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**INVESTIGATING THE EFFECTS OF SENSORY PROCESSING  
SENSITIVITY AND PERCEIVED PARENTAL ACCEPTANCE ON  
SELF-COMPASSION**

**BY**

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## ÖZET

**OKYAY, Nil Alara, Duyusal İşleme Hassasiyeti ve Ebeveyn Kabul Deneyimlerinin Öz Şefkat Üzerindeki Etkilerinin İncelenmesi, Başkent Üniversitesi, Sosyal Bilimler Enstitüsü, Klinik Psikoloji Tezli Yüksek Lisans Programı, 2024.**

Duyusal işleme hassasiyeti, iç ve dış kaynaklı uyarıcılara karşı yüksek duyarlılık olarak tanımlanan kalıtsal bir mizaç özelliğidir (Aron & Aron, 1997). Bu özellik bireysel bir farklılık olarak gen-çevre etkileşimleri konusundaki önemi nedeniyle araştırmacıların ilgisini çekmektedir. Aynı zamanda, öz şefkat kavramı da alanyazındaki güncel araştırmalarda psikolojik sağlığa etkileri ile öne çıkmaktadır. Mevcut çalışmanın amacı, duyuşsal işleme hassasiyeti ve algılanan ebeveyn kabulünün öz şefkat üzerindeki etkilerini incelemektir. Örneklem, 355 yetişkinden oluşmaktadır ve veriler demografik bilgi formu, Yüksek Duyarlı Kişi Ölçeği (YDKÖ), Yetişkin Kabul-Red Ölçeği - Kısa Form (Yetişkin EKRÖ/K) ve Öz-Şefkat Ölçeği aracılığı ile toplanmıştır. Hipotezler, demografik özelliklere göre farklılık gösterme durumunun analizinde t-testi ve yaş grupları için iki ayrı hiyerarşik regresyon analizi yürütülerek incelenmiştir. Bulgular erken yetişkinlik döneminde uyarıcı işleme hassasiyetinin, anne ve baba kabulünün öz şefkati anlamlı bir şekilde yordadığını göstermektedir. Orta yetişkinlik döneminde ise duyuşsal işleme hassasiyeti ve anne kabulü öz şefkati yordarken baba kabulünün öz şefkati yordamadığı görülmektedir. Orta yaşlı bireylerin genç yetişkin bireylere kıyasla daha yüksek öz şefkat seviyeleri sergilemelerine rağmen, hassasiyet seviyelerinden öz şefkat açısından daha olumsuz etkilendikleri görülmüştür. Araştırma bulguları ilgili alanyazın bağlamında tartışılmıştır.

**Anahtar Kelimeler:** Anne kabulü, baba kabulü, öz şefkat, duyuşsal işleme hassasiyeti

## ABSTRACT

**OKYAY, Nil Alara, Investigating the Effects of Sensory Processing Sensitivity and Perceived Parental Acceptance on Self-Compassion, Başkent University, Institute of Social Sciences, Clinical Psychology Master's Program with Thesis, 2024.**

Sensory Processing Sensitivity (SPS) is an innate trait characterized by heightened sensitivity to environmental stimuli and deeper processing of information (Aron & Aron, 1997). This trait has gained considerable research interest due to its implications for gene-environment interactions. At the same time, self-compassion has emerged as a key focus of psychological research, with evidence highlighting its positive effects on well-being. This study investigated the predictive effects of SPS and perceived parental acceptance on self-compassion among adults. The sample consisted of 355 participants, and data were gathered using a demographic information form, the Highly Sensitive Person Scale (HSPS), the Parental Acceptance-Rejection Questionnaire Short Form (PARQ/S) and the Self-Compassion Scale (SCS). Analyses included independent samples t-tests, correlational analyses, and hierarchical regression analyses across different age groups. Results revealed that SPS, along with maternal and paternal acceptance, significantly predicted self-compassion in the early adulthood group. In contrast, for the middle adulthood group, only SPS and maternal acceptance were significant predictors of self-compassion. The findings highlighted the nuanced roles of SPS as a negative influence and parental acceptance as a positive influence on fostering self-compassion across different developmental stages. Although middle-aged adults tended to exhibit higher levels of self-compassion, they were more negatively impacted by their levels of sensitivity compared to early adults. These results are discussed in relation to existing literature.

**Keywords:** Maternal acceptance, paternal acceptance, self-compassion, sensory processing sensitivity

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## LIST OF ABBREVIATIONS

BS	Biological Sensitivity to Context
DS	Differential Susceptibility
HSP	Highly Sensitive Person
HSPS	Highly Sensitive Person Scale
IPARTheory	Interpersonal Acceptance-Rejection Theory
PARQ/S	Parental Acceptance-Rejection Questionnaire Short Form
SCS	Self-Compassion Scale
SPS	Sensory Processing Sensitivity
VS	Vantage Sensitivity

# 1. INTRODUCTION

Investigating the underlying factors and determinants of adult mental health is of critical importance. Both beneficial and adverse life events, in conjunction with hereditary characteristics, are likely to have an effect on predicting and shaping mental health throughout life. Although genetics and experiences can influence psychological well-being separately and in tandem, increasing amount of research focuses on the interaction of them. The effect of life events and experiences on mental health may vary depending on individual temperament. Evolutionary biological evidence and a body of more recent psychological literature suggests a fundamental trait that is responsible for responsiveness, sensitivity, flexibility and plasticity, allowing individuals to be influenced by their environments (Belsky, 1997; Wolf et al., 2008). Studies of sensitivity as a salient temperamental quality have captured the interest of many researchers in the last decades, because of its wide implications on the human experience in different environmental conditions (Aron, 1996; Slagt et al., 2018).

On the topic of environmental factors and life events that affect and shape mental health, various aspects of rearing environments are widely studied in the literature. And for the last couple of decades, the impact of parental rejection and acceptance on the individual has also been studied extensively (Khaleque et al., 2019; Rohner, 2021) while its link to self-compassion is a newer area of study (Neff & McGehee, 2010). Self-compassion is linked to many qualities of good mental health, and it is an important mechanism that helps when individual needs to cope with unfavorable life events and difficulties. As what is known about self-compassion is growing and its link to mental wellbeing is gaining importance, it is intriguing to think about what makes individuals more self-compassionate and what more there is to know when temperamental sensitivity gets into the equation with varying parental influence.

This study aims to examine the effects of sensory processing sensitivity and parental acceptance on self-compassion and contribute to the literature on psychological wellbeing and temperament research. Therefore, the relationships of concepts used in the study are expanded further in the following sections.

## 1.1. Environmental Sensitivity

The question of how some people might be more sensitive or vulnerable to environmental factors has been a key area of interest in developmental science for several decades (Belsky, 1997; Belsky & Pluess, 2009; Pluess, 2015). According to Belsky (1997), sensitivity is a plasticity factor, enabling people to be impacted by their surroundings, that can demonstrate an advantage when combined with positive experiences and a disadvantage when combined with negative experiences. And while everyone has a degree of sensitivity that falls on a continuum and is subject to change, for a minority of people, high sensitivity is the baseline (Acevedo, 2020). It is thought that sensitivity is primarily genetically determined, and it has been linked to the serotonin transporter s-allele of the 5-HTTLPR gene (Ellis et al., 2011; Hankin et al., 2011; Knudsen et al., 2016; Licht et al., 2011). The same genetic marker is observed in over 100 species other than humans (Wolf et al., 2008).

This genetic marker is seen as simply a variation, like being taller versus shorter (Acevedo, 2020). Like any variation it is thought to contribute to the survival of the species, in the case of sensitivity, by increasing the chance to survive with a heightened awareness of necessities and careful behavior helping to avoid some risky situations (Acevedo, 2020). Differences in sensitivity reflect distinct survival strategies, either responding more or less to the environment. In various scenarios, both would have their moments of functionality (Belsky & Pluess, 2013).

The literature on infant temperament suggests that differences in the genetic trait of sensitivity can be observed even in the early months of life (Belsky et al., 1998). For instance, Morrell and Murray (2003) found that rejecting mothering affected only some infants, particularly those deemed highly irritable, who showed significantly more emotional and behavioral dysregulation. Additionally, a study by Belsky and colleagues (1998) indicated that infants who had the combination of high negative emotionality and low supportive parenting had the highest scores in externalizing problems. Sensitive infants that were initially labeled highly reactive, exhibited the higher illness rates under stressful conditions and lower illness rates while they live with a supportive family compared with less reactive infants (Boyce et al., 1995). An experimental study by Klein Velderman and colleagues (2006) demonstrated that changes in maternal sensitivity had a greater impact on the attachment quality of highly reactive infants compared to others. Furthermore, Kochanska et al. (2007) showed that with attentive mothering, sensitive infants exhibited more self-control than their less sensitive counterparts.

Environmental Sensitivity is an umbrella term to talk about the five fundamental theories in the literature that discuss the quality of sensitivity, attempting to understand the true nature of it (Pluess, 2015). These theories both share similar ideas and exhibit unique perspectives that elucidate and add to the understanding of sensitivity. First theory in this framework is *Diathesis-Stress Theory* which suggests that certain individuals exhibit a higher susceptibility to the development of disorders in the presence of environmental stressors while some are more resilient (Belsky & Pluess, 2009). The second theory is *Biological Sensitivity to Context Theory (BSC)*, that emphasizes physiological mechanisms to be at the roots of responsiveness to stimuli. It suggested that biological sensitivity made a difference both in positive and negative environments. BSC also proposed that level of sensitivity would be a product of gene and environment interactions (Boyce & Ellis, 2005). The third theory is *Differential Susceptibility Theory (DS)*, and similarly to BSC, it claims that for some of the individuals, negative experiences can have more unfavorable effects, and supportive environments can produce more positive outcomes. DS also emphasizes the influence of parental strategies, prenatal and postnatal factors in addition to the genetic predisposition (Belsky & Pluess, 2009). The fourth theory, known as *Vantage Sensitivity Theory (VS)*, posits that certain individuals display greater sensitivity compared to others and derive more substantial benefits from positive experiences without suffering more negative effects from adverse experiences, suggesting the opposite of diathesis stress theory (Pluess & Belsky, 2013). Finally, the last one of the five theories, *Sensory Processing Sensitivity Theory (SPS)* is discussed in the next section.

### **1.1.1. Sensory processing sensitivity**

The concept of SPS is coined by Aron and Aron (1997). SPS is characterized as a genetically based temperamental disposition that involves “deeper cognitive processing of stimuli that is driven by higher emotional reactivity” (Aron et al., 2012, p. 262). It is conceptualized as a neutral quality which impacts the extent to which one gets influenced by external and internal stimuli, that is innate and rooted in the nervous system (Aron & Aron, 1997; Aron et al., 2012; Greven et al., 2019). Furthermore, it is believed that those with high SPS are more sensitive to both the beneficial and adverse influences of their surroundings, circumstances, and other people (Aron & Aron, 1997; Aron et al., 2012). People with high SPS are more sensitive to the stimuli around them, whether positive or negative.

SPS is a newer theoretical approach that made quick assessment of sensitivity possible by a range of measures. It distinguished itself from the other models of sensitivity by four dimensions that are included in the theory: depth of processing, ease of overstimulation, emotional intensity, and sensory sensitivity (Aron et al., 2012; Şengül-İnal & Sümer, 2018). People with high SPS are also called Highly Sensitive People (HSP) and according to the latest research, 20-30% of people may be considered as HSPs (Aron & Aron, 1997; Aron et al., 2012; Belsky & Pluess, 2009; Lionetti et al., 2018; Pluess et al., 2018). While other studies proposed three groups of sensitivity: 20%–35% that is high in sensitivity, 41%–47% with medium sensitivity, and 20%–35% that scores lower in the scale (Lionetti et al., 2018; Pluess et al., 2018). While SPS is correlated with introversion and neuroticism, research on SPS differentiated it from other traits, and supported the idea that sensitivity is a separate temperamental trait, and it should be assessed independently (Lionetti et al., 2024; Şengül-İnal & Sümer, 2018).

The fundamental component and perhaps the most important characteristic of high sensitivity trait is the inclination to process information deeply (Aron & Aron, 1997). The depth of processing aspect of SPS occurs both with and without conscious awareness (Aron, 1996, 2001). HSPs simply process everything more, relating and comparing what they notice to their experiences for a longer time, compared to their less sensitive peers. The second component is the ease of overstimulation, which refers to a relatively lower sensory threshold. Being more easily overstimulated by the same stimuli appears to be a natural consequence of deeper processing. Likewise, possibly resulting from deeply processing a situation, the third component of SPS is emotional reactivity. Emotional reactivity occurs through susceptibility to emotions. This susceptibility leads to heightened experiences of emotions and this process results in a greater attention to stimuli. HSPs also often exhibit caution and take time to make observations and deeply process the subtleties they sense before taking action (Lionetti et al., 2018). And sensory sensitivity to the subtleties is characterized to be the last component of SPS (Aron, 2001).

The question of whether environmental sensitivity is a strength, or a weakness is studied with rising popularity in recent years. Literature suggests that high sensitivity is mostly related to unpleasant outcomes for the HSPs. HSPs may get tired and overwhelmed more quickly than less sensitive people, even in response to favorable events due to deeper processing (Jagiellowicz et al., 2016). Research shows that high sensitivity has a negative impact on quality of life, life satisfaction and overall well-being (Bakker & Moulding, 2012;

Booth et al., 2015; Costa-López et al., 2021). Other studies that demonstrate the disadvantages found SPS to be positively correlated to depression (Brindle et al., 2015; Liss et al., 2005, 2008), anxiety (Ahadi & Basharpour, 2010; Brindle et al., 2015; Gearhart & Bodie, 2012; Neal et al., 2002; Yano & Oishi, 2018), stress (Bakker & Moulding, 2012; Benham, 2006; Brindle et al., 2015; Gerstenberg, 2012), relationship difficulties (Lee & Park, 2020), neuroticism (Ahadi & Basharpour, 2010; Lionetti, Aron et al., 2019), pessimism (Meyer & Carver, 2000), and less subjective happiness levels (Sobocko & Zelenski, 2015).

Given its notable drawbacks, sensitivity still has some advantageous sides. And while negative outcomes of sensitivity are more widely studied, there is evidence suggesting the benefits of the trait, making it “both a blessing and a curse” (Gearhart, 2012, p. 2). For instance, SPS was found to be associated with greater medication sensitivity, while some medications might not work as well for others, HSPs experience medications to be more effective, while also experiencing their side effects more intensely (Jagiellowicz et al., 2024). Another study that demonstrates the two sides of sensitivity compared university students that had different levels of SPS. The students that scored high in SPS had bigger elevation in negative affect following a hard exam, and they also had a bigger decrease of it after an easy exam compared to their less sensitive peers (Aron et al., 2005).

Various aspects of the advantages of high SPS were backed by studies (Jagiellowicz et al., 2010). Deep processing of HSPs was demonstrated, showing that they engage in deep thinking, drawing connections between events, gaining insights, and creating ingrained memories of events (Acevedo et al., 2017; Aron & Aron, 1997; Aron et al., 2012; Jagiellowicz et al., 2016). Another study found more evidence for the depth of processing component of SPS, showing that SPS is positively correlated with resting state brain connectivity on attentional control, physiological homeostasis, deliberative cognition and consolidation of memory (Acevedo et al., 2021).

In the recent years, many brain imaging studies found more evidence for deep processing advantages of high SPS and helped answer more questions about its neurological representations. According to fMRI evidence, HSPs showed higher levels of activity in brain regions associated with visual perception, processing, detection and discrimination of subtle stimuli with faster reaction times and fewer mistakes in visual tasks (Aron et al., 2010; Gerstenberg, 2012; Jagiellowicz et al., 2010). HSPs also had higher levels of brain activation in the areas concerning awareness and attention (Acevedo et al., 2014).

The empathic, emotionally responsive and action-focused sides of the trait are also studied through fMRI studies, documenting high activation in brain areas related to action planning and self-control (Acevedo et al., 2017). Research demonstrated that high SPS was associated with increased brain activity in reward-related brain areas while looking at happy faces and increased brain activity in empathy-related brain areas while looking at sad faces. (Acevedo et al., 2014, 2017, 2018). SPS is also positively linked to self-other relations, cooperative conduct in groups, attending to the needs of others and identifying possible risks and threats and taking careful action (Acevedo et al., 2014, 2017).

Being more perceptive of subtleties in the environment is thought to be another advantage of having high sensitivity (Aron et al., 2012). HSPs may have a heightened sensory perception of stimuli like visuals, noises, odors, and other people's emotional expressions (Aron et al., 2012; Jagiellowicz et al., 2016), as well as show greater sensitivity to their own emotional experiences (Akinola & Mendes, 2008). Other studies have demonstrated that aesthetically pleasing stimuli, such as music and artwork, can significantly enhance happiness in HSPs, as they tend to deeply process and appreciate more of the nuances. These experiences are associated with increased reward, heightened emotional responses, and stronger memory encoding (Acevedo et al., 2014, 2017, 2018; Homberg et al., 2016). According to research, SPS has positive associations with creativity (Bridges & Schendan, 2019), greater experience of feeling of awe (Shiota et al., 2007), greater openness to experience (Smolewska et al., 2006), deeper connection to nature (Holzer et al. 2024), and greater benefits from nature-based interventions (Cadogan et al., 2023).

A study with adolescent participants showed that positive life events were more beneficial to young people that scored high in SPS compared to the ones that scored lower in SPS, showing support for the advantageous side of sensitivity under positive conditions (Iimura, 2021a). There are also intervention studies supporting the advantageous side of sensitivity, showing that HSPs benefit more from positive experiences. These studies suggest greater internalization of interventions for HSPs (Nocentini et al., 2018; Pluess & Boniwell, 2015). A school-based study on depression involving cognitive-behavioral therapy and positive psychology practices showed that the intervention was beneficial only for the students that were high in SPS while students that scored low in SPS did not show significant improvement. The findings were stable at 6- and 12-month follow-ups, suggesting deep processing that continues over time, and internalization of the coping skills (Pluess & Boniwell, 2015). Another school-based bullying intervention study by Nocentini and

colleagues (2018) found that the program decreased bullying while enhancing psychological wellbeing outcomes overall; however, children high in SPS showed particularly notable responsiveness.

A more recent intervention study was able to identify sensitivity genetically rather than using self-report measures. This study utilized a relationship education program for married couples. These couples were followed, some for 16 years, and the results showed that sensitive participants benefited substantially more from the program than less sensitive participants and their marital communication continued to improve over time (Pluess et al., 2022).

Aron (2010) suggested that HSPs are more prone to negative mental health outcomes only if they had adverse early experiences. While in adverse childhood environments high sensitivity can be experienced as a disadvantage, when joined together with nurturing early environments, high SPS with its highly plastic nature, may allow more absorption of the nourishing qualities and can be experienced to be beneficial.

Compared to children with low SPS, children with high SPS are more negatively impacted by unresponsive parenting and stressful family environments. They also gain significantly more from responsive and caring parenting (Belsky & Pluess, 2009; Klein Velderman et al., 2006; Obradovic et al., 2010; Scrimin et al., 2018). Conversely, when sensitivity is low, the environment has a much smaller impact on outcomes. This suggests that people with low sensitivity might naturally be shielded from unfavorable circumstances, but they would also require more intensive intervention to advance well-being.

Liss and colleagues (2005) showed that children high in SPS were particularly sensitive to changes in parenting style; that is, as parenting became more unfavorable, their behavioral problems increased, and when parenting improved, these problems decreased. In parallel to those findings, a more recent longitudinal study showed that sensitive children experienced a greater reduction in behavioral problems when there was less parenting stress (Lionetti et al., 2023). Maternal positivity was also found to be linked to better social outcomes for sensitive preschoolers (Hane et al., 2008). Another study demonstrated that under high unpredictability sensitive children showed greater increases in externalizing behavior problems and greater decreases when environment is more predictable while children with low sensitivity did not demonstrate such associations (Li et al., 2022).

HSP with positive early environments showed greater activity in brain areas related to emotional processing and self-regulation in comparison to participants that were low in SPS

(Acevedo et al., 2017). Studies that compare children who are high in SPS with children that score low in this trait show that positive parenting was linked to greater positive developmental outcomes for HSPs (Belsky & Pluess, 2009; Kim & Kochanska, 2012), and helped HSPs achieve higher levels of social competence (Lionetti, Aron, et al., 2019). Jagiellowicz and colleagues (2016) found that HSPs that experienced high-quality parenting also showed higher arousal to positive stimuli than less sensitive people.

On the other hand, some research showed that sensitivity can be thought as a risk factor when environmental condition is unfavorable, but they did not demonstrate positive outcomes in a supportive childhood environment, contrary to the studies previously mentioned. According to a study by Booth and colleagues (2015), while negative childhoods combined with sensitivity predicted less life satisfaction, pleasant early experiences did not predict higher life satisfaction. Likewise, a cross-sectional study showed that higher SPS was linked to greater anxiety and depression regardless of the quality of parenting, and no support was found for positive outcomes for positive experiences (Liss et al., 2005).

While SPS was studied in relation to some positive outcomes like emotional processing, self-regulation and social competence when coupled with positive environments, the research is very limited on its link to self-compassion. Only one study has been identified as addressing this link and showed that SPS was negatively correlated to self-compassion (Cisneros, 2018). As the current study also included the investigation of the parental influence on self-compassion, the impacts of warm and accepting rearing environments compared to cold and rejecting environments is discussed in the following section.

## **1.2. Parental Acceptance and Rejection**

The influence of parental warmth on a child's development into adulthood is a widely studied topic in the literature. According to Rohner (1980), a person's early experiences with parental acceptance and rejection have a significant impact on how they develop psychologically, behaviorally, and sociocognitively as they become older. One of the prevailing frameworks on the topic is by Rohner, called The Interpersonal Acceptance-Rejection Theory and it aims to understand socialization and development throughout an individual's life.

### **1.2.1. Interpersonal Acceptance-Rejection Theory**

The Interpersonal Acceptance-Rejection Theory (IPARTheory) bases its theory of an individual's lifetime development on the interpersonal acceptance or rejection they encounter. It is centered around the notion that humans have a need for acceptance by their significant others and that children especially need parental warmth and acceptance (Rohner, 2004). Related body of work examines the rejection and acceptance experiences, aiming to explain causes, consequences, and factors associated with emotional, behavioral, and sociocognitive growth (Rohner, 2004).

Initially, the theory was referred to as the Parental Acceptance-Rejection Theory. The realization of substantiality of other important relationships' influences on experiences of acceptance and rejection led to the expansion of theory, leading to the name change (Rohner & Lansford, 2017). Even though the name has changed, a large portion of the theory and research continues to focus on how children perceive their parents' acceptance or rejection, as well as how adults remember their own experiences with these interactions as children (Rohner, 2021). Much of the relevant work in the literature, similarly to the current study, focuses on the effects, origins, and correlates of parental influence.

The research regarding IPARTheory is mainly focused on the theory's three subtheories: the personality subtheory, the coping subtheory and the sociocultural systems subtheory (Rohner, 2021). According to the personality subtheory, all people regardless of individual characteristics, believe themselves as accepted or rejected by those people that matter most to them, respond in similar ways to this perception, and the effects of early acceptance-rejection experiences tend to persist into maturity. This subtheory proposes the idea that humans have evolved to possess a deeply rooted need to experience favorable responses from their caregivers and significant others. Whether the individual is conscious or not about this need, it includes a yearning for emotional comfort, affection, warmth, support and care (Rohner, 2021). The experiences on the acceptance and rejection spectrum have significant effects on the development of personality and neurobiology (Ali et al., 2024; Rohner, 2021). The unmet need of acceptance can create dispositions to problems with self-esteem, emotional problems, attachment difficulties, negative worldview and aggressive behavior (Rohner & Khaleque, 2005). According to Rohner, the perception of chronic rejection produces immense psychological distress (2021). This rejection distress during childhood has been shown to affect early brain development and is linked to the alterations

in the brain structure and dysfunctional patterns of activation in a time when the brain is most vulnerable to modification (Ali et al., 2024; Bolling et al., 2011).

The sociocultural systems subtheory aims to understand and predict the conditions in which the parents behave in accepting or rejecting ways. It focuses on the relationships between acceptance-rejection behaviors and diversity in social environment, associations to different political, economic, cultural and familial structures (Rohner, 2021).

Lastly, the coping subtheory acknowledges that some children are more competent than others to cope with the effects of daily rejection experiences from their attachment figures. Parental rejection was found to negatively affect approximately 80% of children and adults, with the remaining 20% responding differently than the theory initially predicted (Rohner, 2005). This subtheory aims to understand what makes some people more resilient than most others when emotionally coping with these experiences (Rohner, 1980). It seeks to elucidate how some of the people remain unaffected from the adverse experiences and the ways they cope. Notably, individual differences in the innate trait of sensitivity might be one factor influencing resilience and susceptibility to acceptance-rejection experiences (Liu et al., 2023).

Another important focus of IPARTheory is the warmth dimension of relationships. IPARTheory explains acceptance and rejection experiences through the warmth dimension, which is defined as a continuum that has warmth, affection, love, support, and care on one end, and unaffectionate parenting with a range of physically and psychologically harmful behaviors on the other end (Rohner, 2021). According to Khaleque and Rohner (2011), the warmth dimension describes the type and quality of the bond between a parent and a child. Rohner (2004) states that, when warmth and affection are not expressed by parents, child experiences rejection. This parental rejection can be experienced through the following behaviors: absence or withdrawal of warmth and affection, indifference/neglect, hostility/aggression, and experience of undifferentiated rejection which is based on the individual's subjective feelings of being unloved and unwanted (Rohner, 2004).

Numerous mental health-related problems have been proven to be strongly correlated with parental rejection. According to Rohner and Britner (2002), those who recall experiencing greater parental rejection are more likely to experience depression, drug and alcohol abuse, fear of intimacy, loneliness, internalizing and externalizing behavioral problems, conduct disorder and delinquency. Parental rejection was also found to be significantly associated to poor adjustment (Khaleque & Rohner, 2011), difficulties in

emotional regulation (Khaleque & Rohner, 2012), interpersonal anxiety, and heightened pain perception (Landa et al., 2020).

According to IPARTheory, rejected children are much less familiar with the feeling of being cared for and with the understanding of how to be affectionate. Despite longing for warmth, these individuals have trouble perceiving, giving and receiving affection, and therefore they have a harder time developing close relationships (Rohner & Brothers, 1999; Rohner et al., 2005). According to this theory, both young people and adults that suffer from frequent rejection tend to develop mental images of relationships to be unstable, unreliable, and painful, and a perception of the world as an unsafe and hostile place. As a result of these perceptions of an environment that has little hope for emotional needs to be fulfilled and viewing themselves as inadequate in meeting those needs, individuals may generalize these feelings to their entire self-concept. They tend to develop negative views of themselves, thinking of themselves as deserving of harsh criticism, exhibiting decreased self-esteem, and feelings of worthlessness (Rohner, 1986, 2021).

According to the literature, parental acceptance also reliably predicts a range of psychological outcomes in addition to the outcomes of rejection (Khaleque & Ali, 2017). It has been shown that parental acceptance is associated with less depressed mood, a greater degree of psychological adjustment (Khaleque & Rohner, 2002), greater life satisfaction, greater psychological hardiness (Ahmed et al., 2010), and better emotional regulation (Morris et al., 2007; Shipman & Zeman, 1999). Studies also have shown that when parental support, warmth and affection are available, individuals tend to have a more positive perception of the world and themselves (Rohner, 2021), experience higher self-acceptance (Kuyumcu & Rohner, 2016), higher empathy, higher prosocial behavior (Damon et al., 2006; Schaefer et al., 2022) and higher self-compassion (Temel & Altan Atalay, 2018). The concept of self-compassion, and its relation to parenting quality is expanded further in the following section.

### **1.3. Self-Compassion**

Self-compassion is defined by Neff (2003a) as the ability to turn to one's own trouble with kindness, adopting an understanding and nonjudgemental approach to one's own shortcomings and failures, experiencing feelings of gentleness and caring toward oneself and noticing that suffering is part of a shared experience for all people. Self-compassion requires self-understanding and kindness toward oneself in cases of failure or painful experiences, rather than criticizing or judging. Self-compassion involves perceiving suffering as an

unavoidable side of being human which is fundamentally shared rather than being an isolating one. It also involves observing and adjusting thoughts and emotions consciously as opposed to overidentifying with these experiences (Neff, 2003a). With more self-compassion, individuals' internal dialogue becomes gentler and more encouraging (Germer & Neff, 2013), they also become more understanding and supportive of themselves (Neff & Dahm, 2015).

The components of self-compassion are self-kindness or self-judgment, common humanity or isolation, and mindfulness or over-identification. *Self-kindness* is the ability to approach oneself with a kind and understanding attitude while experiencing emotional or physical pain, while *self-judgment* describes being harshly critical of oneself. *Common humanity* is the standpoint that considers painful experiences as part of shared human experience, and *isolation* is perceiving these experiences as exclusive to oneself. Furthermore, *mindfulness* in this context, refers to being aware of one's feelings and thoughts, especially during experiences of pain. On the other hand, *over-identification* refers to a fixation on one's feelings and thoughts (Neff, 2003b).

Self-acceptance is a prerequisite for self-compassion, which excludes the attitudes of judging oneself based on performance (Neff, 2003b). According to Ellis (2005), achieving self-acceptance entails "fully accepting yourself whether or not you succeed at important tasks and whether or not you are approved by significant people" (p. 158). People who exhibit high levels of self-compassion are conscious of their own shortcomings, errors and inadequacies and do not have a cruel attitude towards themselves; instead, they have a compassionate and understanding attitude (Deniz et al., 2012). Self-compassion is an asset that aids people in dealing with their problems (Fong & Loi, 2016). According to Allen and colleagues (2012), self-compassion was linked to higher subjective well-being for people in poor physical health while individuals with good physical health had high subjective well-being levels regardless of their self-compassion levels, highlighting the protective nature of self-compassion.

According to a study by Leary and colleagues (2007), self-compassion predicts how people respond to unfavorable events in their daily lives. These responses include accepting that challenges are a part of human existence, practicing kindness toward oneself during hard times, formulating plans and taking action to solve the problems. Additionally, they discovered that self-compassion shielded individuals from uncomfortable self-feelings during difficult social situations and led to the development of greater composure when

failing, in times of humiliation, during exams, competitions or live performances on stage (Leary et al., 2007). People with high self-compassion are more likely to try again after failing (Neely et al., 2009) and are less afraid of failure than people with low self-compassion (Neff et al., 2005).

Many studies found self-compassion to be linked to positive mental health effects (Gilbert, 2010; Westphal et al., 2016), higher life satisfaction (Germer, 2009; Neff, 2003a; Tel & Sarı, 2016), more developed sense of social connectedness (Cohen, 1988), and secure attachment (Neff & McGehee, 2010). In line with these findings, people who have a hard time activating compassion towards themselves are shown to experience more difficulty coping with mental health problems than those who are more self-compassionate (Neff & Germer, 2017). According to Blatt and colleagues (1982), frequent self-criticism and comparison may lead to a tendency toward depression and anxiety symptoms in the long run. Negative relationships were found between self-compassion and anger, social comparison, public self-consciousness, self-rumination (Neff & Vonk, 2008), anxiety, depression and insecure attachment styles (Neff & McGehee, 2010).

Previous research indicates that self-compassion tends to increase with age (Allen et al., 2012; Homan, 2016; Miller et al., 2019; Murn & Steele, 2019). Additionally, women have been found to experience more self-criticism and exhibit lower levels of self-compassion compared to men (Murn & Steele, 2019; Neff, 2003b; Nolen-Hoeksema et al., 1999; Yarnell et al., 2015). Furthermore, relationship status is associated with self-compassion, with married individuals generally demonstrating higher levels of self-compassion than their single counterparts (Miller et al., 2019).

Literature suggests that self-compassion also has a positive effect on the quality of close relationships and relationship harmony (Yang, 2016). A study by Neff and Beretvas (2013) showed that high self-compassionate individuals were found to show more positive relationship behavior than low self-compassionate individuals. Furthermore, in the same study, self-compassion was revealed to be a far greater predictor of positive relationship behaviors than attachment styles. Studies show that individuals with high self-compassion show higher emotional support for themselves and for others. (Crocker & Canevello, 2008; Neff & Pommier, 2013).

### **1.3.1. Self-compassion and parenting**

Parenting seems to be studied as an important predictor of self-compassion in the literature. Particularly, cold and rejecting parenting was suggested to be on the bottom of one's lack of self-compassion (Gilbert & Procter, 2006). In contrast, even in the early years of life, children who have warm, caring, supportive, empathic, compassionate relationships with their caregivers and have a high likelihood to build self-compassion (Pepping et al., 2014). It has been found that individuals who lack self-compassion have more critical mothers, do not grow up in safe environments that allows them to develop, and have a higher likelihood of acquiring an insecure attachment style, compared to self-compassionate individuals (Neff & McGehee, 2010; Wei et al., 2011).

Pepping and colleagues (2014) found that individuals who experience overprotective parenting, high levels of parental rejection and low levels of parental warmth as children had lower levels of self-compassion. Another study with adolescents and young adults showed that people that grew up in homes containing constant stress and conflict were found to have lower self-compassion (Neff & McGehee, 2010). While a criticizing attitude from parents towards the individual indicate low levels of self-compassion, supportive and democratic homes were found to affect one's ability to be self-compassionate positively (Neff & McGehee, 2010; Özyeşil, 2011).

One study found that among parental variables, perceived maternal warmth was the only variable that was found to be associated with the development of self-compassion in adolescents in Türkiye (Temel & Altan Atalay, 2018). In parallel with this, people who were treated with warmth, love and support by their parents in childhood tended to be more compassionate towards themselves and other people in their adulthood while children of cold and criticizing parents had lower levels of self-compassion. (Brown, 1998; Pepping et al., 2014). Parents' critical and cold behavior towards their children may rub off on their internal dialogue and it may cause children to behave unkindly towards themselves. Similarly, parents' warm, caring and supportive behaviors may be internalized by their children, guiding their self-talk to behave in like manner supportive towards themselves (Neff & McGehee, 2010).

#### **1.4. Aims of the Current Study**

Most of the studies mentioned in the previous section shows support for sensitivity to be seen as a susceptibility factor, for better or for worse, depending on the circumstances. However, given the seemingly conflicting findings in the literature, and many studies suggesting that sensitivity may be a risk factor associated with adverse outcomes, more studies with diverse variables are needed to reach clearer conclusions about the nuanced nature of the trait.

The exploration of SPS in adults, especially in relation to positive variables, remains limited and has only recently emerged as a focus (Acevedo, 2020). Given the established benefits of self-compassion, it was deemed a crucial variable to investigate alongside SPS and parental influence. Studying the nuances of self-compassion, particularly its components, was important for understanding of how it functions across different groups and for informing personalized psychological interventions. Therefore, this study aimed to examine how the sensitivity trait and parental acceptance influence self-compassion, providing insights into how early relational experiences contribute to emotional well-being across different groups of people.

As stated by Aron and colleagues (2005), if HSPs process all experiences more deeply and if most of their experiences are negative, it is only plausible that their affect should be more negative. In the context of the current study, it was expected that HSPs may experience less self-compassion than less sensitive people would. Additionally, in line with the existing literature, it was also expected that more parental acceptance would be associated with more self-compassion. To be able to elucidate these associations more comprehensively, analyses to examine the possible relations with different demographic groups were included in the study.

From a clinical psychological perspective, investigating how SPS and varying degrees of parental acceptance influence self-compassion is of considerable significance. The findings from the current research can point to the value of enhancements of parental and therapeutic approaches, emphasizing the possible needs for more tailored approaches and interventions. Understanding the underpinnings of the relationships between these variables can lead to the development of targeted therapeutic approaches that enhance self-compassion in individuals who are more susceptible to emotional distress due to high SPS or adverse parental experiences. By expanding the theoretical framework, this research aimed to contribute to the field's understanding of how individual differences and early life

experiences interact to shape individual differences in emotional and psychological outcomes.

In conclusion, the primary aim of the study was to explore the connection between SPS and self-compassion, along with the influence of parental acceptance-rejection in Türkiye while providing a nuanced understanding of these associations across different demographic groups.

#### **1.4.1. Research questions and hypotheses**

In line with the literature, the following research questions and hypotheses were formed.

*Question 1:* How do self-compassion levels vary across different demographic variables, such as age, gender and marital status?

*Hypothesis 1a:* A positive and significant relationship was expected between age and self-compassion levels.

*Hypothesis 1b:* Men were expected to have higher levels of self-compassion compared to women.

*Hypothesis 1c:* Married individuals were expected to have higher levels of self-compassion compared to single individuals.

*Question 2:* Do sensory processing sensitivity, perceived maternal acceptance, and perceived paternal acceptance predict self-compassion levels?

*Hypothesis 2a:* Higher levels of sensory processing sensitivity were expected to predict lower levels of self-compassion.

*Hypothesis 2b:* Higher levels of perceived maternal acceptance were expected to predict greater self-compassion levels.

*Hypothesis 2c:* Higher levels of perceived paternal acceptance were expected to predict a greater self-compassion levels.

## 2. METHOD

### 2.1. Participants

As the scope of current study involves the adulthood period, Turkish-speaking voluntary individuals aged 18 to 65 were selected using convenient sampling methods. In total, 365 adults answered the questionnaires. After data screening and outlier detection, 355 participants were left for the analyses. The mean age of the participants was 36.12 ( $SD = 15.62$ ). Among the participants, 250 were women (70.4%) and 102 were men (28.7%), while 3 participants did not specify gender. Demographic information of the sample can be seen in Table 1.

Table 2.1.

*Demographic Characteristics of the Participants*

Variable	All	
	<i>N</i>	%
Age		
Early Adulthood (18-40)	235	66.2
Middle Adulthood (41-65)	120	33.8
Gender		
Woman	250	70.4
Man	102	28.7
Did not specify	3	.8
Marital Status		
Single	222	62.5
Married	133	37.5
Employment		
Student	110	31
Employed	145	40.8
Unemployed	66	18.6
Student and employed	34	9.6

Variable	All	
	<i>N</i>	%
Highest educational level		
Middle school	2	.6
High school	123	34.6
Undergraduate degree	173	48.7
Graduate degree	57	16.1
Perceived income rate		
Very low	1	.3
Low	16	4.5
Medium	238	66.5
High	97	27.3
Very high	5	1.4
Place lived the longest		
Metropolis	258	72.7
City	65	18.3
District	27	7.6
Town	1	.3
Village	4	1.1

*Note.* N=355.

## 2.2. Procedure

Ethical approval was obtained from the Başkent University Ethics Committee. The data was collected through an online survey software, Qualtrics. The link to the survey was distributed via several online platforms (e.g. Whatsapp groups, Instagram, Facebook). Participants that clicked on the survey link were directed to a Qualtrics page that displayed an informed consent form that explained the nature of the study, including the information about confidentiality, the time it would take to finish the survey and the right to withdraw at any time. All participants signed the informed consent form in the beginning of the survey. A demographic information form was then presented to the participants. After that they were asked to respond to three self-report scales including The Highly Sensitive Person Scale

(HSPS), Parental Acceptance-Rejection Questionnaire Short Form (PARQ/S), and Self-Compassion Scale (SCS). Completing the survey took approximately 15-20 minutes. Participants were allowed to return to the questionnaires in case of an interruption to completion.

### **2.3. Measures**

#### **2.3.1. Informed consent form**

An informed consent form was used to thoroughly introduce participants to the research and formally secure their consent for participation. (Appendix 1)

#### **2.3.2. Demographic information form**

The questions in the demographic information aimed to gain information about the participants' demographics. This form included questions regarding age, gender, educational background, perceived level of income, marital status, longest lived residential division type, psychiatric diagnoses and medication use. (Appendix 2)

#### **2.3.3. The Highly Sensitive Person Scale (HSPS)**

In order to assess sensory processing sensitivity, the HSPS (Aron & Aron, 1997) was used. It is a 7-point Likert-type scale, and it consists of 27 items, that is rated (*not at all* = 1) to (*extremely* = 7). The highest score participants can get is 189, while the lowest is 27. Items are all scored in the same way, the higher the score, means higher the sensitivity level. The items are averaged to create a score reflecting the level of sensory processing sensitivity. The original scale is proposed to be a unidimensional structure. While literature proposed different factorial models, rather than examining how each subscale relates to variables of interest, the scale is advised to be used as the overall scale solely, as it better represents the construct of HSP (Aron & Aron, 2018, Smolewska et al., 2006). The original scale has been found to have a Cronbach's alpha value of .87 (Aron & Aron, 1997).

The Turkish version of The HSPS was adapted by Şengül-İnal in 2014 was used. The Turkish version of the scale proposed four subscales (sensitivity to overstimulation, sensitivity to external stimuli, aesthetic sensitivity, and harm avoidance) with Cronbach's alpha coefficients, .81, .86, .68, .55, respectively (Şengül-İnal & Sümer, 2017) and an overall Cronbach's alpha coefficient of .90 was calculated. For the current study the overall

Cronbach's alpha coefficient was found to be .88 and the subscales are .85, .85, .63, .43, respectively. The overall scale was used exclusively and treated as a continuum as advised (Aron & Aron, 2018). (Appendix 3)

#### **2.3.4. Parental Acceptance-Rejection Questionnaire Short Form (PARQ/S)**

Perceived parental acceptance-rejection was assessed by the Adult PARQ/S (Rohner, 2005). This questionnaire was used to measure remembered childhood experiences related to interactions with parents, regarding acceptance and rejection. The questionnaire consists of the Mother Form with 24 items and the Father Form with 24 items and the same four subscales for each. It is a 4-point Likert-type scale, and each item is scored as (*almost always true* = 4 points), (*sometimes true* = 3 points), (*rarely true* = 2 points), and (*almost never true* = 1 points). To determine the total acceptance score, the items in subscales other than the warmth score were reverse coded and all scores were summed together for both the mother and father forms. High scores demonstrated increased perceived acceptance, and low scores demonstrated increased perceived rejection, while the total score for each form ranged from 96 (highest level of acceptance) to 24 (highest level of rejection). The subscales are warmth/affection (reverse coded), hostility/aggression, indifference/neglect, and undifferentiated rejection, the Cronbach's alpha coefficients of the original scale were shown to be .90, .86, .85, .80 for the Mother PARQ/S, and .91, .86, .87, .82 for Father PARQ/S (Senese et al., 2016) for the subscales, respectively.

The scale was adapted to Turkish by Dedeler et. al (2017). In the Turkish form, the Cronbach's alpha internal consistency coefficient of Mother PARQ/S was found to be .92 while the coefficients of its 4 subscales are .88, .79, .77, and .75, respectively. And the Cronbach's alpha coefficient of Father PARQ/S is .96 while the coefficients of its 4 subscales are .95, .86, .85, and .88, respectively. For the current study, the Cronbach's alpha internal consistency coefficient of Mother PARQ/S was found to be .93, while the coefficients for the subscales are .89, .80, .76, .82. The Cronbach's alpha coefficient of Father PARQ/S is .95 and the subscales are .95, .85, .86, .89, respectively. (Appendix 4)

#### **2.3.5. Self-Compassion Scale (SCS)**

To assess the levels of self-compassion, the SCS (Neff, 2003b) was used. It is a 26-item, 5-point Likert-type scale scored as (*never* = 1), (*rarely* = 2), (*often* = 3), (*usually* = 4), and (*always* = 5). High scores obtained from the scale indicate higher levels of self-

compassion. The highest expected score is 130 which indicates the highest level of self-compassion, and the lowest expected score is 26. The subscales are self-kindness, self-judgment, common humanity, isolation, mindfulness and over-identification. The items of self-judgment, isolation and over-identification was reverse coded. The factor-loadings are .78, .77, .80, .79, .75, .81 for the respective subscales, and .92 for the overall scale.

The Turkish version of the SCS as adapted by Kantaş (2013) was used to measure self-compassion. The Cronbach's alpha coefficient for the entire scale was calculated as .94. The Cronbach's alpha coefficients are .85, .69, .82, .84, .77, .85 respectively for self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. For this study, in order to calculate a total self-compassion score the 13 items describing self-judgement, isolation and over-identification were reverse coded and all the items were averaged. For the current study, the Cronbach's alpha coefficient for the overall scale was calculated as .93, while the subscales are .85, .87, .78, .80, .74, .80 respectively for the subscales. (Appendix 5)

## **2.4. Data Analysis**

For statistical analyses, The Statistical Package for Social Sciences (SPSS) version 24 was used. Preliminary analyses including data screening and assumption testing were conducted to ensure data accuracy. The multivariate outliers were identified and excluded from the sample, and the dataset was checked for assumptions. Exploratory analyses were conducted to examine the descriptive statistics and sample characteristics. Then, reliability was assessed through calculations of internal consistency coefficient for each scale used in the current study. After investigating correlations among variables and running t-tests, hierarchical regression analyses were run in order to investigate the relationships between SPS, parental acceptance and self-compassion. The results of the analyses are reported in the following section.

### 3. RESULTS

#### 3.1. Data Screening and Assumption Testing

Before the main analyses, the data was examined for multivariate outliers, assumptions of normality, linearity, multicollinearity, homogeneity and homoscedasticity. The data set was screened for multivariate outliers through the examination of Mahalanobis distance, Cook's distance and Leverage values. Subsequently, univariate outliers for each scale within the dataset were identified by examining Z-scores greater than or equal to 3.29 or less than or equal to -3.29 ( $p < .001$ ). Univariate outliers were retained in the analysis, as they were considered representative of the targeted population (Tabachnick & Fidell, 2013). After outliers were identified and excluded from a total of 365 participants, final sample size was 355. Assumptions of linearity, multicollinearity, homogeneity and homoscedasticity were tested via examination of scatter plot and standardized residual plots. The skewness and kurtosis coefficients were used as statistical indexes to determine whether the variables were normally distributed. The values within the range of  $\pm 1.5$  provided an acceptable assumption of normality following the recommendations of Tabachnick and Fidell (2013). Results of the analyses suggested that overall, the data may be sufficiently used for subsequent statistical analyses. The results for calculations of normality assumptions can be seen in Table 3.1.

Table 3.1.

*Normality Assumptions for the Study Variables*

Variables	<i>Skewness</i>	<i>Kurtosis</i>
1. Sensory Processing Sensitivity	-.360	.080
2. Maternal Acceptance	-1.324	1.496
3. Paternal Acceptance	-1.138	.663
4. Self-Compassion	-.228	-.077
5. Self-Kindness	.037	-.531
6. Self-Judgement	-.364	-.309
7. Common Humanity	-.042	-.444
8. Isolation	-.554	-.303
9. Mindfulness	-.142	-.161
10. Over-identification	-.296	-.572

### 3.2. Descriptive Analyses for the Measures of the Study

Standard deviations, means, minimum and maximum values for maternal acceptance, paternal acceptance, sensory processing sensitivity, self-compassion and the subscales of self-compassion can be seen in Table 3.2.

Table 3.2.

*Descriptive Characteristics of the Study Measures*

Variables	Mean	SD	Min	Max
1. Sensory Processing Sensitivity	4.61	.86	1.93	6.78
2. Maternal Acceptance (Total)	84.39	11.91	29.00	96.00
3. Paternal Acceptance (Total)	79.77	15.82	24.00	96.00
4. Self-Compassion	3.20	.68	1.04	4.81
5. Self-Kindness	3.00	.87	1.00	5.00
6. Self-Judgement	3.29	.93	1.00	5.00
7. Common Humanity	3.09	.85	1.00	5.00
8. Isolation	3.47	.94	1.00	5.00
9. Mindfulness	3.22	.79	1.00	5.00
10. Over-identification	3.14	.94	1.00	5.00

Note. N = 355.

### 3.3. Correlations among the Variables of the Study

Pearson bivariate correlational analyses were conducted to investigate associations between all study variables. The findings suggest significant associations between parental acceptance, self-compassion, and sensory processing sensitivity within the studied population. Paternal acceptance was positively correlated with maternal acceptance ( $r = .48$ ,  $p < .001$ ). Sensory processing sensitivity showed a negative correlation with maternal acceptance ( $r = -.12$ ,  $p < .05$ ), but not a significant correlation with paternal acceptance. Self-compassion exhibited a positive correlation with both maternal acceptance ( $r = .36$ ,  $p < .001$ ), and paternal acceptance ( $r = .28$ ,  $p < .001$ ), and a negative correlation with sensory processing sensitivity ( $r = -.30$ ,  $p < .001$ ). The results of the correlational analyses are displayed in Table 3.3.

Table 3.3.

*Pearson Bivariate Correlations of the Study Variables*

Variables	1	2	3	4	5	6	7	8	9	10
1. Sensory Processing Sensitivity	-									
2. Maternal Acceptance	-.12*	-								
3. Paternal Acceptance	.01	.48**	-							
4. Self-Compassion	-.30**	.36**	.28**	-						
5. Self-Kindness	-.11*	.28**	.26**	.80**	-					
6. Self-Judgement	.29**	-.26**	-.18**	-.81**	-.55**	-				
7. Common Humanity	-.06	.23**	.19**	.71**	.69**	-.37**	-			
8. Isolation	.32**	-.33**	-.20**	-.73**	-.29**	.65**	-.31**	-		
9. Mindfulness	-.10	.28**	.24**	.73**	.73**	-.35**	.64**	-.34**	-	
10. Over-Identification	.45**	-.30**	-.22**	-.77**	-.38**	.67**	-.32**	.73**	-.40**	-

*Note.* \* $p < .05$  (2-tailed), \*\* $p < .001$  (2-tailed).

### 3.4. Analyses Related to Demographic Variables

Independent samples t-tests were performed comparing age groups, gender, and marital status variables on self-compassion to be able to test Hypotheses 1a, 1b and 1c. The first test was performed comparing the self-compassion scores of age groups. First, the study participants were divided into two groups: early adulthood group (aged 18-40) and middle adulthood group (aged 41-65) based on Santrock's classification of developmental stages throughout lifespan (2020). Although there might be considerable individual variation within these age groups, these developmental stages are generally characterized by distinct patterns in life events, physical and cognitive development, as well as socioemotional growth, which could influence levels of self-compassion. The result of the t-test comparing age groups showed that there was a statistically significant difference between the two groups [ $t(353) = -4.50, p = .001, 95\% \text{ CI}(-.48, -.19), d = -.51$ ]. And the middle adulthood group ( $M = 3.41, SD = .61$ ) scored higher than early adulthood group ( $M = 3.08, SD = .69$ ) on self-compassion.

The second independent samples t-test was conducted to compare two groups of gender and due to the insufficient number of participants did not specify gender and picked other option, the comparative analysis was restricted to only women and men. According to the results, self-compassion showed a statistically significant difference based on gender [ $t(225) = -2.16, p = .032, 95\% \text{ CI}(-.30, -.01), d = -.23$ ]. The findings showed that men have a significantly higher mean score on the self-compassion scale ( $M = 3.31, SD = .59$ ) compared to women ( $M = 3.15, SD = .71$ ).

The last independent samples t-test analysis was conducted to compare single individuals and married individuals on self-compassion levels. The results showed that self-compassion exhibits a statistically significant difference based on marital status [ $t(353) = -3.18, p = .002, 95\% \text{ CI}(-.38, -.09), d = -.35$ ]. The findings reveal that married participants have a significantly higher mean score on the self-compassion scale ( $M = 3.34, SD = .62$ ) compared to single participants ( $M = 3.11, SD = .70$ ).

### **3.5. The Predictive Relationships among Sensory Processing Sensitivity, Maternal Acceptance, Paternal Acceptance, and Self-Compassion**

In order to examine Hypotheses 2a, 2b and 2c, two four-step hierarchical multiple regressions were conducted. These analyses aimed to test whether changes in SPS, maternal acceptance and paternal acceptance predicted self-compassion in different age groups (early adulthood and middle adulthood). Gender and marital status were controlled in these regressions. For both analyses, variables were analyzed in 4 steps. Gender and marital status variables were entered in the first step, SPS was entered in the second step, maternal acceptance was entered in the third step and paternal acceptance was entered in the fourth step of the regressions. Given its innate nature, SPS could be seen as a foundational factor that affects self-compassion from the outset. For the current research, it was entered in the analysis before parental influence, in order to assess its direct impact on self-compassion before considering more environmental or relational factors.

Before the hierarchical regression analyses, regression analysis assumptions were tested. Tolerance and Variance Increase Factor (VIF) values were analyzed in order to check for multicollinearity. Tolerance values were greater than .20 and VIF values were less than 10. These values showed no multicollinearity problem. In addition, for the first analysis Durbin Watson value was found to be 2.10 and for the second analysis it was found to be 1.83. Because these values were under 2.5, they were considered to be acceptable (Allison, 1999).

First hierarchical regression analysis was run for the early adulthood group. The results of the first hierarchical regression showed that the overall model was found significant, explaining 21% of the variance in the self-compassion scores [ $R^2 = .21$ ,  $\Delta R^2 = .02$ ,  $F(5, 229) = 11.989$ ,  $p < .001$ ]. In the first step, gender ( $\beta = .05$ ,  $p = .42$ ) and marital status ( $\beta = .06$ ,  $p = .34$ ) were not found to be significant predictors of self-compassion. In the second step SPS contributed significantly to the model, [ $R^2 = .06$ ,  $\Delta R^2 = .05$ ,  $F(3, 231) = 4.613$ ,  $p < .001$ ] and accounted for 4.9% of the variation in self-compassion. Adding maternal acceptance to the regression model in the third step explained an additional 13.3% of the variation: [ $R^2 = .19$ ,  $\Delta R^2 = .13$ ,  $F(4, 230) = 13.412$ ,  $p < .001$ ]. And adding paternal acceptance in the fourth step explained an additional 1.8% of the variation. For the early adulthood age group, maternal acceptance was a significant predictor over and above SPS and paternal acceptance.

Together SPS, maternal and paternal acceptance accounted for 20% of the variance in self-compassion. The results of the hierarchical regression analysis are presented in Table 3.4.

Table 3.4.

*Hierarchical Regression Analysis Results for Self-Compassion in Early Adulthood*

	$\beta$	$p$	CI (95%)	
			Lower Bound	Upper Bound
<b>Model 1</b>				
Gender	.05	.415	-.11	.27
Marital Status	.06	.339	-.12	.33
<b>Model 2</b>				
Gender	-.01	.878	-.21	.18
Marital Status	.07	.295	-.10	.34
SPS	-.23**	.001	-.29	-.08
<b>Model 3</b>				
Gender	-.03	.623	-.22	.13
Marital Status	.08	.180	-.07	.34
SPS	-.18*	.003	-.25	-.05
Maternal Acceptance	.37**	.001	.01	.03
<b>Model 4</b>				
Gender	-.025	.686	-.21	.14
Marital Status	0.81	.171	-.06	.34
SPS	-.20*	.002	-.25	-.06
Maternal Acceptance	.29**	.001	.01	.02
Paternal Acceptance	.16*	.022	.00	.01

Note. \* $p < .05$ , \*\* $p < .001$ .  $\beta$ : Standardized Coefficients Beta, CI 95%: Confidence Intervals.

Another hierarchical regression analysis was run for the middle adulthood group. A four-step hierarchical multiple regression was conducted with self-compassion as the dependent variable. The overall model explained 29.1% of the variance in self-compassion. [ $R^2 = .29$ ,  $\Delta R^2 = .00$ ,  $F(5,114) = 9.356$ ,  $p < .001$ ]. The results showed that in the second step SPS contributed significantly to the model [ $R^2 = .18$ ,  $\Delta R^2 = .16$ ,  $F(3,116) = 8.349$ ,  $p < .001$ ] and accounted for 15.9% of the variation in self-compassion. Adding maternal acceptance explained an additional 11% of the variation [ $R^2 = .29$ ,  $\Delta R^2 = .11$ ,  $F(4,115) = 11.596$ ,  $p < .001$ ]. And in the fourth step paternal acceptance ( $\beta = .07$ ,  $p = .45$ ) was not found to be a significant predictor of self-compassion. For the middle adulthood age group SPS was a

significant predictor over and above maternal acceptance. The results of the hierarchical regression analysis are presented in Table 3.5.

Table 3.5.

*Hierarchical Regression Analysis Results for Self-Compassion in Middle Adulthood*

	$\beta$	$p$	CI (95%)	
			Lower Bound	Upper Bound
<b>Model 1</b>				
Gender	.13	.153	-.06	.40
Marital Status	.01	.955	-.24	.26
<b>Model 2</b>				
Gender	.13	.134	-.05	.38
Marital Status	-.05	.548	-.30	.16
SPS	-.40**	.001	-.41	-.16
<b>Model 3</b>				
Gender	.10	.224	-.08	.32
Marital Status	-.04	.590	-.28	.16
SPS	-.37**	.001	-.38	-.15
Maternal Acceptance	.33**	.001	.01	.03
<b>Model 4</b>				
Gender	.11	.187	-.07	.34
Marital Status	-.05	.546	-.29	.15
SPS	-.38**	.001	-.38	-.16
Maternal Acceptance	.30**	.001	.01	.03
Paternal Acceptance	.07	.453	-.01	.01

*Note.* \*  $p < .05$ , \*\*  $p < .001$ .  $\beta$ : Standardized Coefficients Beta, CI 95%: Confidence Intervals.

## **4. DISCUSSION**

The current study aimed to contribute to the literature by investigating sensory processing sensitivity and parental acceptance as predictors of self-compassion. In order to examine the nature of the associations between these concepts, t-tests, correlation and hierarchical regression analyses were conducted. In this section, the results obtained from these analyses are discussed within the framework of the relevant literature. Results of the current study is discussed in five parts, in parallel with the order presented in the previous section. First subsection explores correlations between the study variables, revealing their connections and discussing possible impacts. The second subsection includes the discussion of findings related to demographic variables. Then, the discussion of predictive relationships between sensory processing sensitivity, parental acceptance and self-compassion is addressed. Later, the limitations of our study are considered, and future research directions are suggested to address the existing gaps. Finally, practical implications of our findings for clinical settings are discussed.

### **4.1. Discussion of Correlational Analyses among the Study Variables**

In order to examine the associations among parental acceptance, sensitivity and facets of self-compassion correlational analyses were conducted. Results of the correlational analyses revealed that maternal acceptance and paternal acceptance exhibited similar patterns of correlations with self-compassion. Specifically, both maternal and paternal acceptance correlated positively with self-kindness, common humanity and mindfulness, while they also demonstrated negative associations with self-judgement, isolation and over-identification. These findings from the current study are consistent with the related literature, demonstrating the positive correlation between parental acceptance and self-compassion (Brown, 1998; Pepping et al., 2014; Neff & McGehee, 2010; Temel & Altan Atalay, 2018). These findings indicate that individuals with higher levels of parental acceptance tend to show more kindness towards themselves, feel more interconnected with others and experience more mindful awareness of the experience while they are distressed.

Results from the current study showed that SPS was negatively correlated with overall self-compassion and self-kindness. While the research on this link is very limited, this negative relationship with overall self-compassion was also demonstrated in the literature (Cisneros, 2018). Findings of the current study also show that SPS was positively correlated

with self-judgement, isolation and over-identification. These results indicate that people with high sensitivity may have a harder time accessing and activating self-compassion while they are in distress. They may judge themselves more harshly and have more trouble disengaging from distressing experiences. SPS has been shown to be associated with heightened responsiveness to stimuli, that can include their own emotions and self-critical thoughts (Akinola & Mendes, 2008), and this could be the mechanism behind the positive correlations with over-identification and self-judgement. Furthermore, as individuals high in SPS might have a heightened attunement to subtle social cues and expectations (Aron et al., 2012), this could affect their self-perceptions. For instance, if sensitives perceive themselves to be more emotionally reactive and different than the majority that demonstrates higher toughness in adverse situations (Lionetti, Pastore, et al., 2019), this can possibly lead to an unkind inner dialogue (Aron, 1996).

The first of three insignificant correlations found in the current study was between SPS and common humanity, while isolation was significantly positively correlated with SPS. This finding suggests that people that score high in SPS might acknowledge that most people experience similar distressing feelings in difficult situations, but still feel alone about their perceived shortcomings. It appears that highly sensitive individuals may have a hard time extending compassion to themselves when faced with adversity or failure, as they may perceive themselves as inadequate or overly sensitive, and these perceptions can lead them to feel isolated. Literature shows that low self-compassion correlates with diminished self-acceptance (Neff 2003b), which involves the struggle to embrace oneself as a whole, including both strengths and shortcomings. This lack of self-acceptance can be connected to lacking an understanding of oneself, and it can also be thought to stem from being misunderstood and internalizing criticism. As those high in SPS tend to process stimuli more deeply, if they internalize societal biases that may be present in social stimuli, this can be a factor to lower self-compassion.

Societal biases often manifest within cultures that prioritize traits such as toughness or boldness (Aron, 1996). These biases are closely tied to the prevailing concept of an ideal personality, which can vary across different cultural contexts (Aron, 1996). For example, research by Zeff (2010) reveals that sensitivity is more valued in Denmark, whereas Canadian participants regard it as a less desirable trait. As societal conditions evolve, so do the values that cultures idealize. During periods of hardship, cultural or subcultural values

may shift to favor boldness over caution, which can lead to a decreased appreciation for sensitivity (Acevedo, 2020).

The societal biases can perpetuate internalized bias (Aron, 1996), and that can impact self-compassion. For instance, self-compassion has been shown to negatively correlate with other forms of internalized bias, such as internalized weight bias (Lamont & Deines, 2023) and internalized bias against sexual minorities (Brown-Beresford & McLaren, 2022). However, the relationship between self-compassion and internalized bias related to sensitivity level is not yet clear as there appears to be no research specifically focused on this association. Additionally, it can be inferred that these cultural biases may contribute to reduced acceptance and understanding in close relationships. Cultural biases against sensitivity, might lead to lower levels of acceptance of sensitivity from other family members, intimate partners and peers regardless of perceived parental acceptance. These other relationships might come together like a subculture that might value, ignore or disapprove of sensitivity, and these views might have an influence on how individuals think of themselves and their self-acceptance. In light of the literature, the results of the current study may imply that perceived rejection from close others can impact their sense of belonging and deepen the feelings of isolation, leading to a lesser ability to practice self-compassion.

The second insignificant correlation was between SPS and mindfulness, while over-identification was found to be positively correlated with SPS. This finding indicates that while people with high SPS may try to step back from their experiences in order to have a balanced view and approach difficulties with acceptance and understanding, they may still tend to ruminate on what is going wrong, and feel inadequate after failure, overwhelmed by sadness. This result can be considered to be consistent with what is known about high SPS in terms of heightened emotional responsiveness and ease of overstimulation (Aron, 2001).

The current study also found a negative correlation between SPS and maternal acceptance but not a significant correlation between SPS and paternal acceptance. Literature shows inconsistent results regarding these associations. A study with an Italian sample reported no significant association between family support and SPS (Scrimin et al., 2018), while a parental acceptance and SPS was found to be positively correlated in a Chinese sample (Li et al., 2022). Differences in these results may be attributed to varying parental attitudes across different cultures (Zeff, 2010). Given the negative correlation observed between maternal acceptance and SPS in the current study, it can be speculated that parents

may not always recognize, understand or accommodate the needs related to sensitivity in their children. And if they are unaware or if they do not fully grasp the trait, they may struggle to provide effective support. This lack of understanding and support can be perceived as lower level of parental acceptance by the highly sensitive individuals. Also, the cultural norms may have a role, as they can influence parental attitudes and behaviors, and potentially lead parents to favor toughness which could impact the perceived level of parental acceptance. As the sensitivity trait makes HSPs an invisible minority in the population, it can be speculated that parental rejection may be a rather common experience for HSPs. Parental attitudes specifically toward sensitivity as a trait may also influence how sensitive individuals perceive themselves and therefore their self-compassion levels.

Furthermore, negative correlation between SPS and perceived maternal acceptance might be related a highly sensitive experience of memories. People with high sensitivity are shown to have more deeply ingrained memories compared to their less sensitive peers, due to their deep processing over time (Acevedo et al., 2017), and heightened emotional responsivity (Baumeister et al., 2007). Their memories include more details that might be affected by their heightened sensitivity to subtle emotional cues and subtle environmental stressors (Aron & Aron, 1997). The negativity bias to remember the negative experiences more than pleasant ones (Baumeister et al., 2001) might be experienced in a more pronounced way because of the already higher level of perceived subtle stressors. This may imply that if one detects subtle negativities more, then one can base the interpretations of events on those negatives as they are already more likely to be remembered. These factors are thought to be possible influences on perceptions of childhood experiences, that could possibly differ based on sensitivity level of the individual.

Additionally, according to the literature on temperament research, individuals with a genetic predisposition for sensitivity may exhibit heightened emotional responsiveness or reactivity to sensory stimuli from an early age (Boyce et al., 1995). This temperamental trait can shape how parents perceive and interact with their children, potentially influencing parenting behaviors that either support or hinder the further development of sensitivity. For instance, parents who perceive their child as sensitive may adopt protective behaviors to shield the child from potentially overwhelming stimuli, which could, in turn, enhance child's sensitivity (Liss et al., 2005). As theorized by Boyce and Ellis (2005), an individual's sensitivity level can be the product of gene-environment interactions. In addition to a genetic predisposition, sensitivity might be more pronounced either when the parenting environment

is most supportive or when it is most stressful for the child. When interpreted from this perspective, the findings of the current study suggest that a stressful environment that is created by less accepting parenting might have influenced reported sensitivity levels of the adults.

#### **4.2. Discussion of Findings Related to Demographic Variables**

Three independent samples t-tests were conducted to explore differences in self-compassion levels across demographic groups based on age, sex, and marital status, addressing the first research question of the current study. The first analysis revealed that individuals in middle adulthood (aged 41-65) exhibited significantly higher levels of self-compassion compared to those in early adulthood (aged 18-40). This finding aligns with existing literature, that consistently shows that self-compassion tends to increase with age (Allen et al., 2012; Homan, 2016; Miller et al., 2019; Murn & Steele, 2019). This result on the difference between age groups can be attributed to several factors.

One key aspect of early adulthood is that it is marked by the formation of identity and self-concept (Santrock, 2020). During this stage, individuals are often engaged in exploring personal values, career paths, and relationships. The process of identity formation can lead to self-doubt, a less stable self-concept, more self-criticism and reduced self-compassion compared to later stages of life. In contrast, middle adulthood is characterized by a period of significant personal development. By middle adulthood, individuals have typically accumulated extensive life experience, allowing them to develop a more nuanced understanding of themselves. This accumulated experience can lead to greater self-understanding, self-acceptance, and a more compassionate view of oneself, as individuals reflect on their strengths and weaknesses over time. The historical context might also influence these differences, as middle-aged adults could be affected by societal pressures and norms that differ from those experienced by early adults. Additionally, according to Santrock (2020), as individuals transition into middle adulthood, there might be a shift in focus from external achievements to intrinsic values such as personal fulfillment and well-being. This shift is likely to foster greater self-compassion, as individuals become more accepting of themselves and their personal journey.

The second analysis examined the relationship between self-compassion and gender, revealing that men had significantly higher mean scores on the self-compassion scale compared to women. This finding is consistent with existing literature, which indicates that

women tend to experience more self-criticism and exhibit lower levels of self-compassion compared to men (Murn & Steele, 2019; Neff, 2003b; Nolen-Hoeksema et al., 1999; Yarnell et al., 2015). One potential explanation for these gender differences is rooted in traditional gender norms (Yarnell et al., 2019) which often encourage males to embody stoicism and self-reliance. In contrast, females are frequently socialized to be more empathetic and self-reflective, which may result in increased self-criticism and lower levels of self-compassion. Women are often encouraged to engage in self-evaluation and that may lead to them experiencing greater self-doubt and critical self-reflection. These gender-specific socialization patterns can shape the ways in which self-compassion is experienced.

The third analysis assessed the relationship between self-compassion and marital status, revealing that married participants scored significantly higher on the self-compassion scale compared to their single counterparts. This finding is consistent with existing literature, which shows that relationship status is associated with self-compassion, with married individuals generally demonstrating higher levels of self-compassion than those who are single (Miller et al., 2019).

Several factors may contribute to why married individuals tend to exhibit greater self-compassion. Studies show the many benefits of happy marriages like better physical and mental health and a longer life (Lo et al., 2016). A happy marriage can offer the continuous sense of being valued and accepted by a partner. This can reinforce self-acceptance and mitigate self-criticism, contributing to self-compassion. Another factor might be the presence of understanding, encouragement and social support. Substantial emotional and social support from a kind partner that offers understanding can enhance self-understanding and self-compassion.

Additionally, sharing the responsibilities in a marriage may also play a role. In a marital partnership, individuals often share the burden of daily challenges and responsibilities. This shared support system can reduce feelings of isolation, consequently increasing self-compassion, and feelings of isolation might be more prevalent in single life. Moreover, developing mutual values and goals in a marriage can reinforce feelings of belonging, which can influence a sense of common humanity. On the other hand, single individuals may face challenges with more isolation, and finding a positive identity in a society that often prioritizes marriage (Santrock, 2020). A sense of disapproval from family members or society and a perceived pressure to meet societal expectations related to relationships might result in heightened self-criticism among single individuals.

### **4.3. Discussion of Predictive Relationships among Sensory Processing Sensitivity, Parental Acceptance, and Self-Compassion**

Hierarchical regression analyses were conducted to examine the predictive relationships among SPS, parental acceptance, and self-compassion, addressing the second research question of the current study. The two age groups, representing distinct psychosocial challenges and life tasks, exhibited the most significant differences in self-compassion compared to the other groups tested. This observation, combined with an identified gap in the literature regarding the nuanced experiences of SPS across developmental stages, prompted the separate analyses for the age groups. This approach aimed to reveal how SPS and parental acceptance function as predictors of self-compassion at different stages of development. In both analyses, gender and marital status were included as control variables, and SPS, maternal and paternal acceptance were entered into the analyses in this order. The results revealed that SPS acted as a negative predictor of self-compassion for both age groups. While it accounted for a modest portion of the variance in self-compassion for early adults, it explained a larger proportion for middle-aged adults. These significant predictions confirmed SPS to be a significant predictor of self-compassion levels as expected. And the more pronounced negative predictive relationship between SPS and self-compassion in middle adulthood can be interpreted through different lenses.

Firstly, according to IPARTheory's personality subtheory, adults' emotional security and well-being are significantly influenced by their perceived acceptance from intimate partners, attachment figures and peers (Rohner, 2021). For early adults, who are in the process of establishing their identity and social standing, perceived acceptance from significant others and social environments may have a more pronounced effect on their self-compassion levels. In contrast, by middle adulthood, individuals might experience a shift from external to a more internal focus. While the influence of external sources of acceptance diminish, individuals may become more focused on how they view themselves. And if highly sensitive adults view themselves to be inadequate, they might experience less self-acceptance and SPS's impact on self-compassion might become more pronounced in middle adulthood.

According to Santrock (2020), the differences between the age groups might also be influenced by various contextual factors. Early adults often experience significant role transitions such as starting a career and forming long-term relationships. While this time of finding ones' values and changing what doesn't fit can be tricky, it can also be embraced as

it is. As opposed to the freedom to explore different pathways in the early adulthood, in the middle adulthood there might be an increased pressure to feel more established in life. In middle adulthood, the demands and expectations of life can become more intense, including more entrenched life responsibilities, including career pressures and family obligations. This can translate to increased internal pressure in case the individual experiences difficulties and failures. It can also explain the pronounced effect of SPS in middle adulthood, if middle aged adults link the failures and difficulties to their sensitive nature, consequently experiencing more self-criticism and less self-compassion.

The results of the hierarchical regression analyses indicated that adding maternal acceptance to the model significantly improved the positive prediction of self-compassion in the early adulthood group. For the middle adulthood group, while the effect was somewhat less pronounced, maternal acceptance also contributed to enhancing the model's explanatory power. These results are in parallel with the results from the earlier research (Neff & McGehee, 2010; Pepping et al., 2014; Temel & Altan Atalay, 2018). These findings propose that individuals who perceive greater maternal acceptance tend to show more kindness to themselves, acknowledge shared human experiences of suffering and emotional discomfort, and exhibit greater mindfulness in difficult times. These findings may imply that maternal acceptance fosters a broader perspective on the human connectedness with the shared reality of suffering and enhances the ability to engage in the present moment nonjudgmentally, with awareness and acceptance (Neff 2003a). These findings highlight the significance of warm and supportive parental relationships in fostering self-compassion.

These findings also suggest that while maternal acceptance continues to influence self-compassion throughout the stages of life, its relative impact might diminish with age. In early adulthood, individuals may still be significantly affected by their early childhood experiences, including perceived maternal acceptance. As individuals transition into middle adulthood, the influence of maternal acceptance may become still relevant but less prominent. As one moves further from childhood, the direct impact of early maternal acceptance may be overshadowed by more current and varied experiences. The process of self-development and the integration of multiple life experiences can lead to a relative decrease in the influence of early relationships on self-compassion.

The hierarchical regression analyses also examined the influence of paternal acceptance on self-compassion. The results indicated that incorporating paternal acceptance at the fourth step had a minimal yet significant positive effect on self-compassion in the early

adulthood group. In contrast, paternal acceptance did not emerge as a significant predictor for the middle adulthood group. These findings may suggest that while paternal acceptance has some impact on self-compassion in early adulthood, this influence diminishes significantly by middle adulthood.

The differences in the explanatory power of maternal and paternal acceptance may reflect underlying cultural expectations. Gender norms and socialization practices may shape the family system in such a way that fathers are discouraged from showing warmth, while mothers serve as the primary source of emotional nurturing and acceptance. Historically, mothers have often been the primary caregivers, leading to a stronger impact of maternal acceptance on emotional development and self-compassion. According to attachment theory (Bowlby, 1969), primary caregivers, typically mothers, play a crucial role in forming secure attachments, and secure attachment was shown to be associated with self-compassion (Neff & McGehee, 2010). Additionally, while multicollinearity was not a concern with these variables, the high correlation between maternal and paternal acceptance could also contribute to these differences in their respective impacts.

#### **4.4. Limitations and Future Directions**

The current study aimed to explore the predictive relationships among SPS, parental acceptance, and self-compassion. First limitation of the study was the retrospective self-report of remembered acceptance experiences. The reliance on the memories of participants might be problematic, as the scores may not have completely accurately represented the childhood experiences (Raykov et al., 2023). The participants may have selectively recalled some aspects of their past based on their current beliefs or emotions at the time of the participation (Hardt & Rutter, 2004). This bias can lead to inaccuracies in assessing the variability in childhood acceptance and rejection experiences.

Many participants of the current study stated that they experienced high parental acceptance. While still in the acceptable range of normality, this created a negatively skewed distribution of experiences. Scores in perceived parental acceptance, and restricted demographic diversity of the participants can be counted as another limitation for generalizability of results. Future studies could implement random sampling to mitigate the risk of biased generalization of the data.

Another limitation might be the measurement precision of HSPS, as the scale tends to emphasize the items regarding susceptibility to uncomfortable experiences and

environmental stressors rather than positives. Future research might benefit from more nuanced assessments of the SPS. And they could also incorporate qualitative approaches that focus on participants' subjective experiences, such as in-depth interviews.

A further limitation for the current study is about the nature of cross-sectional research. The observed differences between early and middle adulthood may reflect underlying variations in life experiences and contextual factors that are not fully captured by cross-sectional analyses. To date, there is a lack of longitudinal research specifically investigating the relationship between SPS and aging through early and middle adulthood. This gap highlights the need for future studies that explore how the experience of SPS evolves over time and its impact on self-compassion across different life stages. Longitudinal designs that can investigate the perceived acceptance throughout human development might provide a much more comprehensive understanding of the interplay of the variables of the current study and the speculated other factors.

Future research can benefit from exploring into potential moderating variables. Specifically, examining the moderating role of SPS and investigating how SPS interacts with accepting family environments to influence self-compassion could provide valuable insights. This deeper examination could lead to a more nuanced understanding of the complex relationships between these variables.

Future research could also investigate additional aspects of parenting, such as structure, and emotional validation in addition to acceptance and examine how these factors interact with SPS to influence self-perceptions and attitudes toward oneself. Additionally, individual differences among parents might potentially be included in subsequent research, as research suggests that sensitive parents may be more attuned to their children (Aron et al., 2019). Furthermore, the influence of acceptance from peers, partners and other significant figures in shaping self-compassion could be explored in the future studies. Further research could also consider incorporating and examining the other factors like attitudes towards sensitivity. These might include the assessment of the perception of sensitivity, and experimental designs can be employed in order to capture a clear sense of this perception. For instance, by utilizing implicit association tests and measuring reaction time, both explicit and implicit biases towards sensitivity can be examined.

#### **4.5. Clinical Implications**

The results indicate that interventions targeting self-compassion might be particularly beneficial for early adults, women, single individuals and highly sensitive people. Understanding the gender-based, relationship-based, and age-related differences can provide valuable insights into the dynamics of self-compassion. Findings from this research can inform the development of targeted therapeutic strategies that address the nuances of Sensory Processing Sensitivity (SPS) in adults across different stages of life. Such tailored interventions can consider the temperamental, developmental, gender, and relational factors influencing self-compassion and overall mental health.

The results of the current study lead to multiple clinical implications about understanding and supporting individuals who score high in SPS within clinical settings. Although sensitivity is rarely assessed in clinical settings, individuals with high SPS are believed to constitute a significant proportion of therapy patients, despite being a minority in the general population (Aron, 2011). Research found sensitivity to be positively correlated with adverse consequences repeatedly (Ahadi & Basharpour, 2010; Bakker & Moulding, 2012; Benham, 2006; Brindle et al., 2015; Gearhart & Bodie, 2012; Neal et al., 2002; Yano & Oishi, 2018). Such studies link the trait of sensitivity to lower levels of well-being and suggest that sensitivity can be a risk factor, especially under less favorable conditions. These associations imply that SPS might be a key overlooked factor in addressing both individual and broader societal issues. Additionally, Imura (2021b) found that sensitivity does not act as a vulnerability factor when both sensitivity and resilience are high. This finding underscores the special value of interventions for HSPs.

It could be proposed that the same level of absence of emotional regulation skills might look different for highly sensitive individuals, because of their heightened emotional experiences (Aron, 2001). This heightened experience of emotions might naturally require more emotional regulation skills. Findings of the current study demonstrated that the ability to activate self-compassion in times of distress negatively correlated with sensitivity. This implies that highly sensitive individuals might lack these skills to a greater extent while potentially needing them more than their less sensitive counterparts. Psychological programs aimed at enhancing self-compassion might be especially valuable for HSPs as research suggests that they are also likely to derive greater benefits from psychological interventions (Cadogan et al., 2023; Nocentini et al., 2018; Pluess & Boniwell, 2015; Pluess et al., 2022).

Improving self-compassion can potentially mitigate the negative effects associated with heightened emotional experiences in SPS and enhance overall psychological resilience.

Integrating knowledge of SPS into clinical practice can also lead to more effective therapeutic interventions. According to a review by Greven and colleagues (2019), educating sensitive people about their trait could be the first step toward prevention of adverse consequences. Interventions designed for specific groups are considered more effective, as they allow for tailored programs that address distinct needs (Dodge, 2019). Modifying treatment approaches to accommodate their heightened sensitivity can improve therapeutic outcomes. For instance, interventions that focus on emotional regulation skills tailored to the unique emotional experiences of sensitive individuals may be particularly effective.

In clinical practice, when supporting sensitive individuals, it is important to promote a greater understanding and acceptance of the sensitivity trait as a whole, including its potential drawbacks and advantages. Additionally, addressing societal attitudes and discussing the specific needs of individuals with high SPS might be crucial. Prioritizing interventions like self-compassion that aim to increase resilience can significantly aid sensitive patients in coping with environmental stressors (Assary et al., 2023). These approaches may make the meaningful difference in supporting the psychological well-being of sensitive individuals.

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## APPENDICES

### APPENDIX 1: Informed Consent Form

Değerli Katılımcı,

Bu tez çalışması Başkent Üniversitesi Klinik Psikoloji Yüksek Lisans Programı bünyesinde Dr. Öğr. Üyesi Burçin Akın Sarı danışmanlığında Yüksek Lisans öğrencisi Nil Alara Okyay tarafından yürütülmektedir.

Bu çalışmanın amacı, algılanan ebeveyn kabul deneyimleri ve öz şefkat ilişkisinde uyarıcılara karşı hassasiyetin rolünü incelemektir. Çalışmaya katılım tamamen gönüllülük ilkesine dayanmaktadır. Çalışmaya katılabilmek için **18-65 yaş** aralığında olmanız gerekmektedir. Verdiğiniz cevaplar gizli tutulacak ve sadece bilimsel amaç doğrultusunda araştırmaya yönelik kullanılacaktır. Katılım sırasında sorularla ilgili ya da herhangi bir nedenden ötürü kendinizi rahatsız hissederseniz, cevaplamayı istediğiniz anda bırakabilirsiniz.

Araştırma sorularının genel geçer doğru ve yanlış cevapları yoktur. Araştırmanın doğru sonuçlar verebilmesi için cevaplanması gereken soruları size doğru gelen biçimde ve içten bir şekilde yanıtlamanız büyük önem taşımaktadır. Lütfen tüm soruları yanıtladığınızdan emin olunuz. Cevaplandırma yaklaşık 20 dakika sürmektedir. Katılım ve katkınız için teşekkür ederiz.

Bu çalışma hakkında daha fazla bilgi almak için Psikolog Nil Alara Okyay ile ( ) e-posta adresi üzerinden iletişim kurabilirsiniz.

Çalışmaya gönüllü olarak katılmayı kabul ediyorum. ( )

## APPENDIX 2: Demographic Information Form

1. Doğum yılınız: \_\_\_\_\_

2. Cinsiyetiniz: ( ) Kadın ( ) Erkek ( ) Belirtmek istemiyorum ( ) Diğer

3. Medeni durumunuz: ( ) Evli ( ) Bekar

4. Çalışma durumunuz: ( ) Öğrenciyim ( ) Çalışıyorum ( ) Çalışmıyorum ( ) Öğrenciyim ve aynı zamanda çalışıyorum

5. En son mezun olduğunuz okul:

( ) Okula gitmedim ( ) İlkokul ( ) Ortaokul ( ) Lise ( ) Lisans ( ) Lisansüstü

6. İçinde bulunduğunuz hanenin/evinizin gelir düzeyini nasıl tanımlarsınız?

( ) Düşük ( ) Orta ( ) Yüksek

7. Yaşamınızın büyük bölümünü nerede geçirdiniz?

( ) Büyükşehir ( ) İl ( ) İlçe ( ) Kasaba/Belde ( ) Köy

8. Herhangi bir psikolojik/ psikiyatrik destek aldınız mı veya halihazırda alıyorsunuzuz?

( ) Hayır

( ) Sadece psikoterapi

( ) Sadece ilaç tedavisi

( ) Hem psikoterapi hem ilaç tedavisi

9. Herhangi bir psikiyatrik tanınız var mı? Evet ise lütfen belirtiniz.

( ) Evet \_\_\_\_\_ ( ) Hayır

10. Anneniz hayatta mı? ( ) Evet ( ) Hayır

Hayatta değil ise, Kaybettiğinizde kaç yaşındaydınız? \_\_\_\_

11. Babanız hayatta mı ( ) Evet ( ) Hayır

Hayatta değil ise, Kaybettiğinizde kaç yaşındaydınız? \_\_\_\_

### APPENDIX 3: The Highly Sensitive Person Scale (HSPS)

Bu ölçek kişilerin dışsal (örn., ışık, ses) ya da içsel (örn., ağrı, açlık) duyuşsal uyarıcıları algılamalarındaki hassasiyet derecesini ölçmek amacıyla hazırlanmıştır. Aşağıda dışsal ve içsel duyuşsal uyarıcıları algılamaya ilişkin örnekler bulunmaktadır. Lütfen aşağıdaki her bir maddeyi dikkatli bir şekilde okuyarak, verilen ifadenin sizin durumunuza ne derece uyduğunu 7 aralıklı cetvel üzerinde işaretleyerek belirtiniz. Örneğin ifadeye size hiç uymuyorsa 1'i, tamamen uyuyorsa 7'i işaretleyiniz.

1.Bana Hiç Uymuyor      4. Kısmen Uyuyor      7.Bana Tamamen Uyuyor

1	Güçlü uyarıcılardan (örneğin parlak ışık, yüksek ses, yoğun koku) hemen rahatsız olurum.	1	2	3	4	5	6	7
2	Çevremdeki fark etmesi zor detayları hemen fark ederim.	1	2	3	4	5	6	7
3	Etrafımdaki insanların ruh hali beni etkiler.	1	2	3	4	5	6	7
4	Acı veya ağrıya karşı fazla duyarlıyım.	1	2	3	4	5	6	7
5	Yoğun günlerimdeyken; yatağında, karanlık bir odada veya yalnız kalabileceğim ve huzur bulabileceğim herhangi bir yerde kabuğuma çekilme ihtiyacı hissederim.	1	2	3	4	5	6	7
6	Kafeinin etkilerine karşı çok hassasım.	1	2	3	4	5	6	7
7	Parlak ışıklar, yoğun kokular, kaba kumaşlar ya da yakınımda çalan bir siren gibi şeylerden anında rahatsız olurum.	1	2	3	4	5	6	7
8	Zengin ve karmaşık bir iç dünyam var.	1	2	3	4	5	6	7
9	Şiddetli gürültüden/sesten çok çabuk rahatsız olurum.	1	2	3	4	5	6	7
10	Sanat ya da müzik beni derinden etkiler.	1	2	3	4	5	6	7
11	Bazen sinir sistemim o kadar yıpranır ki kendimi toplamak için hemen başımı alıp gitmek zorunda kalırım.	1	2	3	4	5	6	7

12	Dikkatli ve özenliyimdir.	1	2	3	4	5	6	7
13	Beklenmedik ses ve hareketlerde kolayca irkilirim.	1	2	3	4	5	6	7
14	Kısa zamanda çok iş yapmam gerektiğinde elim ayağıma dolanır.	1	2	3	4	5	6	7
15	İnsanlar buldukları fiziksel ortamdan rahatsız olduklarında, ortamı rahat hale getirmek için ne yapılması gerektiğini tahmin ederim (ışıkları ayarlamak ya da oturma yerlerini değiştirmek gibi).	1	2	3	4	5	6	7
16	İnsanlar beni aynı anda birçok şey yapmaya zorladıklarında sinirlenirim.	1	2	3	4	5	6	7
17	Hata yapmamak veya bir şeyleri unutmamak için çok çabalarım.	1	2	3	4	5	6	7
18	Şiddet içerikli filmleri ve TV programlarını izlemekten özellikle kaçınırım.	1	2	3	4	5	6	7
19	Etrafımda aynı anda birçok şey birden olduğunda fena halde rahatsız olurum.	1	2	3	4	5	6	7
20	Çok aç olmak bende konsantrasyonumun düşmesi veya ruh halimin bozulması gibi güçlü tepkilere yol açar.	1	2	3	4	5	6	7
21	Hayatımda değişiklik olması beni fazlasıyla etkiler/sarsar.	1	2	3	4	5	6	7
22	Güzel kokuları, tatları, sesleri ve sanat eserlerini hemen fark eder ve bunlardan keyif alırım.	1	2	3	4	5	6	7
23	Aynı anda birçok şeyin olmasından hoşlanmam.	1	2	3	4	5	6	7
24	Hayatımı, üzüntü veren ve beni bunaltan durumlardan kaçınacak şekilde düzenlemeye öncelik veririm.	1	2	3	4	5	6	7
25	Yüksek ses ya da karmaşık ortamlar gibi kuvvetli uyarıcılardan rahatsız olurum.	1	2	3	4	5	6	7
26	Bir yarışmada olduğumda ya da bir görevi yaparken gözlemlendiğimde, o kadar gerilir ve etkilenirim ki normalde yapacağımdan daha kötü performans sergilerim.	1	2	3	4	5	6	7
27	Ben çocukken, ailem veya öğretmenlerim beni hassas ya da utangaç biri olarak görürlerdi.	1	2	3	4	5	6	7

## APPENDIX 4: Parental Acceptance-Rejection Questionnaire Short Form (PARQ/S)

### MOTHER FORM

Bu sayfada anne-çocuk ilişkisini içeren ifadeler bulunmaktadır. Her ifadeyi dikkatlice okuyun ve annenizin siz çocukken, size olan davranışlarını ne derece tanımladığını düşünün. Her ifadeyi okuduktan sonra, o ifadenin babanızın size karşı davranışları konusunda ne kadar uygun olduğunu düşünerek, “Hemen hemen her zaman doğru”, “Bazen doğru”, “Nadiren doğru” veya “Hiçbir zaman doğru değil” şıklarından birini işaretleyiniz.

	ANNEM	Hemen Her Zaman Doğru	Bazen Doğru	Nadiren Doğru	Hiçbir Zaman Doğru Değil
1	Benim hakkımda güzel şeyler söylerdi.				
2	Bana hiç ilgi göstermezdi.				
3	Benim için önemli olan şeyleri anlatabilmemi kolaylaştırırdı.				
4	Hak etmediğim zaman bile bana vururdu.				

The full-text measure is removed because of international copyrights. If you would like to access the full measure, please contact Rohner Research Publications at <https://rohnerresearchpublications.com>.

## FATHER FORM

Bu sayfada baba-çocuk ilişkisini içeren ifadeler bulunmaktadır. Her ifadeyi dikkatlice okuyun ve annenizin siz çocukken, size olan davranışlarını ne derece tanımladığını düşünün. Her ifadeyi okuduktan sonra, o ifadenin babanızın size karşı davranışları konusunda ne kadar uygun olduğunu düşünerek, “Hemen hemen her zaman doğru”, “Bazen doğru”, “Nadiren doğru” veya “Hiçbir zaman doğru değil” şıklarından birini işaretleyiniz.

	BABAM	Hemen Her Zaman Doğru	Bazen Doğru	Nadiren Doğru	Hiçbir Zaman Doğru Değil
1	Benim hakkımda güzel şeyler söylerdi.				
2	Bana hiç ilgi göstermezdi.				
3	Benim için önemli olan şeyleri anlatabilmemi kolaylaştırırdı.				
4	Hak etmediğim zaman bile bana vururdu.				

The full-text measure is removed because of international copyrights. If you would like to access the full measure, please contact Rohner Research Publications at <https://rohnerresearchpublications.com>.

## APPENDIX 5: Self-Compassion Scale (SCS)

Aşağıdaki cümleler, zor durumlar karşısında kendinize genel olarak nasıl davrandığınızla ilgilidir. Belirtilen durumda ne kadar sıklıkla hareket ettiğinizi işaretleyerek belirtiniz.

1	Kişiliğimin beğenmediğim yanlarına karşı anlayışlı ve sabırlı olmaya çalışırım.	1	2	3	4	5
2	Kendimi bir şekilde yetersiz hissettiğimde, çoğu insanın da böylesi yetersizlik duyguları yaşayabileceğini kendime hatırlatmaya çalışırım.	1	2	3	4	5
3	Kendimi üzgün hissettiğimde, yanlış giden her şeyi kafama takma ve kurma eğilimindeyimdir.	1	2	3	4	5
4	Ben zorluklarla mücadele ederken, başka insanların yaşam koşullarının benimkinden daha kolay olduğunu hissetme eğilimi gösteririm.	1	2	3	4	5
5	Acı veren bir şey olduğunda, durumu belirli bir zihinsel mesafeden, dengeli bir bakış açısıyla görmeye çalışırım.	1	2	3	4	5
6	Sıkıntı çektiğim dönemlerimde, kendime karşı biraz katı yürekli olabilirim.	1	2	3	4	5
7	Kendimi üzgün ve her şeyden kopmuş hissettiğimde, dünyada benim gibi hisseden daha pek çok insan olduğunu kendime hatırlatırım.	1	2	3	4	5
8	Duygusal olarak acı çektiğim zamanlarda kendime karşı sevecen olmaya çalışırım.	1	2	3	4	5
9	Yetersizliklerimi düşünmek, kendimi daha yalnız ve dünyadan kopuk gibi hissetmemeneden olur.	1	2	3	4	5
10	Kişiliğimin beğenmediğim yanlarına karşı hoşgörüsüz ve sabırsızımdır.	1	2	3	4	5
11	Benim için önemli olan bir şeyde başarısız olduğumda, yetersizlik hisleriyle kendimi tüketirim.	1	2	3	4	5
12	Kendi hatalarıma ve yetersizliklerime karşı hoşgörülüymümdür.	1	2	3	4	5
13	Benim için önemli olan bir şeyde başarısız olduğumda, bu konudaki duygularımı bastırmak veya abartmak yerine durumu olduğu gibi açık yüreklilikle anlayıp kabullenmeye çalışırım.	1	2	3	4	5
14	Sıkıntılı dönemlerimde kendime karşı şefkatliyimdir.	1	2	3	4	5
15	Benim için önemli bir şeyde başarısız olduğumda, bu	1	2	3	4	5

	başarısızlığın yalnız benim başıma geldiğini hissetme eğiliminde olurum.					
16	Hatalarıma ve yetersizliklerime karşı kınayıcı ve yargılayıcıyım.	1	2	3	4	5
17	Beğenmediğim yanlarımı gördüğümde kendime yüklenir, moralimi bozarım.	1	2	3	4	5
18	Kendimi üzgün hissettiğimde, duygularımı merakla ve açık yüreklilikle anlamaya çalışırım.	1	2	3	4	5
19	İşler benim için kötü gittiğinde, bu zorlukların, yaşamın bir parçası olarak, herkesin başına gelebileceğini düşünürüm.	1	2	3	4	5
20	Acı veren bir şey olduğunda, olayı gereğinden fazla büyütme eğilimi gösteririm.	1	2	3	4	5
21	Kendimi üzgün hissettiğimde, diğer insanların çoğunun benden daha mutlu olduğunu düşünme eğilimi gösteririm.	1	2	3	4	5
22	Bir şey beni üzdüğünde, kendimi duygularıma kaptırır giderim.	1	2	3	4	5
23	Çok zor bir dönemden geçerken kendime ihtiyacım olan duyarlılık ve sevecenliği gösteririm.	1	2	3	4	5
24	Başarısızlıklarımı insanlık halinin bir parçası olarak görmeye çalışırım.	1	2	3	4	5
25	Herhangi bir şey beni üzdüğünde, duygularımı bir denge içerisinde tutmaya çalışırım.	1	2	3	4	5
26	Gerçekten zor zamanlarda, kendime karşı sert ve acımasız olma eğilimindeyim.	1	2	3	4	5

## APPENDIX 6: Ethical Committee Approval

Evrak Tarih ve Sayısı: 01.07.2024-355157



**T.C.**  
**BAŞKENT ÜNİVERSİTESİ REKTÖRLÜĞÜ**  
Akademik Değerlendirme Koordinatörlüğü



Sayı :E-62310886-605-355157  
Konu :Nil Alara Okyay'ın Etik Onayı

01.07.2024

SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi : 16.05.2024 tarih ve 341245 sayılı yazınız.

Enstitünüz Psikoloji Ana Bilim Dalı öğretim üyesi, Dr. Öğretim Üyesi Burçin Akın Sarı'nın danışmanlığında, Klinik Psikoloji (Tezli) Yüksek Lisans Programı öğrencisi Nil Alara Okyay tarafından yürütülecek olan, "The Moderating Role Of Sensory Processing Sensitivity In Relationship Between Perceived Parental Acceptance And Self-Compassion" adlı çalışma değerlendirilmiş ve bilgilerinize ekte sunulmuştur.

Prof. Dr. Sadegül AKBABA ALTUN  
Kurul Başkanı

Ek: Değerlendirme Formu

**Bu belge, güvenli elektronik imza ile imzalanmıştır.**

Belge Doğrulama Kodu :BSP5ATC8KB

Belge Doğrulama Adresi : <https://www.turkiye.gov.tr/baskent-universitesi-ebys>

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Sayı : 17162298.600- 156  
Konu : Tez Çalışması

3 Haziran 2024

İlgili Makama

Üniversitemiz Sosyal Bilimler Enstitüsü Psikoloji Ana Bilim Dalı öğretim üyesi, Dr. Öğr. Üyesi Burçin Akın Sarı danışmanlığında, Klinik Psikoloji (Tezli) Yüksek Lisans programı öğrencisi Nil Alara Okyay tarafından yürütülecek olan "The Moderating Role Of Sensory Processing Sensitivity In Relationship Between Perceived Parental Acceptance And Self-Compassion" adlı çalışma değerlendirilmiş ve yapılmasında bir sakınca olmadığı tespit edilmiştir.  
Bilgilerinize saygılarımızla sunarız.

Başkent Üniversitesi Sosyal ve Beşeri Bilimler ve Sanat Alan Araştırma Kurulu

Ad, Soyad	Değerlendirme	İmza
Prof. Dr. Gözen Güner Aktaş	Olumlu/ <del>Olumsuz</del>	
Prof. Dr. Sadegül Akbaba Altun	Olumlu/ <del>Olumsuz</del>	
Prof. Dr. Fatih Çetin	Olumlu/ <del>Olumsuz</del>	
Prof. Dr. Hasan Tahsin Fendoğlu	Olumlu/Olumsuz	
Prof. Dr. Filiz Kalelioğlu	Olumlu/ <del>Olumsuz</del>	
Prof. Dr. Hidayet Hale Künüçen	Olumlu/ <del>Olumsuz</del>	
Prof. Dr. Özcan Yağcı	Olumlu/ <del>Olumsuz</del>	