkları görülmüştür. Gözden geçirmenin içinde, geleneksel/manevi ve biyolojik anlayışlar da ayrıca tartışılmıştır. Aile desteği ve sosyal destek, kişisel beceriler ve bazılarının şüpheleri olsa da geleneksel/manevi tedavilerden ve tıbbi kaynaklardan yararlanma başa çıkma stratejileri olarak belirtilmiştir. Bu derleme Türk göçmenlerin, tıpkı başka topluluklar gibi, psikolojik sıkıntılarını hem duygusal hem de fiziksel terimler kullanarak ifade ettiklerini bulmuştur. Psikolojik sıkıntıların kökenlerine ilişkin anlayışları genel olarak psikososyaldır ama biyolojik ve geleneksel/manevi modellerden de öğeler içermektedir. Bu alanda yapılan çalışmalar kısıtlı olduğu için daha fazla ve daha iyi kalitede araştırma yapılması ve politikacılar ile uygulamacılar Türk göçmenler de dahil olmak üzere her topluluk için anlamlı ve etkili olacak ruh sağlığı hizmetleri sağlamaları önerilmektedir.

Anahtar Kelimeler: Depresyon, kaygı, yaygın ruh sağlığı hastalıkları, ruh sağlığı hastalıklarının kökenleri, bedenselleştirme, kültür

Common Mental Health Disorders/Difficulties (CMHDs) include depression, anxiety, and anxiety-based disorders (National Collaborating Centre for Mental Health, 2011). There is research indicating that immigration can be a factor contributing to susceptibility to developing mental health difficulties including CMHDs such as depression and anxiety (Amiri, 2022; Bhugra, 2004; Foo et al., 2018). In particular, various studies have shown that Turkish immigrants¹ have worse mental health presentation in host countries in comparison to host populations and/or other immigrant groups (Beirens & Fontaine, 2011; Bengi-Arslan et al., 2002; Beutel et al., 2016; Britton et al., 2000; Deisenhammer et al., 2012; Fassaert et al., 2009; Janssen-Kallenberg et al., 2017; Knipscheer & Kleber, 2005a, 2005b; Lanzara et al., 2019; Levecque et al., 2007; Lien et al., 2010; Reich et al., 2015; Sariaslan et al., 2014; Schouler-Ocak et al., 2008; Schrier et al., 2010; Small et al., 2003a, 2003b; Strohmeier & Dogan, 2012; Tydecks et al., 2009; van Bergen et al., 2010; Velthorst et al., 2012).

Even though there are six and a half million Turkish immigrants with more than five million living in Europe (Republic of Türkiye Ministry of Foreign Affairs, n.d.), there is conflicting information about their mental health conditions, needs, preferences and understandings (Eylem et al., 2016; Latif, 2009), especially for CMHDs. This lack of consistency is present in the literature on symptom presentation (how Turkish immigrants experience CMHDs) and understandings (the causal attributions) of CMHDs. This inconsistent information may have real life consequences for Turkish immigrants, such as misunderstanding their distress and needs. Therefore it is important to investigate this subject matter.

Symptom Presentation

A distinction between psychological and physical symptoms of depression and anxiety is made in the literature (National Health Service [NHS], 2018, 2019), and a person can suffer from both. Additionally, a study conducted using data from several countries suggested that the physical presentation of depression is common regardless of the country's culture and is a core part of depression (Simon et al., 1999). However, some researchers and clinicians regard Turkish migrants to be more prone to *somatisation* in comparison to their Western counterparts (Balkir, 2013; de Bruyn, 1989; Nickel et al., 2006).

1 Turkish immigrants or migrants are defined as people who are originally from Türkiye, who immigrated to other countries. This definition includes all ethnicities of Türkiye, such as Turks, Kurds and Zazas.

Somatisation is described as bodily distress caused by emotional origins (Al Busaidi, 2010). This term is used in two circumstances. In the first, the person is unable to identify their emotions and is unable to realise that they suffer psychologically. Therefore, they use somatisation as an *alternative* to convey emotional distress (Kellner, 1990). Conversion disorder, which comes under the Somatic Symptom and Related Disorders diagnostic class in DSM-5 (American Psychiatric Association [APA], 2013), is a good example of this type. The second usage simply refers to the *physical symptoms* of mental health difficulties (Simon et al., 1999), which can be seen in depression and anxiety-based diagnoses in DSM-5 (APA, 2013), and which will be the focus of this study. It is suggested in the literature that people of non-Western cultures (Balkir, 2013; Bragazzi et al., 2014; de Bruyn, 1989; Kleinman, 1977; Leff, 1988; Nakkas et al., 2019) and/or people with lower socio-economic status (Crandell & Dohrenwend, 1967; Husemann, 1997; Singer, 1975) are more likely to communicate emotional distress through somatisation. Yet, some authors and clinicians claim that Turkish immigrants somatise more in comparison to host populations. However, it is not always clear to which of the two types of somatisation they refer.

A systematic review conducted by Sempértegui and colleagues (2019) of thirteen studies with Turkish migrants regarding symptom manifestation concluded that Turkish people presented both emotional and physical symptoms of depression, and higher symptom severity, in comparison with the host population. Similar results for depression and/or anxiety were reported from the UK, Sweden, Germany and Australia (Britton et al., 2000; Hjörleifsdóttir Steiner et al., 2007; Morawa et al., 2017; Small et al., 2003a). Additionally, in Switzerland, immigrants from Türkiye and Bosnia presented more psychological and psycho-social difficulties than somatic symptoms (Gilgen et al., 2005). Thus, when taking physical symptoms of CMHDs into consideration, higher somatisation rates might be explained by higher rates of depression and anxiety rather than an inability to identify and express emotions due to the cultural background.

To the researcher's knowledge, the only study which evidenced higher somatisation symptoms of CMHDs in Turkish immigrants in comparison with a Western population with empirical results was that conducted by Uluşahin and colleagues (1994). This was a comparative study carried out with British participants in Britain and Turkish people in Türkiye. The results suggested that both the British and Turkish populations reported core depression and somatisation symptoms. However, the mean rates for 'core depres-

sion' symptoms were higher in the British population, and 'somatisation' symptoms were higher in the Turkish population (Uluşahin et al., 1994). The authors commented on some characteristics of socio-economic differences between the British and Turkish samples (lower formal education rates in the Turkish sample and higher socio-economic status in the British sample), but they did not control their results using these variables (Uluşahin et al., 1994). It might therefore be possible that the difference occurred due to education levels or other socio-economic factors rather than purely due to the difference in ethnicity.

Understandings of Common Mental Health Difficulties

It has been suggested that Turkish people attribute CMHDs to socio-economic conditions, life events, personal characteristics and interpersonal conflicts (Balkir, 2013; Balkir Neftçi & Barnow, 2016; Karanci, 1986, 1993; Latif, 2009; Minas et al., 2007; Vardar et al., 2012). This is in line with a psychosocial model of understanding mental health (Beresford et al., 2016; Johnstone et al., 2018; Kinderman, 2005; Lehman et al., 2017), and biomedical understandings (Huda, 2019; Shah & Mountain, 2007) such as heredity (Leavey et al., 2007) are also reported by this population.

Previous studies have suggested that Turkish people might also adopt a traditional/spiritual model of understanding mental health difficulties (Ghane et al., 2010; Ozturk & Volkan, 1971), even if they sometimes feel sceptical about them (Bäärnhielm & Ekblad, 2000; Leavey et al., 2007). This can include *jinn* possession², *nazar*³, and black magic⁴ (Borra, 2011; Leavey et al., 2007; Ozturk & Volkan, 1971). However, traditional/spiritual attributions were reported much less than psychosocial and medical causes

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- 2 In Islamic teaching, *jinn* are described as intelligent supernatural creatures which cannot be seen by the human eye. They are believed to have free will and the capacity to make ethical decisions, and are therefore seen as responsible for their actions just like humans. Some *jinn*, like humans, can choose to adopt unethical ways of living. Some Muslims believe that these immoral *jinn* can possess humans, and severe mental health difficulties, such as psychosis (Leavey et al., 2007), are sometimes understood to be a product of *jinn* possession. This understanding might be similar to a spirit-possession condition called '*zar*', which is reported in DSM-IV as a culture-bound syndrome seen in some parts of Africa, Asia and Middle East (APA, 1998, p. 849).
 - 3 Literally: 'the stare', which is also known as the 'evil eye'. *Nazar* means that if a person envies another person, they might unwittingly cause misfortune for the person envied. Unfortunate events, accidents, medically unexplained illnesses can sometimes be explained as the result of *nazar*. A concept called '*mal de ojo*', which is recorded as a culture-bound syndrome in the Mediterranean countries, seems to bear a similar meaning (APA, 1998, p. 847).
 - 4 Black magic is intentionally cast by an envious person on the victim, and this is believed to cause difficulties in the recipient's life and health. A similar understanding called '*rootwork*' in DSM-IV is reported to be seen in many countries all around the world (APA, 1998, p. 847).

amongst Turkish immigrants in Australia (Minas et al., 2007). Additionally, a study conducted with Turkish immigrants in Switzerland and Switzerland-born Swiss people showed that the Turkish migrants only agreed to the possibility of supernatural attributions when prompted (Gilgen et al., 2005). Curiously, in that study, nearly the same number of Swiss nationals (14%) as Turkish immigrants (13%) thought supernatural causes could be responsible for mental health difficulties.

People's understandings of their mental health difficulties might be fundamental in regard to engaging them with interventions (Stolzenburg et al., 2019). The model of understanding what people use to make sense of their psychological distress potentially leads them to seek treatment in accordance with the perceived causes of distress. For example, if they perceive that the cause of their illness is supernatural, they might seek help from a spiritual healer.

Even though the literature suggests that Turkish immigrants potentially have higher rates of CMHDs in comparison with host populations, how this community experiences and expresses CMHDs and what they make of these experiences have not been explored systematically. Furthermore, there are controversial arguments and findings regarding Turkish migrants' mental health. This inconsistent information may have real life consequences for Turkish immigrants such as poor or incompatible provision of service. Therefore, it is important to investigate this subject matter systematically in order to evaluate the existing literature on experiences, expressions and understandings of CMHDs, namely depression and anxiety, in Turkish immigrants from first-hand accounts. In this context, 'experiences' include not only the presentation of symptoms and how they expressed these difficulties, but also how they coped with such difficulties including help-seeking behaviours. What is meant by 'understandings' has to do with what these immigrants thought about the difficulties they encountered as well as what caused them. The study also addresses the clinical implications of the existing literature and identifies possible gaps to guide further research.

Method

Design

Thematic synthesis is used to synthesise qualitative studies in order to create an evidence base to support better quality care in healthcare research (Thomas & Harden, 2008). In this current study, the process of thematic synthesis was based on that put for-

ward by Thomas and Harden (2008) and thematic analysis (Braun & Clarke, 2006) was employed as the analytical approach.

Procedure

Systematic Literature Search

Four online databases, CINAHL Complete, MEDLINE, PsycArticles and Psych Info, were searched on the EBSCO platform. The search steps can be investigated in Table 1.

Table 1

Systematic Literature Search Steps

Databases searched	CINAHL Complete, MEDLINE with Full Text, PsycArticles and Psych Info	
Dates Searched	All years (– 31 Dec 2019) Latest Search Date: 10 th Jan 2020	
Step no.	Search Term	Results
S1	migrant* OR immigrant* OR immigration OR migration OR minorit*	570,842
S2	Turk* OR Kurd* OR Zaza*	358,570
S3	mental AND health	1,156,058
S4	mental* AND ill*	339,927
S5	distress* OR psych* OR depress* OR anxiety* OR “obsessive compulsive disorder*” OR “OCD” OR “panic disorder*” or “generalized anxiety disorder*” OR “social anxiety disorder*” OR “social phob*” OR “low mood” OR melanchol* OR dysthm* OR “mood disorder*”	7,159,165
S6	understanding* OR perception* OR comprehension* OR apprehension* OR interpretation* OR idea* OR concept* OR experience* OR involvement OR attitude* OR view* OR narrative* OR representation* OR meaning* OR discours* OR idiom*	7,729,024
S7	S3 OR S4 OR S5	7,469,694
S8	(S3 OR S4 OR S5) AND (S1 AND S2 AND S6 AND S7)	1,524*
S9	Limit to Turkish	32
S10	Limit to English	1345
S11	Duplicates were removed on the EBSCOHOST by clicking on the last page of ‘Search Results’. The remaining papers were extracted in RIS format and exported to Mendeley (Elsevier, 2019).	Tr: 32 Eng: 946
S12	Remaining duplicates were removed by hand using Mendeley	Tr: 27 Eng: 912

*147 papers were in other languages

As seen in Table 1, a systematic literature search was conducted to access all relevant published literature. For this purpose, different variations of the search terms were used, utilising the wildcard character ‘*’ and Boolean operators ‘AND’ and ‘OR’. Finally, the search results were limited to the languages of Turkish and English, and duplicate results were removed.

Inclusion and Exclusion Criteria

The inclusion and exclusion criteria can be examined in Table 2.

Table 2

Thematic Synthesis Inclusion and Exclusion Criteria

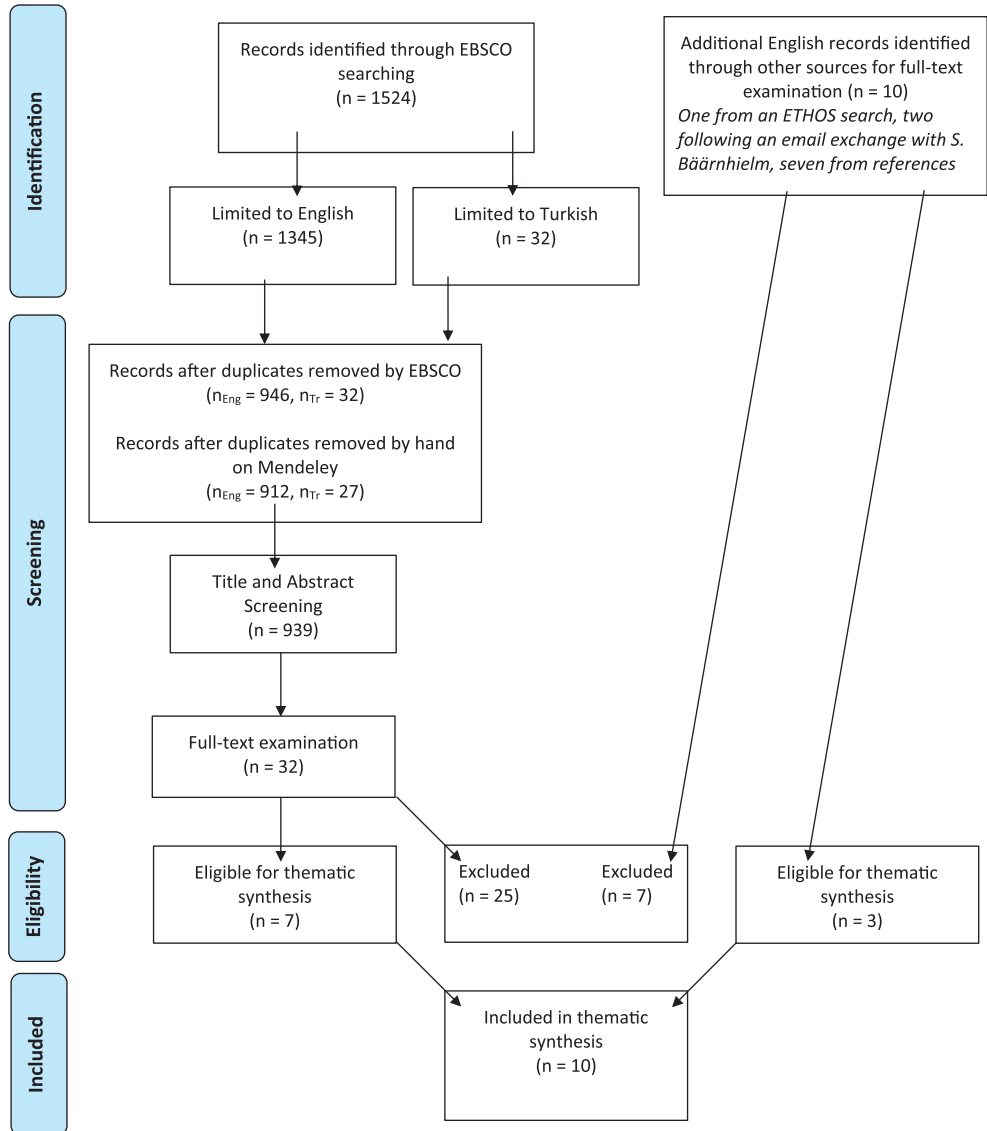
	Inclusion	Exclusion
Publication Language	English or Turkish	Published in languages other than English and Turkish
Method	Qualitative Original study Main focus is CMHDs	Quantitative Study reported in other publications Main focus isn't CMHDs
Population	Turkish immigrants with lived experience of CMHDs	Sample was Turkish people living in Türkiye In comparative study between Turkish immigrants and Turkish people living in Türkiye, the results were not reported separately Sample was migrants but not from Türkiye In studies conducted with more than one ethnic group, the results were not reported separately

Only qualitative studies conducted with Turkish-speaking immigrants who had a lived experience of CMHDs were included to ensure that rich and authentic narratives were accessed. In this context, 'lived experience' refers to people identifying themselves as having had difficulties similar to some symptoms of a common mental health disorder. A clinical assessment or diagnosis was not required; however, the interview schedules were examined to determine whether the participants had only been asked about their own difficulties. Additionally, if a study had been conducted with a different aim other than exploring the understandings and experiences of CMHDs but still included views and experiences on CMHDs, it was partially included.

Abstract and Full-Text Screening

The process of article selection can be followed in Figure 1.

Figure 1
Literature Search Flow Diagram



As depicted in Figure 1, after conducting the literature search on the EBSCO platform, the resulting records were imported into the Mendeley program. The records underwent Title & Abstract screening, followed by full-text examinations. Additionally, other potential sources were identified during this process, including papers obtained

through an ETHOS search following an email exchange with S. Bäärnhielm, and from the references of previously identified papers. Ultimately, a total of ten papers met the inclusion and exclusion criteria and were selected for thematic synthesis. An overview of these selected papers can be explored in Table 3.

Table 3

Details of Included Studies in Thematic Synthesis

Author(s) and Year	Type	Country	Analysis Method
Bäärnhielm et al., 2000	Journal Article	Sweden	Grounded theory
Bäärnhielm, 2004	Journal Article	Sweden	Grounded theory
Borra, 2011	Journal Article	Netherlands	Qualitative, no other information
Christodoulou et al., 2018	Journal Article	UK	Thematic analysis
Leavey et al., 2007	Journal Article	UK	Qualitative analysis with thematic coding
Mirdal, 1984	Journal Article	Denmark	Qualitative, no other information
Mirdal, 2006	Journal Article	Denmark	Qualitative, no other information
Sohtorik et al., 2011	Journal Article	US	Grounded theory
Taloyan et al., 2011	Journal Article	Sweden	Grounded theory
Yilmaz et al., 2000	Journal Article	Switzerland	Case formulation

Six of the studies included in the analysis had recruited participants through clinics (Bäärnhielm, 2004; Bäärnhielm & Ekblad, 2000; Borra, 2011; Christodoulou et al., 2018; Leavey et al., 2007; Yilmaz & Weiss, 2000), while the remaining four recruited participants had come from the community (Mirdal, 1984, 2006; Sohtorik & McWilliams, 2011; Yilmaz & Weiss, 2000). Two of the studies were follow-up papers conducted with the original participants (Bäärnhielm, 2004; Mirdal, 2006). The article by Christodoulou and colleagues (2018) was only partially included as it also contained a section on service evaluation. Although the participants in Leavey and colleagues (2007) were in remission from psychosis, as they had CMHDs and discussed them, the study was included in the analysis.

Quality Assessment

The quality of the selected papers was assessed using the Critical Appraisal Skills Programme (CASP) Qualitative Checklist (CASP, 2018). A table of the CASP results can be examined in Appendix A. The researcher, who is a Turkish national and a native Turkish speaker, also made quality checks on the accuracy of translations when they were reported.

The methodology of the papers was not appropriately reported in many instances, so it was not possible to identify the actual research design of half of the studies, which made evaluation of them difficult. Three of the ten articles did not report their recruitment strat-

egy and four did not report the procedure of data collection. Three did not include separate results and discussion sections and only provided minimal participant quotations. The data analysis process itself was reported in only three studies, and four did not name a specific analysis method but just reported conducting qualitative analysis (see Table 3).

Additionally, ethical issues and relationships between the researcher(s) and the participants were rarely reported rigorously (in three and two of the ten studies respectively). Almost none of them mentioned contradictory data.

Since the majority of the Turkish immigrant participants required an interpreter to participate in the studies, the accuracy of the translations was another concern. Most studies did not provide translation samples and did not detail their translation process. However, where samples were provided, many translation mistakes were easily identified by the first author of this study, who is a native Turkish speaker. This topic will be further discussed in the Discussion section.

Despite some methodological problems, the studies offered rich information. To manage the methodological shortcomings, the researcher evaluated the results of the studies and the interpretation of the authors with caution.

Data Analysis

The included papers were exported to the NVivo 12 software. In line with the recommendations of Thomas and Harden (2008), the researcher familiarized herself with the data by reading and re-reading the studies. The data were considered as the ‘results’ or ‘findings’ of the studies, including participant quotations and author interpretations. If there was no section labelled ‘results’, the researcher collected the data from the sections in which the participants’ narratives were presented. Initial coding of the data was carried out inductively. Subsequently, the codes were synthesized into sub-themes, then from sub-themes into broader, analytical themes using thematic analysis (Braun & Clarke, 2006) as the analytical approach. These themes were then presented in the Results section in a narrative format. Since the study is a thematic synthesis, direct source material was not presented in the report with the exception of a few very striking illustrative quotes.

Results

Demographics

In the ten studies, 203 interviews were conducted with 147 participants; 56 interviews were from two follow-up studies (Bäärnhielm, 2004; Mirdal, 2006). Authors re-

ferred to participants as 'Turkish and Kurdish' and did not report specific ethnicity, apart from Taloyan and colleagues (2011) who exclusively interviewed Kurdish men. Table 4 summarises other demographic information about the sample.

Table 4
Thematic Synthesis Sample Information

		Number (percent)
Gender	Female	114 (78.6%)
	Male	33 (22.4%)
Sampling	Community	101 (68.7%)
	Clinics	46 (31.3%)
Residence	Denmark (1 study, 1 follow-up)	72 (48.9%)
	Sweden (2 original studies, 1 follow up)	27 (18.4%)
	Netherlands (1 study)	20 (13.6%)
	UK (2 studies)	15 (10.2%)
	US (1 study)	12 (8.1%)
	Switzerland (1 case report)	1 (0.6%)
Total		147 (100%)

As shown in Table 4, the majority of the participants were female who had been recruited from the community and who resided in Denmark. This was mainly due to the fact that Mirdal's (1984) original study recruited 72 women, which is a significantly larger number of participants compared to the other studies.

Thematic Synthesis

Three themes were identified incorporating twelve sub-themes. Table 5 below offers a summary of the themes and sub-themes.

Table 5
Thematic Synthesis Themes and Sub-Themes

Themes	Sub-Themes
Symptom Presentation	Physical
	Emotional
	Unusual
Causes and Sources	Life events and situational circumstances
	Family and social life
	Immigration and the host country
	Problematic encounters with healthcare
	Traditional and medical understandings of causes
Coping	Family and social support
	Personal resources
	Traditional resources
	Help from healthcare

Table 6
Comparison of Included Studies by Sub-Themes

	Bäärnhelm et al., 2000	Bäärnhelm, 2004	Borra, 2011	Christodoulou et al., 2018	Leavey et al., 2007	Mirdal, 1984	Mirdal, 2006	Sohtorik et al., 2011	Taloyan et al., 2011	Yilmaz et al., 2000
Presentation										
Physical	*	*	*	*	*	*	*	*	*	*
Emotional	*	*	*	*	*	*	*	*	*	*
Unusual	*	*	*	*	*	*	*	*	*	*
Causes and Sources										
Life Events and Situational Circumstances	*	*	*	*	*	*	*	*	*	*
Family and Social Life	*	*	*	*	*	*	*	*	*	*
Immigration and Host Country	*	*	*	*	*	*	*	*	*	*
Problematic Encounters with Healthcare	*	*	*	*	*	*	*	*	*	*
Traditional and Medical Understandings	*	*	*	*	*	*	*	*	*	*
Coping										
Family and Social Support	*	*	*	*	*	*	*	*	*	*
Personal Resources	*	*	*	*	*	*	*	*	*	*
Traditional Resources	*	*	*	*	*	*	*	*	*	*
Help from Healthcare	*	*	*	*	*	*	*	*	*	*

As the aims and research questions of the studies were diverse, not every paper contributed to each theme or sub-theme. Table 6 shows which papers contributed to which sub-themes in a graphic format and can be investigated for further information.

Theme 1: Symptom Presentation

Studies extensively reported physical and emotional difficulties. Mirdal (1984) reported that participants adopted imaginative methods for explaining their distress. For example a Kurdish woman told her life story in a song which she had written. Christodoulou and colleagues (2018) suggested that participant narratives did not necessarily differentiate between different types of symptom presentations. See Appendix B to investigate a cross-comparison of the reported presenting difficulties in detail.

Physical. Physical difficulties were extensively reported except by Sohtorik and McWilliams (2011) and Taloyan and colleagues (2011). Some participants framed their difficulties as “[the] body is protesting” (Bäärnhielm & Ekblad, 2000, p. 445) or “failure of the body” (Leavey et al., 2007, p. 268).

The body has certain limits of endurance. For example, the human being is long-suffering with her wisdom and ideas, but the body cannot endure. We have this problem that the body cannot cope (Bäärnhielm & Ekblad, 2000, p. 439, participant quote).

Bäärnhielm (2004) suggested that anxiety carried more of a somatic meaning for participants before they received support from psychiatric clinics. Mirdal (2006), who conducted a follow-up study with the same participants twenty years after the original research (61% of the initial cohort attended), suggested that fewer somatic complaints were reported in the second study. Mirdal (2006) interpreted this as a result of major improvements in social, psychological and physical aspects of their lives as well as how they utilised help from health and social care systems, including understanding their symptoms and effectively managing them. Mirdal (2006) also stated that the participants presented as being more depressed than anxious in the follow-up study.

It was reported that participants talked about bodily sensations such as pain (Bäärnhielm, 2004; Bäärnhielm & Ekblad, 2000; Borra, 2011; Christodoulou et al., 2018; Leavey et al., 2007; Mirdal, 1984, 2006; Yilmaz & Weiss, 2000), tingling (Borra, 2011), sweating (Leavey et al., 2007), trembling (Mirdal, 1984), and feeling cold (Mirdal, 1984, 2006).

Symptoms related to heart (Bäärnhielm & Ekblad, 2000; Borra, 2011; Leavey et al., 2007; Mirdal, 1984), fatigue (Bäärnhielm, 2004; Bäärnhielm & Ekblad, 2000; Leavey et al., 2007; Mirdal, 2006; Yilmaz & Weiss, 2000), sleep difficulties (Bäärnhielm, 2004; Leavey et al., 2007; Mirdal, 2006; Yilmaz & Weiss, 2000) including bad dreams (Mirdal, 2006), and forgetfulness (Bäärnhielm & Ekblad, 2000; Christodoulou et al., 2018) were also reported.

Additionally, some participants attributed the physical difficulties which they were experiencing to physical illnesses, such as hypertension (Bäärnhielm & Ekblad, 2000), rheumatoid arthritis (Borra, 2011; Mirdal, 2006), and taking psychotropic medication (Leavey et al., 2007).

Emotional. All the included studies reported an extensive range of emotional difficulties, involving feeling low and anxious in differing severities. Experiences which are labelled in DSM-5 as ‘symptoms of depression’ (APA, 2013), such as lack of interest or pleasure and feelings of emptiness (Leavey et al., 2007; Mirdal, 2006; Yilmaz & Weiss, 2000), deprecating thoughts about self and capabilities such as feelings of uselessness and worthlessness, shame and guilt, and suicidal thoughts were reported (Bäärnhielm & Ekblad, 2000; Borra, 2011; Christodoulou et al., 2018; Leavey et al., 2007; Mirdal, 1984, 2006; Sohtorik & McWilliams, 2011; Taloyan et al., 2011; Yilmaz & Weiss, 2000). Other unpleasant emotions, such as disappointment, resentment, regret, frustration, and loneliness were also mentioned (Bäärnhielm & Ekblad, 2000; Leavey et al., 2007; Mirdal, 1984, 2006; Sohtorik & McWilliams, 2011). Some studies also reported low amounts of tolerance, and subsequently becoming angry, tearful or easily overwhelmed (Bäärnhielm, 2004; Bäärnhielm & Ekblad, 2000; Borra, 2011; Christodoulou et al., 2018).

Additionally, two different kinds of experience with their own specific names were mentioned. First, Mirdal (1984, 2006) gave a long account of *sıkıntı*⁵ which was brought up by participants several times and translated as ‘tightness’⁶, and Borra (2011) also briefly mentioned it. Mirdal (1984) reported that it also had connotations in somatic experiences, such as tightness in the chest, feeling cold and a pounding heart.

5 The Turkish word *sıkıntı*, which means ‘psychological distress’, comes from the word *sık-mak*, which means ‘tightening’ and ‘squeezing’ (Türk Dil Kurumu, 2019a, 2019b). *Sıkıntı* refers to the condition of being emotionally unwell; a continuous tiredness and trouble which goes hand-in-hand with feelings of boredom, suffering and torment (Türk Dil Kurumu, 2019a). This word is also used in different formats to describe one’s emotional state in the Turkish language.

6 The researcher considers ‘distress’ to be a better counterpart for what *sıkıntı* stands for.

The second condition, *yurek kalkinmasi*, was reported by Bäärnhelm and Ekblad (2000) from a participant who explained how the words 'stress' and 'anxiety' which she had heard from a doctor did not really fit her experience, but this term did. This condition (under the name of *yürek kalkması*⁷) is known in Türkiye, although its use is not as widespread as *sıkıntı* (PempeeMavii, 2016; Ucaolimbera, 2011).

Unusual Experiences. Four studies reported some unusual presentations even though only one of them had a sample with psychosis in remission (Leavey et al., 2007). Hearing and seeing things which other people cannot, tactile experiences and feelings of persecution were reported (Borra, 2011; Leavey et al., 2007; Mirdal, 1984, 2006).

In addition to the above, two particularly unusual experiences were conveyed. Bäärnhelm and Ekblad (2000) described a woman having an attack, which could have been interpreted as a dissociative experience. Additionally, Borra (2011) reported a woman's account of feeling that she was being pushed down by a goblin-like creature while falling asleep, making breathing extremely difficult. This experience is sometimes called *karabasan* in Turkish communities.

Theme 2: Causes and Sources

Participant narratives reported in the studies did not necessarily identify one single traumatic event or condition as the only cause. Instead, their difficulties were reported as related to or caused by an accumulation of adverse events (Bäärnhelm & Ekblad, 2000; Borra, 2011; Leavey et al., 2007; Mirdal, 1984). For example, Bäärnhelm and Ekblad (2000) stated that the onset of symptoms was often reported parallel to life events and distressing circumstances. However, they also argued that the causal attributions remained 'poor' as direct connections between causes and their illness were rare.

I don't know what caused the pain. I cannot say anything about that, if it is the weather here in Sweden, or if it is the air, or if it is because we have worked all the time? I don't understand why it has got this way. I have worked, I have six children, I have worked the whole time, if that is the reason, I don't know? (Bäärnhelm & Ekblad, 2000, p. 440, participant quote).

Life Events and Situational Circumstances. Even though the participants formulated their psychological difficulties in terms of resulting from multiple factors, many participants linked the onset of their difficulties with single life events or chronic unfavourable situational circumstances. Adverse life experiences, such as unmet needs

7 Literal translation: 'rising of the heart'

during childhood (Leavey et al., 2007), accidents and traumatic childbirths (Bäärnhielm & Ekblad, 2000), separations and bereavements including the loss of loved ones (Bäärnhielm & Ekblad, 2000; Borra, 2011; Leavey et al., 2007), being subjected to physical abuse by others (Borra, 2011; Leavey et al., 2007) and witnessing violence (Leavey et al., 2007) were reported.

Chronic adverse conditions such as employment and workplace problems (Bäärnhielm & Ekblad, 2000; Leavey et al., 2007; Mirdal, 1984, 2006; Sohtorik & McWilliams, 2011; Yilmaz & Weiss, 2000) and poor living conditions such as inadequate housing (Bäärnhielm & Ekblad, 2000; Mirdal, 1984) were also reported in some of the studies. Social demands, like the double burden of responsibilities on women who had both domestic and work-related tasks to fulfil (Bäärnhielm & Ekblad, 2000; Mirdal, 1984) and ill health were also mentioned as possible initiators of emotional difficulties (Bäärnhielm & Ekblad, 2000; Mirdal, 1984, 2006).

Family and Social Life. Difficult relationships or the lack of family support or social connections were another source of distress cited by the studies. Marital problems (Bäärnhielm & Ekblad, 2000; Leavey et al., 2007; Mirdal, 1984, 2006; Sohtorik & McWilliams, 2011), inter-generational conflicts (Mirdal, 1984, 2006), concern about meeting the expectations of the family and community (Bäärnhielm & Ekblad, 2000; Mirdal, 2006; Yilmaz & Weiss, 2000) and worries about children and childcare were often reported (Bäärnhielm & Ekblad, 2000; Mirdal, 2006).

Family members' poor understanding of a participant's difficulties was another source of conflict (Christodoulou et al., 2018; Leavey et al., 2007; Yilmaz & Weiss, 2000). Some people were reported to have chosen to conceal their difficulties from people outside the immediate family (Bäärnhielm & Ekblad, 2000; Borra, 2011; Christodoulou et al., 2018) or in some cases from the immediate family as well (Bäärnhielm & Ekblad, 2000; Leavey et al., 2007). Some socially isolated themselves so that others would not know their mental health difficulties (Bäärnhielm & Ekblad, 2000; Christodoulou et al., 2018) whilst others were actively rejected and ostracized by their social networks when they shared their problems (Bäärnhielm, 2004).

Other within-community difficulties, such as gossip and unfair treatment by Turkish bosses and Turkish landlords, reportedly caused a lack of trust between Turkish immigrants (Bäärnhielm, 2004; Mirdal, 1984; Sohtorik & McWilliams, 2011). Cultural dif-

ferences between different Turkish communities were also highlighted (Sohtorik & McWilliams, 2011). It seemed that balancing the relationship with the Turkish community was quite important as having less contact with other Turkish immigrants caused more isolation, but also less gossip leading to less harm (Mirdal, 1984).

Immigration and the Host Country. Many studies reported adjustment and acculturation difficulties for the Turkish immigrants (Mirdal, 1984, 2006; Sohtorik & McWilliams, 2011). Alienation and the feeling of not belonging to either country (Taloyan et al., 2011), homesickness and second thoughts about immigration (Sohtorik & McWilliams, 2011) were highlighted. Regarding the latter, there were reports of not wishing to invest in, or adjust too much to, the resident country as they were uncertain about living there permanently (Sohtorik & McWilliams, 2011). For instance, some did not learn the language of the host country (Taloyan et al., 2011). On the other hand, others felt as if they were not wanted and not valued, and felt insecure in the host country (Mirdal, 1984, 2006; Taloyan et al., 2011; Yilmaz & Weiss, 2000). Confusion around the social cues of host societies was reported. Mirdal (1984) explained how these immigrants had to learn the implicit structures of the new society in which they found themselves.

You never know the meaning of a smile on Danish lips (Mirdal, 1984, p. 994, participant quote).

Racism and discrimination in housing and job-seeking, prejudice against their ethnicity, and how the host country's media depicted their ethnicity were among the other problems which created psychological distress (Mirdal, 1984; Taloyan et al., 2011). The narratives suggested that some participants internalised racism and tried to keep a low profile (Mirdal, 1984).

Practical life challenges which were brought by immigration were among the other sources of distress. These included language problems and related job-finding difficulties, difficulty in establishing new relations, restrictions caused by being an undocumented immigrant such as access to healthcare, obtaining a driving license and travel restrictions (Bäärnhielm, 2004; Leavey et al., 2007; Mirdal, 1984; Sohtorik & McWilliams, 2011; Yilmaz & Weiss, 2000).

The difference between the climate of Türkiye and that of the host country, often from a warm to a cold climate, was another concern reported (Bäärnhielm & Ekblad,

2000; Yilmaz & Weiss, 2000). Additionally, the lack of food which suited their taste was at times referred to as a possible cause for psychologically feeling unwell (Yilmaz & Weiss, 2000). It was also reported that the psychological symptoms either started or worsened after immigration (Mirdal, 1984; Yilmaz & Weiss, 2000).

Problematic Encounters with Medical Systems. Challenges with healthcare systems were reported as a source of distress (Bäärnhielm, 2004; Bäärnhielm & Ekblad, 2000; Christodoulou et al., 2018; Leavey et al., 2007). Participants described practical challenges such as confusion around how the services work (Christodoulou et al., 2018), long waiting lists (Bäärnhielm, 2004; Christodoulou et al., 2018), finding the jargon of the health system hard to understand (Bäärnhielm & Ekblad, 2000) and not having access to Turkish-speaking therapists (Sohtorik & McWilliams, 2011). For people in the USA, medical help either did not exist or was too expensive (Sohtorik & McWilliams, 2011).

Medication-related problems (Bäärnhielm, 2004; Leavey et al., 2007) and problems related to psychological therapies (Christodoulou et al., 2018) were also raised. Participants criticized short-term (six sessions) Cognitive Behavioural Therapy as too structured to be meaningful and too short to be effective. They also reported that they sometimes felt abandoned after discharge (Christodoulou et al., 2018).

Another major point was that participants felt that Health Care Professionals (HCPs) did not collaborate with them (Bäärnhielm, 2004; Christodoulou et al., 2018; Leavey et al., 2007; Yilmaz & Weiss, 2000). In Bäärnhielm's (2004) study, participants described how they were sent to psychiatry by the GP without any explanation, were prescribed psychotropic medication without any consultation, were not listened to when they raised concerns regarding medication, and in some cases, were forced to receive psychiatric intervention. Participants also reported that patients' understandings of the illness were not taken into account regarding their treatment (Bäärnhielm, 2004; Leavey et al., 2007; Yilmaz & Weiss, 2000).

They (English doctors) are only interested in symptoms (Leavey et al., 2007, p. 264, participant quote).

Negative experiences with HCPs prevented participants expressing themselves (Bäärnhielm, 2004; Bäärnhielm & Ekblad, 2000) and asking for help (Christodoulou et

al., 2018). It was also reported that when discussing their difficulties with HCPs, some participants refrained from using the words they would typically use to describe their difficulties, so as to prevent being misunderstood by the HCPs (Bäärnhielm & Ekblad, 2000; Leavey et al., 2007). Some felt that they were not trusted by HCPs because they were immigrants, and discriminatory views by HCPs towards minorities were noted (Bäärnhielm, 2004). Additionally, some struggled to trust the information given by HCPs, but it seemed like they did not have the epistemological power to challenge that.

They call it anxiety. I do not know. I believe that it is. As I do not have any other choice, I have to believe in what they say (Bäärnhielm & Ekblad, 2000, p. 445, participant quote).

Traditional and Medical Understandings of Causes. In a number of studies, participants reported some traditional understandings of their difficulties (Bäärnhielm & Ekblad, 2000; Borra, 2011; Leavey et al., 2007; Mirdal, 2006; Yilmaz & Weiss, 2000). Spells/magic (Leavey et al., 2007; Yilmaz & Weiss, 2000), the evil eye (Bäärnhielm & Ekblad, 2000; Leavey et al., 2007; Yilmaz & Weiss, 2000), and *jinn* possession (Borra, 2011; Leavey et al., 2007; Mirdal, 2006) were stated as some of the possible explanations for ill health and psychological distress. However, the participants also reported being sceptical of traditional/spiritual explanations (Borra, 2011; Leavey et al., 2007; Mirdal, 2006) despite trying some remedies such as amulets suggested by *hocas*⁸ (Borra, 2011; Leavey et al., 2007; Yilmaz & Weiss, 2000). Leavey and colleagues (2007) reported that some believed in black magic or the evil eye as concepts but did not think that their problems stemmed from them. Another important point highlighted in some studies was that many perceived their illness to be their fate, that it was sent by God and had to be accepted, and that a cure must be sought by the ill person (Bäärnhielm, 2004; Borra, 2011; Leavey et al., 2007; Yilmaz & Weiss, 2000).

Of course this is because of God. I mean, God gives you these problems but he also gives remedy. I now have these problems but there are also hospitals. I know that I have these problems as a result of stress, depression, accumulation, but I also know that they will make me feel better (Leavey et al., 2007, p. 264, participant quote).

Additionally, heredity was highlighted by some participants in Leavey and colleagues' (2007) study. Some made links between their difficulties and their ancestors' experiences, for example saying their father also had 'weak nerves'. Furthermore, an-

8 *Hoca* means teacher in Turkish and can be used with or without Islamic connotation. Islamic *hocas*, on top of their formal or informal teaching roles, can act as clergy and offer religious advice.

other participant used the absence of mental ill health in their lineage as evidence to underline the impact of traumatic and disruptive life events on their difficulties (Leavey et al., 2007). Unknown diseases and stress were also cited as possible explanations (Bäärnhielm & Ekblad, 2000).

The participants' narratives suggested that they did not hold one model of understanding over another, but instead they welcomed different explanations that made sense for them. For example, one participant who had initially thought that she was grieving for her deceased sister accepted the diagnosis of depression, but not anxiety (Bäärnhielm, 2004, p. 50).

Theme 3: Coping

This theme incorporates the narratives of survival. The studies indicated a variety of resources adopted by the participants, including support from family and social circles, personal resources such as self-management strategies, traditional/spiritual resources, and utilising healthcare in the host countries. These are detailed below.

Family and Social Support. In several studies, participants reported having support from family and friends. This constituted practical support, such as help with childcare (Bäärnhielm & Ekblad, 2000), taking the first steps of seeking medical help (Christodoulou et al., 2018; Leavey et al., 2007), help with finances (Yilmaz & Weiss, 2000), and emotional support (Bäärnhielm, 2004).

Additionally, participants reported that it helped them to cope better when they felt connected to the Turkish community in the host country (Mirdal, 1984, 2006; Sothorik & McWilliams, 2011) and when they felt a part of the host country (Taloyan et al., 2011). Political refugees also talked about the positive effect of having 'a sense of freedom' to be themselves and of working for their own self and wellbeing (Taloyan et al., 2011).

Personal Resources. Acceptance (Bäärnhielm, 2004; Taloyan et al., 2011), taking responsibility for their own recovery (Bäärnhielm, 2004), positive thinking (Bäärnhielm & Ekblad, 2000; Christodoulou et al., 2018), giving less importance to bodily symptoms (Mirdal, 2006), self-soothing by talking to oneself (Bäärnhielm, 2004; Sothorik & McWilliams, 2011), self-determination (Bäärnhielm, 2004; Bäärnhielm & Ekblad, 2000; Mirdal, 1984; Taloyan et al., 2011), having a meaningful identity (Taloyan et al., 2011), taking a break by resting and pursuing a calm life (Bäärnhielm & Ekblad, 2000) were all cited as

personal resources. Some participants reported contemplating their difficulties through their faith system, Islam, as an acceptance strategy (Leavey et al., 2007).

Activities which were meaningful to the participants, such as praying (Bäärnhielm & Ekblad, 2000), carrying out everyday chores (Christodoulou et al., 2018), and pleasurable activities (Bäärnhielm, 2004; Christodoulou et al., 2018) were also underlined. Some had adopted these activities on the recommendation of HCPs.

However, participants in Bäärnhielm and Ekblad's (2000) study considered personal resources to be of limited value and stated that if their external circumstances had not changed for the better, self-management strategies would have offered limited benefit.

Traditional Resources. Some studies reported participants encountering traditional/spiritual healing techniques. These were sought before (Bäärnhielm & Ekblad, 2000) Western medicine or as complementary to it (Bäärnhielm & Ekblad, 2000; Yilmaz & Weiss, 2000). Three different types of traditional/spiritual treatments were reported. First, those which were performed by *hocas* to break a spell or the influence of the evil eye (Bäärnhielm & Ekblad, 2000; Leavey et al., 2007; Yilmaz & Weiss, 2000). They prayed for the participants, or sometimes prayed into water and gave it to participants to sprinkle onto themselves or to drink (Leavey et al., 2007). Preparing a *muska* (an amulet) for the participant to wear or keep under a pillow was also mentioned (Bäärnhielm & Ekblad, 2000; Leavey et al., 2007; Yilmaz & Weiss, 2000). Second, interventions such as cupping, massages and tractions conducted by folk healers or naturopaths were also reported (Bäärnhielm & Ekblad, 2000). Third, giving strength to the body by keeping it warm through going to Türkiye for warm weather or thermal springs were cited (Bäärnhielm & Ekblad, 2000). Participants reported different outcomes. Some said that this did not help (Leavey et al., 2007; Yilmaz & Weiss, 2000), but others found it helpful.

Help from Healthcare. Participants in two studies expressed mixed feelings about getting help from the local (Western) healthcare system (Bäärnhielm, 2004; Bäärnhielm & Ekblad, 2000; Christodoulou et al., 2018). Some were hopeful about help from statutory mental healthcare whereas others were doubtful about its efficacy (Bäärnhielm & Ekblad, 2000; Christodoulou et al., 2018). Nevertheless, some studies reported that participants benefitted from mental health care (Bäärnhielm, 2004; Bäärnhielm & Ekblad, 2000; Christodoulou et al., 2018; Mirdal, 2006). Bäärnhielm and Ekblad (2000) reported some change in participants' understandings of their difficulties when they had re-

ceived help from psychiatric services. According to the authors, this led to an increase in their self-esteem regarding dealing with their problem and subsequently to feeling less stigmatized. Participants also received psychoeducation which they regarded as positive learning. Medication was found helpful by those who adhered to it, but fears around dependence on medication were also raised (Bäärnhielm, 2004).

The importance of a good relationship with HCPs was often highlighted; trusting HCPs and feeling believed by them was suggested as an essential aspect of a good outcome. Participants appreciated when HCPs offered time and urgent appointments as needed and believed that they had pain (Bäärnhielm, 2004; Bäärnhielm & Ekblad, 2000). It seemed that participants felt included, valued and remembered by such HCPs, and the ‘human’ part of psychiatric care was stressed.

A similar concept was also present in the findings of Christodoulou and colleagues (2018) when former users of an Improving Access to Psychological Therapies service were interviewed. The participants stated feeling a sense of ‘relief’ following interactions with their therapists.

Discussion

Despite more than six million Turkish immigrants living outside their home country (Republic of Türkiye Ministry of Foreign Affairs, n.d.), the information about how they understand, experience and express CMHDs has been scarcely studied. Furthermore, the existing literature contains conflicting information, especially around how CMHD are experienced, expressed (symptom presentation), and understood (casual attributions). To systematically investigate the experiences and understandings of CMHDs of Turkish immigrants, this study included 10 original qualitative studies.

Three themes were generated with a total of twelve sub-themes. The first theme ‘Presentation’ covered how Turkish immigrants experience and express CMHDs. The results suggest that Turkish immigrants express psychological difficulties in both emotional and physical terms. In fact, as can be seen in Appendix B, Turkish immigrants frequently use emotive language. Considering that CMHDs affect both the physical and the emotional domains (APA, 2013; National Health Service [NHS], 2018, 2019; World Health Organization [WHO], 2019), it should not be a surprise that the Turkish immigrant population suffers from both. This finding is consistent with various quantitative

studies where Turkish immigrants were found to have not only higher rates of physical symptoms but also higher rates of emotive symptoms in comparison to native populations in the host countries (Britton et al., 2000; Hjörleifsdottir Steiner et al., 2007; Morawa et al., 2017; Sempértegui, 2017; Small et al., 2003a).

However, this finding is inconsistent with the other claim in the literature, the 'somatisation hypothesis' (Beirens & Fontaine, 2011; Bragazzi et al., 2014; Lanzara et al., 2019), which argues that people of non-Western cultures, including Turkish immigrants, tend to experience their psychological difficulties physically more than Western people. When one considers the reasons for the popularity of somatisation hypothesis (Balkir, 2013; de Bruyn, 1989; Morawa et al., 2017; Nakkas et al., 2019), despite the lack of empirical evidence, several possible reasons come to mind. First, it could be linked to a tendency to overgeneralise findings. For instance, Nickel and colleagues (2006) suggested that Turkish immigrants "rarely view(ed) ... linking bodily symptoms to emotional distress helpful" (p. 507-8) and they referenced this claim to Bäärnhielm and Ekblad (2000). However, Bäärnhielm and Ekblad's (2000) participant sample consisted of ten Turkish immigrant women who were diagnosed with a somatic disorder, so their experiences may not be representative of all Turkish immigrants. There were also other studies in which claims supporting the somatisation hypothesis were not verified by evidence (Balkir, 2013; de Bruyn, 1989), but they were still considered as being generally true of the entire population.

Second, the design of the studies might not have taken all the relevant factors into consideration. For example, there is strong evidence indicating that, in comparison to host populations and/or other immigrant groups, Turkish immigrants not only score higher on somatisation/physical symptoms, but also on emotional symptoms. Thus, the higher somatisation rates in Turkish communities could be a result of the severity of common mental health difficulties rather than being an indication of a greater tendency to somatise. If a study does not take emotional symptoms into consideration and focuses solely on the physical symptoms of CMHDs, the analysis and/or interpretation might not represent the whole picture. Additionally, not taking other factors, such as socio-economic circumstances, into consideration may also lead to incorrect interpretation.

Third, quality of translation could be a factor. Many of the studies conducted on Turkish immigrants relied on interpretation from Turkish into the host language, and

nuances might have been lost during translation and misunderstandings might have occurred. Even though it was not possible to fully assess the translation/interpretation quality of all studies as examples were not always provided, some authors helpfully offered samples from their translations. This allowed the first author of this study, who is a native Turkish speaker, to identify many translation mistakes. For example, interviewers in Borra's (2011) study were instructed to ask their participants a question in Turkish ("İc dengen nasıl?", p. 665), thinking this would mean "How are you feeling?" in Turkish. Unfortunately, this phrase is quite meaningless in daily Turkish. Bäärnhjelm and Ekblad (2000) reported sharing similar concerns on translation accuracy. During the translation process of their research they realised that participants' emotional language had not always been translated accurately. They also wondered about the possibility of such errors in clinical appointments and whether this contributed to a somatisation diagnosis.

Fourth, the researchers might have held elitist/racist views against Turkish immigrants (Small et al., 2003a) which is linked to 'strategic ignorance' (Bailey, 2007). This concept relates to implementing wilful ignorance by making a conscious choice to overlook epistemological flaws to support and maintain particular social and political agendas (McPherson et al., 2020).

Additionally, the present review found that although low in frequency, unusual experiences known as hallucinations, delusions and dissociative experiences were also experienced by Turkish immigrants, and not just by those diagnosed with psychosis. This is consistent with the findings of previous studies in which psychotic-like difficulties were reported to be experienced by some non-clinical samples (Selten et al., 2020; van Os et al., 2009).

The second theme, 'Causes and Sources', included the understanding of CMHDs in terms of what the Turkish immigrants thought caused their psychological difficulties and what kept them going. The findings suggest that Turkish immigrants made links between their mental health difficulties and adverse life events, living conditions, difficult relationships, discrimination by the host country, the hereditary nature of CMHD related difficulties, and the effects of unknown diseases. This might suggest that they adopt and utilise the psychological, social, and medical models of understanding of mental distress. This finding is in line with the wider literature which indicates that

bio-psycho-social explanations of mental health difficulties (Herzog & Schmahl, 2018; Huda, 2019; Read et al., 2005; SAMHSA, 2014), including the impact of immigration, are adopted by several different communities (Kamperman et al., 2007; Moussaoui & Agoub, 2010; Thomas & Gideon, 2013).

The traditional/spiritual explanations of difficulties were also acknowledged, though generally with some scepticism. This finding seems to be in line with the results of two quantitative studies conducted in Australia (Minas et al., 2007) and Switzerland (Gilgen et al., 2005), in which Turkish individuals reported traditional attributions much less than natural ones.

Furthermore, suspicion was not reserved solely for traditional/spiritual methods. Encounters with mental health care systems also became a source of difficulty because participants complained about a lack of communication between the HCPs and themselves. This is consistent with the results of a qualitative study that was conducted with Turkish immigrants in London, UK (Latif, 2009) and a wider review which indicated that ethnic minority people are given poorer care than their “White British” counterparts in the UK (Bignall et al., 2019). Furthermore, there is research indicating that many service users, with or without ethnic minority backgrounds, report problematic behaviour towards patients by HCPs and call for better mental health services for all (Koschorke et al., 2021; Rogers & Pilgrim, 1993; Trevillion et al., 2022; Wallcraft & Bryant, 2003).

Lastly, the third theme, ‘Coping’, showed that Turkish immigrants reported a wide range of coping strategies including family and social support, personal resources, traditional/spiritual resources and help from formal healthcare settings. A systematic review by Leamy and colleagues (2011) found that in 75 out of 87 studies, people from black and other ethnic minority origins identified human relationships as part of their mental health recovery. The same article also identified personal resources, such as positive thinking, rebuilding a meaningful identity, finding meaning through spirituality, and taking actions as part of their recovery journey as coping strategies, which were also highlighted by the present study. Additionally, in line with the present study’s findings, in their comparative quantitative study, Latif (2009) found that the Turkish immigrant sample showed no significant difference in terms of ‘psychological openness’ in comparison with the White-British participants. Additionally, the Turkish sample were found to be slightly more open to seeking help and being indifferent to mental health stigma.

Furthermore, a quantitative study conducted in Germany indicated that Turkish immigrants sought help from formal settings and found it as useful as the native population did (Vardar et al., 2012). A study in the Netherlands reported similar results and indicated that help-seeking behaviours in a Turkish migrant sample were more related to socio-economic status than ethnicity, and involving traditional healers in the treatment process was very rare (Knipscheer & Kleber, 2005a). Studies conducted in Iran, Switzerland and the Netherlands have also suggested that Turkish immigrants perceive formal mental health care as a strategy for dealing with mental health distress (Dejman et al., 2008; Gilgen et al., 2005; Kamperman et al., 2007). However, there is also evidence that Turkish migrants are often unwilling to seek help from formal resources (Balkir, 2013; Eylem et al., 2016; Flink et al., 2013, 2014; Mahintorabi et al., 2017) even when the support from social networks is absent or inadequate (Schoenmakers et al., 2017).

The current study has some limitations. A qualitative systematic review can be theory- or data-driven (Dixon-Woods et al., 2005) and the present review was a data-driven (inductive) one. Even though the reviewer made a conscious effort (by seeking regular supervision from her supervisors/co-authors) to adopt a reflexive approach, it might not have always been possible to overlook theories implemented by the authors of the papers (McPherson & Armstrong, 2012), and to put aside her own assumptions as a Turkish national.

The majority of the articles had methodological shortcomings as presented in Appendix A. The most common were around design, data analysis and ethical issues, as most of the studies did not report their design and data analysing strategies in sufficient detail and did not mention whether they had sought ethical approval for their studies. Furthermore, a minority of articles failed to offer clear findings or clearly report the recruitment strategy. Additionally, the papers had different research questions and aims, so not all the papers provided information applicable to all the aims of this review. They also used different qualitative methodologies. Finally, this systematic review is conducted with a small body of literature due to the scarcity of research in the area and focused only on CMHDs and no other mental health conditions, which may also impact the conclusions drawn.

Despite these limitations, several valuable points can be made based on the findings. Additionally, to the researcher's knowledge, this is first time that the question of how Turkish people express and understand their common mental health difficulties has been reviewed systematically by including all relevant literature.

Additional and improved research is necessary to gain a better understanding of CMHDs and other mental health conditions experienced by Turkish immigrants, as the current research in this field is quite limited. Furthermore, many of the studies conducted so far have methodological shortcomings. As the field of qualitative research methodology and ethics is continually evolving, it is crucial for researchers to remain updated and thorough in their study design, implementation, and reporting. Adopting robust strategies to ensure translation accuracy, such as using 'forward and back translation' technique and using localisations, is specifically recommended. Additionally, the material in translation could be reviewed by a 'layperson' to ensure comprehension by individuals without specific mental health backgrounds or education levels.

It is also important to contemplate the potential negative effects of somatisation theory on the mental health care of Turkish immigrants. People who make referrals to health care services and service providers should be aware that Turkish immigrants experience and express CMHDs both emotionally and physically. Otherwise, they might not refer Turkish immigrants to psychological therapies thinking individuals in this community are unlikely to benefit from them. Additionally, physical symptoms that are not linked to mental health conditions might be overlooked, and physical health conditions might be missed in this population.

The results also suggest that Turkish immigrants employ a range of models to understand their psychological difficulties. Consequently, they might adopt and use coping strategies and cures based on those understandings. Over time, their understandings and coping strategies might change, turning their model of mental health understanding regarding CMHDs into a dynamic, multi-model one rather than a uniform, static one. It is important for clinicians and researchers to take this possibility into consideration and to offer holistic and person-centred interventions rather than prescriptive ones based on singular understandings.

It is also critical to note that although they share many common characteristics, Turkish people, like most populations in the world, are not a homogenous group. Hence, different individuals might prioritise different understandings and values with regard to their mental health as this group uses and implements a wide variety of models of understanding. For instance, an individual might believe in *nazar*, but might not link their mental health difficulties to this concept and might not discuss it in a clinic. Thus, as with any client group, the clinician needs to be curious while exploring the presenta-

tions and history without personal bias, and to formulate, collaborate and agree on an intervention in line with the client's values. Furthermore, the clinicians are advised to implement a prejudice-free, culturally sensitive, person-centred approach where clients cultivate their already existent reflective skills.

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Appendices

Appendix A

Table A1

Quality Assessment of Included Papers Using CASP(2018) Framework

	Clear Aim	Appropriate Method	Appropriate Design	Appropriate Recruitment Strategy	Appropriate Data Collection	Relationship Between Researcher and Participants	Ethical Issues	Rigorous Data Analysis	Clear Findings
Bäärnhielm et al., 2000	2	2	2	2	2	2	2	2	2
Bäärnhielm, 2004	2	2	2	2	2	1	2	1	2
Borra, 2011	2	2	1	2	2	1	1	1	2
Christodoulou et al., 2018	2	2	2	2	2	2	1	1	2
Leavey et al. 2007	2	2	1	1	1	0	1	1	1
Mirdal, 1984	2	2	1	2	2	1	1	1	1
Mirdal, 2006	2	2	1	2	2	1	1	1	2
Sohtorik et al., 2011	2	2	2	1	1	1	1	2	1
Taloyan et al., 2011	2	2	2	2	2	1	2	2	2
Yilmaz et al., 2000	0	2	1	1	1	0	1	1	2

*0 = no, 1 = can't tell, 2 = yes

Appendix B

Table B1

A List of Presenting Difficulties and their Domains in Thematic-Synthesis

	Physical	Emotive	Unusual
Bäärnhielm et al., 2000	Anxiety as somatic Body can't cope Breathing difficulties Dizziness Fainting Fatigue Forgetfulness Heart symptoms Hypertension Pain in body Pain in the right side of the body Tightness in the chest (breast)	Anger Pain in heart Disappointment Feeling of being on verge of exploding Feeling dreams crushed Feeling fear Feeling shame Feeling weak Grief Lack of happiness Lack of self-confidence Loneliness Sadness Worrying "Rising of the heart" (<i>yurek kalkinmasi</i>)	<i>Ruh cikmasi – disassociation?</i>

Table B1

A List of Presenting Difficulties and their Domains in Thematic-Synthesis

	Physical	Emotive	Unusual
Bäärnhelm, 2004	Anxiety as somatic to mental Being tired Being worn-out Sleep difficulties Tensions in the body	Feeling nervous Having bad nerves Lack of patience Panicky feelings Shattered nerves	
Borra, 2011	Back pain Diabetes Loss of sensation Neck and shoulder pains Pounding of the heart Pre-menstrual symptoms Rheumatoid Arthritis Severe headaches Stomach-ache Swollen feet Tightness in the chest Tingling sensations in arms and legs	Attempting suicide Being edgy Sadness Being devastated (<i>bozukluk</i>) Depression (<i>bunalım</i>) Fear of something bad happening Feeling uncomfortable Feeling useless Feelings of worthlessness Feeling humiliated (<i>gururu kırılmak</i>) Lack of self-confidence Lack of self-esteem Picturing unlikely things (<i>kuruntu</i>) Tightness (<i>sıkıntı</i>) Thinking negatively (<i>karamsar</i>)	Feeling watched Hearing voices Before going to sleep a goblin pushing down you (<i>karabasan?</i>) Feeling a slap in the face Feeling hair being pulled Seeing shadows Seeing jinn
Christodoulou et al., 2018	Forgetfulness Having a full head Pain in the body	Brooding Emotional turmoil Emotional up and downs Feeling down Feeling overwhelmed Feeling low Feeling powerless Having a full head Overthinking Social withdrawal Tired of being strong	
Leavey et al., 2007	“Bodily sensations” Dizziness Failure of the body Feeling numb Heavy sweating Pain in bones Pain in nails Severe headaches Sleep difficulties Tightening heart Weakness Not being able to eat	Frustration Mood disturbances Severe stress Anxiety Depression Boredom Suicidal thoughts	Hearing voices Contact with angels and devils Feelings of persecution Seeing angels

Table B1*A List of Presenting Difficulties and their Domains in Thematic-Synthesis*

	Physical	Emotive	Unusual
Mirdal, 1984	Chills running up and down Cold feet Feeling chilly Muscular pains Pounding of the heart Ring around the chest Tightness in the chest Trembling	Anguish Anxiety (about future) Fear Helplessness Jealousy Longing Lump in throat Regrets Resentment Sorrow Thinking being a burden on loved ones Thinking outside world is dangerous Tightness (<i>sıkıntı</i>) Worrying	
Mirdal, 2006	Bad dreams Being tired Dental problems Dermatological problems Feeling cold Less somatic complaints Poor health Rheumatoid arthritis Severe headaches Shaking jaw Sleep difficulties Stomach-ache	Bad thoughts running in mind Constant sorrow Crying Feeling empty Feeling everything is meaningless Feeling like living dead Fidgeting Having a death wish / thinking death Hopelessness Loneliness Losing will to live Moving around Not being able to enjoy food Regrets Burning inside that smoke gets out of one's mouth Tightness (<i>sıkıntı</i>)	Hearing voices
Sohtorik et al., 2011		Feeling isolated Feeling shame Feeling lonely Feeling nervous Feeling powerless Feeling inadequate	
Taloyan et al., 2011		Feeling emotionally tortured Feeling shame Longing	

Table B1

A List of Presenting Difficulties and their Domains in Thematic-Synthesis

	Physical	Emotive	Unusual
Yilmaz et al., 2000	Insomnia Persistent pain Being tired	Feeling rejected Feeling guilt Feeling shame Feeling like a failure Lack of interest Lack of pleasure Low self-worth Self-blame Social withdrawal	

Sosyal Rollerin Otobiyografik Bellek Üzerindeki Etkileri: Arkadaşlık ve Öğrencilik Anılarının İçeriği, İşlevleri ve Fenomenolojisi

The Effects of Social Roles on Autobiographical Memory: The Content, Functions and Phenomenological Characteristics of the Friend-role and the Student-role Memories

F. Büşra Erbil Hacıömeroğlu¹ , Aysu Mutlutürk² 



ÖZ

Otobiyografik bellek, bireylerin şu andaki amaç ve güdülenmeleri tarafından yönlendirilen, benlikle ilişkili bir bellek sistemi olarak ele alınmaktadır. Benliğin bir parçası olan sosyal roller ise bireyin sosyal konumuna bağlı olarak (örn., öğrenci veya arkadaş) belirli bir bağlamda nasıl davranması gerektiğini belirler. Sosyal rollerin farklı amaçlar ve güdülenmelerle ilgili olabileceği ileri sürülmektedir. Bugüne kadar sosyal rollerin otobiyografik bellek üzerindeki etkileri ile ilgili çok az çalışma yapılmıştır ve bu çalışmalar sadece bellek temalarına odaklanmıştır. Ancak sosyal roller bağlamında hatırlanan otobiyografik anıların işlevlerine, fenomenolojik özelliklerine ve kimlikle bağlantılarına yönelik çalışma yapılmamıştır. Bu çalışmanın amacı, arkadaş ve öğrenci rolleriyle ilişkili otobiyografik anıların içerdikleri hâkim temaları, bellek işlevlerini, fenomenolojik özelliklerini ve kimlikle bağlantılarını incelemektir. Bu amaçla katılımcılardan (n = 106), biri arkadaş rolü diğeri öğrenci rolü ile ilişkili iki anı yazmaları ve her bir anıyı işlevleri, fenomenolojik özellikleri ve anının benliğe merkeziliği bakımından değerlendirmeleri istenmiştir. Bulgular, arkadaş ve öğrenci rolüyle ilişkili anıların temaları, bellek işlevleri ve taşıdıkları duygusal değerlik bakımından birbirinden farklılaştığını ortaya koymuştur. Arkadaş rolüyle ilgili anıların öğrencilik anılarına kıyasla daha yüksek sıklıkta ilişkisel (örn., arkadaşlık, romantik ya da aile ilişkisiyle ilgili) tema barındırdığı, daha olumlu duygularla hatırlandığı, benlik ve sosyal işlevlere daha fazla hizmet ettiği ve bireylerin hayatında daha merkezi olan deneyimleri içerdiği bulunmuştur. Öğrenci rolüyle ilişkili anıların ise daha çok başarı/başarısızlık temasına odaklı olduğu gözlemlenmiştir. Öğrencilik rolünde ilişkisel içerikli anılar olsa da bu anılarda otorite (örn., öğretmen) ile kurulan ilişkiler ağır basmaktadır. Bu bulgular, farklı sosyal rollerin ve bu sosyal rollerle ilgili farklı amaç ve güdülenmelerin (örn., içsel ve dışsal güdülenme) insanların otobiyografik anılarını nasıl hatırladıklarını yönlendirebileceğine işaret etmektedir.

Anahtar Kelimeler: Arkadaş rolü, benlik, fenomenolojik özellikler, otobiyografik bellek işlevleri, öğrenci rolü, sosyal roller

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ABSTRACT

Researchers define autobiographical memory as a self-related memory system guided by the current goals and motivations of individuals. Social roles determine the behavior of individuals in specific contexts according to social position (e.g., student and friend). Research suggests that social roles may be related to different goals and motivations. To date, studies that address the effects of social roles on autobiographical memory are very few, and these studies mainly focus on memory themes. Moreover, research that investigates whether or not and how social roles impact the retrieval of autobiographical memory is lacking. To address this research gap, the current study aims to examine the effects of social roles (i.e., being a student and a friend) on the contents, functions, and phenomenological characteristics of autobiographical memory. Participants (n = 106) report two memories related to the friendship and studentship roles, respectively, and evaluate each memory in terms of functions, phenomenological characteristics, and centrality to the self. The results demonstrate that friend and student memories differed in terms of content, function, and emotional valence. In addition, friend memories contain more relational themes, carry more positive emotions, serve the self and social functions more, and depict a more central place in the lives of individuals compared with student memories. The study also observes that student memories focused more on the theme of success/failure. Although student memories also contain a number of relational themes, the relationships established with authority predominate in these memories. These findings suggest that social roles, goals, and motivations that underlie these roles may drive the remembrance of people of their autobiographical memory.

Keywords: Friend role, self, phenomenology, autobiographical memory functions, student roles, social roles

EXTENDED ABSTRACT

Autobiographical memory may be constructed to reflect individual's needs, goals, and motives at the time of encoding and retrieval (Conway & Pleydell-Pearce, 2000). This memory may enable individuals to obtain information about the self by remembering previous experiences and to develop and maintain self-concept (Bluck et al., 2005; Brewer, 1986). Self-concept, which is closely related to autobiographical memory, contains various information, such as age, gender, physical characteristics, goals, attitudes, beliefs, and values, including social roles (Borden & Horowitz, 2008). By definition, social roles are norms that determine the behavior of an individual within certain contexts according to one's social position (Hare, 2003; Sarbin & Allen, 1968). An individual may play many social roles throughout life such as being a friend, student, employer, sibling, or parent. However, these roles may differ in terms of goals and the direction to which these goals direct an individual (Sheldon & Elliot, 2000). As a part of the self, social roles determine the expected behavior of individuals in specific contexts according to social position (e.g., student and friend). For example, researchers find that the friendship role is inherently rewarding and associated with intrinsic motivation, while external rewards, such as grades and academic achievement, frequently motivate the student role (Sheldon & Elliot, 2000). Given that social roles are associated with different goals and motivations, and autobiographical memory is recalled in line with such goals and motivations, this study expects that potential links exist between social roles and the recall of autobiographical memory.

To the best of our knowledge, very few studies to date address the effects of social roles on autobiographical memory, and these studies mainly highlight memory themes (Nakash

et al., 2001). Moreover, no research investigates whether or not and how social roles impact the retrieval of autobiographical memory. For this reason, the current study aims to explore the potential effects of social roles (i.e., being a student and a friend) on the contents, functions, phenomenological characteristics, and centrality of autobiographical memory.

Method

Data were collected using an online questionnaire. The participants were undergraduate students ($n = 106$; $M(\text{age}) = 20.90$, $SD(\text{age}) = 3.33$) who reported two memories related to the friendship (friend memory) and studentship (student memory) roles, respectively. They then evaluated each memory in terms of function using the Thinking About Life Experiences scale, of phenomenological characteristics using the Autobiographical Memory Questionnaire, and of centrality to oneself and life using the Centrality of Events Scale. To control for the order effect, half of the participants were first assigned under the friend-role memory condition, while the other half were first assigned under the student-role memory condition. The study coded the contents of the memories by referring to the "Coding Guide for Self-Defining Events" by Thorne and McLean (2001). Thus, the study coded memory narratives according to contents and categorized under the following themes: life-threatening events, recreation, relationships, achievement/mastery, and guilt/shame (Thorne & McLean, 2001).

Results

The results demonstrated that friend and student memories differed in terms of theme, function, and emotional valence. Relational themes were more frequent in the friend (71.7%) than in the student (4.7%; $p < .001$) memories. However, achievement themes were more pronounced in the student (32%) than in the friend (9%; $p < .001$) memories.

Memories of friend and student roles also differed in function. The participants rated friend-role memories higher than they did the student-role memories in the self-related functions ($t(105) = -2.40$, $p = .018$, $d = .23$) as well as social functions ($t(105) = -6.30$, $p = .000$, $d = .61$), but they did not differ in terms of directive functions [$t(105) = -.73$, $p = .46$, $d = .07$].

Regarding the phenomenological properties, the participants rated friend-role memories higher than they did student-role memories in positive emotions ($t(105) = -2.50$, $p = .014$, $d = .28$) and in the representation of the current self ($t(105) = -4.50$, $p < .001$, $d = .54$). The study noted no other differences between the two types of memories regarding phenomenological characteristics (all p values $> .05$).

Moreover, the study found differences in the centrality of an event in life. The participants rated the friend-role memories higher than they did the student-role memories as a reference point for other events ($t(105) = -2.03$, $p = .044$, $d = .20$) and a perception of

the event as a central component of personal identity ($t(105) = -3.30, p = .001, d = .32$). In addition, the study observed no difference between memory types in viewing the event as a turning point in one's life story ($p = .68$).

Discussion

These findings demonstrate that the friend- and student-role memories differ from each other in terms of theme, emotional valence, function, and centrality to the self. Furthermore, these findings imply that the characteristics of autobiographical memory may differ according to the social roles that triggered the memory. One focus of this study is whether or not the context of a social role triggers a particular memory theme. If specific goals are associated with a social role, then the study expects that memories triggered within this role context will frequently contain themes in line with these goals. Sheldon and Elliot (2000) reveal that goals, such as establishing social relationships and having a pleasant time, intrinsically motivate the friendship role, while goals, such as academic achievement, extrinsically motivate the student role. In line with this finding, the majority of the friendship-role memories revealed in the current study contain relational themes. In addition, the study observes success/failure themes more frequently in student-role memories compared with other themes. This theme is also noted more frequently in student- than friend-role memories. These findings highlight that the themes of memories may be a reflection of the goals and motivations that underlie different social roles.

The findings also illustrate that friend-role memories carried more positive emotions than did student-role memories. The friend role, which is more intrinsically motivated (e.g., having pleasure), may have led the participants to memories with relational themes, while the student role, which is more extrinsically motivated (e.g., having high grades), may have directed the participants toward achievement themes. Given that intrinsic motivation is more related to positive emotions than extrinsic motivation (Ernst et al., 2018; Ryan & Deci, 2000), the difference in the positive emotions of these memories may also be due to variances in motivations that underlies these two types of social roles.

The evaluation of memories related to the friendship role as memories that fulfill functions related to the self may be a reflection of the contribution of friendship relationships in the self-formation and socialization processes of individuals to autobiographical memory. The shaping of the self and identity is a process that becomes evident from adolescence and continues throughout life. The relationships that come to the fore in this process include peers and friends instead of family members (Arnett, 2000). Empirical evidence widely supports and accepts the view that friendship relationships are highly effective in the construction of the self (e.g., McNamara Barry et al., 2014). In the current study, the fact that memories in the context of the friend role were mostly recalled to fulfill self-related functions, such as self-regulation and self-continuity, supports this view.

Furthermore, the study observes that memories recalled in the context of the friend role served social functions, such as meeting new people, strengthening existing relationships, developing close and deep relationships, establishing social bonds, and creating empathy more than did student-role memories. In early adulthood, scholars posit that friendships fulfill individual and social needs (Zarbatany et al., 2004). Previous studies find that memories related to close relationships, such as romantic ones, serve strong social functions (Alea & Bluck, 2007). Consistent with these findings, the current study reveals that memories related to friendship, which is another form of a close relationship, serve social functions.

Finally, memories related to the role of friends lie at the center of the identity of an individual and are viewed as a reference point for various events in life. This finding may point to the long-term effects of experiences gained from friendship relationships.

When interpreting the findings, considering certain limitations is important. One of them may be that the sample consists only of university students in their early adulthood and of predominantly female students. In the future, testing the variables by using different samples and by considering demographic variables, such as age and gender, may enrich the findings in this field. Another limitation may be the online collection of data. In this case, the participants may have continued without communicating with the researcher when question arise about the scale items. To minimize this possibility, the researchers conducted a pilot study prior to the actual data collection phase. With guidance from data and feedback obtained from the pilot study, the statements used in the questionnaires were presented to be as clear, precise, and understandable as possible.

As part of the effort to elucidate memory processes by considering social and cultural contexts, this study examined autobiographical memories in the context of student and friend roles. In future studies, examining the effect of the association of social roles to different goals and motivations on the processes of remembering the past may help in enhancing the understanding of the relationship among social role, identity, and memory process.

Otobiyografik bellek, geçmiş deneyimlerimizin ve kim olduğumuzla ilgili bilgilerin depolandığı, amaca dayalı bir bellek sistemidir (Brewer, 1986; Conway ve ark., 2004; Conway ve Pleydell-Pearce, 2000). Bu bellek sistemi, birtakım özgün yönleriyle diğer bellek türlerinden ayrılmaktadır. Otobiyografik belleği diğer bellek türlerinden ayıran önemli özelliklerinden biri, genellikle “Ben kimim?” sorusu çerçevesinde tanımlanan benlik kavramıyla ilgili olmasıdır (Conway ve ark., 2004; Conway ve Pleydell-Pearce, 2000; Finkenauer ve ark., 2002). Otobiyografik belleğin bireylerin geçmiş deneyimlerini hatırlamaları sayesinde kim olduklarıyla ilgili bilgiler edinmelerini ve bu bilgilerle bir benlik kavramı geliştirip bu benliği korumalarını mümkün kıldığı düşünülmektedir (Bluck ve ark., 2005; Brewer, 1986; Conway ve ark., 2004; Conway ve Pleydell-Pearce, 2000). Bununla beraber, bireylerin geçmişlerinden hangi olayı hatırladıkları ya da bir olayı nasıl hatırladıkları da bugünkü benlik algılarına, güncel amaç ve güdülenmelerine göre değişiklik gösterebilir (Conway ve ark., 2004). Dolayısıyla otobiyografik anılar benlik kavramının oluşumunu şekillendirirken, benlik kavramı da anıların nasıl hatırlandığını yönlendirebilir.

Otobiyografik anılarla yakından ilişkili olan benlik kavramı, bireyin yaşı, cinsiyeti, fiziksel özellikleri, amaçları, tutumları, inançları ve değerleri gibi çeşitli bilgilerin yanı sıra bireyin sosyal rolleriyle ilgili bilgileri de barındırmaktadır (Borden ve Horowitz, 2008). Sosyal roller, bireyin sosyal konumuna bağlı olarak belirli bir bağlamda nasıl davranması gerektiğini belirleyen normlar olarak tanımlanabilir (Hare, 2003; Sarbin ve Allen, 1968). Her birey yaşamı boyunca arkadaşlık, öğrencilik, kardeşlik, ebeveynlik gibi pek çok sosyal role sahip olur ve bu roller kişiyi yönelttiği amaçlar bakımından farklılaşabilir (Sheldon ve Elliot, 2000). Örneğin, Sheldon ve Elliot (2000) arkadaşlık rolüyle ilişkili davranışların sosyal ilişki kurmak, iyi bir arkadaş olmak, arkadaşlarla birlikte keyifli vakit geçirmek gibi amaçlara yönelik olduğunu yani içsel olarak güdülendiğini öne sürmüşlerdir. Öte yandan, öğrencilik rolüyle ilişkili davranışların akademik başarı gibi dışsal ödüllerle güdülendiğini ve gelecekteki yaşam üzerinde somut etkileri olabileceğinden yüksek kaygı düzeyiyle ilişkilendirilebileceğini göstermişlerdir.

Sosyal rollerin farklı amaç ve güdülenmelerle ilişkili olduğu, otobiyografik anıların ise amaç ve güdülenmeler doğrultusunda hatırlandığı düşünüldüğünde sosyal rollerle otobiyografik anıların hatırlanması arasında bağlantılar olması beklenebilir. Buna göre, bireylerin belirli roller bağlamında (örn., kendilerini bir arkadaş veya bir öğrenci olarak düşündüklerinde) hangi anılarına erişebildikleri ve bu anıları nasıl hatırladıkları o rolle-

rin kendilerine özgü amaç ve güdülenmeleri doğrultusunda farklılaşabilir. Bugüne kadar otobiyografik anıların neden ve nasıl hatırlandığına yönelik çok sayıda çalışma gerçekleştirilmiştir. Bu çalışmalar, anıyı oluşturan deneyimin ne zaman gerçekleştiğinden (Nigro ve Neisser, 1983; Sutin ve Robins, 2007) hangi duygularla ilişkili olduğuna (D'Argembeau ve Van der Linden, 2008) ya da bireylerin yaşından (Vranic ve ark., 2018) duygu durumuna (Wolf ve Demiray, 2019) kadar pek çok faktörün otobiyografik bellek süreçlerini etkileyebildiğini göstermektedir. Ancak sosyal rollerin otobiyografik anıların hatırlanması üzerindeki etkilerine yönelik çalışmalar henüz son derece sınırlıdır ve var olan çalışmalar sadece anıların temalarına odaklanmıştır (Nakash ve ark., 2001; Nakash ve Brody, 2006). Sosyal roller bağlamında hatırlanan otobiyografik anıların işlevleri, fenomenolojik özellikleri (örn., hatırlama anındaki duygusal ve duygusal deneyimler) ve kimlikle olan bağlantıları ise bugüne kadar incelenmemiştir. Bu çalışma, literatürdeki bu boşluğu doldurmayı hedeflemektedir. Çalışmanın amacı, bireylerin arkadaş ve öğrenci rolleriyle ilişkili anılarını temaları, işlevleri, fenomenolojik özellikleri ve kimliğe/yaşama merkeziliği bakımından karşılaştırmalı olarak incelemektir. Çalışmadan elde edilecek bulguların farklı sosyal roller bağlamında hangi anıların, neden ve nasıl hatırlandığına ilişkin bir bakış açısı sunulması hedeflenmiştir.

Otobiyografik Belleğin İşlevleri, Fenomenolojisi ve Merkeziliği

Otobiyografik belleğin hem epizodik hem de semantik bellekte saklanan bilgilerden oluşan bir organizasyonu temsil ettiği düşünülmektedir (Addis ve Tippett, 2004). Bu tür bir organizasyon sadece geçmiş deneyimleri değil (epizodik), kişinin kendisinin ya da aile bireylerinin doğum yerleri ve tarihleri gibi bilgileri de (semantik) içerir. Tüm bu deneyimler ve bilgiler bir bütün olarak kişinin kim olduğunu anlatır (Conway ve Pleydell-Pearce, 2000). Otobiyografik bellek ilk bakışta epizodik belleğe çok benzer görünmekle beraber benlik ile kuvvetli bir bağ içinde olan hatırlama süreçlerini temsil etmektedir (Baddeley, 2012). Epizodik anılar “Ne oldu?” sorusunun, otobiyografik anılar ise “*Bana* ne oldu?” sorusunun yanıtı olarak düşünülebilir (Fivush, 2011). Dolayısıyla otobiyografik anılar öznel bir hatırlama deneyimi olarak ortaya çıkmaktadır; otobiyografik hatırlama eylemi, gerçekten olmuş olanı değil, kişinin deneyimi algılayış biçimini öznel bir şekilde yansıtmaktadır (Neisser, 1986).

Otobiyografik bellek süreçlerini incelemenin pek çok yolu olmakla beraber, bu araştırma kapsamında özellikle birkaç araştırma çizgisinin üzerinde durmak gerekir. Bunlardan biri, otobiyografik anıların “neden” hatırlandığına odaklanmaktır (Bruce, 1985;

Nelson, 2003; Pillemer, 1992). Bu yaklaşıma göre, kişi belli bir yer ve zamandayken başka bir yer ve zamana belirli bir amaç doğrultusunda zihinsel bir yolculuk yapmaktadır (Alea ve Bluck, 2007; Neisser, 1997). Dolayısıyla hatırlanan anıların bir amacı ve işlevi bulunmaktadır. Otobiyografik anıların işlevlerine dair farklı sınıflandırmalar bulunmakla birlikte günümüzde, üç temel işlev yaygın kabul görmektedir. Bunlar benlik işlevi, sosyal işlev ve yönlendirme işlevidir (Bluck ve Alea, 2002; Harris ve ark., 2014; Pillemer, 1992; Watt ve Wong, 1991; Webster, 1997). Değişen zaman içinde aynı kişi olduğunu hissetme veya değişimlere bağlı olarak gerektiğinde kendini zihninde nasıl temsil ettiğine dair güncellemeleri yapma (Bluck ve Alea, 2011; Conway, 2005), zihninde kendini olumlu biçimde temsil etme (Bluck ve Alea, 2011; Wilson ve ark., 2009) ve duygu düzenleme (D'argembeau ve Van der Linden, 2008) gibi amaçlarla hatırlanan anıların benlik işlevini yerine getirmeye yönelik olduğu düşünülmektedir. Sosyal bağlar oluşturma, geliştirme ve sürdürme amaçlı hatırlanan anılar ise genellikle sosyal işlevlerle ilgilidir (Alea ve Bluck, 2003). Otobiyografik anıların sohbetler için malzeme sağladığını (Pasupathi ve ark., 2002), ilişkilerde yakınlığı (Alea ve Bluck, 2007) ve empatiyi (Bluck ve Alea, 2009) arttırdığını gösteren çalışmalar, otobiyografik belleğin sosyal işlevini ortaya koymaktadır. Yönlendirme işlevi ise geçmiş deneyimlerin kişinin şu andaki ya da gelecekteki tutum ve davranışlarını yönlendirmesini sağlamaktadır (Bluck, 2003). Buna göre, geçmiş deneyimler bu deneyimleri anlamlandırma, bu deneyimlerden ders çıkarma ve iç görü kazanma, güncel problemlere bir çözüm sunma ve bir problem veya tehlike ortaya çıkmadan gerekli tedbirleri alma gibi amaçlarla hatırlanabilir (Bluck, 2003; Bluck ve ark., 2005; Pillemer, 2003).

Otobiyografik bellek süreçlerini anlamının bir diğer yolu da bireylerin hatırlama anındaki deneyimlerini incelemek olabilir. Bu öznel deneyimler, otobiyografik anıların canlılığı, duysal detayları, duygusal değeri gibi fenomenolojik özelliklerle nitelenir (Rubin ve ark., 2003; Sutin ve Robins, 2007). Anıların fenomenolojisi, hatırlanan anı türüne ve hatırlayan kişiye göre değişebilir. Örneğin, yakın tarihli anılar eski anılardan daha canlı ve yoğun duygularla hatırlanabilir (Sutin ve Robins, 2007) ve kişi anıdaki olayları dışarıdan bakan birinin gözüyle değil de doğrudan kendi gözüyle görebilir (Eich ve ark., 2012; Nigro ve Neisser, 1983). Evlilik ya da mezuniyet günü gibi önemli ve anlamlı (Janssen ve Murre, 2008) ya da genel olarak olumlu algılanan olaylar genellikle canlı ve detaylı hatırlanırlar (D'Argembeau ve Van der Linden, 2008). Bu yolla elde edilen bulgular, çeşitli koşullardaki otobiyografik hatırlama deneyimlerinde ne tür fark-

lılıklar olduğunun gözlemlenmesine ve otobiyografik bellek süreçlerine ilişkin anlayışın güçlendirilmesine yardımcı olabilir.

Otobiyografik bellek süreçlerini incelemek için başvurulan bir diğer yol ise olayların kişinin kimliğine ve yaşamına ne kadar merkezi konumda olduğuna odaklanmaktır. Bir olay, bireyin kimliğinin ve yaşam öyküsünün önemli bir parçası olarak görüldüğünde merkezi bir olay olarak nitelenebilir (Zaragoza Sherman ve ark., 2015). Çalışmaların bir kısmı, bireylerin geçmişteki olumlu olayları olumsuz olaylara kıyasla yaşamlarında daha merkezi bir konumda değerlendirdiklerini ortaya koymaktadır (Berntsen ve ark., 2011; Zaragoza Sherman ve ark., 2015). Ancak bu bulgu genellikle 40 yaş üstü katılımcılardan oluşan örneklemelerde elde edilmiştir; genç yetişkinlerden oluşan örneklemelerde olumlu ve olumsuz olayların merkezilik düzeyinin farklılaşmadığını gösteren çalışmalar da bulunmaktadır (örn., Rasmussen ve Berntsen, 2009). Bu çalışmaların sonuçları, olayların duygusal değeri ve yaşamdaki merkeziliği arasındaki etkileşime ilişkin çelişkili bulgular olduğu yönünde yorumlanabilir.

Özetle, otobiyografik bellek süreçleri çok sayıda faktörden etkilenebilir ve bu etkiler otobiyografik belleğin belirli bir yönünde (örn., işlevleri, fenomenolojisi, merkeziliği) ya da bu farklı yönlerin birkaçında birden gözlemlenebilir. Bu çalışma, sosyal rollerin otobiyografik bellek üzerindeki etkilerini belleğin farklı yönlerini ele alarak incelemek üzere tasarlanmıştır.

Otobiyografik Bellek ve Sosyal Roller

Sosyal roller, bir topluluktaki insanların nasıl davranmaları gerektiğine ilişkin beklentilere işaret eder (Hare, 2003; Sarbin ve Allen, 1968). Bir sosyal rol, belirli pozisyon-daki bir kişinin özelliklerini tanımlar, bu kişinin nasıl davranması gerektiğini gösteren davranış repertuarını belirler (Bettencourt ve Sheldon, 2001; Biddle, 1979). Örneğin bir okuldaki öğrenci ve öğretmen farklı rollerdedirler; kendilerine atfedilen özellikler ve kendilerinden beklenen davranışlar da farklıdır. Ayrıca bir birey farklı bağlamlarda farklı rollerde de sahip olabilir. Bu farklı roller ihtiyaç duyulan bağlamlarda etkinleşip ulaşılabilir hale gelirler (Roberts ve Donahue, 1994; Sedikides ve ark., 2013)role-specific self-conceptions as well as a consistent sense of self? In a sample of middle-aged women, we examined three issues: (a. Bu durum, benliğin farklı sosyal bağlamlardaki benlik temsillerini içeren çok yönlü bir yapı olduğunu da göstermektedir (Fischer, 1980; Harter ve Monsour, 1992; McConnell, 2011). Örneğin; bir evlat ya da bir öğrenci rolü-

le ebeveynlerinin / öğretmeninin yanında çekingen olan bir genç, daha çetin olan arkadaşlarının yanında arkadaş rolüne büründüğünde argo konuşabilmekte ya da kasılarak yürüyebilmektedir (Harter ve ark., 1997)beginning in midadolescence when cognitive-developmental structures allow one to detect but not resolve opposing attributes. Conflict is greater across roles than within roles. Moreover, for certain roles (e.g., self with mother vs. self with father. Bir diğer deyişle, bireylerin davranışları içinde buldukları sosyal rolün amaç ve hedeflerine göre farklı şekillerde güdülenebilmektedir (Tajfel ve Turner, 2004).

Sosyal rollerle otobiyografik bellek arasındaki ilişkilere odaklanan çalışmalar oldukça kısıtlıdır. Bu çalışmalardan birinde Nakash ve arkadaşları (2001) sosyal rol bağlamının otobiyografik anıların içerdiği temaları ve duyguları etkilediğini göstermişlerdir. Çalışmada rastgele katılımcılar seçilerek çiftler oluşturulmuştur. Her bir çiftin üyelerinden “Gezeganimiz yok olacak olsa kurtarılması gereken yedi kişi kim olmalı?” konulu bir tartışma yürütmeleri istenmiştir. Araştırmadaki kritik nokta, her bir çiftteki üyelerden birinin lider, diğerinin yardımcı rolünde olmasıdır. Tartışmalar lider tarafından yönlendirilmiş ve kararlar lider tarafından verilmiştir. Ardından çiftlerdeki her iki üyenin de bir liderlik deneyimi hatırlamaları istenmiştir. Bulgular, yardımcı rolündeki katılımcıların anılarında liderlik rolündeki katılımcılarınkine kıyasla daha fazla toplulukçu tema ve utanmayla ilişkili kelime olduğunu göstermektedir. Nakash ve Brody (2006) bir diğer çalışmada katılımcılara renkli parçaları birleştirerek yapılar oluşturabilecekleri bir oyun görevi vermiştir. Bu oyunu katılımcıların bir kısmı tek başına ve tüm sorumluluk kendilerinde olacak şekilde (bireysel görev), diğer kısmı ise araştırmacının bir işbirlikçisiyle birlikte çalışarak ve yardımlaşarak tamamlamışlardır (grup görevi). Ardından katılımcıların bireysel temalı (örn., bir yarışmaya katılmak) veya grup temalı (örn., bir grup projesinde çalışmak) bir anılarını yazmaları istenmiştir. Araştırmanın sonucunda verilen görev teması ile anı teması arasında bir örtüşme bulunmasa da, genel olarak bireysel görevdeki katılımcıların anılarının grup görevindeki katılımcıların anılarından daha fazla utanç ve öfke sözcüğü içerdiği bulunmuştur. Bu bulgular, lider/yardımcı ya da birey/grup üyesi olma gibi sosyal rollerin otobiyografik anıların teması ve duygusal niteliği üzerinde etkileri olabildiğini göstermektedir. Bilindiği kadarıyla, sosyal rollerin otobiyografik bellek üzerindeki etkilerine yönelik çalışmalar burada özetlenenlerle sınırlıdır ve bu çalışmalar da anıların temalarına odaklanmıştır. Otobiyografik belleğin amaç ve hedeflere dayanan bir bellek sistemi olduğu düşünüldüğünde, bireylerin amaç ve güdü-

lenmeleriyle bağlantılı olan sosyal rollerin otobiyografik bellek üzerindeki etkilerinin anlaşılması için daha fazla çalışmaya ihtiyaç olduğu açıklar.

Mevcut çalışmada bireylerin yaşamlarında birlikte yer alabilecek iki sosyal rol olan arkadaşlık ve öğrencilik rolü bağlamında otobiyografik anıların nasıl hatırlan-
dığına odaklanılmıştır. Arkadaşlık ve öğrencilik rolleri, toplum tarafından teşvik
edilen ve sosyal bağlamda kendine özgü belirli amaçlar barındıran sosyal roller ola-
rak ele alınmaktadır (Nordenmark, 2004). Bu iki sosyal rol güdüledikleri amaçlar
bakımından farklılaşmaktadır. Sheldon ve Elliot (2000) tarafından ortaya konan
bulgulara göre, yeni arkadaşlık ilişkileri kurmak, varolan arkadaşlık ilişkilerini sür-
dürmek ve güçlendirmek, iyi bir arkadaş olmak veya arkadaşlarla eğlenceli vakit
geçirmek gibi amaçlar içsel olarak güdülenmektedir ve kişiler bu amaçları gerçek-
leştirmekten daha fazla keyif almaktadırlar. Bulgular ayrıca öğrencilik rolünün aka-
demik başarı ve yüksek notlar gibi dışsal ödüllerle güdülendiğini ve bu süreçte
karşılaşılan başarı/başarısızlıklar kişinin ileriki yaşamında öneme sahip olduğu için
arkadaşlık rolüne kıyasla daha fazla kaygı ve stres unsuru barındırabildiğini göster-
mektedir. Özetle, arkadaşlık ve öğrencilik rolleri amaçlar ve güdülenmeler bakımın-
dan farklılaşabilir. Dolayısıyla bu roller tarafından tetiklenen anıların da hâkim
temaları, işlevleri, fenomenolojik özellikleri ve yaşamdaki merkezilikleri bakımın-
dan farklılaşabileceği düşünülebilir.

Bu araştırmanın odak noktalarından biri, arkadaş ve öğrenci rolüyle ilişkili anıların,
temaları bakımından farklılaşıp farklılaşmadığıdır. Önceki çalışmalar, arkadaşlık rolüyle
ilgili davranışların sosyal ilişki kurmak ve arkadaşlarla birlikte keyifli vakit geçirmek gibi
içsel ödüllerle, öğrencilik rolüyle ilgili davranışların ise akademik başarı gibi dışsal ödül-
lerle güdülendiğini ortaya koymuştur (Sheldon ve Elliot, 2000). Arkadaş ve öğrenci rolle-
riyle ilgili amaçlar ve güdülenmelerdeki bu farklılıklar bireylerin bu roller bağlamında
eriştikleri anılara da yansiyabilir. Dolayısıyla arkadaş rolü anılarında içsel güdülenmenin
ağır bastığı ilişki (özellikle arkadaşlık ilişkisi) temasının, öğrenci rolü anılarında ise dışsal
güdülenmenin ağır bastığı başarı/başarısızlık temasının daha fazla görülmesi beklenebilir.
Buna göre, araştırmanın birinci hipotezi aşağıda belirtildiği gibidir:

*H1. İlişki teması arkadaş rolüyle ilgili anılarda öğrenci rolüyle ilgili anılara kıyasla
daha sık gözlemlenirken (H1a), başarı/başarısızlık teması öğrenci rolüyle ilgili anılarda
arkadaş rolüyle ilgili anılara kıyasla daha sık gözlemlenecektir (H1b).*

Araştırmanın bir diğer odak noktası, arkadaş ve öğrenci anılarının, işlevleri bakımından farklılaşıp farklılaşmadığını incelemektir. Ortak değerlerin oluşumu, geri bildirim alışverişi, birbirini örnek alma ve buna benzer sayısız deneyimi içeren arkadaşlık ilişkilerinin, benliğin ve kimliğin yapılandırılması için ideal bir bağlam oluşturduğu öne sürülmektedir (Azmitia, 2002). Dolayısıyla arkadaş rolüyle tetiklenen anıların öğrenci rolü anılarına kıyasla daha çok benlik işlevine yönelik olarak hatırlanabileceği düşünülmüştür. Ayrıca arkadaşlık temalı anılarda yakınlık kurma ve destek alma gibi konulardan sıklıkla bahsedilmektedir (McLean, 2005). Bu konular tam da sosyal işlevlerin bir parçası olarak görülmektedir (Alea ve Bluck, 2003; 2007). Bu bulgulara dayanarak arkadaş rolüyle ilgili anıların sosyal işlevlere de öğrenci rolüyle ilgili anılardan daha fazla hizmet etmesi beklenebilir. Öte yandan, her iki anı türü de deneyimlerden ders çıkarma, iç götü kazanma veya güncel problemlere bir çözüm sunma gibi güncel tutum ve davranışları yönlendirici amaçlarla hatırlanabilir. Bu nedenle anı türleri arasında yönlendirme işlevine yönelik bir farklılaşma beklenmemektedir. Bu bilgiler ışığında araştırmanın ikinci hipotezi aşağıda belirtildiği gibidir:

H2. Arkadaş rolüyle ilgili anıların benlik işlevi (*H2a*) ve sosyal işlev (*H2b*) puanları öğrenci rolüyle ilgili anılara kıyasla daha yüksek olacaktır; ancak bu iki anı türünün yönlendirme işlevi puanı farklılaşmayacaktır (*H2c*).

Araştırmanın üçüncü odak noktası ise arkadaş ve öğrenci rolüyle ilişkili anılar hatırlanırken farklı öznel deneyimler yaşanıp yaşanmadığı; bir diğer deyişle hatırlama süreçlerinin fenomenoloji bakımından farklılaşıp farklılaşmadığıdır. İçsel olarak güdülenen düşünce ve davranışlar genellikle dışsal olarak güdülenenlerden daha olumlu duygularla ilişkilendirilmektedir (Ernst ve ark., 2018; Ryan ve Deci, 2000). Olumlu duygularla ilişkilendirilen anıların da genellikle canlı ve detaylı hatırlandığı gözlemlenmektedir (D'Argembeau ve Van der Linden, 2008). Dolayısıyla arkadaşlık rolü anılarının öğrencilik rolü anılarına göre daha olumlu duygular uyandırması, daha olumlu anıların da canlı ve detaylı hatırlanması beklenmiştir. Böylece araştırmanın üçüncü hipotezi aşağıdaki gibi şekillenmiştir:

H3. Arkadaşlık rolüyle ilgili anıların olumlu duygusal değerlik (*H3a*), canlılık (*H3b*) ve duygusal detay (*H3c*) puanları öğrenci rolüyle ilgili anılara kıyasla daha yüksek olacaktır.

Önceki çalışmalar, insanların olumlu anılarını yaşamlarında daha merkezi bir yere koyduklarını (Berntsen ve ark., 2011) ve bu eğilimin farklı kültürlerde gözlemlendiğini

(Zaragoza Sherman ve ark., 2015) göstermektedir. Bu bulgular temelinde, öğrenci rolü anılarından daha olumlu olması beklenen arkadaş rolüyle ilişkili anıların bireylerin kimliğinde ve yaşamında daha merkezi bir yere sahip olması beklenebilir. Bu nedenle öğrenci ve arkadaşlık rolüyle ilgili anıların yaşamdaki merkeziliğine ilişkin olarak aşağıdaki hipotez test edilmiştir:

H4. Arkadaş rolüyle ilgili anıların kimliğe merkezilik (*H4a*) ve yaşamda referans noktası olma (*H4b*) puanları öğrenci rolüyle ilgili anılara kıyasla daha yüksek olacaktır.

Yöntem

Katılımcılar

Araştırmaya 21'i pilot çalışmada, 152'si asıl çalışmada olmak üzere toplam 173 lisans öğrencisi katılmıştır. Pilot çalışmada toplanan veriler incelenerek yönergelerde gerekli görülen düzenlemeler yapılmış ve asıl veri toplama sürecine geçilmiştir. Pilot çalışmada elde edilen veriler çalışmanın asıl analizlerine dahil edilmemiştir. Analizlere başlamadan önce veri seti incelenerek veri temizliği yapılmıştır. Veri setinde, 30 katılımcının anlatıları üç veya daha az sayıda cümleden oluştuğu için analizlere dahil edilmemiştir. On altı katılımcının verisinin birden fazla kez kaydedildiği saptanmıştır; bu kayıtlardan sadece biri analizlere dahil edilmiştir. Bu elemeler sonucunda verileri analizlere dahil edilen katılımcı sayısı 106 olmuştur. Bu katılımcılar, her iki sosyal role ilişkin birer anı yazmışlar ve tüm anket sorularını cevaplamışlardır.

Katılımcıların yaşları 18-45 (*Ort.* = 20.90; *SS* = 3.33) arasında değişmekle beraber %59'u 18-20 yaş aralığındadır. Araştırmadaki bir katılımcı 45 yaşında olup yaş bakımından diğer katılımcılardan ayrılmaktadır. Ancak bu katılımcının otobiyografik anı verilerinde herhangi bir uç değer gözlemlenmemiş ve verileri analizlere dahil edilmiştir. Katılımcıların %92'si kadındır.

Veri Toplama Araçları

Anı Hatırlama Görevi

Anı hatırlama görevi için katılımcılardan, biri öğrencilik rolüyle diğeri arkadaşlık rolüyle ilişkili olacak şekilde iki anı yazmaları istenmiştir. Bu görevdeki örnek bir yönerge şu şekildedir: “*Bu çalışmada sizden bazı sosyal rollerle ilgili anılarınızı hatırlamanızı isteyeceğiz. Sizden istediğimiz, başı-sonu belli, doğrudan sizinle ilgili ve tekrarlamayan bir anınızı olabildiğince detaylı biçimde birkaç paragrafta yazmanızdır.*

Bu anı, son bir yıldan daha önceki bir olaya ilişkin olmalıdır. Şimdi kendinizi ‘arkadaş’ rolünüzle düşünmenizi ve aklınıza gelen ilk anıyı aşağıdaki boşluğa olabildiğince detaylı yazmanızı istiyoruz.” Öğrenci anısı için yönergenin son cümlesi “Şimdi kendinizi ‘öğrenci’ rolünüzle düşünmenizi ve aklınıza gelen ilk anıyı aşağıdaki boşluğa olabildiğince detaylı yazmanızı istiyoruz.” şeklinde değiştirilmiştir.

Yaşam Deneyimleri Hakkında Düşünme Ölçeği (YDHDÖ)

Bluck ve Alea (2011) tarafından otobiyografik anıların işlevlerini ölçmek amacıyla geliştirilmiştir. Ölçeğin güvenirlik katsayısı .86’dır. Benlik işlevi (.83), sosyal işlev (.74) ve yönlendirme işlevi (.78) şeklinde üç alt boyuttan oluşmaktadır. Ölçek, 5’li Likert tipi (1 = hiç, 5 = çok sık) 15 ifadeden oluşmaktadır. Bu çalışma kapsamında ölçek, çeviri - geri çeviri yöntemi ile Türkçeye uyarlanarak kullanılmıştır. Ölçeğin bu örneklem için Cronbach alfa iç tutarlılık katsayıları öğrenci rolüyle ilişkili anılar için benlik işlevi alt boyutunda .84, sosyal işlev alt boyutunda .80, yönlendirme işlevi alt boyutunda .84; arkadaş rolüyle ilişkili anılar için ise benlik işlevi alt boyutunda .83, sosyal işlev alt boyutunda .85, yönlendirme işlevi alt boyutunda .84 olarak bulunmuştur.

Otobiyografik Anı Anketi (OAA)

Rubin ve arkadaşları (2003) tarafından otobiyografik anıların fenomenolojik özelliklerini incelemek amacıyla geliştirilmiştir. Anket maddeleri için güvenirlik katsayıları .84 ile .96 arasındadır. Rubin ve arkadaşları (2007) tarafından Türkçeye uyarlanmıştır. Ankette 14 ifade yer almaktadır. Anket, 7’li Likert tipi (1 = hiç katılmıyorum, 5 = tamamen katılıyorum) ifadelerden oluşmaktadır. Ölçeğin bu örneklem için Cronbach alfa iç tutarlılık katsayıları öğrencilik rolüyle ilgili anılar için .83, arkadaşlık rolü anıları için .80 olarak bulunmuştur.

Olayların Merkeziliği Ölçeği (OMÖ)

Berntsen ve Rubin (2006) tarafından bir olayın kişinin benliğine ve yaşam öyküsüne ne kadar merkezi olduğunu ölçmek amacıyla geliştirilmiştir. Bertsen ve Rubin (2006), diğer sorularla korelasyonu en yüksek olan yedi soru belirleyerek bir kısa versiyon da oluşturmuşlardır. Ölçeğin güvenirlik ve geçerliliği Boyacıoğlu ve Aktaş (2018) tarafından test edilmiştir. Olumlu ve olumsuz otobiyografik anılar için Cronbach alfa katsayısı sırasıyla .89 ve .82 olarak hesaplanmıştır. Ölçek, 5’li Likert tipi (1 = hiç katılmıyorum, 5 = tamamen katılıyorum) sorulardan oluşmaktadır. Ölçeğin kimlik parçası, referans noktası ve dönüm noktası olmak üzere üç alt boyutu bulunmaktadır. Ölçe-

ğın bu örneklem için Cronbach alfa iç tutarlılık katsayısının her iki anı türü için de .91 olduğu saptanmıştır. Ayrıca Cronbach alfa değerleri ölçeğin kimlik alt boyutunda öğrenci ve arkadaş rolüyle ilişkili anılar için sırasıyla .79 ve .86, referans noktası alt boyutu için .68 ve .71 ve dönüm noktası alt boyutu için .90 ve .84 olarak bulunmuştur.

İşlem

Verilerin toplanması, analizi ve saklanması süreçlerinde etik ilkelere uygun davranılmıştır. Bu çerçevede öncelikle gerekli etik izinler alınmıştır (Etik Kurul Onayı Alınan Kurum: İstanbul Medipol Üniversitesi / Onay Tarihi: 23.07.2020 / Onay Belge Numarası: 43037191-604.01.01-E.30524). Katılımcılara WhatsApp ve e-posta öğrenci grupları üzerinden standart bir metin aracılığıyla ulaşılmıştır. Bu metin araştırma hakkında kısa bir bilgilendirme ve çevrimiçi anket bağlantısını içerir. Kısa bilgilendirme metninde araştırmanın konusu, araştırmacı bilgileri, araştırmanın süresi ve araştırmaya katıldıkları takdirde öğrencilerin kendi belirledikleri bir ders için fazladan bir puan alabilecekleri belirtilmiştir.

Çevrimiçi anket formunun iki versiyonu oluşturulmuş, katılımcıların yarısından ilk olarak öğrenci rolüyle ilişkili bir anı yazmaları, diğer yarısından ise ilk olarak arkadaş rolüyle ilgili bir anı yazmaları istenmiştir. Böylece hatırlanan ilk anının sonraki anı üstünde yaratabileceği karıştırıcı etkilerin kontrol edilmesi amaçlanmıştır. Çevrimiçi anket formunun bu iki versiyonu için iki bağlantı oluşturulmuş ve gönderilen metinde her iki bağlantı da paylaşılmıştır. Doğum günü tek sayı (örn., 3 Aralık) olan kişilerin ilk bağlantıyı, çift sayı (örn., 4 Aralık) olan kişilerin ise ikinci bağlantıyı tıklamaları ve açılan anketi doldurmaları istenmiştir.

Katılımcılar açılan sayfadaki Bilgilendirilmiş Onay Formunu onayladıktan sonra anketi doldurmaya başlayabilmişlerdir. Katılımcılardan ilk olarak arkadaşlık ve öğrencilik rolleriyle ilişkili birer anılarını yazmaları istenmiştir. Katılımcı ilk anıyı yazdıktan sonra “Devam” tuşuna basarak bir sonraki sayfaya geçmiş ve ikinci anı yönergesiyle karşılaşmıştır. Bu anıyı da yazdıktan sonra “Devam” tuşuna basarak anket aşamasına geçmiştir. Anket aşamasında, önce yazdıkları ilk anı sonra da ikinci anı için sırasıyla OMÖ, OAA ve YDHDÖ maddelerini değerlendirmeleri istenmiştir. Anı hatırlama ve anket sorularının iki ayrı blok olarak sunulmasının nedeni, ilk anı hakkında sorulacak soruların ikinci anıyı hatırlarken katılımcıyı yönlendirme olasılığını ortadan kaldırmaktır. Son olarak cinsiyet ve yaş gibi demografik bilgiler alınmıştır.

Veri Analizi

Anıların içeriği Thorne ve McLean'in (2001) oluşturduğu "Benlik Tanımlayıcı Olayların Kodlanması Kılavuzu"na başvurulmuş ve kodlanmıştır. Bu kodlama, anlatının içeriğindeki hâkim temaya (örn., arkadaşlarla ilişki, otoriteyle ilişki, başarı/başarısızlık, vb.) odaklanır. Çalışma kapsamında tüm anılar birinci yazar tarafından kodlanmıştır. Ayrıca anlatıların 60 tanesi (%28) araştırmanın konusunu bilmeyen iki araştırma asistanı tarafından (her biri için 30 anı olacak şekilde) kodlanmıştır. İlk aşamada araştırmacı ile her bir araştırma asistanının kodlamaları arasındaki örtüşme orta düzeydedir (Cohen's $k = .46$ ve $.64$). Kodlamaların örtüşmediği anılar için kodlayıcılar anı içeriklerini birlikte inceleyerek tartışmışlar ve tüm anılar için ortak kararlara varmışlardır. Böylece kodlamalarda %100 örtüşme oluşmuştur.¹

Anı temalarının arkadaş ve öğrenci rolüyle ilgili anılarda görülme sıklıkları McNemar's Ki-Kare testi ile karşılaştırılmıştır. Diğer değişkenler için yapılan karşılaştırmalarda parametrik testler (tekrarlı ANOVA ve eşleştirilmiş t-testi) kullanılmıştır.

Bulgular

Sosyal Rollerin Anı Teması Üzerindeki Etkileri

Arkadaş ve öğrenci rolleriyle ilgili anılardaki temaların dağılımı Tablo 1'de sunulmuştur. Öğrenci ve arkadaş rollerine ilişkin anılar başarı/başarısızlık, otoriteyle ilişki ve arkadaşlık ilişkisi temalarının yüzdeleri bakımından anlamlı farklılık göstermektedir ($p = .001$). Buna göre, hem başarı/başarısızlık hem de otoriteyle ilişki temalı anılar öğrenci rolü anılarında (sırasıyla %32 ve %18.9) arkadaşlık rolü anılarına kıyasla (sırasıyla %9 ve %0.9) anlamlı düzeyde fazladır ($p < .001$). Arkadaşlık ilişkisi temalı anılar ise arkadaşlık rolüyle ilişkili anılarda (%71.7) öğrencilik rolüyle ilişkili anılara göre (%4.7) daha fazla ortaya çıkmıştır ($p < .001$). Utanç/suçluluk, keşif/boş zaman, hayati tehlike ve aile ile ilişki temalarının yüzdesi öğrencilik ve arkadaşlık rolüyle ilişkili anılar için anlamlı düzeyde farklılaşmamaktadır ($p > .05$).² Bu bulgular, insanların hangi anılarını

1 Tüm kodlayıcılar, veri kodlamaya geçmeden önce ikinci yazardan ortalama altı saatlik bir anı kodlama eğitimi almışlar ve en az 10 örnek anıyla anı kodlama pratiği yapmışlardır.

2 Ayrıca hiçbir kategoriye dahil edilemeyip sınıflanamayan gruba dahil edilen anıların yüzdesi arkadaş rolüyle ilişkili anılarda (%2.8) öğrenci rolüyle ilişkili anılara (%16) göre daha düşük bulunmuştur ($p = .001$). Bu bulgunun bir sebebi, tema kodlamaları arasında verilen sosyal rolle (arkadaş rolü) uyumlu bir anı teması kategorisinin (arkadaşlık ilişkisi) bulunması olabilir. Arkadaşlık rolündeki anıların büyük kısmı (%71.7) bu temayı içermektedir. Öğrenci anıları bu denli kapsayıcı bir kategoriye dahil edilememektedir. Bu nedenle öğrenci anılarında sınıflandırılmayan anı sayısı daha fazla olabilir.

hatırladıklarının kendilerini hangi sosyal rol bağlamında gördüklerine göre değişebileceğini göstermektedir; öğrencilik rolü katılımcıların başarı/başarısızlık ya da otoriteyle ilişki konulu anılarını tetiklerken, arkadaşlık rolü genellikle arkadaşlık ilişkisi konulu anıları tetiklemiştir.

Tablo 1

Anı Temalarının Öğrenci ve Arkadaş Rolüne Göre Dağılımı

Tema	Öğrenci (%)	Arkadaş (%)
Aile ile ilişki	1.9	.9
Arkadaş ile ilişki *	4.7	71.7
Romantik ilişki	.9	0
Otorite ile ilişki *	18.9	.9
Başarı/Başarısızlık *	32.1	.9
Boş zaman/Keşif	13.2	12.3
Hayati tehlike	4.7	7.5
Suçluluk/Utanc	7.5	2.8
Sınıflanamayan *	16.0	2.8

* $p < .001$

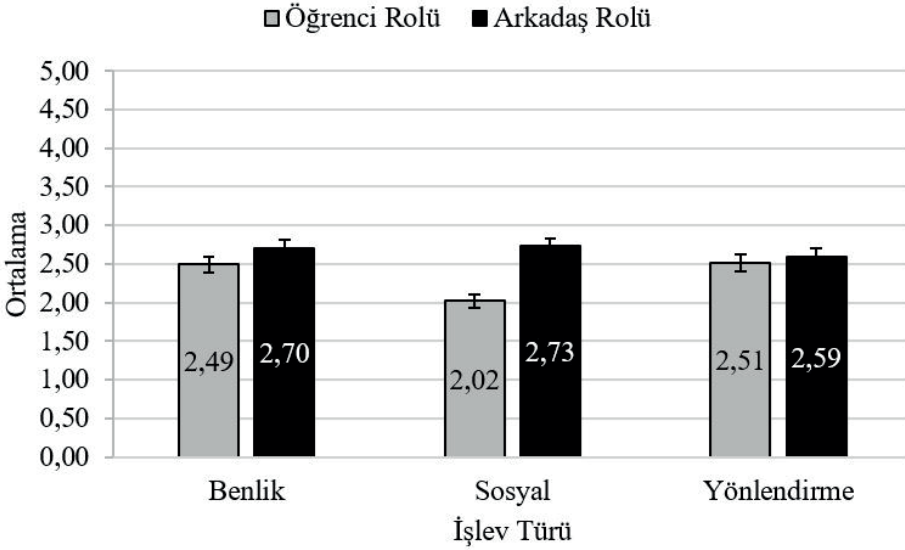
Sosyal Rollerin Anı İşlevi Üzerindeki Etkileri

Araştırmanın sorularından biri, arkadaşlık ve öğrencilik rolleriyle ilişkili anıların işlevleri bakımından farklılık gösterip göstermeyeceğidir. Bu soruya yanıt aramak için işlev değerlendirmeleri 2 (Anı türü) X 3 (İşlev alt boyutları) tekrarlı ANOVA ile test edilmiştir. Değerlendirmelerin ortalamaları Şekil 1’de sunulmuştur. Anı türünün (arkadaş ve öğrenci) işlev değerlendirmeleri üzerinde ana etkisi bulunmuştur [$F(1,105) = 18.59$, $p = .000$, $\eta_p^2 = .15$]. Anı işlevlerini ölçen maddeler değerlendirilirken, arkadaş rolüyle hatırlanan anılar ($Ort. = 2.67$, $SS = .93$) öğrenci rolü anılarına ($Ort. = 2.34$, $SS = .87$) kıyasla genel olarak daha yüksek puanlarla değerlendirilmiştir. İşlev alt boyutlarının değerlendirmeleri üzerinde ana etkisi bulunmuştur [$F(2,104) = 6.16$, $p = .003$, $\eta_p^2 = .05$]. Buna göre anı türünden bağımsız olarak benlik işlevi puan ortalamaları ($Ort. = 2.61$, $SS = .90$) sosyal işlev puan ortalamasından ($Ort. = 2.36$, $SS = .89$) yüksektir ($p = .005$). Yönlendirme işlevi puan ortalaması ($Ort. = 2.55$, $SS = .98$) ise diğer iki işleve göre farklılık göstermemiştir ($p > .05$). Kritik bulgu ise anı türü ile işlev alt boyutları arasında bir ortak etkinin saptanmasıdır [$F(2,104) = 13.90$, $p = .000$, $\eta_p^2 = .12$]. Bu ortak etkiyi açıklayabilmek amacıyla eşleştirilmiş örneklem t-testi ile ikili karşılaştırmalar yapılmıştır. Buna göre, öğrencilik rolüyle ilgili anılara kıyasla ($Ort. = 2.49$, $SS = 1.04$) arkadaşlık rolüyle ilgili anıların ($Ort. = 2.73$, $SS = 1.03$) benlik işlevi puanları daha yüksektir [$t(105) = -2.40$, $p = .018$, $d = .23$]. Benzer şekilde, öğrencilik rolüyle ilgili

anılarına kıyasla ($Ort. = 2.02, SS = .95$) arkadaşlık rolüyle ilgili anıların ($Ort. = 2.70, SS = 1.15$) sosyal işlev puanları da daha yüksektir [$t(105) = -6.30, p = .000, d = .61$]. Farklı rollere ait anıların yönlendirme işlevi puanları açısından anlamlı bir farklılık göstermedikleri görülmektedir [$t(105) = -.73, p = .46, d = .07$]. Bu bulgular, arkadaşlık rolüyle ilgili anıların hem benlik hem de sosyal işleve öğrencilik anılarından daha fazla hizmet ettiğine işaret etmektedir.

Şekil 1

Anı İşlevlerinin Öğrenci ve Arkadaş Rolüne göre Dağılımı



Sosyal Rollerin Anıların Fenomenolojik Özellikleri Üzerindeki Etkileri

Arkadaş ve öğrenci rolüyle ilişkili anıların fenomenolojik özelliklerini karşılaştırmak için eşleştirilmiş örneklem t-testi kullanılmıştır. Fenomenolojik özelliklerin arkadaşlık ve öğrencilik rolüne göre dağılımı Tablo 2’de sunulmuştur. Analizler arkadaşlık ve öğrencilik anılarının duygusal değerlik ve temsiliyet bakımından farklılaştığını ortaya koymuştur. Arkadaşlık anılarının ($Ort. = 4.48, SS = 2.65$) öğrencilik anılarına kıyasla ($Ort. = 3.77, SS = 2.34$) daha fazla olumlu duygu barındırdığı bulunmuştur [$t(105) = -2.50, p = .014, d = .28$]. Ayrıca arkadaşlık anıları için [$Ort. = 4.92, SS = 1.58$] yapılan temsiliyet değerlendirmeleri öğrencilik anılarına ($Ort. = 3.99, SS = 1.86$) kıyasla daha yüksektir [$t(105) = -4.50, p < .001, d = .54$]. Bir başka deyişle katılımcılar, öğrencilik anılarına kıyasla, arkadaşlık anılarında oldukları kişinin şu andaki

benliklerini daha fazla temsil ettiğini düşünmektedirler. Arkadaşlık ve öğrencilik anıları diğer fenomenolojik özellikler bakımından farklılık göstermemiştir ($p > .05$). Bu bulgular, araştırmanın anıların duygusal değerliğinin sosyal rollere göre farklılaşabileceğine yönelik hipotezini ($H3a$) desteklerken, arkadaşlık anılarının (görece olumlu) öğrencilik anılarından (görece olumsuz) daha canlı ve detaylı hatırlanacağı hipotezlerini ($H3b$ ve $H3c$) desteklememiştir.

Tablo 2

Öğrenci ve Arkadaş Anılarının Fenomenolojik Özellik Değerlendirmelerinin Karşılaştırılması

Fenomenolojik Özellik	Öğrenci		Arkadaş		t
	Ort.	SS	Ort.	SS	
Yeniden yaşama	5.08	2.01	5.06	1.89	0.14
Görsel deneyim	5.75	1.45	5.85	1.31	-0.78
İşitsel deneyim	5.47	1.72	5.31	1.72	0.99
Duygusal deneyim	5.49	1.67	5.46	1.69	0.18
Mekân	6.37	1.14	6.41	1.13	-0.30
Uzamsal düzen	5.32	1.65	5.58	1.74	-1.40
Olumlu duygu	3.77	2.34	4.48	2.27	-2.50*
Hatırlama/Bilme	6.00	1.39	5.99	1.39	0.07
Zamanda geriye dönme	5.56	1.85	5.40	1.84	0.80
Perspektif	1.23	0.42	1.28	0.45	-1.00
Hikaye bütünlüğü	4.96	1.82	5.22	1.86	-1.38
Anlam/Önem	3.96	2.17	4.03	2.03	-0.29
Düşünme	3.36	1.84	3.57	1.71	-1.12
Konuşma	3.33	1.86	3.25	1.72	0.40
Gerçeklik inancı	6.51	0.99	6.57	0.88	-0.57
Birleşmiş/Yayılmış	1.41	0.74	1.51	0.77	-1.11
Erişilebilirlik	1.57	1.01	1.54	0.92	0.25
Temsil düzeyi *	3.99	1.86	4.92	1.58	-4.50*

* $p < .001$

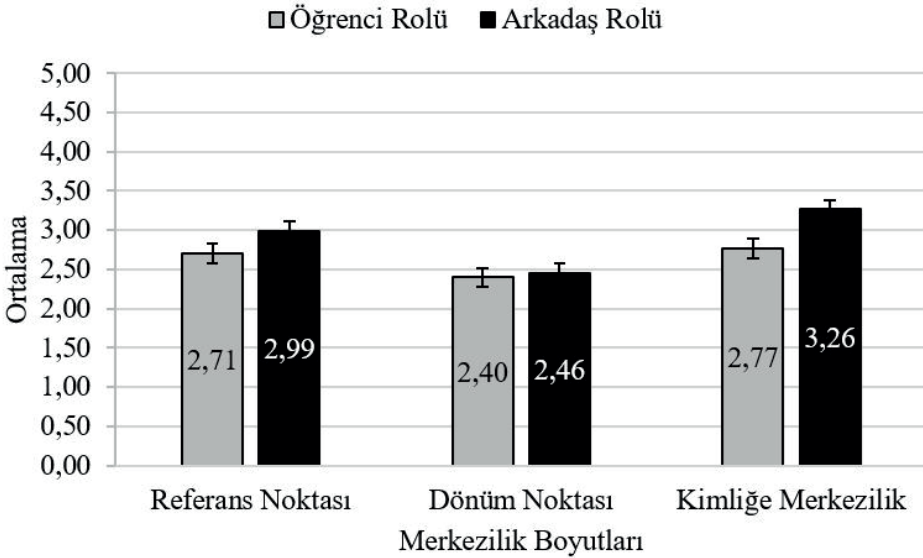
Sosyal Rollerin Anıların Merkeziliği Üzerindeki Etkileri

Araştırmanın bir diğer sorusu, arkadaşlık rolüyle ilgili anıların öğrencilik rolü anılarına kıyasla kişilerin yaşamlarında daha merkezi bir yere sahip olup olmadığıdır. Bu soruya yanıt aramak amacıyla olayların merkeziliğine ilişkin değerlendirmeler 2 (Anı türü) X 3 (Merkezilik alt boyutları) tekrarlı ANOVA ile test edilmiştir. Değerlendirmelerin ortalamaları Şekil 1’de sunulmuştur. Anı türünün (öğrenci ve arkadaş rolü) anıların merkeziliği üzerinde ana etkisi olduğu saptanmıştır [$F(1,105) = 5.10, p = .026, \eta_p^2 = .05$]. Merkezilik ölçeğinde arkadaşlık rolüyle ilgili anılar ($Ort. = 2.84, SS = 1.11$) öğrencilik rolüyle ilgili anılardan ($Ort. = 2.59, SS = 1.14$) daha yüksek puanlarla değerlendirilmiştir. Merkezilik alt boyutlarının değerlendirmeler

üzerinde ana etkisi bulunmuştur [$F(2,104) = 65.66, p < .001, \eta_p^2 = .56$]. Anılar için verilen kimlikle ilişkilendirme ($Ort. = 3.02, SS = .99$) ve referans noktası ($Ort. = 2.85, SS = 1.04$) puanları dönüm noktası puanlarından ($Ort. = 2.43, SS = .99$) yüksektir. Ayrıca anı türü ve anı merkeziliği alt boyutlarının bir ortak etkiye sahip olduğu saptanmıştır [$F(2,104) = 6.30, p = .002, \eta_p^2 = .06$]. Bu ortak etkiyi açıklayabilmek için OMÖ'nün her bir alt boyutu için yapılan değerlendirmeler iki anı türü arasında karşılaştırılmıştır. Sonuç olarak, katılımcılar arkadaş rolünde hatırladıkları anıların ($Ort. = 2.99, SS = 1.24$) öğrenci rolünde hatırladıkları anılara kıyasla ($Ort. = 2.70, SS = 1.292$) hayatlarında daha fazla referans noktası olduğunu belirtmişlerdir [$t(105) = -2.03, p = .044, d = .20$]. Benzer şekilde, arkadaş rolüyle ilişkili anılarını ($Ort. = 3.26, SS = 1.25$) öğrenci rolüyle ilişkili anılarına kıyasla ($Ort. = 2.76, s = 1.28, d = .32$) kimliklerinin daha merkezi bir parçası olarak görmekteyler [$t(105) = -3.30, p = .001, d = .32$]. Öte yandan, arkadaş ($Ort. = 2.45, SS = 1.184$) ve öğrenci ($Ort. = 2.39, SS = 1.24$) rollerine ait anılar, kişilerin hayatında bir dönüm noktası olmaları bakımından farklılaşmamaktadır [$t(105) = -.41, p = .68, d = .04$]. Bu bulgulara göre, *H4a* ve *H4b* hipotezleri desteklenmiştir. Geçmişin hangi sosyal roller bağlamında hatırlandığı, hatırlanan anıların kimliğe merkeziliğini ve önemini etkileyebilir; arkadaşlık rolüyle ilgili anılar öğrencilik rolüyle ilgili anılara kıyasla insanların yaşamında daha merkezi bir yere sahip olabilir.

Şekil 2

Anıların Merkeziliğinin Öğrenci ve Arkadaş Rolüne Göre Dağılımı



Tartışma

Bu çalışmada farklı sosyal roller bağlamında hatırlanan otobiyografik anılar karşılaştırmalı olarak incelenmiştir. Spesifik olarak, “arkadaşlık” ve “öğrencilik” gibi iki farklı sosyal rol bağlamında tetiklenen otobiyografik anıların farklı şekillerde hatırlanıp hatırlanmadığına odaklanılmıştır. Bu amaçla yapılan karşılaştırmalı incelemeler, arkadaş ve öğrenci rolleriyle ilişkili otobiyografik anıların içerdikleri temalar, hizmet ettikleri bellek işlevleri, barındırdıkları olumlu/olumsuz duygusal değerlikler ve bugünkü benliği temsil etme düzeyleri bakımından farklılaştığını göstermektedir. Bu bulgular, literatürdeki diğer çalışmaların ışığında tartışılmıştır.

Sosyal Roller ve Anı Temaları

Bu çalışmanın odak noktalarından biri, bir sosyal rol bağlamının belirli bir anı temasını tetikleyip tetiklemediğidir. Bir sosyal rolün bağlantılı olduğu belirli amaçlar varsa, bu rol bağlamında tetiklenen anıların da sıklıkla bu amaçlar doğrultusundaki temaları içermesi beklenebilir. Sheldon ve Elliot (2000) arkadaşlık rolünün sosyal ilişki kurmak, keyifli vakit geçirmek gibi amaçlarla içsel olarak, öğrencilik rolünün ise akademik başarı gibi amaçlar bazında dışsal olarak güdülendiğini ortaya koymaktadır. Bu bulguyla uyumlu olarak, çalışmamızda arkadaş rolü anılarının çoğunluğu ilişkisel bir tema içermektedir. Daha dikkat çekici olan bulgu ise öğrenci rolü anılarında başarı/başarısızlık temasının diğer bütün temalardan daha sık görülmesidir. Bu tema öğrenci rolü anılarında arkadaş rolü anılarına kıyasla da daha sık gözlemlenmiştir. Bu bulgular, farklı sosyal rollerdeki amaç ve güdülenmelerin otobiyografik anıların hatırlanmasındaki rolüne işaret ediyor olabilir.

Otobiyografik anıların hatırlama anındaki amaçlar ve güdülerle ilişkili olduğu yaygın biçimde kabul görmekte ve ampirik çalışmalarla desteklenmektedir (Woike, 2008). Amaç ve güdülenmelerin, geçmişi hatırlama esnasında kişinin dikkatini yönlendirdiği, böylece kişinin güncel amaç ve güdülenmelere uygun bilgileri hatırlama eğilimi gösterdiği ileri sürülmektedir (Woike ve Polo, 2001). Bunun sonucunda anı içeriğinin amaçları ve güdülenmeleri tematik olarak barındırması beklenmektedir (Conway, 2005; Conway ve Pleydell-Pearce, 2000; Pillemer ve ark., 2007; Thorne ve ark., 2004; Woike, 2008; Woike ve ark., 2003) Woike ve arkadaşları (2003) tarafından gerçekleştirilen bir çalışmada üniversite öğrencilerinden otobiyografik anılarını hatırlamaları istendiğinde, dışsal güdülenme puanı yüksek olan bireylerin başarı temalı anılara, içsel güdülenme

puanı yüksek olan bireylerin ise duygusal deneyimler içeren anılara erişme olasılıklarının daha yüksek olduğu görülmüştür. Bu bulgu, çalışmamızda elde edilen bulgularla uyumlu görünmektedir.

Bu çalışmanın bir diğer bulgusu, öğrenci rolüyle ilişkili anılarda otorite ile ilişki temasının daha sık görülmesidir. Bu bulgu, öğrenci rolü bağlamında hatırlanan anıların sıklıkla öğrenci-öğretmen ilişkilerini içermesiyle ilgili olabilir. Okul ortamında özellikle öğretmen ve öğrenciler arasında hiyerarşik bir ilişki bulunmakta, bu tür bir ilişkide öğretmen otorite figürü olarak algılanmaktadır (Filak ve Sheldon, 2003). Öğrencilerin öğretmenleriyle kurdukları ilişkilerin sınıf ortamının ne kadar olumlu değerlendirdikleri (Filak ve Sheldon, 2003, 2008; Vansteenkiste ve ark., 2004), akademik başarı düzeyleri ve öğrenme süreçleri üzerinde etkili olduğu gösterilmiştir (Vansteenkiste ve ark., 2004). Dolayısıyla öğrenci-öğretmen ilişkisinin öğrencilik rolündeki deneyimlerin merkezinde bir ilişki türü olduğu ve bu ilişkinin hatırlanan anılara yansıdığı söylenebilir. Anı temalarında gözlemlediğimiz ayrışmalar, bireylerin belirli bir sosyal rol bağlamında geçmişi düşünceleri halinde, bu sosyal rolle ilgili belli başlı temaların hâkim olduğu anılara eriştiklerine işaret etmektedir. Bu durum, sosyal rollerle ilişkili farklı amaç ve güdülenmelerin otobiyoğrafik bellekteki bir yansıması olabilir.

Sosyal Roller ve Anıların İşlevleri

Arkadaşlık rolüne ilişkin anıların benlikle ve sosyalleşmeyle ilgili işlevleri yerine getiren anılar olarak değerlendirilmesi, arkadaşlık ilişkilerinin bireylerin benlik oluşturmundaki ve sosyalleşme süreçlerindeki katkısının otobiyoğrafik belleğe yansımaları olabilir. Benliğin ve kimliğin şekillenmesi ergenlik döneminden belirginleşen ve ömür boyu devam eden bir süreçtir. Bu süreçte ön plana çıkan ilişkiler de aile üyelerinden çok akran ve arkadaşları içerir (Arnett, 2000). Ergenlik dönemindeki arkadaşlık ilişkilerinin niteliği ile benlik ve kimlik oluşturma süreci arasında da bir bağlantı olduğu düşünülmektedir. Örneğin, ergenlik ve genç yetişkinlik dönemindeki samimi ilişkilerin, benlik ve kimlik gelişimi için faydalı olduğu öne sürülmektedir (McNamara Barry ve ark., 2014). Ayrıca arkadaşlık ilişkisinde hem destek almanın hem de çatışmaya girmenin benlik gelişimine katkı sağladığı ortaya konmaktadır (Jones ve ark., 2014). Arkadaş tarafından kabul edilmek ve onaylanmak benliğin oluşum sürecinde kalıcı etkilere sahiptir; arkadaşlık ilişkisinin öteki ile benlik arasında köprü görevi görerek benliği şekillendirecek güce sahip olduğu düşünülmektedir (Bukowski ve Sippola, 2005). Özetle, arkadaşlık ilişkilerinin benliğin yapılandırılmasında son derece etkin olduğu görüşü

yaygın biçimde kabul edilmekte ve ampirik kanıtlarla desteklenmektedir. Bu çalışmada arkadaş rolü bağlamındaki anıların daha çok benlik düzenleme, benlik sürekliliğini sağlama gibi benlik işlevlerini yerine getirmek üzere hatırlanması da bu görüşü destekler niteliktedir.

Mevcut çalışmada ayrıca arkadaş rolü bağlamında hatırlanan anıların yeni kişilerle tanışma, var olan ilişkileri güçlendirme, yakın ve derin ilişkiler geliştirme, sosyal bağ kurma, empati oluşturma gibi sosyal işlevlere de öğrenci rolü anılarından daha fazla hizmet ettiği gözlemlenmiştir. Erken yetişkinlik döneminde arkadaşlık ilişkilerinin hem bireysel hem de sosyal ihtiyaçları karşıladığı ifade edilmektedir (Zarbatany ve ark., 2004). Önceki çalışmalarda romantik ilişkiler gibi yakın ilişkilerle ilgili anıların da sosyal işlevlerinin güçlü olduğu bulunmuştur (Alea ve Bluck, 2007). Bu bulgularla uyumlu biçimde, bu çalışmada bir diğer yakın ilişki olan arkadaşlıkla ilgili anıların da sosyal işlevlere hizmet ettiği ortaya konmuştur.

Sosyal Roller ve Anıların Fenomenolojik Özellikleri

Araştırmanın bir diğer odak noktası, arkadaş ve öğrenci rolüyle ilgili anıların duygusal değerlikleri, duygusal detayları, canlılığı, bütünlüğü ve anıdaki benliğin şu anki benliği temsil etme düzeyi gibi hatırlama sürecine ilişkin öznel deneyimlerin farklılaşp farklılaşmadığıdır. Bulgular, bu iki anı türü arasında bazı fenomenolojik farklılıklar olduğunu göstermektedir. Birincisi, anıların ilişkili olduğu sosyal rollere göre anıların duygusal değerlikleri farklılaşmaktadır. Arkadaşlık anıları öğrencilik anılarına kıyasla daha olumlu hatırlama deneyimleriyle ilişkilendirilmektedir. Tipik olarak, içsel olarak güdülenen düşünce ve davranışların dışsal olarak güdülenenlerden daha olumlu duygular uyandırdığı gözlemlenmektedir (Ernst ve ark., 2018; Ryan ve Deci, 2000). Dolayısıyla anıların duygusal değerliklerinde gözlemlenen farklılıklar, arkadaş ve öğrenci rollerinin altında yatan farklı güdülenme türleri olarak görülen içsel ve dışsal güdülenmenin (Sheldon ve Elliot, 2000) otobiyografik anılara bir yansıması olabilir. Ayrıca arkadaşlık ilişkisinin niteliksel özelliklerinin ergenlik dönemindeki kişilerin benlik saygısı düzeylerinde ve duygu düzenleme süreçlerinde belirleyici bir etkisi olduğu ileri sürülmektedir (Wilkinson, 2004). Örneğin, bir birey olumsuz etkileri olabilecek bir deneyim yaşadığında yanında yakın bir arkadaşı varsa bu deneyimin olumsuz etkilerinden korunabilmekte, ancak yanında yakın bir arkadaşı yoksa strese bağlı olarak kortizol hormonu düzeyi artmakta ve benlik saygısında düşüş görülmektedir (Adams ve ark., 2011). Arkadaşlarla kurulan tatmin edici, dürüstlüğe dayanan doğal etkileşimler psikolojik ihtiyaçların tatminini ve psikolojik iyi oluş

düzeyini de olumlu yönde etkilemektedir (Deci ve Ryan, 2000; Reis ve ark., 2000). En yakın ve en iyi arkadaşla yoldaşlık halinin mutluluk için en belirleyici faktör olarak belirtilmesi de (Demir ve ark., 2007) bu açıklamalarla uyumludur. Bu bulgular bir bütün olarak ele alındığında, arkadaşlık rolü bağlamında bulunan desteğin geçmiş deneyimleri daha olumlu hatırlamayı sağladığı düşünülebilir.

Sosyal roller anıların temsiliyet değerlendirmelerini de etkilemektedir. Katılımcılar, arkadaşlık rolüyle ilgili anılarının şu andaki benliklerini öğrenci rolüyle ilgili anılarından daha iyi temsil ettiğini belirtmektedirler. Bu bulguya getirilebilecek açıklamalardan biri, çoğu durumda öğrencilik rolünün yaşamın belirli bir dönemini kapsamaması, arkadaşlık rolünün ise ömür boyu sürmesi olabilir. Ancak bu çalışmada yer alan katılımcıların halihazırda öğrenci oldukları ve öğrenci rolünün aslında şu andaki benliklerinin bir parçası olduğu düşünüldüğünde, bu açıklama tek başına yeterli görünmemektedir. Bu bulguya getirilebilecek bir diğer açıklama, bireylerin anılarını hatırlarken *olumluluk yanlılığı* göstermeleri olabilir. Olumluluk yanlılığı, bireylerin sıklıkla olumlu anılarını hatırlama eğilimi göstermesi ve bu yolla benlik değerini yükseltmesi, benliği ve benlik sürekliliğini korumasıdır (Skowronski, 2011; Walker ve ark., 2003). Arkadaşlık rolüyle ilgili olumlu anıların bireylerin şu andaki benliğini daha iyi temsil ettiğini gösteren bulgular da bu tür bir olumluluk yanlılığının sonucu olabilir. Bireyler bu anıları şu andaki benlikleriyle daha fazla ilişkilendirerek benlik değerlerini yükseltiyor ve benlik sürekliliklerini koruyor olabilirler.

Beklenenin aksine anıların canlılığı ve duyuşsal özellikleri sosyal rollere göre farklılık göstermemektedir. Bazı çalışmalar olumlu anıların olumsuz anılara kıyasla daha canlı ve detaylı hatırlandığını ortaya koymaktadır (D'Argembeau ve Van der Linden, 2008). Bu çalışmada her ne kadar arkadaşlık anıları öğrencilik anılarından daha olumlu anılar olarak algılansa da duyuşsal değerlikteki bu farklılık anıların canlılığına ve duyuşsal detaylarına yansımamıştır. Literatürde olumlu ve olumsuz olarak algılanan anıların fenomenolojik özellikleri arasında duyuşsal detaylar bazında fark bulunmadığını gösteren başka çalışmalar da bulunmaktadır (örn., Boyacıoğlu ve Aktaş, 2020; Comblain ve ark., 2005). Bunun bir nedeni, tipik olarak otobiyografik bellek çalışmalarında hatırlanan anıların katılımcıların erişebildikleri ilk anı olması ya da aktarılabilecek anının katılımcıların kendileri tarafından belirlenmesi olabilir (Cohen, 1998; Comblain ve ark., 2005). Katılımcıların en hızlı erişebildikleri ya da aktarmayı tercih ettikleri anı, genellikle önemli, canlı ve detaylı biçimde hatırlanabilen anıdır (Cohen, 1998). Bu durum, bir tür

tavan etkisi yaratarak, çalışmadaki anı türleri arasında canlılık ve duyuşal detay gibi fenomenolojik özellikler bazında beklenen farkların gözlemlenmemesine yol açmış olabilir. Son olarak, yaşamın farklı gelişimsel dönemlerinde farklı amaç ve hedefler ön planda olabilir (Alea ve Bluck, 2003; 2009). İlk yetişkinlik döneminde meslek tercihlerini netleştirme ya da aileden bağımsızlaşarak kimi sorumlulukları üstlenme gibi amaç ve hedeflerin ön planda olması, bu dönemde öğrencilikle ilişkili anıların da arkadaşlık anıları kadar güçlü anı özellikleri eşliğinde hatırlanmasını beraberinde getirebilir. Bu durum, anı türleri arasında fenomenolojik özellikler bakımından bir farklılaşma gözlemlenmemesiyle sonuçlanabilir.

Sosyal Roller ve Anıların Yaşamdaki Merkeziliği

Bu çalışmanın amaçlarından bir diğeri, arkadaş ve öğrenci rolüyle ilişkili anıların kişilerin yaşam öykülerindeki merkeziliğini incelemektir. Elde edilen bulgulara göre arkadaş rolüyle ilişkili anılar, bireylerin kimliklerinin merkezinde yer almakta ve yaşamlarındaki çeşitli olaylar için başvurulabilecek bir referans noktası olarak görülmektedir. Buna göre, bireylerin arkadaş rolüyle ilgili anıları yoluyla inançlar ve beklentiler geliştirdikleri ve gelecek olayları bu yeni kavrayışla algıladıkları düşünülebilir (Berntsen ve Rubin, 2006). Arkadaş rolüyle ilgili anıların kimliğin merkezinde yer alması ve yaşam öyküsünde bir referans noktası olarak değerlendirilmesi, arkadaşlık ilişkisi içinde edinilen deneyimlerin kalıcı etkilerine de işaret edebilir.

Arkadaş ve öğrenci rolü bağlamında hatırlanan anılar, kişilerin yaşam öyküsünde bir dönüm noktası olmaları bakımından farklılaşmamaktadır. Bir olayın dönüm noktası olarak algılanması, bu olayın kişinin yaşam öyküsünde yeni bir başlangıca yol açacak kadar etki bırakan bir deneyim olması anlamını taşır (Pillemer, 1998). Arkadaş ve öğrenci rollerine ilişkin deneyimlerin yaşamda bir dönüm noktası olup olmama konusunda ayrışmaması, katılımcıların yer aldığı gelişimsel dönemde her iki rolün de ön planda olmasından ve her iki rol içerisinde de yeni bir başlangıca yol açacak bir değişim yaşayabilecek olmalarından kaynaklanıyor olabilir.

Araştırmamızın bulgularını değerlendirirken bazı sınırlılıkları göz önünde bulundurmak faydalı olacaktır. Bunlardan biri, örneklemin yalnızca ilk yetişkinlik dönemindeki üniversite öğrencilerinden oluşması ve erkek katılımcı sayısının kısıtlılığı olabilir. Yaşam boyu gelişim sürecinde amaç ve hedeflerde değişimlerin olabileceği, buna bağlı olarak otobiyografik anı işlevlerinin de gelişim dönemlerine göre güçlenip zayıflayabi-

leceği ileri sürülmektedir (Alea ve Bluck, 2003). Örneğin, ilk yetişkinlik döneminde anıların daha çok sosyal yakınlık kurma (Alea ve Bluck, 2003) ve benlik kavramını netleştirme (Bluck ve Alea, 2008) gibi işlevlere yönelik olduğu gözlemlenmektedir. Bu gözlemler, mevcut çalışmadaki arkadaşlık rolü bağlamında hatırlanan anıların sosyal ve benlik işlevlerine hizmet ettiğini gösteren bulgularla uyumlu görünmektedir. Öte yandan, insanların ilerleyen yaşlarda geçmiş deneyimlerinden çıkardıkları derslerle sonraki nesilleri yönlendirme amacına yönelik anıları daha sık hatırlayabilecekleri de vurgulanmaktadır (örn., Alea ve Bluck, 2003; 2009). Dolayısıyla, gelecekte bu çalışmadaki değişkenlerin, yaş ve cinsiyet gibi demografik değişkenleri de dikkate alarak, farklı örneklerle test edilmesi bu alandaki bulguların zenginleşmesini sağlayabilir.

Çalışmadaki bir diğer sınırlılık, verilerin çevrimiçi toplanması olabilir. Bu durumda katılımcılar ölçek maddelerini yanıtlarken anlamadıkları bir soru olduğunda araştırmacıyla iletişim kurmadan devam etmiş olabilirler. Çalışmada bu olasılığı en aza indirmek için asıl veri toplama aşamasına geçmeden önce bir pilot çalışma yapılmıştır. Pilot çalışmada elde edilen verilerin ve geri bildirimlerin rehberliğinde anketlerde kullanılan ifadelerin açık, net ve anlaşılabilir olmasına çalışılmıştır. Ayrıca analizlerden önce veri temizliği yapılarak güvenilirliği şüpheli olabilecek verilerin sonuçları etkilemesi olabildiğince engellenmiştir. Son olarak, bazı bireyler çevrimiçi araştırmalara katılım davetlerini genellikle kabul etme eğilimi gösterirken, diğer bazı bireyler bu davetleri hiçbir zaman kabul etmeyebilirler. Bu da sistematik bir yanlılığı (örn., kendi kendini seçme yanlılığı) beraberinde getirebilir. Öte yandan, çevrimiçi olmayan diğer araştırma biçimlerine kıyasla (örn., posta ya da telefon yoluyla anket) çevrimiçi anketlere katılım davetlerine geri dönüş oranının çok daha yüksek olduğu gösterilmektedir (örn., Thompson ve ark., 2003). Dolayısıyla birtakım sınırlılıklarına rağmen, çevrimiçi araştırmaların az maliyetle ve hızlı biçimde, görece geniş bir örnekleme ulaşma konusunda etkin bir yol olduğu da göz ardı edilmemelidir (Wright, 2005).

Geçmişin hatırlanması ve unutulması üzerine yürütülen çalışmaların ağırlıklı olarak bireysel bellek süreçlerine odaklandığı söylenebilir (Hirst ve Manier, 2008). Bununla birlikte, son yıllarda gittikçe artan sayıdaki çalışmada insanların kişisel ve toplumsal olayları içinde buldukları sosyal ve kültürel bağlamın gerekliliklerine veya sosyal kimliklerine göre hatırlayıp unutabileceklerine yönelik bulgular elde edilmektedir (Coman ve Hirst, 2015; Çavuşoğlu, 2014; Mutlutürk, 2020; Mutlutürk ve ark., 2018; Yılmaz, 2022). Bellek süreçlerini sosyal ve kültürel bağlamı hesaba katarak anlama çabasının bir parçası olarak, bu çalışma kapsamında otobiyografik anılar öğrenci ve ar-

kadaş rolleri bağlamında ele alınmıştır. İleriki çalışmalarda farklı amaç ve güdülenmelerle ilişkili sosyal rollerin geçmişi hatırlama süreçlerini nasıl etkilediğinin incelenmesi, sosyal roller, kimlikler ve bellek süreçleri arasındaki ilişkinin anlaşılması konusunda aydınlatıcı olabilir.

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From Perfectionism to Burnout: Testing of a Serial Mediation Model with Self-Esteem and Workaholism

Mükemmeliyetçilikten Tükenmişliğe: Benlik Saygısı ve İşkolikliğin Seri Aracılık Modeli

Esra Atilla Bal¹ , Selma Arıkan² 



ABSTRACT

In the literature, even though the role of perfectionism has been examined in various fields of study including psychology, education, sports sciences, counseling and medicine, studies which have focused on this concept in work life from an organizational point of view are scarce. In the past, perfectionism has been examined as a negative concept, yet recently it is being studied as a multi-dimensional construct in terms of both its positive and negative aspects. In light of current research, this study examined perfectionism with its adaptive and maladaptive dimensions and focused on the relation between these dimensions and self-esteem, workaholism and burnout, with the goal of contributing to the literature on employee well-being. In literature, despite the existence of studies that showed the association between perfectionism and burnout, there is a scarcity of research conducted on the mediating variables between these two constructs. This paper examined how perfectionism relates to burnout in the workplace by investigating the mediating role of self-esteem and workaholism and the relationship between these two constructs using a serial mediation model. A self-report questionnaire of key constructs was provided to a sample of 224 (63.4% women) Turkish employees. Correlation analyses and serial mediation analyses were conducted to test the proposed relations and mediating hypotheses. According to the results, maladaptive perfectionism is strongly related to burnout, to the extent that the mediational effects of self-esteem and workaholism are cancelled in the process. Adaptive perfectionism, however, does not have a direct effect on burnout, though it yielded a significant relationship with it through the mediation of self-esteem and workaholism. However, the total indirect effect for serial mediation between adaptive perfectionism and burnout was found to be insignificant. The findings add to the current literature findings by shedding light on the relationship between perfectionism and burnout as well as revealing the underlying mechanisms linking these two concepts.

Keywords: Perfectionism, burnout, self-esteem, workaholism, serial mediation

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ÖZ

Literatürde mükemmeliyetçiliğin iş ortamındaki rolü, aralarında psikoloji, eğitim, spor bilimleri, rehberlik ve psikolojik danışmanlık ve tıbbi bilimlerin de bulunduğu farklı alanlarda araştırılmış olsa da iş yaşamında bu kavrama örgütsel davranış perspektifinden odaklanan sınırlı sayıda çalışma bulunmaktadır. Geçmişte olumsuz yönleri ile ele alınan mükemmeliyetçilik, günümüzde çok boyutlu bir yapı olarak incelenmekte, olumlu ve olumsuz yönleri ile araştırılmaktadır. Bu çalışma, güncel araştırmaların ışığında mükemmeliyetçiliği uyumlu ve uyumsuz boyutlarıyla ele alarak ve bu boyutların benlik saygısı, işkoliklik ve tükenmişlik ile ilişkilerini inceleyerek çalışan esenliği ile ilgili literatüre katkı sunmayı hedeflemektedir. Literatürde çalışanların mükemmeliyetçilik ve tükenmişlik düzeyleri arasında ilişki olduğunu gösteren çalışmalar bulunmasına rağmen bu iki değişkeni birbirine bağlayan aracı değişkenler üzerine yeterli araştırma yapılmadığı görülmektedir. Bu çalışma, iş ortamında mükemmeliyetçiliğin tükenmişlikle ilişkisini, benlik saygısı ve işkolikliğin bu iki kavram arasındaki aracı rolünü seri aracılık modeliyle inceleyerek araştırmayı amaçlamaktadır. Araştırmanın ana kavramlarını içeren anket çalışması 224 (%63.4 kadın) Türk çalışan ile paylaşılmıştır. Araştırma değişkenleri arasındaki ilişkileri ve aracılık hipotezlerini test etmek için korelasyon analizi ve seri aracılık analizleri kullanılmıştır. Sonuçlar, uyumsuz mükemmeliyetçilik boyutunun tükenmişlik ile yüksek düzeyde ilişkili olduğunu ve bu ilişkide benlik saygısı ve işkolikliğin aracı etkilerinin ortadan kalktığını göstermiştir. Uyumlu mükemmeliyetçilik boyutunun ise tükenmişlik ile arasında doğrudan olmasa da benlik saygısı ve işkoliklik aracılığı ile istatistiksel olarak anlamlı bir ilişki içinde olduğunu ortaya konmuştur. Ancak, seri aracılığın toplam dolaylı etkisi ise anlamlı değildir. Sonuçlar mükemmeliyetçilik ve tükenmişlik arasındaki ilişkiye odaklanarak hem mevcut literatüre katkı sağlamakta hem de bu iki kavram arasındaki ilişkinin altında yatan faktörlere ışık tutmaktadır.

Anahtar Kelimeler: Mükemmeliyetçilik, tükenmişlik, benlik saygısı, işkoliklik, seri aracılık

‘What is your weakness?’ is a commonly asked job interview question to an applicant followed by the quite frequent reply of ‘I’m a perfectionist’. Yet, many recruiters would consider perfectionism to be a strength. Research reveals that while perfectionism might be useful in the workplace, some aspects of perfectionism also clearly impair employees at work. As shared in a recent Harvard Business review article (Swider et al., 2018), a meta-analysis of 95 perfectionism studies encompassing four decades shed light on the question of whether perfectionists were better performers at work. The results of the data of 25.000 participants affirmed that perfectionism meaningfully predicts various beneficial workplace outcomes such as being motivated on the job and working longer hours. However, the findings also revealed that perfectionism was associated to detrimental outcomes like burnout, workaholism, and anxiety (Swider et al., 2018). But there is still scarce evidence in the literature as to how and why this personality characteristic is related to negative consequences for both employees and organizations.

In a recent article which entails a comprehensive review of perfectionism in organizations Ocampo and colleagues (2019) stated that, even though there is increasing research interest on perfectionism (e.g., Hill & Curran, 2016; Stoeber & Damian, 2016), the role of this construct in the workplace has not received much attention from an organizational behavior perspective. Recently, research attention started to focus on the mediating mechanisms that linked perfectionism dimensions to outcomes related to a work context (Ocampo et al., 2019), but studies focusing on these mediating mechanisms are scarce.

Previous studies pointed out that personality traits are related to an individual’s tendency to experience burnout. People with idealistic, competitive, perfectionistic and goal-oriented dispositions were found to be more inclined to experience burnout symptoms (Ardıç & Polatçı, 2009). In a meta-analysis by Alarcon and colleagues (2009), the emotional stability, extraversion, conscientiousness and agreeableness dimensions of the Big Five personality factors were related to burnout. In the same study, the more malleable personality factors including self-esteem, positive and negative affectivity and optimism were also related to burnout. Among these factors, self-esteem is related to perfectionism (e.g., Gotwals et al., 2003; Sorotzkin, 1985). Studies demonstrated an increasing level of perfectionism could trigger an inner compulsion which predisposes workaholics to work harder than necessary (Killinger, 2006; Scott et al., 1997; Spence

& Robbins, 1992) and that workaholism could develop due to feelings of lower self-esteem (Mudrack, 2006). To the authors' knowledge, there is no study in literature which focused on the role of self-esteem and workaholism and its relationship to perfectionism and burnout. This study aims to extend the current knowledge in the area of occupational health psychology by examining the relationship between perfectionism and burnout through focusing on the role self-esteem and workaholism in this relationship.

Perfectionism and Its Adaptive and Maladaptive Dimensions

Perfectionism is defined as aiming for excessively high and frequently unrealistic standards of performance, as well as recurrent thoughts about reaching these standards and an exceedingly negative evaluation of one's own performance (Flett & Hewitt, 2006; Sirois & Molnar, 2016). Recently, studies confirmed that this construct has a multidimensional nature and is related with both adaptive and maladaptive outcomes (Enns & Cox, 2002). The two main dimensions are what Grzegorek, and colleagues (2004) called adaptive and maladaptive perfectionism. Adaptive perfectionism entails high personal standards and a need for order, whereas maladaptive perfectionism is composed of doubts about oneself and a focus on mistakes and deficiencies. Slaney and colleagues (2002) suggested that the main factor that differentiates a healthy form of perfectionism from neurotic perfectionism is a dimension called "discrepancy" (p. 69), which is "the perception that one consistently fails to meet the high standards one has set of oneself". Maladaptive perfectionists are described as the ones who have tremendously high personal standards of performance and tend to be judgmental in their self-appraisals (Slaney et al., 1996). On the other hand,, adaptive perfectionists tend to have insignificant levels of self-criticism, even though in terms of setting high personal standards for performance they resemble maladaptive perfectionists. In previous studies, the high standards factor of perfectionism was found to be positively associated with self-esteem (Ashby & Rice, 2002), whereas the discrepancy factor was found to be positively correlated with psychological distress, depression (Rice et al., 1998) and anxiety (Johnson & Slaney, 1996).

Perfectionism and Self-Esteem

Self-esteem, which entails an individual's belief in him/herself to be adequate, competent and valuable (Newstrom et al., 1999), was found to be related to perfectionism. In a study conducted with high school students, Ashby and Rice (2002) found high personal standards to be positively related with self-esteem, whereas discrepancy was

found to be negatively related. In a study with a sample of athletes, Gotwals and colleagues (2003) found that maladaptive perfectionism was linked to low self-esteem. According to Sorotzkin (1985), perfectionists evaluate how worthy they are by the achievement of usually unreachable goals, and that “any deviation from the perfectionistic goal is likely to be accompanied by moralistic self-criticism and lowered self-esteem” (p. 564). Individuals that have high self-esteem do not have problems in their perceptions of self-worth and do not require excessive work to prove their self-worth (Graves et al., 2012). Those employees who are workaholics are presumed to be driven by the motive to abstain from negative feelings, since not dealing with work activities causes stress and negative emotions like shame and guilt (Killinger, 2006; Schaufeli et al., 2008). In actuality those employees who are workaholics are inclined to be driven by the urge to convince themselves that they are worthy, which is in line with Mudrack’s (2006) suggestion that workaholism could develop as a response to feelings of lower self-esteem and higher self-doubts.

Perfectionism and Workaholism

In a review of the literature regarding perfectionism, Scott and colleagues (1997) stated that perfectionism was a precursor of workaholism. Quite a few definitions of workaholism emphasized working to the omission of other life domains (e.g., Ng et al., 2007) and being absorbed with thoughts and feelings about working (e.g., Scott et al., 1997). Schaufeli and colleagues (2008) defined workaholism as the inclination to work excessively hard and be preoccupied with work, which is related to working compulsively. This definition is congruent with other conceptualizations of workaholism, whose main dimensions are a strong internal urge to work hard to the exclusion of anything else in life. (Ng et al., 2007). Prior studies stated that various other factors such as personal and situational variables could act as antecedents to workaholism (e.g., Liang & Chu, 2009). Although a high expenditure of effort and hardworking could be due to organizational and contextual factors in the work environment, individual dispositions have a significant impact, as well. Among these personal factors, perfectionism has received increasing scrutiny (e.g., Clark et al., 2016; Stoeber & Damian, 2016).

Studies about perfectionism at work showed that perfectionism and workaholism have similar attributes (Burke, 2000). If perfectionists set exceedingly high standards for themselves and evaluate their work output to be less than ideal, it is possible that they will spend more effort and time at work in contrast to others who do not have these

tendencies. Indeed, in a meta-analysis, a strong and positive correlation between perfectionism and workaholism was reported (Clark et al., 2016). Similarly, the results of a study carried out among 153 banking professionals in Turkey showed that an increase in perfectionist tendencies also increased the tendency to work compulsively (Teber, 2021). Another recent study carried out among academicians revealed that maladaptive perfectionists had the highest tendencies toward workaholism (Çimşir & Tümlü, 2021).

The interactions of perfectionism (e.g., Moore et al., 2018) and workaholism (e.g., Malinowska et al., 2018; Stoeber et al., 2013; Van den Broeck, et al., 2011) were investigated using self-determination theory (SDT; Ryan & Deci, 2000) to discover the relationship to controlled motivation and autonomous motivation. SDT might be a useful theoretical background to discern the two dimensions of perfectionism and its association with workaholism and other related variables like self-esteem. SDT denotes that activities which are internally rewarded by pleasure, interest, curiosity or inherent satisfaction are intrinsically motivating and the action of an intrinsically motivated person is free of external pressures and rewards and the person chooses this action autonomously. From complete lack of motivation (amotivation) to highly autonomous, productive and spontaneous intrinsic motivation four regulatory mechanisms of extrinsic motivation exist that vary according to their internalization levels: external regulation, introjected regulation, identified regulation, and integrated regulation. External regulation indicates actions that are controlled by means of external rewards and punishment while introjected regulation directs behaviors via feelings of guilt and anxiety. On the other hand, identified and integrated regulations are regarded as autonomous motivation since in identified regulation an external pressure is seen as a useful and personally accepted and self-desired goal, and in integrated regulation external factors are completely combined with internal interests, personal values, and aspirations (Cook & Artino Jr., 2016).

The two dimensions of perfectionism are differentially related with autonomous and controlled motivation. The self-critical aspect (maladaptive form) of perfectionism is related with a self-definition that depends on self-regulation shaped by guilt and fear (Shahar et al., 2003) which corresponds to introjected regulation in SDT (Moore, et al., 2018). Self-criticism which is also related with feelings of guilt, shame and anxiety was shown to be positively related with controlled motivation and negatively related with autonomous motivation (Moore et al., 2018; Shahar et al., 2003; Stoeber et al., 2013); while personal standards (adaptive) perfectionism was reported to be positively associated with autonomous motivation (e.g., Harvey et al., 2015).

The working excessively and working compulsively dimensions of workaholism and the divergent employee related outcomes were reported to be differentially related with autonomous and controlled motivation. In their study on 370 Belgian employees Van den Broeck and colleagues (2011) showed that autonomous motivation negatively predicted emotional exhaustion whereas controlled motivation positively affected both working compulsively and working excessively. Stoeber and colleagues (2013) investigated the mediating roles of both identified and introjected regulation in the association between perfectionism and workaholism. Self-oriented perfectionism positively explained workaholism, both identified and introjected regulation acted as full mediators, and introjected regulation was strongly associated with perfectionism and workaholism. Based on these empirical findings and the propositions of SDT, both maladaptive perfectionism and the cognitive basis of workaholism seem to be related mostly with the introjected regulation as it is based on feelings of guilt and anxiety. This is congruent with the positive associations of maladaptive perfectionism (Moore et al., 2021; Moroz & Dunkley, 2015) and workaholism (Aziz et al., 2018) with negative self-image, mood and negative self-esteem.

Perfectionism and Burnout

Burnout is a critical state for both employees and organizations due to its relations with deteriorating employee well-being (e.g., Schaufeli et al., 2008), physical health (e.g., Clark et al., 2016) and declines in commitment to the organization, job performance and job satisfaction (Halbesleben & Buckley, 2004). Burnout is often defined as emotional exhaustion, cynicism, and a feeling of inefficacy (Maslach et al., 2001). Exhaustion, characterized by a decay in one's emotional resources, is regarded as the core dimension of burnout. Cynicism is characterized by an aloof attitude towards work and to those with whom one is working. Inefficacy, or reduced personal accomplishment is related to feelings of incompetence and inadequacy at work and to a decreased ability to cope with problems that come up (Maslach et al., 2001).

The associations between perfectionism and burnout are supported by studies conducted on various populations in literature. In a study with nurses, Balevre and colleagues (2012) reported a positive relationship between burnout and perfectionism. In another study conducted with doctors, Badawy and Mohamad (2015) found a significant association between these two constructs. In a study conducted with athletes, Demirci and Çepikkurt (2018) demonstrated that those athletes showing maladaptive

tendencies were prone to burnout. Another positive association was found between maladaptive perfectionism and burnout in a college study carried out by Zhang and colleagues (2007). In another recent study carried out in Turkey on 158 employees in the marble sector a positive relationship was reported between self-oriented perfectionism and the burnout dimensions (Gürel et al., 2021).

Self-esteem and Workaholism as Mediators in the Perfectionism - Burnout Relationship

In recent years, studies aimed to uncover the factors that might act as mediators between perfectionism and psychological outcomes. A review of perfectionism literature identified self-esteem's mediator role between maladaptive perfectionism and distress (Rice et al., 1998). Blatt (1995) stated that perfectionism could be associated with significant mental health outcomes through self-esteem and that the two types of perfectionism could play differing roles in the process. This could be due to the fact that perfectionists with excessive standards are seldom content with their accomplishments and are more inclined to experience low self-esteem, thus negatively impacting their psychological well-being. In a study conducted with undergraduates Flett and colleagues (1991) found that adaptive perfectionism was positively related with self-esteem and not directly related to depression; yet in the same study, maladaptive perfectionism was reported to be associated with lower self-esteem and higher depression. Thus, in line with studies which pointed out that self-esteem was a mediator between perfectionism and distress (Rice et al., 1988) as well as the relations of this concept with perfectionism (e.g., Gotwals et al., 2003) and burnout (e.g., Alarcon et al., 2009) self-esteem could also act as a mediator in the perfectionism-burnout relationship.

The association of workaholism to burnout has been widely studied and numerous studies showed workaholism to be positively correlated with burnout (e.g., Andreassen et al., 2007; Burke & Matthiesen, 2004). Indeed, working longer than others, workaholics' spare time was limited for activities that could lead to rest (Ng et al., 2007). Naktiyok and Karabey (2005) carried out a study among Turkish academicians and found that, an increase in the level of academics' workaholism increased their mental, physical and emotional exhaustion. Furthermore, two separate studies carried out among lawyers (Arslantaş et al., 2016; Macit & Ardiç, 2018) reported a positive relationship between workaholism and burnout. Scott and colleagues (1997) stated that, "perfection-

ist workaholics experience greater susceptibility to stress and to physical and psychological problems [...] than do non-workaholic organization members” (p. 304). Confirming this statement, Taris and colleagues (2005) demonstrated in their study that workaholics obtained less favorable ratings on burnout and mental health. In addition, it showed that workaholism had a mediating role in the perfectionism and burnout relationship (Taris et al., 2010). Previous studies pointed out that workaholics work harder due to an inner drive that could be related to a high level of perfectionism and tend to be driven by the urge to feel worthy which could be due to lower self-esteem (Mudrack, 2006). In line with these findings and the previously noted relations of self-esteem and workaholism with burnout, self-esteem and workaholism could act as mediators in the relationship between perfectionism and burnout.

According to the Job Demands-Resources (JD-R) model (Demerouti et al., 2001), employee well-being is attributed to the characteristics of the work environment. Recent studies relating to this model proposed that its framework could be extended to include personal demands and resources (e.g., Lorente et al., 2008; Xanthopoulou et al., 2007). In the few studies conducted with this perspective, personal demands was defined as “the requirements that individuals set for their own performance and behavior that force them to invest effort in their work and are therefore associated with physical and psychological costs” (Barbier et al., 2013, p. 751). In line with this perspective, Lorente and colleagues (2008) suggested that personality traits such as perfectionism could be a personal demand that needs further investigation. Workaholism was examined as a personal demand using the JD-R model. Schaufeli and colleagues (2009) described workaholism as a risk factor which leads to burnout apart from contextual factors at work. Guglielmi and colleagues (2012) reported that workaholism was positively correlated with burnout. Indeed, workaholics frequently work longer than others, with little time for activities that could lead to rest (Ng et al., 2007). In addition, workaholics constantly think and worry about work, even when they are out of the work context (Scott et al., 1997). These findings showed that it is worthwhile to examine the role of workaholism as a personal demand for employees.

Researchers focusing on the JD-R model (Bakker et al., 2005) stated that, individuals’ personal resources which are composed of a sense of their ability to successfully impact their environment (Hobfoll et al., 2003) also support their adaptation to the organizational context (e.g., Xanthopoulou et al., 2007). The JD-R model further pointed out

that under difficult work conditions, employees with higher resource levels are more inclined to be competent in dealing with work demands and are likely to experience less exhaustion (Bakker et al., 2005). From a positive psychology perspective it would be worthwhile to examine the role of self-esteem as a personal resource that protects employees from the negative impact of perfectionism, workaholism and burnout.

Although studies on perfectionism and its relation to health-related outcomes are increasing, there are still limited studies that examined the positive and negative impact of this personality disposition in the context of the workplace. Even though relations between the two dimensions of perfectionism and burnout were explored before, there is still a lack of consensus regarding the results of this relationship. In various studies, maladaptive perfectionism was shown to be positively related to this concept (e.g., Çalışkan et al., 2014; Demirci & Çepikkurt, 2018; Sancar et al., 2021; Zhang et al., 2007), but the results with respect to the relationship between adaptive perfectionism and burnout were inconsistent. For instance, in some studies, adaptive perfectionism was found to be negatively related to burnout, whereas other studies reported insignificant relationships between these two concepts (e.g., Hill and Curran, 2016; Tashman et al., 2010; Zhang, et al., 2007). Thus, one of the aims of this study was to examine the relationship between adaptive perfectionism and burnout and contribute to the current knowledge regarding this relationship in literature. The hypotheses is listed below:

H1: Adaptive perfectionism is negatively related to burnout.

Recently, research interest started focusing on the mechanisms that link perfectionism dimensions to various work and health outcomes (Ocampo et al., 2019). Yet, to date, research focusing on these mediating mechanisms are scarce in literature. There are some studies which reported the role of workaholism as a mediator between perfectionism and burnout (e.g., Falco et al., 2014; Taris et al., 2010). Researchers suggested that perfectionism could be related to crucial mental health outcomes through self-esteem (Blatt, 1995). Studies also reported that self-esteem acts as a mediator between maladaptive perfectionism, distress, (Rice et al., 1998) and depression (Flett et al., 1991). The current study explored self-esteem's mediator role between the two dimensions of perfectionism and burnout. The hypothesis is shared below:

H2: The relationship between perfectionism and burnout is mediated by self-esteem; such that (a) through its negative relationship with self-esteem, maladap-

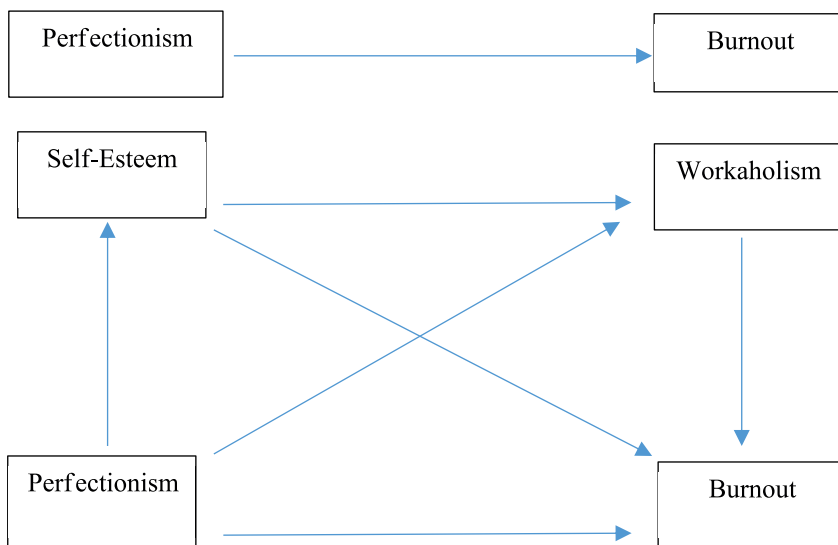
tive perfectionism predicts burnout positively and, (b) through affecting self-esteem positively adaptive perfectionism predicts burnout negatively.

To the authors' knowledge, no study focused on the mediating role of self-esteem and workaholism, specifically the relationship between perfectionism and burnout. Previously, a positive relationship was noted between adaptive perfectionism and self-esteem in that self-esteem has a significant relationship with burnout (Alarcon et al., 2009), whereas maladaptive perfectionism is negatively related to this concept (e.g., Ashby & Rice, 2002). Furthermore, workaholism which is closely related to perfectionism (Killinger, 2006) and burnout (Andreassen et al., 2007) could develop in response to lower self-esteem (Burke, 2004; Mudrack, 2006). In addition, focusing on the mechanisms linking perfectionism with burnout, Taris and colleagues (2010) found that workaholism mediated the relationship between maladaptive perfectionism and emotional exhaustion. However, in the same study, the high standards factor of perfectionism was found to be unrelated to both the workaholism and burnout dimensions. Even though previous studies showed that perfectionists were more prone to burnout (Appleton et al., 2009; Chen et al., 2008; Zhang et al., 2007), studies on the processes accounting for this relationship are scarce (Taris et al., 2010). In line with this discussion, this study aimed to extend the literature on occupational health psychology by focusing on the mechanisms linking perfectionism with burnout through examining the role of personal characteristics which received limited attention (Taris et al., 2010). It is expected that the differential relationship between the different forms of perfectionism and burnout are at least partly mediated by self-esteem and workaholism. The hypothesis is listed below:

H3: The relationship between perfectionism and burnout is serially mediated by self-esteem and workaholism; such that (a) maladaptive perfectionism predicts self-esteem negatively, self-esteem predicts workaholism negatively, through low self-esteem and higher workaholism maladaptive perfectionism predicts burnout positively, whereas (b) adaptive perfectionism predicts self-esteem positively, self-esteem predicts workaholism negatively, and workaholism predicts burnout positively, through higher self-esteem and lower workaholism adaptive perfectionism predicts burnout negatively.

This yields a three-path mediation model, depicted in Figure 1, which is defined as a serial mediation (Hayes, 2013).

Figure 1
Hypothesized Model of the Study



Method

Participants

Two hundred and twenty-four full-time white-collar employees, employed in the metropolitan city of İstanbul in Turkey participated in this study. The majority of these employees were women ($N=142$, 63.4 %), and married participants ($N=146$, 65.2%). Employees were aged between 22 and 66 with a mean of 39.48 ($SD=8.39$) and 57% of the participants were under 41 years old. The participants' total work experience ($M=15.97$, $SD=7.66$), tenure ($M=8.35$, $SD=7.66$) and duration of employment in their current departments ($M=7.70$, $SD=7.52$) ranged between one to 40 years. Ninety-five percent of the sample had received a bachelor's or higher degree. Most of the participants were from the service sector ($N=146$), followed by production, ($N=60$) IT, technology, the telecommunication ($N=14$) sector and others ($N=4$).

Measures

Almost Perfect Scale-Revised (APS-R)

In order to measure the participants' levels of adaptive and maladaptive perfectionism, the Almost Perfect Scale-Revised (APS-R) developed by Slaney and colleagues (1996) was used. The APS-R is a three-dimensional scale consisting of 23 items. Seven

of these items measure the High Standards dimension (e.g., “I set very high standards for myself”), four items measure Order (e.g., “I think things should be put away in their place”), and the remaining 12 items measure Discrepancy (e.g., “I often feel frustrated because I can’t meet my goals”). High standards and order measure the adaptive aspects of perfectionism. Both adaptive and maladaptive perfectionists have high scores in high standards and order, but discrepancy scores are crucial in differentiating maladaptive perfectionists from adaptive perfectionists, as maladaptive perfectionists score high in this dimension while the adaptive perfectionists do not. Both three-dimensional (high standards, order, and discrepancy) and two-dimensional (adaptive perfectionism and maladaptive perfectionism) structures of the Turkish form were found to be valid and reliable (Ulu, 2007). A Confirmatory Factor Analysis (CFA) was conducted with the data of this study and the three-dimensional factor structure of the scale showed an acceptable fit ($X^2/df=2,256$, $CFI=0,913$, $NFI=0,857$, $IFI=0,915$, $GFI=0,863$, $RMSEA=0,075$, $RMR=0.105$). The items of the APS-R were evaluated on a 6-point scale “1: I strongly disagree” to “6: I strongly agree.” The internal reliability coefficients of the overall scale and its subdimensions yielded satisfactory reliability scores for the data: APS-R=.90, High Standards=.78, Order=.88, and Discrepancy=.91.

Rosenberg Self-Esteem Scale (RSE)

The Rosenberg Self-Esteem Scale (RSE) was used to measure the construct of self-esteem. This scale is a single-factor 10-item scale that has been used in psychological studies since its development by Rosenberg (1965). The RSE was adapted to the Turkish language and validated by Çuhadaroğlu (1986). Five of the 10 items were reverse items, and these were revised before statistical analysis (e.g., “At times I think I am no good at all”). The remaining five items did not require a revision before the analysis (e.g., “I take a positive attitude toward myself”). Participants evaluated each item with a scale ranging from “1: Certainly wrong” to “4: Certainly right”. A CFA with the data of this study was also conducted and the unidimensional structure of the scale showed an acceptable fit ($X^2/df=1,776$, $CFI=0,966$, $NFI=0,923$, $IFI=0,967$, $GFI=0,951$, $RMSEA=0,059$, $RMR=0.021$). The scale’s internal reliability was also satisfactory, with a Cronbach α coefficient of .84.

Dutch Work Addiction Scale (DUWAS)

The 17-item version of the DUWAS was used to measure workaholism (Schaufeli et al., 2006). The DUWAS is a self-report questionnaire that measures workaholism by the

working excessively and working compulsively dimensions. The last Turkish adaptation and validation study of the DUWAS-17 was conducted by Doğan and Tel (2011). According to their study, items 3, 4, 8, 10, 12, 13, 15, and 17 (e.g., “I spend more time working than on socializing with friends, on hobbies, or on leisure activities”) measure the dimension of working excessively; items 5, 7, 9, 11, 14, and 16 (e.g., “I feel that there’s something inside me that drives me to work hard”) measure the dimension of working compulsively. Doğan and Tel (2011) mentioned that both the single-factor and two-factor structures of the DUWAS-17 were valid and reliable for Turkish context. The responses of the DUWAS are gathered with a 4-point scale from “1: Never” to “4: Always.” A test for the two-factor structure of the scale with a CFA with the data of this study showed an acceptable fit ($X^2/df=3,263$, CFI=0,877, NFI=0,835, IFI=0,880, GFI=0,881, RMSEA=0,101, RMR=0,097). The unidimensional structure of the scale had a better fit with the data ($X^2/df=1,435$ CFI=0,970, NFI=0,910, IFI=0,971, GFI=0,933, RMSEA=0,044, RMR=0,040). The internal reliability analysis showed that the Cronbach α coefficients of the overall DUWAS-17 scale (Cronbach $\alpha=.88$), and of the working excessively (Cronbach $\alpha=.83$) and working compulsively (Cronbach $\alpha=.79$) dimensions were also satisfactory.

Maslach Burnout Inventory (MBI)

The burnout levels of participants was measured by MBI, which is the most widely used assessment tool for this construct. It was developed by Maslach and Jackson in 1981 and its adaptation to the Turkish language was carried out by Ergin (1992). The scale has 22 items which measure emotional exhaustion, cynicism/depersonalization, and reduced professional accomplishment. Nine of the 22 items measure emotional exhaustion (e.g., “I feel emotionally drained from my work”), five items measure cynicism/depersonalization (e.g., “I feel I treat some recipients as if they were impersonal objects”), and the remaining eight items measure reduced professional accomplishment (e.g., “I feel I am positively influencing other people’s lives through my work”). The items of reduced professional accomplishment have positive meanings as reversed items, so these items were reversed before calculating the total burnout scores. Each participant evaluated the items in a 6-point scale from “1: I strongly disagree” to “6: I strongly agree.” Two CFAs were conducted for testing the three-dimensional and unidimensional structure of the construct. For the three-dimensional structure of the scale the fit indices were found to be as follows: $X^2/df=2,088$, CFI=0,918, NFI=0,856, IFI=0,919,

GFI=0,870, RMSEA=0,070, RMR=0,148; and for the unidimensional structure of burn-out the CFA results yielded a better fit ($X^2/df=1,340$, CFI=0,977, NFI=0,918, IFI=0,978, GFI=0,921, RMSEA=0,039, RMR=0,100). The Cronbach α coefficients indicated satisfactory results for the data: overall MBI scale= .80, Emotional Exhaustion= .92, Cynicism/Depersonalization= .70, and Reduced Professional Accomplishment= .75.

Demographic Information Form

This form collected data about the participants' age, gender, marital status, industry of employment, work experience and tenures in their current organization, department and current position.

Procedure

The Ethical Committee Approval for the study was granted from Istanbul Medeniyet University's Ethical Committee for Social Sciences (19.10.2020). The data was gathered over three months, between October and December 2020 online and the survey link was shared with full-time employees in the researchers' professional network through e-mails and on social media platforms such as WhatsApp and LinkedIn.

Data Analysis

The data was analyzed by the IBM Statistics SPSS 22 and AMOS Graphics 20. The construct validity of the scales was approved by using the CFA in AMOS 20. Internal reliability analyses were conducted for all scales and their subscales. In order to understand the relationship between variables, Pearson's correlation coefficients were calculated. For testing the mediation analysis, the PROCESS Macro Model 6 (Serial Mediation) was used as defined by Hayes (2013).

Results

The means, standard deviations, and the Cronbach α coefficients of all variables were calculated. In addition, a Pearson correlation analyses were also conducted to understand the relation between the variables of the study. These correlation coefficients, the means, standard deviations, and the Cronbach α coefficients are all presented in Table 1.

In Table 1 the results of the correlation analysis showed that self-esteem was negatively associated with maladaptive perfectionism/discrepancy, workaholism and burn-out, whereas maladaptive perfectionism was positively related with workaholism and

Table 1
The Means, Standard Deviations and the Correlation Matrix of Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Self Esteem	32.33	4.30	(.84)	.17*	-.56**	.11	.16**	-.22**	-.25**	-.16*	-.16*	-.31**	-.29**	-.46**
2. Adaptive Perfectionism	45.93	7.94		(.81)	.20**	.82**	.79**	.38**	.36**	.37**	.06	-.06	-.02	-.27**
3. Maladaptive Perfectionism / Discrepancy	31.55	11.21			(.91)	.31**	-.01	.47**	.48**	.40**	.26**	.31**	.36**	.28**
4. Standards	28.02	4.66				(.78)	.30**	.48**	.46**	.44**	.11	-.03	.05	-.27**
5. Order	17.91	4.30					(.88)	.13	.10	.14*	-.02	-.08	-.09	-.16*
6. Workaholism	32.48	7.61						(.88)	.96**	.93**	.22**	.14*	.17**	-.09
7. Working Excessively	18.55	4.44							(.83)	.79**	.23**	.17**	.18**	-.07
8. Working Compulsively	13.93	3.61								(.79)	.17*	.09	.15*	-.11
9. Burnout	71.96	13.50									(.80)	.90**	.77**	.02
10. Emotional Exhaustion	25.24	11.22										(.92)	.69**	.40**
11. Cynicism / Depersonalization	10.20	4.61											(.70)	.34**
12.Reduced Personal Accomplishment	36.53	5.76												(.75)

*p<.05, **p<.01, ***p<.001. The values diagonally presented in the parenthesis are the Cronbach a coefficients of the scales measuring the variables

burnout. Self-esteem was found to be negatively correlated with both the working excessively and working compulsively dimensions of workaholism and emotional exhaustion, cynicism/depersonalization, and the reduced professional accomplishment dimensions of burnout. Moreover, the working excessively dimension of workaholism were positively associated with overall burnout, emotional exhaustion, and cynicism/depersonalization.

Hypothesis Testing with Serial Mediation Model

The results of the serial mediation analysis are depicted in Table 2. The serial mediation analyses were conducted for both maladaptive perfectionism and adaptive perfectionism as independent variables.

Table 2

Hypothesis Testing Results via Serial Mediation Analysis

Serial Mediation 1: Maladaptive Perfectionism, Mediators and Burnout									
Outcome:	M1 (Self-Esteem)			M2 (Workaholism)			Y (Burnout)		
	Coefficient	SE	<i>p</i>	Coefficient	SE	<i>p</i>	Coefficient	SE	<i>p</i>
Antecedent									
X (M. Perf)	-.214	.021	.000	.341	.049	.000	.215	.104	.039
M1 (S-Est)	-	-	-	.106	.126	.401	-.119	.245	.628
M2 (Work.)	-	-	-	-	-	-	.218	.130	.095
Constant	39.073	.716	.000	18.296	5.117	.000	61.932	10.184	.000
	R ² : .310			R ² :.222			R ² : .079		
	F (1,222): 99.741, <i>p</i> <.001			F (2,221): 31.521, <i>p</i> <.001			F (3,220): 6.254, <i>p</i> <.001		

Total Effect of Maladaptive Perfectionism on Burnout: B: .310, SE: .078, *p*: .000

Notes. M. Perf: Maladaptive Perfectionism, S-Est: Self-Esteem, Work: Workaholism, M1: First Mediator, M2: Second Mediator

Serial Mediation 2: Adaptive Perfectionism, Mediators and Burnout									
Outcome:	M1 (Self Esteem)			M2 (Workaholism)			Y (Burnout)		
	Coefficient	SE	<i>p</i>	Coefficient	SE	<i>p</i>	Coefficient	SE	<i>p</i>
Antecedent									
X (A. Perf)	.098	.039	.013	.454	.063	.000	.016	.137	.906
M1 (S-Est)	-	-	-	-.514	.106	.000	-.393	.219	.074
M2 (Work.)	-	-	-	-	-	-	.327	.132	.014
Constant	27.821	1.830	.000	28.270	4.125	.000	73.325	8.917	.000
	R ² : .027			R ² :.229			R ² : .061		
	F(1,222): 6.227, <i>p</i> <.05			F(2,221): 32,833, <i>p</i> <.001.			F(3,220): 4,734, <i>p</i> <.01		

Total Effect of Adaptive Perfectionism on Burnout: B: .109, SE: .125, *p*: .383

Notes. M. Perf: Maladaptive Perfectionism, S-Est: Self-Esteem, Work: Workaholism, M1: First Mediator, M2: Second Mediator

The results of the regression analysis in the PROCESS Macro model 6 showed that both the direct and the total effect of maladaptive perfectionism on burnout were significant and positive. Additionally, the serial mediation analysis results displayed that maladaptive perfectionism had a significantly negative effect on participants' self-esteem

levels and it was positively associated with workaholism. The same serial mediation analysis was conducted by taking adaptive perfectionism into consideration as the independent variable (X) in the model with the same mediating and dependent variables. The results revealed that, contrary to maladaptive perfectionism, adaptive perfectionism is positively related to self-esteem. The results also affirmed that adaptive perfectionism predicted workaholism in a positive manner, and workaholism positively predicted burnout. However, the effect of adaptive perfectionism on burnout was statistically insignificant. Hence, H_1 was not supported.

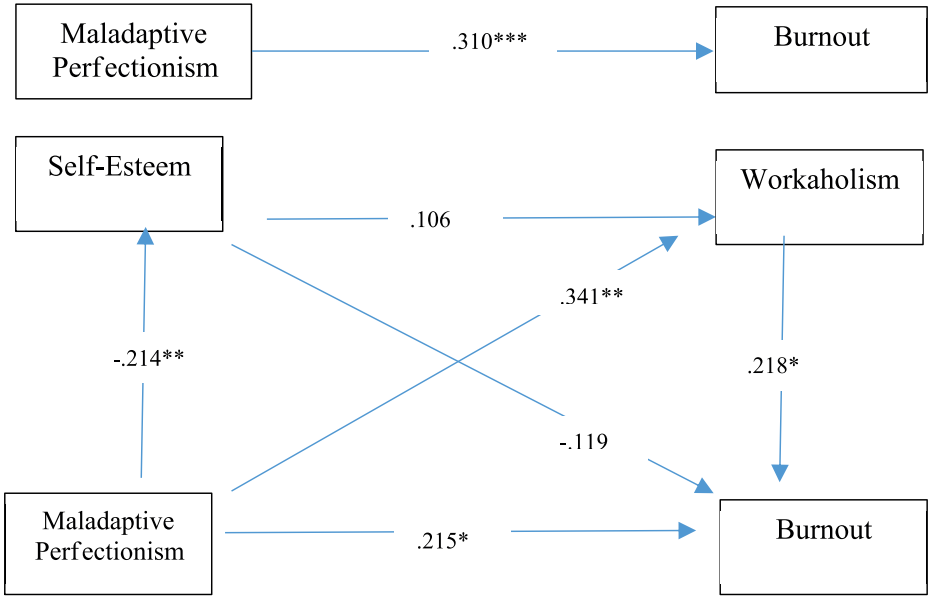
Based on 5,000 bootstrap subsamples with 224 cases, Table 3 shows the indirect effects and total indirect effects of predictors on (Y) burnout. In Table 3, the mediating role of self-esteem (path 1) and workaholism (path 2) in the relationship between maladaptive perfectionism and burnout were found to be insignificant, as there were zero values between the lower limit and the upper limit confidence intervals. Hence it can be concluded that $H2a$ was not supported. In addition, the mediating roles of self-esteem and workaholism between maladaptive perfectionism and burnout were also found to be insignificant which indicates that $H3a$ was also not supported.

Table 3
Indirect Effects

Indirect effects from maladaptive perfectionism to burnout				
Indirect Effects	Effect	BootSE	BootLLCI	BootULCI
Path 1: Mal.Perf →SE→Burnout	.0254	.0536	-.0819	.1276
Path 2: Mal.Perf →Workaholism→Burnout	.0743	.0526	-.0246	.1807
Path 3: Mal.Perf →SE→Workaholism →Burnout	-.0050	.0085	-.0265	.0085
Total indirect effects	.0947	.0711	-.0395	.2407
Indirect effects from adaptive perfectionism to burnout				
Path 1: Adap.Perf →SE→Burnout	-.0386	.0281	-.1068	.0008
Path 2: Adap.Perf →Workaholism→Burnout	.1480	.0713	.0203	.3013
Path 3: Adap.Perf →SE→Workaholism →Burnout	-.0165	.0105	-.0418	-.0012
Total indirect effects	.0930	.0771	-.0542	.2544

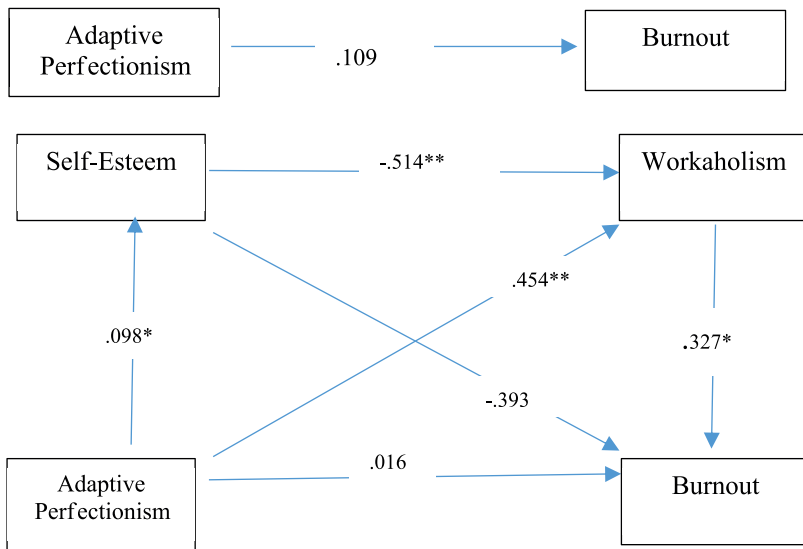
Figure 2

Serial Mediation Analysis among Maladaptive Perfectionism, Self-Esteem, Workaholism and Burnout



* $p < .05$, ** $p < .01$, *** $p < .001$

When the relationship between adaptive perfectionism and burnout was taken into consideration, the mediating role of self-esteem (path 1) was insignificant, while the mediating role of workaholism (path 2) and the mediating roles of both self-esteem and workaholism (path 3) were found to be significant, as there were no zero values between the lower limit and the upper limit confidence intervals. Total indirect effects were insignificant for both maladaptive and adaptive perfectionism. From these results, it can be inferred that *H2a* and *H2b* were not supported, and that the mediator analysis for *H3* seems to be partially supported; as the results for adaptive perfectionism (Path 3) were significant in supporting *H3b*; and for maladaptive perfectionism insignificant. Despite the significance of Path 3, as the total indirect effect for the serial mediation between adaptive perfectionism and burnout is insignificant, a coherent conclusion cannot be made about the existence of serial mediation.

Figure 3*Serial Mediation Analysis among Adaptive Perfectionism, Self-Esteem, Workaholism and Burnout** $p < .05$, ** $p < .01$

Discussion

This study examined the predictive effects of perfectionism on burnout through the mediation of self-esteem and workaholism. The findings, as well as relevant studies both abroad and in Türkiye showed that, it is important to keep the multidimensionality of perfectionism in mind when appraising its adverse relations on employee well-being.

The results revealed that the two facets of perfectionism have different relationships with self-esteem, workaholism, and burnout. Earlier studies regarding different types of perfectionism showed that perfectionists were more susceptible to burnout (e.g., Appleton et al., 2009). Numerous study results showed perfectionistic concerns (maladaptive perfectionism) to be positively related with burnout and its dimensions, whereas perfectionistic strivings (adaptive perfectionism) lead to a non-significant relationship with this concept and its components (e.g., Kanten & Yeşiltaş, 2015; Kazemi & Ziaaddini, 2014). Though restricted to the exhaustion and cynicism sub-dimensions, some studies have found adaptive perfectionism to be positively correlated with burnout (e.g., Hrab-

luik et al., 2012) whereas some studies found an insignificant association (e.g., Kanten & Yeşiltaş, 2015).

Recently, various studies in Türkiye examined the association between perfectionism and burnout (e.g., Caliskan et al., 2014; Kakırman & Birsnel, 2015; Sancar et al., 2021; Teber, 2021). Among these, the banking sector employees' study, Kakırman and Birsnel (2015) found that achievement-oriented perfectionism which resembles adaptive perfectionism negatively predicted burnout. Moreover, the results of a recent study carried out among 153 banking professionals in Turkey showed that an increase in perfectionist tendencies of employees increased their tendency to work compulsively and decreased their well-being (Teber, 2021). In a similar vein, a study conducted with teachers, Sancar and colleagues (2021) showed that high standards and order dimensions of adaptive perfectionism were negatively related to burnout while discrepancy was positively related to this concept. In a study carried out on white collar employees in Türkiye, Caliskan and colleagues (2014) revealed the discrete and opposite effects of adaptive and maladaptive perfectionism on burnout through perceptions related with work-family conflict. The Chen and colleagues (2008) study on college athletes and Ozbilir and colleagues (2015) study on Canadian and Turkish employees indicated the differential relations of maladaptive and adaptive perfectionism on burnout. Similarly, the study of Moate and colleagues (2016) on counselor educators revealed that, for maladaptive perfectionist educators, the higher the maladaptive perfectionism scores, the higher the burnout levels compared to the adaptive and non-perfectionist educators. In terms of the associations of different aspects of perfectionism on burnout, the findings from this study are congruent with other studies' results. More specifically, the results convey that maladaptive perfectionism has a strong direct relationship with burnout, whereas there is not a direct relationship between adaptive perfectionism and this concept. Despite the finding of a negative correlation between adaptive perfectionism and burnout in the analyses, the regression coefficient of adaptive perfectionism on burnout was found to be insignificant which contradicts with some of the previous studies (e.g., Caliskan et al., 2014), but there are various studies that report similar insignificant results between adaptive perfectionism and burnout (e.g., Hill & Curran, 2016; Tashman et al., 2010; Zhang, et al., 2007). The contradictory results in the literature about the associations of adaptive perfectionism with employee burnout requires further investigation of the possible mediating and moderating variables of this relationship.

Previous studies reported self-esteem as a mediator between maladaptive perfectionism and distress (Rice et al., 1998) and suggested that perfectionism could be related to significant mental health outcomes through self-esteem and that the two types of perfectionism could play differing roles in the process (Blatt, 1995). However, these studies' results did not find support for the mediating role of self-esteem. Yet, given the studies reporting the relationship of self-esteem with perfectionism (e.g., Gotwals et al., 2003) and burnout (e.g., Alarcon et al., 2009), the results warrant further investigation as to the possible role of self-esteem in this relationship. It is also worth examining the moderating role of self-esteem in the relationship between perfectionism and burnout. Although conducted in a different context, Raudasoja and colleagues' (2022) study among 479 Finnish mothers of infants found that self-esteem acted as a moderator in the relationship between socially prescribed (maladaptive) perfectionism and parental burnout. The same moderating effect is a strong possibility in the work context such that for employees who have higher self-esteem the association between perfectionism and burnout could be milder than those employees who have lower self-esteem.

It was also found that adaptive perfectionism, through its positive associations with self-esteem and workaholism; and self-esteem through its negative associations with workaholism are both indirectly connected to burnout. This result stresses the importance of these mediators in these associations. Hence, the study addressed this void with its findings that bring to light the role of self-esteem and workaholism in explaining the relationship between adaptive perfectionism and burnout, which calls for further investigation.

The findings are similar to those of many studies which confirmed that perfectionism is related to increasing levels of workaholism (e.g., Killinger, 2006). Specifically, the results showed that adaptive and maladaptive forms of perfectionism were found to be positively related with workaholism and its sub-dimensions. Past research showed that workaholics work hard to maintain and improve feelings of self-esteem and avoid negative emotions (Van Beek et al., 2013) and are usually perfectionists that try to achieve high performance standards (e.g., Flett & Hewitt, 2002). Various studies in literature demonstrated significant connections between perfectionism and workaholism (e.g., Arıkan & Atilla-Bal, 2011; Stoeber et. al, 2013).

As for the role of self-esteem, the study found that it negatively correlated with all of

the study variables except for adaptive perfectionism. These negative associations were similar to the results of prior studies investigating perfectionism and workaholism from the SDT's perspective by emphasizing the role of introjected regulations in maladaptive perfectionism (e.g., Moore et al., 2021) and workaholism (e.g., Van den Broeck et al., 2011). Feelings of guilt, shame and anxiety which may regulate maladaptive perfectionism and workaholism are in contrast with high self-esteem. That is, when controlled motivation drives employees, they may be inclined to exhibit extreme perfectionism in order to preserve their self-worth (Ocampo et al., 2019). With respect to the negative association of self-esteem to workaholism, the findings were in line with Burke's (2004) study, which reported lower self-esteem for work addicts. In a similar vein, Aziz and colleagues (2018) described the self-esteem and workaholism relationship as "the endless pursuit for self-validation through attainment" (p.74). Self-esteem was found to be positively associated with adaptive perfectionism. In a study of college athletes, Ashby and Rice (2002) found that self-esteem was positively correlated with standards that reflected the positive aspects of perfectionism. In a study by Accordino and colleagues (2000) among high school students, a positive relationship was found between adaptive perfectionism and self-esteem. In the same study, as the students' personal standards increased, so did the self-esteem levels which led to a decrease in their depression levels. However, the mediating role of self-esteem was found to be insignificant in the relationship between adaptive perfectionism, workaholism and burnout. The possibility that self-esteem could act as a moderator between adaptive perfectionism and other variables related to occupational health psychology requires further investigation.

The study results highlight the positive relations between maladaptive perfectionism and burnout as well as workaholism and the negative relations with this concept and self-esteem. Maladaptive perfectionism fits the definition of a personal demand as proposed by the JD-R Model (Barbier et al., 2013) and is negatively related to employee well-being. These research results also showed that workaholism is positively related to maladaptive perfectionism and burnout and negatively related to self-esteem. These findings are similar to other studies which pointed out that workaholism is a personal demand and a risk factor that leads to burnout (Guglielmi et al., 2012). Furthermore, it showed self-esteem's importance as a protective factor for employee well-being since it is negatively related with maladaptive perfectionism, workaholism, and burnout. Due to these results, and its significant positive relationship with adaptive perfectionism,

self-esteem could be regarded as a personal resource as defined by the JD-R Model (Bakker & Demerouti, 2014; 2017). It is crucial to examine the role of self-esteem as a personal resource since it is a significant part of an individual's core self-evaluations related with valued outcomes such as motivation and performance (Judge et al., 2004).

Given the differential relations of the two dimensions of perfectionism on employee well-being and especially the strong positive relations of maladaptive perfectionism with burnout, it is important that researchers continue investigating the relationship between this concept and occupational health outcomes by focusing on the mediation and moderation of different personal and contextual variables. Moreover, since the outset of the Covid-19 pandemic, and as online working has become prevalent as a social distancing method, researchers could also conduct studies on the effects of perfectionism and this new work method on employee burnout.

Some limitations of this study should also be mentioned. Since this study was cross-sectional by design, a conclusion regarding the causal order of the study variables cannot be reached. Negative affectivity and social desirability could have affected the findings since the study used survey data with self-report measures. Therefore, these findings need to be replicated in the future with objective measures (such as data collected from managers, peers or subordinates) to eliminate the common method bias. Since the study was conducted in Türkiye among Turkish employees, the generalization of results to other work cultures warrants further examination.

Finally, this study has some practical implications. In the modern work context, characterized by a fast paced and results driven work environment, employees are urged to continuously strive for challenging goals that require a high level of effort which could set the stage for perfectionism (Stoeber et al., 2013). High-performing organizational cultures could trigger employees' perfectionistic tendencies and behaviors and both managers and human resources professionals need to be aware of the impact of such contextual factors on employee behavior. For instance, instead of rewarding their excessive work regime, managers can coach their employees to prioritize and delegate their work when possible.

Training and techniques aimed at boosting self-esteem levels of employees could also be helpful in reducing the negative impact of perfectionism on burnout and could act as a buffer in the perfectionism and workaholism relationship (Rosenow, 2013). Since workaholics tend to take on more work than they can handle, training programs related to time management and planning (Van Wijhe et al., 2010) which also focus on

teaching efficient working methods might be helpful for those who are at risk of this syndrome.

Psychological counseling is shown to be a practical solution in reducing perfectionism (Pleva & Wade, 2007) and organizations could refer those employees suffering from maladaptive perfectionism to Employee Assistance Programs.

Finally, since continuous deficiency in resources will result in fatigue and ultimately in exhaustion; employees need to disengage and rest after a busy work day. Participating in sports and exercise activities during non-work hours is reported to be especially helpful for workaholics (Bakker et al., 2013).

In conclusion, since most people are inclined to be perfectionistic in the context of work (Stoeber & Stoeber, 2009), it is crucial to better understand how and why this construct is related to both individual and organizational outcomes. The findings of the present study extend the existing literature in occupational health psychology by examining the association between perfectionism and burnout through the mediation of self-esteem and workaholism. This study identified a series of relations through which the two types of perfectionism relate to burnout. An awareness regarding these mechanisms and their impact could be helpful for employees, managers and HR professionals to take the necessary action steps (e.g., making individual development plans, implementing coaching sessions, conducting interventions and training programs) in order to reduce the potential risks arising from a malfunctioning level of perfectionism.

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On the Relationship Between Leader-Member Exchange and Employees' Turnover Intentions: Examination of Mediation Role of Trust in Leader

Lider-Üye Etkileşimi ile Çalışanların İşten Ayrılma Niyetleri Arasındaki İlişki Üzerine: Lidere Duyulan Güvenin Aracılık Rolünün İncelenmesi

Eser Erdurmazlı¹ , Gökdeniz Kalkın² 



ABSTRACT

As the most important determinant of turnover behaviors, an employee's intention to leave his/her job stands out as one of the strongest predictors of that employee's actual turnover behavior. Economic opportunities, personal and work-related factors can play an important role in employees' intention to leave. Moreover, it is suggested in the literature that dyadic relationships between employees and their managers (i.e. leaders) are one of the important factors affecting that turnover intention. Although there are studies focusing on the relationship between leader-member exchange and turnover intention in the current literature, there is a need to explain how this relationship between leader-member exchange and turnover intention emerges, together with the related theoretical mechanisms. Considering that trust is an important factor determining the quality of relationships between managers and employees, it is however quite surprising that among studies in the existing literature investigating the ways how the quality of leader-member interactions affects employees' turnover intentions, there is no study that examines trust in the leader as a mediating mechanism. In this context, the current study examines the mediating effect of trust in leader in order to draw a clear picture of the relationship between the quality of leader-member interaction and the employee's intention to leave. This study makes use of social exchange and leader-member exchange theories to draw a clearer picture of this relationship. In order to test the hypothesis of the research, the data collected from 217 participants working in various hotels operating in Muğla province and carrying out different tasks were analyzed. In the analysis of the data collected by the survey method, PROCESS macro for SPSS/SAS developed by Hayes and regression analyses were used, so that direct and indirect effects were calculated. The findings of the study confirm that trust in leader mediates the relationship between leader-member exchange quality and employee turnover intention. In addition to its theoretical contribution that can fill the gap in the relevant literature, it is thought that the findings of this study may also help to retain the qualified workforce in the hospitality sector in the practical context. **Keywords:** Leader-member exchange (LMX), turnover intention, trust in leader, hospitality sector, hotel businesses

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ÖZ

İşten ayrılma davranışlarının en önemli belirleyicisi olarak bir çalışanın işten ayrılma niyeti, o çalışanın fiili işten ayrılma davranışının en güçlü yordayıcılarından biri olarak öne çıkmaktadır. Ekonomik imkanlar, kişisel ve işle ilgili faktörler çalışanların işten ayrılma niyetlerinde önemli rol oynayabilmektedir. Dahası, literatürde çalışanlar ve yöneticileri (yani liderler) arasındaki ikili ilişkilerin çalışanların işten ayrılma niyetini etkileyen önemli faktörlerden biri olduğu öne sürülmektedir. Mevcut literatürde lider ve astları arasındaki etkileşimler ile işten ayrılma niyeti arasındaki ilişkiye odaklanan çalışmalar bulunsa da, lider-üye etkileşimi ile işten ayrılma niyeti arasındaki bu ilişkinin nasıl ortaya çıktığının teorie dayalı ilgili mekanizmaları ile birlikte açıklanmasına ihtiyaç bulunmaktadır. Dahası, güvenin yönetici ve çalışan arasındaki ilişkilerin kalitesini belirleyen önemli bir faktör olduğu dikkate alındığında, mevcut literatürde lider-üye etkileşiminin kalitesinin çalışanların işten ayrılma niyetleri üzerinde hangi yollarla etkilerde bulunduğunu araştıran çalışmalar içerisinde lidere duyulan güveni aracı bir mekanizma olarak inceleyen herhangi bir çalışmanın bulunmayışı da oldukça şaşırtıcıdır. Bu kapsamda mevcut çalışma, lider-üye etkileşiminin kalitesi ile çalışanın işten ayrılma niyeti arasındaki ilişkinin nasıl ortaya çıktığının net bir resmini oluşturulabilmek üzere 'lidere duyulan güven'in aracılık etkisini incelemektedir. Bu çalışma, söz konusu ilişkinin daha net bir resmini çizebilmek için sosyal mübadele ve lider-üye etkileşimi teorilerinden faydalanmaktadır. Araştırmanın hipotezini test etmek amacıyla, Muğla ilinde faaliyet gösteren çeşitli otellerde çalışan ve farklı görevler yürüten 217 katılımcıdan toplanan veriler analiz edilmiştir. Anket yöntemiyle toplanan verilerin analizinde Hayes tarafından SPSS/SAS için geliştirilen PROCESS makro ve regresyon analizleri kullanılmış, böylece doğrudan ve dolaylı etkiler hesaplanmıştır. Çalışmanın bulguları, lidere duyulan güvenin lider-üye etkileşimi kalitesi ve çalışanın işten ayrılma niyeti arasındaki ilişkiye aracılık ettiğini göstermiştir. Çalışmanın bulgularının, ilgili literatürdeki boşluğu doldurabilecek kuramsal katkısına ilave olarak, konaklama sektöründeki nitelikli iş gücünün muhafaza edilmesine de pratik bağlamda yardımcı olabileceği değerlendirilmektedir.

Anahtar Kelimeler: Lider-üye etkileşimi (LMX), işten ayrılma niyeti, lidere duyulan güven, konaklama sektörü, otel işletmeleri

Turnover intention, which reflects the desire of a person to voluntarily terminate his/her job in the short term (Mobley, 1977), has an important potential to lead to negative consequences for organizations. In this regard, organizations might face substantial financial and operational problems due to the loss of experienced and high-performing employees and cost of new employment (Amunkete & Rothmann, 2015; Leupold et al., 2013). Besides, a high turnover rate in standard or low-performing employees is also not desirable, as it can lead to demoralization and socialization problems in workplace settings (Mowday, 1984).

According to the attitude theory (Fishbein & Ajzen, 1975), intentions are the most important determinant of actual behaviors, and therefore, turnover intention emerges as the strongest predictor of an employee's actual turnover behavior (Steel & Ovalle, 1984). Economic opportunities, personal and work-related factors can play significant roles in the intentions of employees to leave their jobs (Muchinsky & Morrow, 1980). Furthermore, in the literature, it is suggested that one of the factors affecting the turnover intention is the relationships between employees and their managers (i.e. leaders). Indeed, existing studies in the literature reveal a negative correlation between Leader-Member Exchange (LMX), an approach that focuses on the quality of dyadic relationships between leader and followers, and employee turnover intention (e.g., Ansari et al., 2007; Elanain, 2014; Gerstner & Day, 1997; Huang et al., 2021; Jordan & Troth, 2011; Niu et al, 2022; Kim et al., 2016; Wu et al., 2021).

Although there are studies focusing on the relationship between LMX and turnover intention in the current literature, it is considered that there is an obvious need to show more explicitly how the relationship between LMX and turnover intention emerges, and in this context, to include theoretically driven mechanisms that have the potential to explain this relationship in relevant research models. Thus, to draw a clearer picture of this relationship in question, based on the theories of social exchange and LMX, this study proposes that the social interactions between leader and subordinates have the potential to create a leader-subordinate relationship based on trust, loyalty and mutual commitment over time (Blau, 1964; Cropanzana & Mitchell, 2005; Graen & Uhl-Bien, 1995). Therefore, this current study claims that *trust in leader* stands out as important mechanism to explain the relationship between LMX quality and employee turnover intention. However, it is quite surprising that this theoretically-driven mechanism has not been included in the research models of the studies conducted to date.

Therefore, the main objective of the study is to examine whether trust in leader has a mediating role on this relationship. In an academic sense, by filling important gaps in organizational behavior and leadership literatures, it contributes to LMX and turnover literatures. In practical terms, by showing 'how' the quality of the leader-follower relationships has an impact on employee turnover intentions, the results of this study can help prevent high-performing employees from leaving their jobs, and can make a significant contribution to establishing of a more positive work environment and relations for those employees.

LMX and Turnover Intention

LMX theory asserts that a leader's dyadic relationship with each of his/her followers is unique, and depending on the quality of this relationship, leaders distinguish between their followers as in-group and out-group, and they maintain the relationships with in-group followers in a relatively closer and more privileged exchange process (Graen & Uhl-Bien, 1995; Liden & Maslyn, 1998; Mueller & Lee, 2002; Uhl-Bien, 2006). Hence, LMX theory stands out as a leadership approach that focuses on the quality of leader-subordinate relationships and argues that when the quality of the relationships between followers and their leaders is high, its reflection on individual and organizational outcomes will be significantly positive (Graen & Uhl-Bien, 1995; Liden & Graen, 1980).

From this perspective, this study is based on the notion that a high-quality leader-follower relationship will also have significant effects on an employee's turnover intention, which is a main determinant of the actual turnover behavior (Ajzen, 2011). Turnover intention is a cognitive process and expresses an employee's desire, thought and planning to quit his/her job (Mobley, 1982). In this sense, it is an employee's intention to voluntarily leave his/her organization (Hellman, 1997). In this context, it is a rational expectation that quality dyadic relationships between leaders and followers will also affect this cognitive process that generates employees' intentions to leave. Indeed, current studies of limited number in the literature support the existence of strong and negative relationships between these two variables (e.g., Ansari et al., 2007; Elanain, 2014; Huang et al., 2021; Kim et al., 2016; Niu et al., 2022; Wang et al., 2017; Wu et al., 2021).

This study uses social exchange theory (SET) to explain the proposed relationship between these two variables. According to SET, social exchanges between individuals involve a set of interactions that create mutual obligations, and these interactions lead to

interdependencies depending on the actions of the relevant parties (Blau, 1964; Cropanzano & Mitchell, 2005; Emerson, 1976). A high-quality leader-subordinate relationship can result from such intense interactions which lead to reduced risk and increased collaboration (Molm, 1994). Moreover, high quality LMX reduces the barriers between leader and subordinates, and helps them get closer. It is more difficult for an employee who is in such a work relationship with his/her leader, where ideas are shared clearly and precisely and uncertainty disappears, to intend to leave his/her job.

Trust in Leader and Turnover Intention

The concept of trust in leader, also used as supervisory trust in the literature, is related to the perceptions of an employee about whether individuals can trust their leader, and is important for leader effectiveness (Dirks & Ferrin, 2002; Hogan et al., 1994; Kramer, 1999). Trust is defined as a willingness to be vulnerable towards another person whose actions are not under his/her control, based on the belief that this person is qualified, honest, and caring (Hosmer, 1995; Rousseau et al., 1998). Furthermore, the concept of trust is rooted in past experiences, and these experiences lead to beliefs on positive attitudes and behaviors between two sides of any dyadic relationship (Colquitt & Rodell, 2011). The experience gained based on the results of these dyadic interactions between leader and followers is one of the main determinants of the trust in-between (Stashevsky & Koslowsky, 2006).

Employees' feelings of trust in their leader are important in terms of their job attitudes and behaviors because supervisors have the authority to make decisions that can significantly affect employees' work lives (e.g., promotions and pay increases; Rich, 1997). Employees do not trust their leaders when they feel that their supervisors do not look after the interests of their subordinates or exploit their vulnerabilities. In this context, an employee's lack of trust in his/her supervisor will cause him/her to feel distressed and strengthen his/her intention to leave the organization (Mulki et al., 2006). Conversely, when leaders create sufficient trust in the work environment, this causes employees to feel more safe and more loyal to their work and organization (Costigan et al., 2011; Davis et al., 2000; Mishra & Morrissey, 1990; Trinchero et al., 2014). In support of these arguments, Dirks and Ferrin (2002) showed in their meta-analytic study that there is a remarkable relationship between trust in the leader and turnover intention. Similarly, Purba and colleagues (2016) empirically revealed that employees' trust in their supervisors has a negative effect on their turnover intention.

Mediation Role of Trust in Leader

Dienesch and Liden (1986) suggest that LMX has three dimensions: perceived contribution, 'affect', and 'loyalty'. Contribution means the assessment of how much the quantity and quality of the contributions of a leader and his/her subordinate to the work relationship between them serve the goals of both parties. This dimension points to the work-related interaction process between leader and followers emphasized by SET. The affect and loyalty dimensions, which are the output of this interaction process (i.e., contribution), point to the emotional aspect of the leader-subordinate relationship and reflect the quality level of this relationship in question (Dienesch & Liden, 1986). In other words, unlike the 'contribution' dimension, which is more defined as a '*work-oriented*' mechanical interaction process, the affect and loyalty dimensions refer to an emotional interaction process. In this process, it becomes clear to what extent a subordinate influences his/her leader with his/her performance, and how special and privileged that leader treats this subordinate in return. So, this process eventually determines the quality of that leader-subordinate relationship (Brower et al., 2000; Liden & Maslyn, 1998).

In line with SET principles, the LMX approach argues that care, support and privileges given by a leader to any of his/her followers based on the assessment of the contribution of that follower will lead to similar feelings on the follower side. Also, the developing affect and loyalty sentiments in followers will make them feel more secure and have much more positive thoughts and feelings about their leader (Dirks & Ferrin, 2002). Moreover, this situation will lead to formation of mutual feelings of trust between leader and followers, and make them more committed to each other (Blau, 1964; Bukhari & Bhutto, 2021; Cropanzana & Mitchell, 2005). Indeed, Molm (2000; 2003) emphasized in her studies that such successful exchange processes between leader and followers can be characterized by mutual trust. So, this study asserts that 'trust' is a key concept to explain the relationships between leader behaviors and employees' job attitudes and behaviors.

Although trust is an important component of the LMX concept, as it has just been emphasized above, it is difficult to say that it is sufficiently emphasized in the current literature along with LMX and job attitudes such as employee turnover intention. In one of these limited studies, for example, Naveed (2019) examined the relationships between LMX and employee outcomes (i.e. job satisfaction, organizational commitment, and turnover intention) and whether trust moderates these relationships and confirmed the

aforementioned moderation effects of trust. Another study examining the relationships between interpersonal justice, LMX, job burnout, and turnover intention showed that employees' cognition-based trust in their leaders moderated the relationship between LMX and job burnout (Son et al., 2014). In a study on basketball players, Mach and Lvina (2016) found that trust in a leader (i.e. coach) positively affects team trust and team performance. Mushonga (2018) explored in his study the moderating effects of affective trust on the relationships between LMX and task performance, turnover intention, loyalty to supervisor, and organizational citizenship behavior, and ultimately revealed that the relationships between LMX and work outcomes are stronger when followers have high affective trust in their leaders. In a recent meta-analytical study, the affective and cognitive trust between leaders and employees was examined and it was shown that trust has an impact on employees' organizational citizenship behaviors and organizational commitments (Fischer et al., 2020). In another recent study conducted in the logistics industry in Türkiye, Altuntaş and colleagues (2020) found that trust in leader does not have a direct effect on turnover intention, that LMX influences turnover intention negatively, and that LMX acts as a mediator in the relationship between trust in leader and employee turnover intention.

As can be easily noticed above, in the existing literature examining trust in leader along with LMX and various job attitudes or work outcomes, trust in leader has been predominantly included as a moderator variable into the pertinent research models. In this respect, this study differs from the existing literature. Relatedly, this study argues that trust in leader should be examined as a mediating variable rather than a moderating factor. Such that, trust includes an exchange process such as LMX, and this process defines a relationship in which leader and subordinates cyclically interact and mutually contribute (Butler, 1991; Ferrin et al., 2008). Therefore, trust is one of the important components of LMX theory (Deluga, 1994; Schriesheim et al., 1999). Indeed, Dirks and Ferrin (2002) argue in their meta-analytic study that a significant part of the existing studies in the literature has examined trust in leader in accordance with the social exchange process. Furthermore, the result of leader-follower interactions in this social exchange process is the determinant of the trust between leader and followers (Lewicki & Bunker, 1996). Supporting these arguments, existing studies in the literature suggest that high-quality LMX relationships between leaders and followers can be characterized by mutual trust and loyalty between relevant parties (e.g., Brower et al., 2000; Dienesch

and Liden, 1986; Graen & Uhl-Bien, 1995; Kramer, 1999). Consequently, this study argues that high level trust of employees in their leaders, as a key component of a high quality LMX, might substantially guarantee that they remain in their job and organization. In line with this idea, this present research maintains that quality leader-follower relationships lead employees to trust their leaders, which in turn causes employees to be more focused and loyal to their organization (Costigan et al., 2011). Consequently, the hypothesis of the study stresses the mediating role of trust in leader in the LMX-turnover intention relationship.

H1: Trust in leader mediates the relationship between LMX and employee turnover intention in such a way that a high level of LMX leads an employee to trust in his/her leader more and subsequently decreases his/her turnover intention.

Method

Participants

Turnover rate is important for keeping the service quality of hotel businesses at a high level and ensuring its continuity. Studies show that, just as in different parts of the world (i.e., Backes-Gellner et al., 1997; He et al., 2021; Simons & Hinkin, 2001), turnover continues to be a significant problem for the hospitality sector in Turkey (Tuna, 2007). Indeed, in a study conducted on coastal hotels in and around Muğla, employee turnover rate was measured to be high at the level of approximately 50% (Tütüncü & Demir, 2002).

Therefore, this study was carried out in Muğla, one of the important touristic cities of Turkey. A total of 277 prospective participants working in different hotels and determined by the convenience sampling method were invited for the study, and 217 employees accepted this invitation (participation rate 78%). There is no significant difference between the proportions of male and female participants in the sample (51% and 49%, respectively), and their average age is approximately 33. Participants were employed in different functional areas, including management 20%, administrative 4% (i.e., HR, accounting, etc.), food and beverage service 33%, technical 5%, housekeeping 18%, kitchen and food production 11%, security 7%, and health 2%. According to their education level, 3% of the participants had primary education, 42% had high school, 15% had associate degree, and 40% had bachelor's degree. The average length of work relationship that employees have with their direct supervisors is about 2.8 years.

Measures

Leader-Member Exchange (LMX)

This present study was based on the 7-item scale of Graen and Uhl-Bien (1995). This LMX-7 original scale measures employees' individual perceptions of the quality of their relationships with their immediate supervisors/managers. The present study benefited from the work of Çalışkan (2015), which was translated into Turkish, and it was seen that the Cronbach's alpha ($\alpha = .84$) and construct reliability (CR = 85) values of this scale were quite good. The reliability coefficient (i.e., Cronbach's α) calculated in the current study for this scale, in which the answers were arranged according to a 5-point Likert scale (1= strongly disagree, 5= strongly agree), was .97.

Turnover Intention

The current research made use of the study of Örucü and Özafşarlıođlu (2013) to measure the turnover intentions of the research participants. This scale is originally based on the 3-item turnover intention scale developed by Mobley and colleagues (1978). The Turkish version of the scale used by Örucü and Özafşarlıođlu (2013), which was also used in some other studies conducted in Türkiye (e.g., Düger, 2020; Kendir et al., 2018; Öztürk & Eysel, 2021), was administered to Turkish employees ($N = 48$) in a textile business in South Africa. In that study, the scale had a high value of Cronbach's α (.90). The Cronbach's α value of the 5-point Likert-type (1= strongly disagree, 5= totally agree) scale was calculated as .96 in this study.

Trust in Leader

In this current study, employees' perceptions of trust in their leaders were evaluated with Rich's (1997) trust scale. This author examined in his study the relationships between sales managers' role modeling behaviors and trust that sales personnel feel for their managers, and calculated that the values of Cronbach's internal consistency reliability index ($\alpha = .96$) and the construct reliability index of the original scale were very high (CR = .96). In the study conducted by Yılmaz (2019), this scale was used by being translated into Turkish, and it was seen that the reliability of the scale was also considerably high ($\alpha = .87$). This 5-point Likert-type scale (1= strongly disagree, 5= totally agree) includes 7 items about trust in the leader. In this study, the reliability coefficient of this scale was calculated as .93.

Control Variables

Since it was suggested that individual characteristics such as education, age and gender, and length of work relationship between leader and follower might be effective on turnover intention, these variables were included in the analyses as control variables (Carsten & Spector, 1987; Cotton & Tuttle, 1986).

Procedure

Questionnaires were administered to the research participants face-to-face and on site, and for this purpose, necessary permissions were obtained from the relevant hotel management before the process. The study was approved by the Ethical Board (No: 311, Date: 07 August 2021) of Muğla Sıtkı Koçman University. It was stated clearly and several times to the participants that the participation in the survey would be completely voluntary, the answers would be kept strictly confidential and the identities of the participants would not be noted (i.e., anonymous). In this way, efforts were made to keep the number of participants as high as possible.

Data Analysis

To examine the direct impacts of LMX and trust in leader on employee turnover intention and the mediation effect of trust in leader (the research hypothesis), PROCESS macro for SPSS/SAS developed by Hayes (2013) is used. This macro calculates both the regression coefficients for the direct effects and the bias-corrected confidence intervals around the product coefficient for the indirect effect through a bootstrapping algorithm. Bootstrapping, which is a nonparametric approach, is independent of the shape of the distribution and gives relatively more accurate results than the coefficients obtained from the standard regression method (Shrout & Bolger, 2002).

Results

Construct Distinctiveness

The psychometric properties of the scales were evaluated to examine the distinctiveness of the constructs used in the study. For this purpose, confirmatory factor analysis (CFA) was employed for two separate measurement models, using the scale items for each variable. The first model was the expected model of the study with three factors (i.e., LMX, trust in leader, and turnover intention). In the two-factor alternative model, LMX and trust in leader were combined into a single factor, and turnover intention was freely estimated.

The CFA results revealed that the research model with three constructs fitted the data well ($\chi^2(116) = 238.77, p < .01, RMSEA = .07, CFI = .97, NFI = .95$). These fit values offered a significant improvement over the alternative model ($\chi^2(118) = 281.12, p < .01, RMSEA = .08, CFI = .96, NFI = .94, \text{ and } D\chi^2 = 42.35, p < .01$). Thus, these results provided the expected evidence for construct distinctiveness.

To confirm the CFA results, the average variance extracted (AVE) for each latent construct was calculated, as recommended by Fornell and Larcker (1981). When the square root value of each AVE (\sqrt{AVE}) for each of the scales of LMX, trust in leader and turnover intention (i.e., .77, .71, and .75, respectively) was compared with the correlation coefficients between the variables presented in Table 1, it was seen that the necessary conditions were met. In addition, composite reliabilities (CR) of each scale were calculated, and it was seen that these were quite high values (i.e., .91, .88, and .80 respectively). Therefore, construct distinctiveness of LMX, trust in leader, and turnover intention were confirmed.

Descriptive Statistics

When the correlation values were examined, it was observed that the research variables (i.e., LMX, trust in leader and turnover intention) ranged between -.35 and .74, and all the relationships were statistically significant. Furthermore, it was seen that gender and length of work relationship out of the demographic variables had significant relationships with LMX and trust in leader (i.e. -.17 and -.19 for gender, and .19 and .17 for length of work relationship). Hence, these demographic variables were also included into the analyses as control variables while testing the research hypothesis. Descriptive statistics on the variables, Pearson correlations, Cronbach α 's of the scales,

Table 1
Descriptive Statistics and Pearson Correlations

	<i>M</i>	<i>SD</i>	<i>AVE</i>	<i>CR</i>	1	2	3	4	5	6	7	8
1. Age (years)	33.27	8.98			-	.02	-.55**	-.32**	.09	.03	.03	-.06
2. Gender (female:1, male:2)	1.49	.50				-	-.03	.10	.07	-.17*	-.19*	-.01
3. Marital status (married:1, single:2)	1.59	.49					-	.12	.11	-.05	-.03	.03
4. Education	3.96	1.07						-	.13	.05	.07	.05
5. Length of work relationship (years)	2.81	1.68							-	.19*	.17*	.12
6. Leader-member exchange	3.65	.94	.59	.91						(.97)	.74**	-.33**
7. Trust in leader	3.62	.90	.51	.88							(.96)	-.35**
8. Turnover intention	2.46	1.01	.57	.80								(.93)

N = 217; * $p < .05$; ** $p < .01$; Reliability coefficients are on the diagonal (for 6, 7, and 8).

Hypothesis Test

Before testing the main hypothesis of the study, it might be useful to take a look at the direct effects of the independent (i.e. LMX) and the mediating (i.e. trust in leader) variables on the dependent variable (i.e. employee turnover intention), both separately and together. Moreover, taking into consideration that the variables of the research have not been studied to an adequate degree in the current literature, it can be considered that there is a need for this examination. Therefore, the direct effects mentioned, including the impacts of the control variables, are presented in Table 2.

Regarding the direct effect of LMX on employee turnover intention, the regression results showed that there is a significant and negative relationship between LMX and turnover intention ($\beta = -.37, p < .01, R^2 = .12$). Therefore, this result seems to support the existing literature. As for the direct effect of trust in leader on employee turnover intention, after including LMX together with the control variables into the analysis, the test results revealed that there is a significant and negative relationship between the two variables ($\beta = -0.34, p < .01, R^2 = .13$). In addition, the fact that the effect of LMX lost its significance at this stage and its effect size became quite small shows that trust in the leader mediates almost all the effects of the dependent variable on the independent variable.

Table 2
Direct Effects of LMX and Trust in Leader

	Employee Turnover Intention			
	β^*	SE	LLCI**	ULCI**
Age (years)	-.01	.01	-.02	.01
Gender	-.13	.13	-.40	.13
Marital status	-.05	.16	-.36	.26
Education	.05	.06	-.08	.17
Length of work relationship	.11	.15	-.05	.18
LMX	-.37	.07	-.51	-.23
$R^2 = .12, F = 6.56, p = .000$				
Age (years)	-.03	.01	-.04	.02
Gender	-.15	.13	-.42	.11
Marital status	-.05	.16	-.35	.27
Education	.05	.06	-.07	.18
Length of work relationship	.07	.10	-.10	.06
LMX	-.07	.16	-.39	.25
Trust in leader	-.34	.17	-.78	-.11
$R^2 = .13, F = 5.36, p = .000$				

$N = 217$; β : Regression coefficient; **95% Bias-corrected Confidence Intervals (LLCI: Lower-level confidence interval; ULCI: Upper-level confidence interval).

The main hypothesis of the research predicted that trust in leader would mediate the relationship between LMX and turnover intention. For this purpose, the bootstrap results in the output of PROCESS macro were taken into account (See Table 3). The results showed that the confidence interval for the indirect effect of LMX on employee turnover intention via trust in leader as the mediating variable ($PE = -.29$, 95%CI [-.60, -.05]) did not contain the value of zero, indicating that the result was significant. Moreover, the results revealed that the direct effect of LMX was insignificant because the confidence interval ($PE = -.07$, 95%CI [-.39, .24] comprised zero. This indirect effect accounted for nearly 81% of the total effect of $-.36$ (see Table 3; $-.07 + -.29 = -.36$). It should also be emphasized that these findings are consistent with the regression analysis result just mentioned above. Consequently, the research hypothesis was supported.

Table 3

Total, Direct, and Indirect Effects of LMX on Turnover Intention

Model	PE*	SE	t	p	LLCI**	ULCI**
Total Effect of LMX	-.37	.07	-5.15	.00	-.51	-.23
Direct Effect of LMX	-.07	.16	-.45	.65	-.39	.24
Indirect Effect of LMX						
	PE*	BootSE	BootLLCI	BootULCI		
Trust in Leader	-.29	.17	-.60	-.05		

N = 217; *Point Estimate: 5000 iterations with replacement; **95% Bias-corrected Confidence Intervals (LLCI: Lower-level confidence interval; ULCI: Upper-level confidence interval).

Discussion

This study has focused on the relationship between LMX quality and turnover intention, which has been very limitedly addressed in the existing literature. Specifically, it has examined the existence of the mediating role of trust in leader in order to draw a clearer picture of how this relationship emerges. The findings have confirmed the existence of the hypothesized mediating role of trust in leader on that relationship. In this context, it is considered that the theoretical and practical implications of the findings deserve further discussion along with the limitations of the research and the suggestions for future studies.

Although there are various reasons behind employees' actual turnover behaviors, the turnover intention is ultimately seen as the most obvious determinant of this behavior (Griffeth et al., 2000; Parasuraman, 1982; Steel & Ovalle, 1984). Thus, identifying the factors affecting the development of those intentions of employees to quit their jobs and

manipulating these factors in a planned and systematic way in line with goals and interests of organizations can be an important theoretical contribution.

Although existing literature informs us about individual, organizational, economic, social and many other factors that affect turnover intentions of employees (Parasuraman, 1982), this current research argues that studies examining the effects of leader behaviors (i.e., immediate supervisors/managers) on employees' turnover intentions are still at its early stage. In this context, it is considered this current study can be a notable contribution to LMX and turnover literatures demonstrating the negative impact of LMX on employee turnover intention and how this effect occurs (i.e., through trust in leader). In this sense, the present study suggests that the quality of employees' dyadic relationships with their immediate supervisors must be considered as a critical factor affecting employee turnover intentions.

This study is, to our knowledge, the first to examine trust in leader as a mediating mechanism between LMX and turnover intention, and in this regard, it might fill an important gap within LMX and turnover theories. More specifically, while existing literature, albeit in limited numbers, confirms the relationship between LMX and employee turnover intention, the arguments used to explain this relationship focus more on the quality of the leader-follower relationships in general (e.g., Dienesch and Liden, 1986; Gerstner & Day, 1997; Harris & Kacmar, 2005). However, it is thought that it is not enough to explain the existence of this association only with the quality of LMX. Furthermore, a more satisfactory explanation is needed for 'how' the quality of LMX affects turnover intention. Thus, this present paper brings the concept of trust in leader, which reflects the essence of LMX theory, to the attention of LMX and turnover literatures as a mediating mechanism that can theoretically and reasonably explain this relationship. The concept of trust in leader, which is a function of the social exchange processes between leaders and followers, is the most important determinant of the quality of dyadic leader-follower relationships (Dienesch & Liden, 1986). Therefore, this study considers it a noteworthy theoretical contribution to hypothesize the mediating effect of trust in leader and to support this hypothesis with the empirical findings of this current research.

Regarding its practical implications, the results of this study show to managers at all levels of any organization that the quality of leader-subordinate relationships can be

quite effective in reducing turnover intentions of high-performing employees, which is an important problem for today's organizations. More importantly, it shows that for the effect expected from the quality of the leader-subordinate relationship, leaders must create a sense of trust in their subordinates towards themselves. Managers should keep in mind that they can build this sense of supervisory trust (i.e., trust in leader) in their work-related interactions (i.e., social exchange processes).

Furthermore, LMX theory emphasizes that there is an 'affect' dimension in addition to the mechanical side of the work-relationship between leader and followers, and suggests that this can manifest itself as a trust in leader. Indeed, the results of this present research provide empirical evidence for the validity and accuracy of these theoretical arguments to managers in the practical field. Hence, organizational managers should build quality dyadic relationships with each of their employees, so that employees can trust in those managers and avoid the intention to leave their jobs and organizations.

The findings of the study are a bit more remarkable in the case of the hospitality sector. Although the turnover intention scores of the participants in the sample seem to be at an average level (i.e., 2.46 out of 5), the high standard deviation of this value (i.e., $SD = 1.01$) shows that the variation in the turnover intentions among the participants is quite high, and therefore, this average score may not reflect the industry as a whole. Therefore, this research considers that the hospitality sector has a sensitivity in terms of employee turnover intentions.

Additionally, the high connection between LMX and turnover intention indicate that the turnover intentions of hotel employees are highly susceptible to quality of leader-follower relationships. In this context, managers should pay great attention to their relationships with hotel employees in order to keep service quality at a high level and to avoid negative consequences in terms of guest satisfaction. This result is, therefore, important for a hotel business to maintain its competitive advantage in the sector.

In this context, the current study recommends hotel managers that they should protect the interests of their employees and care about and value their well-being. Leaders should make their subordinates feel this way not only with their rhetoric, but also with their honest and sincere behaviors towards them. Furthermore, managers should support their employees in their jobs and increase their contribution to the work relationships with those employees as much as possible by providing them with the necessary resour-

ces and motivation they will need. If the managers treat their subordinates in this way, the quality of their relations with their subordinates will increase, the employees will feel safer in the work environment and they will feel more trust towards their managers. This feeling of trust, in turn, will help reduce turnover intentions of hotel employees, as this study suggested and confirmed.

As for the limitations of this study, first of all, it should be noted that this is a cross-sectional study, which could lead to the problem of common method bias. Such research designs are an obstacle to establishing cause-effect relationships between research variables because they involve uncertainty about the directions of relationships among research variables (Dust et al., 2014). For example, employees' trust in their leaders may be related to organizational norms, values, policies, and rules, or subordinates may feel that they can trust their leader from the attitudes and behaviors of the leader on several occasions, which in return may serve as an incentive for subordinates to develop more positive and constructive relationships with their leaders. That is, subordinates' sense of trust in their leaders may depend on some other factors rather than social exchange processes that this study underlines, and because of these factors, subordinates may contribute to the quality of dyadic relationships with their leaders. Therefore, caution should be exercised when making causal inferences between variables based on the results of this study. To overcome this kind of common method bias problem, it is recommended for future studies to employ longitudinal research designs (Podsakoff et al., 2012). Accordingly, leaving time intervals during the data collection process is also suggested.

Another limitation of the study, which also may lead to common method bias, is the collection of data from a single source (i.e., only the subordinates themselves). Although the positive results of confirmatory factor and AVE analyses for the distinctiveness of the scales reduce the suspicion of common method bias, one cannot say that this problem has been completely eliminated. Moreover, the findings of the present study are based on perceptual data. Objective measurements from other sources, which can replace these individual perceptual (i.e., subjective) assessments or be used in conjunction with them, are not included in this study. Therefore, in order to minimize the common method bias arising from subjective perceptions of a single source (i.e., employees) as much as possible, this research recommends future studies to consider also the assessments of leaders when evaluating the qualities of dyadic leader-follower relations-

hips. Also, if possible, they should benefit from research designs in which leader behaviors can be observed and noted in a systematic and planned way for more objective and consistent evaluations.

The dependent variable of this study is employee turnover intention. Looking at the test results, LMX and trust in leader together explain about 13% of the variance on this dependent variable (see Table 2). This result means that although leader behaviors have a significant effect on turnover intention, other factors also have a great impact on these intentions of employees. If the aim is to minimize employee turnover intentions as much as possible and to preserve efficient human resources within the organization, the recommendation for future studies might be to examine these other potential factors as well. A more specific suggestion in connection with this present study is that LMX might moderate the effects of these other possible factors, and therefore, it could also be considered in future research designs.

Similarly, it is thought that it would also be beneficial to include some organizational-level variables (i.e., organizational culture, organizational climate and organizational structure), which have the potential to affect the cause-effect relationships between the research variables, in future research models. In addition, this research considers it important for future studies to take into account different sectors other than the hospitality sector, in order to generalize the findings of the present research.

Furthermore, the participants who constitute the sample of this research reflect the general cultural characteristics of Turkish people. In this context, the scores of the participants regarding the research variables may have been affected by these cultural characteristics. Indeed, Rockstuhl and colleagues (2012) revealed that national culture affects the associations between LMX and its antecedents and outcomes. Therefore, studies to be employed in other national cultural settings may allow for more reliable and valid inferences in general.

In addition, although demographic variables were included into the analyses as control variables, other factors such as experience, personal traits, labor market conditions, industrial and general economic conditions that may have positive or negative effects on employees' turnover intentions can also be used as control variables in future studies. This is actually a need so that a more accurate and reliable picture of the relationships between variables can be drawn.

In conclusion, as its main objective, this study examined and confirmed that trust in leader plays a mediating role in the LMX and employees' turnover intentions. While this study fills a significant gap in the existing research on organizational behavior and leadership, it also shows organizational managers at all levels how the quality of the leader-follower relationships can impact employees' turnover intentions. In this regard, the results of this study can help organizations, regardless of sector, to keep high-performing employees within the organization, and help managers establish a more positive and safe work environment for their subordinates.

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Exploring the Association between Calling and Work Engagement: The Mediating Role of Psychological Needs Satisfaction and Perception of Meaningful Work

Meslek Aşkı ve İşe Adanmışlık Arasındaki İlişki: İhtiyaçların Tatmini ve İş Anlamlı Bulmanın Aracılık Rollerini

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ABSTRACT

There are different conceptualizations of work. Work can be seen as unpleasant but necessary to make a living. It can also be perceived as meaningful and a way to contribute to society. Employees who see their work as important and are motivated to make a difference in society have a sense of “calling”. The perception of a calling pertains to a sense of purpose that includes values and goals oriented to other people, and motivation to work to contribute to the welfare of society. Calling has many individual and organizational benefits; it contributes to well-being and life satisfaction because it provides meaningful goals in life. Research has shown that calling and work engagement are positively related. However, how and why perception of a calling predicts work engagement is under-researched. This research aims to fill this void. Drawing on self-determination theory and work as calling theory, this study examines a model that basic psychological needs satisfaction (autonomy, competence, and relatedness) at work and work meaning sequentially mediate the positive relationship between calling and work engagement. The sample consists of 286 Turkish teachers working in various schools in Turkey. Results showed that there is a positive relationship between calling and work engagement. Autonomy and competence needs satisfaction, but not relatedness needs satisfaction mediated this relationship. Moreover, the calling–work engagement relationship was sequentially mediated by autonomy and relatedness needs satisfaction, and work meaning. Competence needs satisfaction and work meaning, on the other hand, did not significantly mediate the proposed relationships. These results indicate that satisfaction of psychological needs, and work meaning may represent the intermediary processes in the calling–work engagement relationship. The present study provides insights for both teachers and school administrations to understand the relationship between calling and work engagement of teachers. School principals and teachers can employ these findings for the benefit of their organizations.

Keywords: Calling, work engagement, self-determination theory, meaningful work

ÖZ

İş farklı şekillerde kavramlaştırılmaktadır. İş zevksiz ama yaşamı idame ettirmek için gerekli bir aktivite olarak algılanabilir. Bunun yanısıra iş anlamlı ve topluma katkı sağlayan bir araç olarak da görülebilir. İşlerini önemli ve yaşamda bir şeyleri değiştirmek olarak algılayan çalışanlarda meslek aşkı duygusu vardır. Meslek aşkı algısı bir insanların yararına toplumunda refahı sağlamak adına çalışmayı istemek anlamına gelmektedir. Meslek aşkı anlamlı amaçlara ulaşmayı sağladığı için kişilerin iyi olma haline ve yaşam doyumlarına katkı sağlar bu bağlamda bir çok kişisel ve kurumsal olumlu çıktı ile ilişkilidir. Araştırmalar meslek aşkı ve işe adanmışlık arasında pozitif bir ilişki olduğunu ortaya koymuştur. Ancak meslek aşkı algısının ve işe adanmışlığı nasıl ve neden yordadığı araştırılmamış bir konudur. Bu araştırma bu boşluğu doldurmaya amaç edinmiştir. Bu çalışmada ayrıca öz belirleme kuramı ve iş meslek aşkı kuramından faydalanılarak, meslek aşkı ve işe adanmışlık ilişkisinde işteki psikolojik ihtiyaç (özerklik, yetkinlik ve ilişkisellik) tatmini ve işi anlamlı bulmanın sıralı aracı rolü olduğu bir model sınanmıştır. Örneklem farklı okullarda çalışan 286 öğretmenden oluşmaktadır. Analiz sonuçları, meslek aşkı ve işe adanmışlık arasında pozitif bir ilişki olduğunu göstermiştir. Bu ilişkide özerklik ve yetkinlik tatmini aracı role sahiptir. Ayrıca, özerklik ve ilişkisellik tatmini ve işi anlamlı bulmanın meslek aşkı ve işe adanmışlık ilişkisinde sıralı biçimde aracı role sahip olduğu bulunmuştur. Modelde yetkinlik ihtiyacı ve işi anlamlı bulmanın sıralı aracı rolü istatistiksel olarak anlamlı değildir. Çalışma sonuçları, işteki temel psikolojik ihtiyaç tatminiyle işi anlamlı bulmanın meslek aşkı ve işe adanmışlık ilişkisinde rolü olan sıralı aracı süreçlerden olabileceğini göstermiştir. Bu çalışma öğretmenlere ve okul yöneticilerine öğretmenlik mesleğindeki meslek aşkı ve işe adanmışlık arasındaki süreçleri anlamalarına katkı sağlamaktadır. Okul yöneticileri ve öğretmenler çalıştıkları kurumları geliştirmek adına bir çalışmanın sonuçlarından yararlanabilirler.

Anahtar Kelimeler: Meslek aşkı, işe adanmışlık, öz belirleme kuramı, işi anlamlı bulma

Work constitutes an essential part of peoples' lives. However, people view their work differently. Some are motivated to work to make a living, seeing it as unpleasant but necessary, while others view work as a crucial component of their lives, derive meaning, and feel positive about it because they believe they contribute to society. Employees who feel like the latter may be experiencing *calling*. Perception of a calling pertains to a sense of purpose that includes values and goals oriented to other people, and motivation to work to contribute to the welfare of society (Dik & Duffy, 2009). For some occupations, the perception of a calling is particularly important. For example, the perception of a calling is crucial for teachers because of the chief role teaching plays in contributing to society. In this sense, the current research focuses on the calling perceptions of teachers and investigates in what ways the perception of a calling relates to work engagement.

Calling has many individual and organizational benefits; it contributes to well-being and life satisfaction because it provides meaningful goals in life (Duffy et al., 2013). The research focused on the impact of calling on many work-related outcomes such as job satisfaction and organizational identification (Duffy et al., 2011; 2012; 2018). Employees who experience a calling find their work fulfilling and regard their work role as a significant part of their identity (Dik & Duffy, 2009). Employees who perceive a calling are engaged in their work role because they have personally and socially inspiring purposes (Dik & Duffy, 2009). Consequently, research has shown a positive association between calling and work engagement (Hirschi, 2012). However, how and why the perception of a calling predicts work engagement is under-researched. Revealing the processes that underlie the association between calling and work engagement is important to better understand how the perception of a calling leads to an energetic and happy state of mind. Duffy and colleagues (2018) proposed work as a calling theory (WCT) and highlighted the importance of examining the mediating variables in the link between calling and positive organizational outcomes (i.e., job satisfaction and job performance). To this end, it is argued that experiencing a calling is related to work engagement because such an experience satisfies the three basic psychological needs (i.e., autonomy, competence, and relatedness), leading to a state characterized by a high work meaning. In other words, this paper aims to examine the mediating roles of psychological needs satisfaction and work meaning in the link between perceiving a calling and being engaged in one's work.

Self-determination theory (SDT) suggests that people have three basic needs: autonomy, competence, and relatedness (Deci & Ryan, 2000). When these needs are fulfilled, people are intrinsically motivated to act. Studies show that intrinsically motivated employees have higher levels of well-being, performance, and engagement (Kuvaas & Dysvik, 2009; Ryan & Deci, 2000). Although the intermediary processes between calling and work engagement were examined (i.e., Xie et al., 2016), no study focused on the role that satisfaction of needs plays in the calling–work engagement relationship. This study aims to fill this gap. Meaningful work is an important component of the welfare of the employees (Robitschek & Woodson, 2006). Studies showed that employees feel meaning in their work when their needs are satisfied (Kim & Allan, 2020; Martela & Riecki, 2018). Satisfaction of employees’ needs is an antecedent of work meaning. It was argued that if employees can satisfy their basic psychological needs, they can experience meaningful work. Moreover, it is contended that the satisfaction of needs and the meaning of work will sequentially mediate the link between calling and work engagement.

The Teaching Occupation and Calling in Turkish Culture

Two characteristics of Türkiye put teaching in a central position in society and associate teaching with the experience of a calling. First, many reforms, including in education, were made after the establishment of the Turkish Republic in 1923. Important among these was the adoption of the Latin alphabet and educational secularism (Bozaslan & Çokoğullar, 2015). Atatürk was regarded as a “head teacher” who devoted himself to the modernization of Türkiye. Connotation of a “teacher” included being devoted and acting as a role model, which was highly related to the operationalization of “calling”. Atatürk’s statement, “Teachers, the generations to come will be shaped by you”, clearly exemplifies this notion of teaching. Although reforms brought about change and Westernization in the education system, the Islamic doctrine also regards teaching similarly. A proverb from a prophet, “I would do all for somebody who would teach me a letter”, highlights the sacred aspect of the teaching occupation in Islam.

Calling among employees in teaching careers has been investigated in Türkiye, including some studies conducted among nurses, and a single study conducted among social workers. Uzunbacak and colleagues (2022) investigated how calling was affected by the COVID-19 pandemic. They found that nurses have experienced positive changes, ranging from job significance to a desire to serve humanity, but also negative changes,

es, such as exhaustion, disengagement, and unappreciated overtime. Another study among nurses in Türkiye showed that the presence of a calling was positively linked to happiness and work satisfaction (Uzunbacak et al., 2019). The relationship between calling and prosocial behaviors was examined among social workers in Turkey, and a positive relationship was found. This relationship was mediated by meaning in life (Arisoy & Taş, 2021).

As stated earlier, few studies have been conducted in Türkiye on the motivations of teachers and, none of these studies examined calling on teachers. One study focused on the intrinsic and extrinsic motivations of teachers. Prospective elementary school teachers stated altruistic reasons as more important than extrinsic factors such as job security or a steady income (Saban, 2003). In another study, Gürbüz and Sülün (2004) investigated the motivations of prospective biology teachers, finding that an interest in biology was considered more important than job security. The Turkish Ministry of Education declared general competencies for the teaching occupation, including: “Carrying out his/her profession with enthusiasm and with a positive attitude.” This highlights the importance of examining the concept of calling among teachers in Türkiye.

Calling and Work Engagement

Work engagement refers to working positively and energetically. It is a state of mind characterized by vigor, dedication, and absorption (Bakker et al., 2008). Work engagement is related to many important outcomes such as an increase in financial means (Xanthopoulou et al., 2009), higher task performance (Christian et al., 2011), and enhanced organizational effectiveness (Gruman & Saks, 2011). In addition, research has shown that engaged workers are more likely to help their colleagues, improving team performance (Tims et al., 2013). Engaged workers also experience work-to-family facilitation, which in turn was positively associated with employee happiness (Shimazu et al., 2020). These studies indicate that work engagement is not only essential for employees but also for organizations. Therefore, revealing the factors that enhance work engagement is critical for advancing the work engagement theory as well as the work practices. Research has shown that personal sources such as self-efficacy and optimism, and job resources including performance feedback, autonomy, and coaching are among the antecedents of work engagement (Xanthopoulou et al., 2009). Calling was also shown as an antecedent that facilitates work engagement (Hirschi, 2012; Xie et al., 2016). An explanation for the positive association between calling and work engage-

ment may be their conceptual similarity such that they both share a dedication toward one's work. However, research indicated that they are related yet distinct constructs (Dobrow & Tosti-Kharas, 2011). Notably, Britt (2003) reported that integrating one's work into his identity is a key element of work engagement. Employees who perceive calling are engaged in their work role because they want to fulfill their personal and social goals (Dik & Duffy, 2009).

Calling, Work Engagement, and Psychological Needs Satisfaction at Work

SDT distinguishes between motivation types that are autonomous or controlled. These two forms of motivation are considered along a continuum. Intrinsic motivation is defined as an autonomous type and external motivation is a controlled type (Gagné & Deci, 2005). SDT also defines the basic needs of autonomy, relatedness, and competence that are essential for people to feel satisfied, to feel motivated and for growth. Autonomy refers to the desire for freedom and discretion over actions, competency refers to the desire to feel efficient and competent, and relatedness is the willingness to feel related to others (Deci & Ryan, 2000). The premise of SDT is that employees will show interest and intrinsic motivation in their work if these needs are recognized and satisfied (Deci & Ryan, 2000). A meta-analytical study indeed demonstrated that the satisfaction of psychological needs was positively linked to intrinsic motivation and well-being (van den Broeck et al., 2016). Intrinsic motivation pertains to liking the activity itself (Gagné & Deci, 2005). Notably, experiencing a calling typically involves doing one's work with passion, deriving meaning from work, and seeing oneself as a contributing member of society (Dobrow, 2013; Duffy et al., 2018). Consequently, calling experience is likely to be associated with intrinsic motivation, and satisfaction of three psychological needs that maintain intrinsic motivation.

SDT provides explanations of how employees' psychological needs satisfaction results in positive employee outcomes (Deci & Ryan, 2000). SDT suggests that workplace conditions have important implications for employees' well-being, satisfaction, motivation, and engagement. Engaged employees appreciate their work, identify with their work goals, and display high motivation toward work (Bakker, 2009). Supporting their association, needs satisfaction was shown to be related to work engagement (Silman, 2014). It is argued that calling and work engagement is likely to be related because perceptions of calling would be related to the satisfaction of the basic psychological needs of teachers, which in turn facilitate feelings of work meaning, and consequently bolster

work engagement. Conway and colleagues (2014) conducted a study among the Church of England clergy that examined the relationship between calling enactment and well-being, which was explained in terms of SDT. Rather than the three different forms of needs, their study focused specifically on intrinsic and identified motivation and found that both mediated the link between calling and well-being. Intrinsic motivation is about performing an activity with fun, and identified motivation refers to considering the activity important. On the other hand, introjected motivation, which is a less autonomous type, was negatively related to daily calling enactment and well-being (Conway et al., 2014). Another study that investigated calling as a precursor of work engagement showed that the relationship between calling and work engagement was mediated by flourishing at work (Erum et al., 2020). In this study, based on the SDT, flourishing at work was conceptualized as having an inner drive to learn and grow, namely, intrinsic motivation (Wiedemann, 2019). According to this study, intrinsic motivation brings about happiness, enjoyment, and interest at work. Van den Broeck and colleagues (2008) found that overall needs satisfaction emerged as a mediator in the link between job resources and work engagement. Putting together the above arguments, it is expected that teachers who perceive a calling in their jobs would be more engaged in their work because the calling perceptions would satisfy three basic needs. In other words, it is predicted that the three forms of psychological need satisfaction will mediate the relationship between calling perceptions and work engagement.

H1a. The relationship between calling and work engagement is mediated by the satisfaction of autonomy needs. Calling is positively associated with autonomy needs satisfaction, which in turn is positively associated with work engagement.

H1b. The relationship between calling and work engagement is mediated by the satisfaction of competency needs. Calling is positively associated with competency needs satisfaction, which in turn is positively associated with work engagement.

H1c. The relationship between calling and work engagement is mediated by the satisfaction of relatedness needs. Calling is positively associated with relatedness needs satisfaction, which in turn is positively associated with work engagement.

Calling, Need Satisfaction, Work Meaning, and Work Engagement

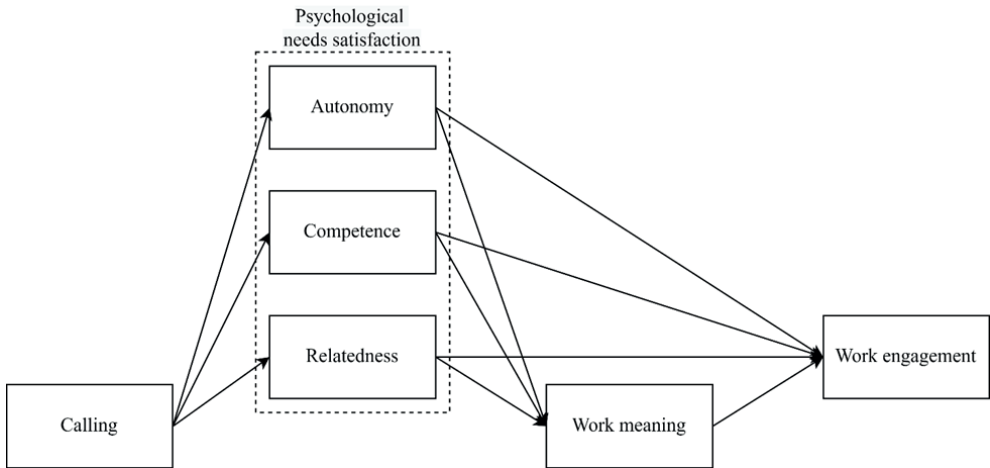
Perceiving one's job as a calling brings life meaning because calling at work is a way of expressing meaning and purpose. WCT has been proposed to identify predictors,

outcomes, mediating, and moderating variables of calling (Duffy et al., 2018). According to WCT, work meaning is likely to mediate the relationship between perceiving calling and positive organizational outcomes, such as job satisfaction and performance. Meaningfulness is the subjective evaluation of the work as worth doing, and intrinsically motivating (Spreitzer, 1995). Work meaning is one's assessment of their job, rather than a motivational construct such as work engagement or intrinsic motivation.

In cross-cultural research, it has been found that basic psychological needs satisfaction is positively linked to work meaning. In three countries, Finland, India, and the USA, the satisfaction of needs was examined to investigate whether they were related to meaningful work (Martella & Riekkii, 2018). While all three need satisfactions were positively associated with work meaning in Finland and India, only autonomy and relatedness need satisfactions were associated with work meaning in the USA. Kim and Allan (2020) integrated SDT and meaningful work. They focused on underemployment and meaningful work through the mediation of autonomy, competence, and relatedness, finding that only autonomy was a mediator in the relationship between underemployment and meaningful work. This study is important because it showed that meaningful work was positively associated with psychological need satisfaction. Previous research also showed that work meaning was related to high job performance, organizational commitment, and work engagement (Bunderson & Thompson, 2009). Specifically, a study in South Africa reported that meaningful work was linked with higher commitment and work engagement (Beukes & Botha, 2013). A study among firefighters in Romania also showed a positive link between work meaning and work engagement (Dan et al., 2020). In light of these relationships, a model is hypothesized (see Figure 1). In this model, it is asserted that the relationship between calling and work engagement will be sequentially mediated by satisfaction of three psychological needs and meaningful work.

H2. The relationship between perceiving a calling and work engagement is sequentially mediated by satisfaction of three psychological needs and work meaning (all relationships are positive).

Figure 1
The Study Model



Method

Participants

The participants were 286 Turkish teachers with different majors (math, English, Turkish, geography, etc.) working in various schools in Turkey. The sample consisted of 91 male (32%) and 195 female teachers (68%). The mean age was 40.3 years ($SD = 9.9$ years) and the mean organizational tenure was 4.7 years ($SD = 4.7$ years). The majority had undergraduate degrees (87%) and the rest had graduate degrees (13%).

Measures

Work Engagement

The Turkish version (Eryılmaz & Doğan, 2012) of the Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002) was used. The scale consist of 17 items ($\alpha = .92$) and included three subscales namely absorption, vigor, and dedication. Sample items are “At my job I feel strong and vigorous” (vigor), “I am immersed in my work” (absorption), “My job inspires me” (dedication). Participants rated 5-point Likert-type scale items (1 = *definitely untrue*, 5 = *definitely true*). Higher scores indicated greater work engagement.

Calling

The Turkish version of the 12-item calling scale developed by Dobrow and Tos-

ti-Kharas (2011) was used ($\alpha = .90$). Participants answered 5-point Likert scale questions (1 = *strongly disagree*, 5 = *strongly agree*). A sample item is “My job is always on my mind in some way.”

Basic Need Satisfaction at Work

Turkish version of the Basic Need Satisfaction at Work Scale (Baard et al., 2004; Deci et al., 2001) is used. This scale is a 21-item questionnaire measured on a 5-point scale (1 = *strongly disagree*, 5 = *strongly agree*). The need satisfaction scale had three subscales namely autonomy ($\alpha = .66$), competence ($\alpha = .66$), and relatedness ($\alpha = .83$). Sample items are “I am free to express my ideas and opinions on the job” (autonomy), “Most days I feel a sense of accomplishment from what I do” (competence), and “I really like the people I work with” (relatedness).

Work Meaning

The Turkish version of the Work and Meaning Inventory (WAMI; Steger et al., 2012) was used to measure work meaning. The 10-item scale (1 = *strongly disagree*, 5 = *strongly agree*) consisted of three subscales namely positive meaning, meaning-making through work, and greater good motivations. Internal consistency Cronbach alpha is .88. Sample items are “I have found a meaningful career” (positive meaning), “I view my work as contributing to my personal growth” (meaning making through work), and “The work I do serves a greater purpose (greater good motivations).”

Procedure

Before data collection, the researchers obtained ethical approval from the Human Subjects Ethics Committee of Izmir University of Economics on 30 June 2022 (protocol number B.30.2.İEÜ.0.05.05-020-225). The researchers contacted the participants by email, phone, or face-to-face and shared a questionnaire via a link over the Internet with participants who agreed to take part. The questionnaires were completed anonymously after participants had signed the “Informed Consent Form” indicating voluntary participation.

Sensitivity power analyses were conducted to estimate the minimum effect size the model can detect with 80% power via the web tool provided by Wang and Rhemtulla (2021). Model parameters were started as input values and changed relevant estimates to find the minimum effect size that can be detected by the model for each endogenous variable. The results showed that the model can detect the standardized relationship of

.13 in predicting work engagement, .11 in predicting work meaning, and .16 in predicting the three basic psychological needs with 80% power.

Data Analysis

First, the translation-back-translation technique was used to translate the Calling, Basic Need Satisfaction at Work, and Work Meaning scales in Turkish. Specifically, the authors of the present research translated the original English items into Turkish, and then, an English professor translated the Turkish items back into English. Finally, the authors and an industrial-organizational psychologist collaborated to solve the discrepancies between translations.

Before analyses, statistical assumptions was controlled including univariate normality, residual normality, and univariate and multivariate outliers. Four outlier cases were detected and removed from further analyses.

Confirmatory factor analyses (CFAs) were conducted and calculated diagnostic information related to the convergent and discriminant validity of the scales that were translated in this study following Hair and colleagues (2017). Specifically, model fit information, Cronbach alpha estimates, composite reliability estimates, and average variance extracted (AVE) were investigated. Cronbach alpha $> .70$, composite reliability $> .70$, and AVE $> .50$ were set as acceptable criteria (Hair et al., 2017). For the model fit assessment, the root mean square error of approximation (RMSEA) was investigated, comparative fit index (CFI), and Tucker-Lewis index (TLI). The cutoffs for an acceptable model fit were RMSEA $< .08$, CFI $> .90$, and TLI $> .90$ (Hu & Bentler, 1999). The analyses were conducted using SPSS v26, JASP (JASP team, 2022), and Mplus 8 (Muthén & Muthén, 1998/2017).

Path analysis was used, a single-indicator technique in the structural equation family, to test the model, which allowed us to examine hypotheses in a single model. The covariances between the three needs satisfaction dimensions were set free. The indirect effects were analyzed by computing 95% bias-corrected confidence intervals with 1,000 bootstrapped resamples.

Results

Preliminary Analyses

Item-level CFAs (Wirth & Edwards, 2007) were conducted to examine the factorial

structure of the Calling Scale, Basic Need Satisfaction at Work Scale Scale, and Work and Meaning Scale. The initial analyses showed that two items (Items 3 and 11) of the Basic Need Satisfaction at Work Scale had low factor loadings and consequently were removed. Table 1 displays the model fit information and other evaluation information of the translated scales. The model fits were acceptable for the three scales, the factor loadings were higher than .40, and the composite reliability scores were higher than .70. The cronbach alpha scores and AVEs were higher than the cutoff values except for autonomy and competence subscales of Basic Need Satisfaction at Work Scale Scale. Notably, the values (e.g., Cronbach alpha scores) obtained in this study were comparable with those reported by Deci and colleagues (2001).

Before the model test, the discriminant validity of the model was investigated by running CFAs with competing factor structures. Specifically, a six-factor hypothesized model was compared with a five-factor model where work engagement and work meaning were combined into a single factor and a four-factor model that combined three needs satisfaction dimensions into a single factor. Item parcels were created to improve sample size to parameter ratio (Kline, 2005). Table 1 provides the model fit information of the compared models. Six-factor model provided a good fit to the data. The fit of the six-factor model was better than the five-factor model, $\Delta\chi^2(5) = 250.56, p < .001$, and the four-factor model $\Delta\chi^2(9) = 136.01, p < .001$. Overall, these results confirm that the study variables represent distinct constructs.

Table 1

The Model Fit, Reliability, and Validity Information for the Scales Translated in the Present Study and for the Measurement Model

	χ^2	df	RMSEA	CFI	TLI	CA (α)	CR	L (λ) range	AVE
Scales translated in the present study									
Calling ^a	321.55	54	.08	.99	.99	.90	.93	.63–.84	.55
Needs satisfaction	441.26	149	.08	.94	.93				
Autonomy						.66	.77	.49–.71	.36
Competence						.66	.79	.59–.75	.43
Relatedness						.83	.90	.64–.80	.54
Work meaning ^a	72.31	33	.07	1.00	1.00	.88	.93	.58–.90	.58
The measurement model and comparison models									
Four-factor	434.50	129	.09	.91	.89				
Five-factor	549.05	125	.11	.87	.84				
Six-factor ^b	298.49	120	.07	.95	.93				
Calling						.90	.91	.84–.90	.77
Autonomy						.64	.65	.57–.68	.39

Competence	.68	.68	.56–.64	.42
Relatedness	.85	.86	.74–.89	.68
Work meaning	.89	.89	.81–.91	.73
Work engagement	.91	.91	.85–.92	.77

Note. $N = 286$. ^aTwo residual covariances for calling (Item 1–Item 3, Item 9–Item 10) and work meaning (Item 1–Item 2, Item 7–Item 9) scales were allowed to covary based on the inspection of modification indices. ^bThe information about the scales represent calculations based on item parcels. df: degrees of freedom, RMSEA: root mean square error of approximation, CFI: comparative fit index, TLI: Tucker-Lewis index, CA: Cronbach's alpha, CR: Composite reliability, L range: range of the item loadings, AVE: average variance extracted.

Hypothesis Tests

Descriptive statistics, Cronbach alpha estimates, and correlations between the study variables are shown in Table 2. The model accounted for about 60% of the variance in work engagement, 52% in work meaning, 14% in satisfaction of autonomy needs, 15% in satisfaction of competence needs, and 9% in satisfaction of relatedness needs.

Table 2
Means, Standard Deviations, and Intercorrelations among Variables

Scale	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Calling	3.61	.67	(.90)	.37**	.39**	.30**	.65**	.66**
2. Autonomy	3.93	.54		(.66)	.63**	.61**	.50**	.54**
3. Competence	4.09	.52			(.66)	.53**	.44**	.58**
4. Relatedness	4.07	.55				(.83)	.45**	.43**
5. Work meaning	4.04	.54					(.88)	.63**
6. Work engagement	4.01	.58						(.92)

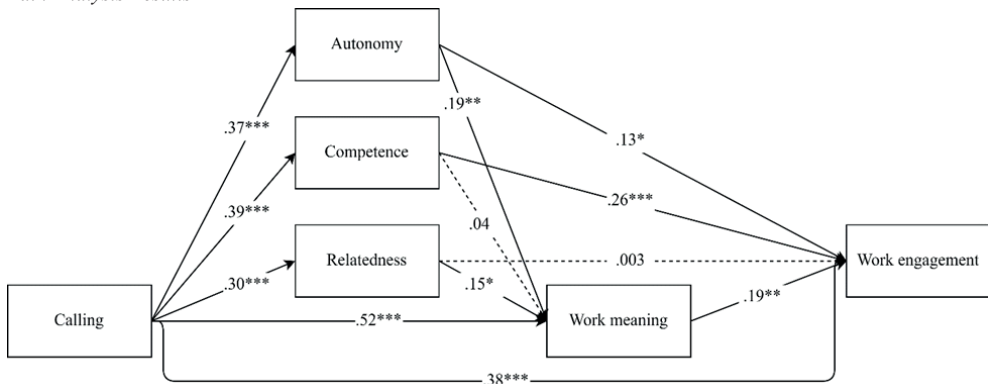
** $p < .01$

H1 stated that the relationship between calling and work engagement will be mediated by satisfaction of (a) autonomy, (b) competence, and (c) relatedness needs. The results of path analysis showed that calling significantly predicted satisfaction of autonomy, $\beta = .37$, $p < .001$, competence $\beta = .39$, $p < .001$, and relatedness needs $\beta = .30$, $p < .001$, and work engagement, $\beta = .38$, $p < .001$. Work engagement was significantly predicted by satisfaction of autonomy, $\beta = .13$, $p = .02$, and competence $\beta = .26$, $p < .001$, but not by relatedness needs, $\beta = .003$, $p = .96$. The mediation analyses showed that satisfaction of autonomy ($B = .04$, $SE = .02$, 95%CI [.01, .08]) and competence ($b = .09$, $SE = .02$, 95%CI [.05, .14]) needs mediated the relationship between calling and work engagement. Overall, the results supported *H1a* and *H1b*, but not *H1c*.

H2 predicted that the relationship between calling and work engagement would be sequentially mediated by the satisfaction of needs and work meaning. The standardized estimates of path analysis were provided in Figure 2. The results showed that all rela-

tionships were significant except for the relationship between competence and work meaning (see Figure 2). The model accounted for about 60% of the variance in work engagement, 52% in work meaning, 14% in autonomy, 15% in competence, and 9% in relatedness needs satisfaction.

Figure 2
Path Analysis Results



Note. $N = 286$. The standardized values were reported. The dashed lines show non-significant paths. The covariances between the three needs satisfaction dimensions were not included in the diagram for parsimony purposes. * $p < .05$, ** $p < .01$, *** $p < .001$.

The analysis results for all indirect effects are provided in Table 3. The results indicated that calling was significantly related to work engagement through sequential mediation of autonomy needs satisfaction and work meaning ($r = .013$, $SE = .007$, 95%CI [.003, .03]), and through sequential mediation of relatedness needs satisfaction and work meaning ($b = .008$, $SE = .004$, 95%CI [.002, .02]). These results provided partial support for $H2$, as the sequential mediation through autonomy and relatedness needs satisfaction was confirmed, but not the sequential mediation through competence needs satisfaction.

Table 3
The Indirect Effect Estimates with 1,000 Bootstrap Resamples

Path	<i>B</i>	<i>SE</i>	95% CI
DV: Work meaning			
Calling → Autonomy → Work meaning	.06	.02	[.02, .11]
Calling → Relatedness → Work meaning	.04	.02	[.01, .08]
DV: Work engagement			
Calling → Autonomy → Work engagement	.04	.02	[.01, .08]
Calling → Competence → Work engagement	.09	.02	[.05, .14]
Calling → Work meaning → Work engagement	.09	.03	[-.03, .17]
Autonomy → Work meaning → Work engagement	.04	.02	[.01, .09]
Relatedness → Work meaning → Work engagement	.03	.02	[.01, .08]
Calling → Autonomy → Work meaning → Work engagement	.012	.007	[.003, .03]
Calling → Relatedness → Work meaning → Work engagement	.008	.004	[.002, .02]

Note. CI: The upper and lower 2.5% confidence intervals. Coeff: coefficient, SE: standard error. *N* = 286.

Discussion

This study aimed to investigate the relationship between calling and work engagement using the self-determination theory framework. It was found that autonomy and competence needs satisfaction mediated the relationship between calling and work engagement. Moreover, the results showed that the positive relationship between calling and work engagement was sequentially mediated through autonomy and needs satisfaction–work meaning and relatedness needs satisfaction–work meaning. The results contribute to the literature by explicating the intermediary processes through which the experience of calling relates to work engagement. The theoretical and practical contributions of the findings was discussed in the following section.

Satisfaction of Needs as Mediating Processes

This research contributes to the literature by showing that competence and autonomy needs satisfaction underlie the relationship between calling and work engagement. Research revealed calling and work engagement are connected (Hirschi, 2012). Advancing this line of research, this study showed that satisfaction of basic needs may explain the calling–work engagement association. According to SDT, autonomy captures the feeling of psychological freedom while working. Autonomy also refers to the role of internal force in engagement in work activities, rather than external rewards and punishments (Deci & Ryan, 2000). The most important component of autonomy is acting with a sense of choice and willingness. The study findings suggest that seeing work as a calling leads to an engaged state of being about one’s work through positive experiences as a result of autonomy needs satisfaction. In other words, the satisfaction of autonomy

needs is required to translate the perception of calling into cognitive and emotional immersion in work. This finding is important because it highlights the contextual factors in examining calling, as suggested by Duffy and colleagues (2018).

Competency needs imply the need to feel mastery and to develop new skills (Deci & Ryan, 2000). The findings showed that the satisfaction of competency needs mediated the relationship between calling and work engagement. On the other hand, relatedness needs satisfaction did not emerge as a mediator in the model. Although the SDT conceptualized satisfaction of these three needs as a determinant of intrinsic motivation, a meta-analytical review (van den Broeck et al., 2016) concluded that there may be differences between the three needs in terms of their relationships with work variables. A study conducted in China among teachers using SDT as a theoretical background showed that autonomy and competence were related to the adoption of new teaching trends, such as flipped teaching, but relatedness did not appear as a predictor (Jiang et al., 2021). Meng (2020) also found that unlike satisfaction of relatedness needs, autonomy and competence satisfaction were positively related to the self-efficacy beliefs of Chinese teachers. This research also showed that autonomy and competence needs satisfaction were indirectly linked to job satisfaction through self-efficacy, but this did not occur for relatedness needs satisfaction. Meng's (2020) findings seem similar to the findings, indicating that relatedness may diverge from autonomy and competence among teachers. Although the separation of relatedness from other needs was contrary to the expectations, similar results were found in other studies (Klassen et al., 2012; Meng, 2020). Measurement of relatedness in two different forms was recommended (Klassen et al., 2012). Teachers' interaction involves not only colleagues but also students; therefore investigating teachers' relatedness needs satisfaction with a focus on their students may have merits. The conceptualization of teachers' relatedness in two different forms may be an avenue for future research. Satisfaction of teacher-student relatedness may mediate the relationship between calling and work engagement.

Satisfaction of Needs and Work Meaning as Sequential Mediating Processes

In this study, the relationship between calling and work engagement is sequentially mediated by the satisfaction of needs (autonomy and relatedness) and meaningful work, in line with the expectations. A recent longitudinal study demonstrated that satisfaction of social connection needs of workers is an antecedent of meaningful work (Allan et al., 2020), supporting the finding indicating that satisfaction of relatedness needs was posi-

tively related to meaningful work. The results also highlight the importance of autonomy needs satisfaction. Calling was positively related to work engagement through autonomy needs satisfaction and through the sequential mediation of autonomy needs satisfaction and work meaning. These results accord with the propositions of SDT that autonomy is the most influential of the three needs satisfaction (Gagné & Deci, 2005), and with research on meaningful work that emphasizes the importance of autonomy (Bailey et al., 2017).

Contrary to the expectations, competence needs satisfaction was not related to work meaning. However, it is important to note that the bivariate correlation between competence needs satisfaction and work meaning is significant and that the relationship becomes non-significant when the other two needs satisfaction and the calling were controlled. Although speculative, it seems plausible that, in predicting work meaning, autonomy and relatedness need satisfaction, and particularly, the calling experience, take precedence over competence needs satisfaction. A similar result was obtained from one of three samples of Martela and Riekkö's (2018) study. Testing whether autonomy, competence, relatedness, and beneficence would independently predict meaningful work across Finland, the USA, and India, they found that all four needs were related to meaningful work in Finland and India, but that competence did not predict work meaning in the USA.

Even though all but two examined associations and mediated relationships were significant, calling remained a strong predictor of both work meaning and work engagement. Thus, it seems that the mediating mechanisms partly account for the relationship between calling and outcomes. Lastly, this research has a unique contribution to calling literature in Türkiye. Studies on calling mainly included healthcare workers, however, this research is among the first research on calling to the occupation of teaching.

As with any research, limitations in this research must be addressed in explaining the findings. First, the study data were collected from one source at a one-time point, raising concerns regarding common method bias, and necessitating caution in interpreting the findings as causal relationships. Even though the factor analysis of the measurement model assured the discriminant validity of the constructs, future studies can benefit from employing multiple-source and multiple time points designs. Second, the reliability scores of the autonomy and competence scales were slightly low. Even though these

scores were comparable to the reliability scores obtained in previous research (e.g., Deci et al., 2001), it remains a limitation. Third, the sample of this study consisted of teachers, which is a convenient sample given the research that teachers experience calling (e.g., Rawat & Nadavulakere, 2015; Willemse & Deacon, 2015). Nevertheless, research with different samples would allow findings to be generalized to a broader range of occupations. Lastly, a limitation and a future avenue for research is the endorsement of the needs satisfaction view in explaining the relationship between calling and work engagement, even though work on psychological needs revealed the existence of needs frustration as a distinct construct (Longo et al., 2016; Vansteenkiste & Ryan, 2013). Thus, novel findings may emerge from examining the calling and work engagement relationship with the needs frustration approach.

Some practical implications must also be mentioned. The present study provides insights for both teachers and school administrations to understand the relationship between calling and work engagement of teachers. This study also emphasized that the satisfaction of needs and work meaning continue to represent a mediating factor in the relationship between calling and work engagement. It showed the important function of autonomy and relatedness in the connection between calling and work meaning. Moreover, autonomy and competence are significant variables in the linkage between calling and work engagement. Psychological needs satisfaction is related to both work meaning and work engagement, but this study indicated differences in their effects on work meaning and work engagement. School principals are not only able to use teachers' autonomy and relatedness as resources to increase work meaning, but also to use teachers' autonomy and competence as resources to increase work engagement. School principals and teachers can employ these findings for the benefit of their organizations.

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TANIM

Psikoloji Çalışmaları-Studies in Psychology, İstanbul Üniversitesi Edebiyat Fakültesi, Psikoloji Bölümü tarafından, açık erişimli, hakemli, yılda üç kere, Nisan, Ağustos ve Aralık aylarında yayınlanan, 1956 yılından beri çıkarılan, uluslararası, bilimsel bir dergidir. Web of Science - Emerging Sources Citation Index (ESCI), TÜBİTAK-ULAKBİM TR Dizin, Türk Psikiyatri Dizini, Web of Science - Emerging Sources Citation Index (ESCI) (2018'deki kabulden bu yana, geçmiş sayılar da WoS'a dahil edilmiştir; 2005'ten günümüze sayılar indekslenmektedir.), DOAJ (Directory of Open Access Journals), SOBİAD, EBSCO Academic Search Ultimate, EBSCO Central & Eastern European Academic Source ve ERIH PLUS'ta yer almaktadır. Dergiye yayınlanması için gönderilen bilimsel makaleler Türkçe ya da İngilizce olmalıdır.

AMAÇ VE KAPSAM

Psikoloji Çalışmaları-Studies in Pscyhology, temel ve uygulamalı alanların ürettiği bilgilerin birbirini beslemesine izin veren bir yayın platformu olma amacını taşımaktadır. Bu çerçevede gerek psikolojinin bütün alt alanlarındaki araştırmalara; gerekse Bilişsel Bilimler, Sinir Bilim, Genetik, Psikiyatri, Geriatri, Eğitim Bilimleri, İletişim Bilimleri, Antropoloji gibi alanları kapsayan disiplinler arası çalışmalara açıktır.

Derginin hedef kitesini akademisyenler, araştırmacılar, profesyoneller, öğrenciler ve ilgili mesleki, akademik kurum ve kuruluşları oluşturur.

EDİTORYAL POLİTİKALAR VE HAKEM SÜRECİ

Yayın Politikası

Dergi niceliksel ya da niteliksel yöntem kullanan görgül araştırmalara öncelik verir. Bunun yanında derleme makaleler ile kitap değerlendirmelerine de yer verir. Yayınlanmak üzere gönderilen makalelerin içeriği, derginin amaç ve kapsamı ile uyumlu olmalıdır.

YAYIN DİLİ

Psikoloji Çalışmaları-Studies in Pscyhology'nin yayın dili Türkçe ve İngiliz İngilizcesidir.

Genel İlkeler

1- Daha önce yayınlanmamış ya da yayınlanmak üzere değerlendirme sürecinde olmayan makaleler değerlendirilmek üzere kabul edilir. Ön değerlendirmeyi geçen yazılar iThenticate intihal tarama programından geçirilir. İntihal incelemesinden sonra, uygun makaleler Editör tarafından orijinaliteleri, metodolojileri, makalede ele alınan konunun önemi ve derginin kapsamına uygunluğu açısından değerlendirilir.

YAZARLARA BİLGİ

- 2- Ön deęerlendirmeyi geen yazılar iThenticate intihal tarama programından geirilir. İntihal incelemesinden sonra, uygun makaleler Editör tarafından orijinaliteleri, metodolojileri, makalede ele alınan konunun önemi ve derginin kapsamına uygunluęu aısından deęerlendirilir.
- 3- Makale Dergiye gönderildikten sonra tüm yazarların yazılı izni olmaksızın yazarlardan hiçbirinin ismi yazar listesinden silinemez; yeni bir isim yazar olarak eklenemez; yazar sırası deęiştirilemez.
- 4- Gönderilen makale genel olarak bilimsel standartlara ve biçimsel esaslara uygun ise hakem deęerlendirmesine gönderilir. Uygun görülmeyen alıřmalar yazar(lar)a geri gönderilerek yeniden düzenlenmesi istenir ve yazar(lar)ın makaleyi yeniden göndermesi durumunda eęer gerekli düzenlemeler yapılmıřsa hakem deęerlendirme süreci bařlatılır. Bu konularda karar hakkı editör(ler)e veya editör tarafından gerekli görülen durumlarda yayın kuruluna aittir.
- 5- Hakem süreçlerinde ift taraflı kör deęerlendirme sistemi kullanılır.
- 6- Yayına kabul edilmeyen makale, resim ve fotoęraflar yazarlara geri gönderilmez.
- 7- Eęer gönderilen alıřma, daha önce bir kongrede sunulmuř ya da yüksek lisans veya doktora tezinden üretilmiř ise yazar tarafından dipnot olarak bildirilmelidir. Makalede kullanılan veriler daha önce yayınlanan bařka bir makalede kullanılmıřsa bu bilgi de belirtilmelidir.
- 8- Derginin tüm giderleri İstanbul Üniversitesi tarafından karřılanmaktadır. Dergide makale yayını ve makale süreçlerinin yürütülmesi ücrete tabi deęildir. Dergiye gönderilen ya da yayın için kabul edilen makaleler için iřleme ücreti ya da gönderim ücreti alınmaz.
- 9- **Telif Hakkında** Yazarlar dergide yayınlanan alıřmalarının telif hakkına sahiptirler ve alıřmaları Creative Commons Atıf-GayriTicari 4.0 Uluslararası ("<https://creativecommons.org/licenses/by-nc/4.0/deed.tr>" CC BY-NC 4.0) olarak lisanslıdır. CC BY-NC 4.0 lisansı, eserin ticari kullanım dıřında her boyut ve formatta paylařılmasına, kopyalanmasına, oęaltılmasına ve orijinal esere uygun řekilde atıfta bulunmak kaydıyla yeniden düzenleme, dönüřtürme ve eserin üzerine inřa etme dâhil adapte edilmesine izin verir.

Yazar(ların) Sorumlulukları

Makalelerin bilimsel ve etik kurallara uygunluęu yazar(ların) sorumluluęundadır. Yazar(lar) makaleyi gönderdikleri zaman orijinal olduęu; daha önce bařka bir yerde yayınlanmadıęı; bařka bir yer veya bir dilde yayınlanmak üzere deęerlendirme sürecinde olmadıęı konusunda teminat vermiř sayılırlar.

Telif gerektiren materyaller (örneęin tablolar, řekiller veya büyük alıntılar) gerekli izin ve teřekkürle kullanılmalıdır. Gerekli izinlerin alınıp alınmadıęından yazar(lar) sorumludur. Uygulamadaki telif kanunları ve anlařmaları gözetilmelidir.

"Yazar" yayınlanan bir arařtırmanın fikri çerevesini ortaya koyan, alıřmayı planlayan, verilerin elde edilmesine, analizine ya da yorumlanmasına belirgin katkı yapan; yazının yazılması ya da bunun ierik aısından eleřtirel biçimde gözden geirilmesinde görev yapan kimse(ler)dir. Gönderilen makalede tüm yazarların akademik ve bilimsel olarak doęrudan katkısı olmalıdır. Yazar olarak gösterilen tüm bireyler sayılan tüm ölçütleri karřılamalıdır veya yukarıdaki ölçütleri karřılayan her birey yazar olarak gösterilebilir.

YAZARLARA BİLGİ

Fon sağlanması, veri toplanması ya da araştırma grubunun yöneticiliği tek başına yazarlık hakkı kazandırmaz. Yazarlık için yeterli ölçütleri karşılamayan ancak çalışmaya katkısı olan kişilere (teknik destek, materyal veya finansman sağlama, genel rehberlik vb.) istenirse dipnotta yer alacak şekilde teşekkür edilir.

Yazarların isim sıralaması ortak verilen bir karar olmalıdır. Tüm yazarlar yazar sıralamasını temliknamede imzalı olarak belirtmek zorundadırlar. Belirtilmediği durumda soyadına göre alfabetik sıra kullanılır. Bütün yazarlar araştırma sonucunu ya da bilimsel kararı etkileyebilecek finansal ilişkileri ve çıkar çatışmasını açıklamalıdır.

Yazar(lar) editör tarafından gönderilen hakem raporları doğrultusunda gereken düzenlemeleri incelemek ve dikkate almak ile yükümlüdür. Yeniden düzenlenmiş makaleyi ve yapılan/yapılmayan düzenlemeleri gerekçelerini de yazarak bir liste halinde editöre göndermelidir.

Bir yazar kendi yayınlanmış yazısında belirgin bir hata ya da yanlışlık tespit ederse, bu yanlışlıklara ilişkin düzeltme ya da geri çekme için editör ile hemen temasa geçme ve işbirliği yapma sorumluluğunu taşır.

Hakem Süreci

Daha önce yayınlanmamış ya da yayınlanmak üzere başka bir dergide halen değerlendirmede olmayan ve her bir yazar tarafından onaylanan makaleler değerlendirilmek üzere kabul edilir. Gönderilen ve ön kontrolü geçen makaleler iThenticate yazılımı kullanılarak intihal için taranır. İntihal kontrolünden sonra, uygun olan makaleler baş editör tarafından orijinallik, metodoloji, işlenen konunun önemi ve dergi kapsamı ile uyumluluğu açısından değerlendirilir. Editör, makaleleri, yazarların etnik kökeninden, cinsiyetinden, cinsel yöneliminden, uyuğundan, dini inancından ve siyasi felsefesinden bağımsız olarak değerlendirir. Yayına gönderilen makalelerin adil bir şekilde çift taraflı kör hakem değerlendirmesinden geçmelerini sağlar.

Seçilen makaleler en az iki ulusal/uluslararası hakeme değerlendirmeye gönderilir; yayın kararı, hakemlerin talepleri doğrultusunda yazarların gerçekleştirdiği düzenlemelerin ve hakem sürecinin sonrasında baş editör tarafından verilir.

Hakemlerin değerlendirmeleri objektif olmalıdır. Hakem süreci sırasında hakemlerin aşağıdaki hususları dikkate alarak değerlendirmelerini yapmaları beklenir.

- Makale yeni ve önemli bir bilgi içeriyor mu?
- Öz, makalenin içeriğini net ve düzgün bir şekilde tanımlıyor mu?
- Yöntem bütünlüklü ve anlaşılır şekilde tanımlanmış mı?
- Yapılan yorum ve varılan sonuçlar bulgularla kanıtlanıyor mu?
- Alandaki diğer çalışmalara yeterli referans verilmiş mi?
- Dil kalitesi yeterli mi?

YAZARLARA BİLGİ

Hakemler, gönderilen makalelere ilişkin tüm bilginin, makale yayınlanana kadar gizli kalmasını sağlamalı ve yazar tarafında herhangi bir telif hakkı ihlali ve intihal fark ederlerse editöre raporlamalıdır. Hakem, makale konusu hakkında kendini vasıflı hissetmiyor ya da zamanında geri dönüş sağlaması mümkün görünmüyorsa, editöre bu durumu bildirmeli ve hakem sürecine kendisini dahil etmemesini istemelidir.

Değerlendirme sürecinde editör hakemlere gözden geçirme için gönderilen makalelerin, yazarların özel mülkü olduğunu ve bunun imtiyazlı bir iletişim olduğunu açıkça belirtir. Hakemler ve yayın kurulu üyeleri başka kişilerle makaleleri tartışamazlar. Hakemlerin kimliğinin gizli kalmasına özen gösterilmelidir.

AÇIK ERIŞİM İLKESİ

Dergi açık erişimlidir ve derginin tüm içeriği okura ya da okurun dahil olduğu kuruma ücretsiz olarak sunulur. Okurlar, ticari amaç haricinde, yayıncı ya da yazardan izin almadan dergi makalelerinin tam metnini okuyabilir, indirebilir, kopyalayabilir, arayabilir ve link sağlayabilir. Bu "<https://www.budapestopenaccessinitiative.org/translations/turkish-translation>" BOAI açık erişim tanımıyla uyumludur.

Derginin açık erişimli makaleleri Creative Commons Atıf-GayriTicari 4.0 Uluslararası ("<https://creativecommons.org/licenses/by-nc/4.0/deed.tr>" CC BY-NC 4.0) ("<https://creativecommons.org/licenses/by-nc/4.0/deed.tr>") olarak lisanslıdır.

ETİK

Yayın Etiği

Psikoloji Çalışmaları - Studies in Psychology, yayın etiğinde en yüksek standartlara bağlıdır ve Committee on Publication Ethics (COPE), Directory of Open Access Journals (DOAJ), Open Access Scholarly Publishers Association (OASPA) ve World Association of Medical Editors (WAME) tarafından yayınlanan etik yayıncılık ilkelerini benimser; Principles of Transparency and Best Practice in Scholarly Publishing başlığı altında ifade edilen ilkeler için adres: <https://publicationethics.org/resources/guidelines-new/principles-transparency-and-best-practice-scholarly-publishing>

Gönderilen tüm makaleler orijinal, yayınlanmamış ve başka bir dergide değerlendirme sürecinde olmamalıdır. Her bir makale editörlerden biri ve en az iki hakem tarafından çift kör değerlendirmeden geçirilir. İntihal, duplikasyon, sahte yazarlık/inkar edilen yazarlık, araştırma/veri fabrikasyonu, makale dilimleme, dilimleyerek yayın, telif hakları ihlali ve çıkar çatışmasının gizlenmesi, etik dışı davranışlar olarak kabul edilir.

Kabul edilen etik standartlara uygun olmayan tüm makaleler yayından çıkarılır. Buna yayından sonra tespit edilen olası kuraldışı, uygunsuzluklar içeren makaleler de dahildir.

Ayrıca Türk Psikologlar Derneği Etik Yönetmeliği de dikkate alınır. Türk Psikologlar Derneği üyesi olan yazarlar aynı zamanda Türk Psikologlar Derneği Etik Kuruluna karşı da sorumludur.

Araştırma Etiği

Psikoloji Çalışmaları - Studies in Psychology araştırma etiğinde en yüksek standartları gözetir ve aşağıda tanımlanan uluslararası araştırma etiği ilkelerini benimser. Makalelerin etik kurallara uygunluğu yazarların sorumluluğundadır.

- Araştırmanın tasarlanması, tasarımın gözden geçirilmesi ve araştırmanın yürütülmesinde, bütünlük, kalite ve şeffaflık ilkeleri sağlanmalıdır.
- Araştırma ekibi ve katılımcılar, araştırmanın amacı, yöntemleri ve öngörülen olası kullanımları; araştırmaya katılımın gerektirdikleri ve varsa riskleri hakkında tam olarak bilgilendirilmelidir.
- Araştırma katılımcılarının sağladığı bilgilerin gizliliği ve yanıt verenlerin gizliliği sağlanmalıdır.
- Araştırma katılımcıların özerkliğini ve saygınlığını koruyacak şekilde tasarlanmalıdır.
- Araştırma katılımcıları gönüllü olarak araştırmada yer almalı, herhangi bir zorlama altında olmamalıdır.
- Katılımcıların zarar görmesinden kaçınılmalıdır. Araştırma, katılımcıları riske sokmayacak şekilde planlanmalıdır.
- Araştırma bağımsızlığıyla ilgili açık ve net olunmalı; çıkar çatışması varsa belirtilmelidir.
- İnsan denekler ile yapılan deneysel çalışmalarda, araştırmaya katılmaya karar veren katılımcıların yazılı bilgilendirilmiş onayı alınmalıdır. Çocukların ve vesayet altındakilerin veya tasdiklenmiş akıl hastalığı bulunanların yasal vasisinin onayı alınmalıdır.
- Çalışma herhangi bir kurum ya da kuruluşta gerçekleştirilecekse bu kurum ya da kuruluştan çalışma yapılacağına dair onay alınmalıdır.
- İnsan ögesi bulunan çalışmalarda, "yöntem" bölümünde katılımcılardan "bilgilendirilmiş onam" alındığının ve çalışmanın yapıldığı kurumdan etik kurul onayı alındığının belirtilmesi gerekir.

YAZILARIN HAZIRLANMASI

Makale gönderimi online olarak ve <http://sp.istanbul.edu.tr> üzerinden yapılmalıdır. Gönderilen yazılar, yazının yayınlanmak üzere gönderildiğini ifade eden, makale türünü belirten ve makaleyle ilgili bilgileri içeren (bkz: Son Kontrol Listesi) bir mektup; yazının elektronik formunu içeren Microsoft Word 2003 ve üzerindeki versiyonları ile yazılmış elektronik dosya ve tüm yazarların imzaladığı [Telif Hakkı Anlaşması Formu](#) eklenerek gönderilmelidir.

1. Web sayfası üzerinden başvuruyu gerçekleştiren yazar, değerlendirme ve yayın süreci boyunca iletişim kurulacak kişidir.
2. Makale taslağının hazırlanışı için MS Office Word programı ve .doc ya da .docx dosya formatı kullanılmalıdır. Tüm taslak; A4 sayfa boyutlarında, kenar boşlukları 3'er cm, yazı tipi 12 punto büyüklüğünde Times New Roman ve çift satır aralığı olacak şekilde düzenlenmelidir.
3. Makale taslağı -yazar(lar)a dair hiçbir kişisel bilgi bulunmamasına özen gösterilerek- şu sırayla hazırlanmalıdır:

- 3.1. İlk sayfada en fazla 250-300 kelimelik bir makale özeti ve özeti altında 3-6 adet anahtar kelime olmalıdır.
- 3.2. İkinci sayfada İngilizce özet ve anahtar kelimeler yer almalıdır.
- 3.3. Üçüncü sayfada 1500-2000 kelimelik İngilizce genişletilmiş özet yer almalıdır. İngilizce genişletilmiş özet Türkçe makaleler için zorunludur. İngilizce makaleler için genişletilmiş özet istenmez.
- 3.4. Geniş özet takiben yeni sayfadan itibaren makalenin ana metni, makalenin başlığıyla başlamalıdır. Başlığın altına parantez içinde kısa başlık yazılmalıdır.
- 3.5. Araştırma makaleleri giriş, yöntem, bulgular ve tartışma bölümlerini içermelidir. Giriş bölümüne ayrıca giriş başlığı yazılmasına gerek bulunmamaktadır.
- 3.6. Derleme makalelerde konunun çerçevesini çizen bir giriş bölümü (giriş başlığı yazılmaksızın) ve bir tartışma bölümü yer almalıdır.
- 3.7. Bunların dışında yazar(lar), metnin akışında uygun gördükleri gibi başlık ve alt başlıklar oluşturabilir. Başlıklandırmada numara ya da harf sistemi kullanılmamalı, bunun yerine APA 7 versiyonundaki başlıklandırma sisteminden yararlanılmalıdır.
- 3.8. Ana metin içinde şekil ve tabloların yer alması gereken yerler, şekil ve tablo numaraları belirtilerek işaretlenmelidir ("Şekil 3. Buraya Yerleştirilmelidir" gibi). Tablolar APA 7 formatına göre hazırlanmalıdır.
- 3.9. Ana metinden sonra kaynakça kısmı ayrı bir sayfada başlamalıdır. Kaynakça, APA 7 formatı uyarınca düzenlenmeli ve dikkatlice kontrol edilmelidir. Kaynaklar, yazar soy ismine göre alfabetik sırayla sıralanmalıdır. Kaynakçada geçen her kaynak ana metinde, ana metinde geçen her atıf kaynakçada yer almalıdır.
- 3.10. Kaynakçadan sonra her biri ayrı bir sayfada olmak üzere sırasıyla şekil ve tablolar -başlıkları ve varsa açıklamalarıyla birlikte- yer almalıdır.
4. Makale taslağında Word programının "yazım denetimi" dışında -özellikle otomatik numaralandırma gibi- hiçbir otomatik metin düzenleme özelliği kullanılmamalıdır.
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b) Türkçeye Çevrilmiş Kitap

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e) Gönderilecek makalenin dili İngilizce ise

Kamien R., & Kamien A. (2014). *Music: An appreciation*. McGraw-Hill Education.

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Bassett, C. (2006). Cultural studies and new media. In G. Hall & C. Birchall (Eds.), *New cultural studies: Adventures in theory* (pp. 220–237). Edinburgh University Press.

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Semerçioğlu, C. (2015, Haziran). Sıradanlığın rayihası. *Sabit Fikir*, 52, 38–39.

Tez, Sunum, Bildiri

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b) Web'de Yer Alan İngilizce Yüksek Lisans/Doktora Tezi

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Basic Reference Types

Book

a) Turkish Book

Karasar, N. (1995). *Araştırmalarda rapor hazırlama* (8th ed.) [Preparing research reports]. 3A Eğitim Danışmanlık Ltd.

b) Book Translated into Turkish

Mucchielli, A. (1991). *Zihniyetler* [Mindsets] (A. Kotil, Trans.). İletişim Yayınları.

c) Edited Book

Ören, T., Üney, T., & Çölkesen, R. (Eds.). (2006). *Türkiye bilişim ansiklopedisi* [Turkish Encyclopedia of Informatics]. Papatya Yayıncılık.

d) Turkish Book with Multiple Authors

Tonta, Y., Bitirim, Y., & Sever, H. (2002). *Türkçe arama motorlarında performans değerlendirme* [Performance evaluation in Turkish search engines]. Total Bilişim.

e) Book in English

Kamien R., & Kamien A. (2014). *Music: An appreciation*. McGraw-Hill Education.

f) Chapter in an Edited Book

Bassett, C. (2006). Cultural studies and new media. In G. Hall & C. Birchall (Eds.), *New cultural studies: Adventures in theory* (pp. 220–237). Edinburgh University Press.

g) Chapter in an Edited Book in Turkish

Erkmen, T. (2012). Örgüt kültürü: Fonksiyonları, öğeleri, işletme yönetimi ve liderlikteki önemi [Organization culture: Its functions, elements and importance in leadership and business management]. In M. Zencirkıran (Ed.), *Örgüt sosyolojisi* [Organization sociology] (pp. 233–263). Dora Basım Yayın.

h) Book with the same organization as author and publisher

American Psychological Association. (2009). *Publication manual of the American psychological association* (6th ed.). Washington, DC: Author.

Article

a) Turkish Article

Mutlu, B., & Savaşer, S. (2007). Çocuğu ameliyat sonrası yoğun bakımda olan ebeveynlerde stres nedenleri ve azaltma girişimleri [Source and intervention reduction of stress for parents whose children are in intensive care unit after surgery]. *Istanbul University Florence Nightingale Journal of Nursing*, 15(60), 179–182.

b) English Article

de Cillia, R., Reisigl, M., & Wodak, R. (1999). The discursive construction of national identity. *Discourse and Society*, 10(2), 149–173. <http://dx.doi.org/10.1177/0957926599010002002>

c) Journal Article with DOI and More Than 20 Authors

Lal, H., Cunningham, A. L., Godeaux, O., Chlibek, R., Diez-Domingo, J., Hwang, S.-J. ... Heineman, T. C. (2015). Efficacy of an adjuvanted herpes zoster subunit vaccine in older adults. *New England Journal of Medicine*, 372, 2087–2096. <http://dx.doi.org/10.1056/NEJMoa1501184>

d) Journal Article from Web, without DOI

Sidani, S. (2003). Enhancing the evaluation of nursing care effectiveness. *Canadian Journal of Nursing Research*, 35(3), 26-38. Retrieved from <http://cjinr.mcgill.ca>

e) Journal Article with DOI

Turner, S. J. (2010). Website statistics 2.0: Using Google Analytics to measure library website effectiveness. *Technical Services Quarterly*, 27, 261–278. <http://dx.doi.org/10.1080/07317131003765910>

f) Advance Online Publication

Smith, J. A. (2010). Citing advance online publication: A review. *Journal of Psychology*. Advance online publication. <http://dx.doi.org/10.1037/a45d7867>

g) Article in a Magazine

Henry, W. A., III. (1990, April 9). Making the grade in today's schools. *Time*, 135, 28–31.

Doctoral Dissertation, Master's Thesis, Presentation, Proceeding**a) Dissertation/Thesis from an Institutional Database**

Zambrano-Vazquez, L. (2016). *The interaction of state and trait worry on response monitoring in those with worry and obsessive-compulsive symptoms* [Doctoral dissertation, University of Arizona]. UA Campus Repository. <https://repository.arizona.edu/handle/10150/620615>

b) Dissertation/Thesis from Web

Tonta, Y. A. (1992). *An analysis of search failures in online library catalogs* [Doctoral dissertation, University of California, Berkeley]. <http://yunus.hacettepe.edu.tr/~tonta/yayinlar/phd/ickapak.html>

c) Symposium Contribution

Krinsky-McHale, S. J., Zigman, W. B., & Silverman, W. (2012, August). Are neuropsychiatric symptoms markers of prodromal Alzheimer's disease in adults with Down syndrome? In W. B. Zigman (Chair), *Predictors of mild cognitive impairment, dementia, and mortality in adults with Down syndrome*. Symposium conducted at the meeting of the American Psychological Association, Orlando, FL.

d) Conference Paper Abstract Retrieved Online

Liu, S. (2005, May). *Defending against business crises with the help of intelligent agent based early warning solutions*. Paper presented at the Seventh International Conference on Enterprise Information Systems, Miami, FL. Abstract retrieved from http://www.iceis.org/iceis2005/abstracts_2005.htm

e) Conference Paper - In Regularly Published Proceedings and Retrieved Online

Herculano-Houzel, S., Collins, C. E., Wong, P., Kaas, J. H., & Lent, R. (2008). The basic nonuniformity of the cerebral cortex. *Proceedings of the National Academy of Sciences*, 105, 12593–12598. <http://dx.doi.org/10.1073/pnas.0805417105>

f) Proceeding in Book Form

Parsons, O. A., Pryzwansky, W. B., Weinstein, D. J., & Wiens, A. N. (1995). Taxonomy for psychology. In J. N. Reich, H. Sands, & A. N. Wiens (Eds.), *Education and training beyond the doctoral degree: Proceedings of the American Psychological Association National Conference on Postdoctoral Education and Training in Psychology* (pp. 45–50). Washington, DC: American Psychological Association.

g) Paper Presentation

Nguyen, C. A. (2012, August). *Humor and deception in advertising: When laughter may not be the best medicine*. Paper presented at the meeting of the American Psychological Association, Orlando, FL.

Other Sources

a) Newspaper Article

Browne, R. (2010, March 21). This brainless patient is no dummy. *Sydney Morning Herald*, 45.

b) Newspaper Article with no Author

New drug appears to sharply cut risk of death from heart failure. (1993, July 15). *The Washington Post*, p. A12.

c) Web Page/Blog Post

Bordwell, D. (2013, June 18). David Koepp: Making the world movie-sized [Web log post]. Retrieved from <http://www.davidbordwell.net/blog/page/27/>

d) Online Encyclopedia/Dictionary

Ignition. (1989). In *Oxford English online dictionary* (2nd ed.). Retrieved from <http://dictionary.oed.com>

Marcoux, A. (2008). Business ethics. In E. N. Zalta (Ed.). *The Stanford encyclopedia of philosophy*. Retrieved from <http://plato.stanford.edu/entries/ethics-business/>

e) Podcast

Dunning, B. (Producer). (2011, January 12). *inFact: Conspiracy theories* [Video podcast]. Retrieved from <http://itunes.apple.com/>

f) Single Episode in a Television Series

Egan, D. (Writer), & Alexander, J. (Director). (2005). Failure to communicate. [Television series episode]. In D. Shore (Executive producer), *House*; New York, NY: Fox Broadcasting.

g) Music

Fuchs, G. (2004). Light the menorah. On *Eight nights of Hanukkah* [CD]. Brick, NJ: Kid Kosher.

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