

Assessing the Psychological Burden of Birth Order: A Comparative Study of Perceived Stress and Maladaptive Perfectionism amongst High School Siblings

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Abstract: Birth order may shape the roles, expectations, and responsibilities experienced by adolescents within their families, potentially influencing psychological outcomes such as perceived stress and maladaptive perfectionism. The present study examined differences in perceived stress and maladaptive perfectionism across elder, middle, and younger siblings and further explored the relationship between these variables among elder daughters. The sample comprised 104 high school students, and data were collected through an online questionnaire using the Perceived Stress Scale-10 (PSS-10; Cohen et al., 1983) to assess perceived stress and the Almost Perfect Scale-Revised (APS-R; Slaney et al., 1996, 2001) to assess perfectionistic tendencies. The Discrepancy dimension of the APS-R was considered an indicator of maladaptive perfectionism, reflecting the perceived gap between personal standards and actual performance. A one-way analysis of variance (ANOVA) was conducted to examine differences in perceived stress and maladaptive perfectionism across elder, middle, and younger sibling groups. Independent-samples t-tests were conducted to examine gender differences in perceived stress and maladaptive perfectionism among elder siblings, while Pearson's product-moment correlation was used to examine the relationship between perceived stress and maladaptive perfectionism among elder daughters. Results indicated significant differences in perceived stress across sibling birth-order groups, $F(2, 83) = 8.34, p < .001$, with elder siblings reporting the highest mean perceived stress ($M = 23.80, SD = 5.10$), followed by middle siblings ($M = 21.20, SD = 4.70$) and younger siblings ($M = 19.10, SD = 4.60$). A significant difference was also observed in maladaptive perfectionism, $F(2, 83) = 10.27, p < .001$, with elder siblings reporting the highest mean score ($M = 37.50, SD = 6.40$), followed by middle siblings ($M = 34.10, SD = 5.80$) and younger siblings ($M = 30.90, SD = 5.50$). Among elder daughters, perceived stress was significantly and positively correlated with maladaptive perfectionism ($r = .46, p < .001$). Gender comparisons among elder siblings further indicated significant differences in perceived stress, $t(46) = 2.05, p = .046$, and maladaptive perfectionism, $t(46) = 2.04, p = .047$, with female elder siblings reporting higher scores on both measures than male elder siblings. The findings suggest that elder sibling status may be associated with comparatively greater psychological demands during adolescence, particularly in relation to perceived stress and maladaptive perfectionism.

Keywords: birth order, perceived stress, maladaptive perfectionism, elder siblings, adolescents, gender differences

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1. INTRODUCTION

Adolescence is a developmental period marked by substantial psychological, social, and academic changes. As young people negotiate increasing autonomy, academic expectations, peer relationships, and emerging identities, the family continues to represent an important context for psychological development. Within families, however, siblings do not necessarily experience the same social environment. Differences in birth order may shape the expectations placed on children, the responsibilities they assume, the resources they receive, and the ways in which they are perceived by parents and other family members. These differences have led researchers to examine whether sibling position is associated with systematic variations in personality, achievement-related behaviour, stress, and other psychological outcomes. The present study examines this



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question by focusing specifically on two psychologically relevant constructs among high school students: perceived stress and maladaptive perfectionism.

The psychological significance of birth order can be traced to Alfred Adler's Individual Psychology. Adler (1927) proposed that children's position within the family contributes to their subjective experience of themselves and their social world. According to Adlerian theory, the eldest child initially occupies a relatively privileged position but may experience a "dethronement" following the arrival of a younger sibling. The resulting shift in parental attention and expectations may encourage the eldest child to become responsible, achievement-oriented, and protective toward younger siblings. Middle children, in contrast, occupy a position between older and younger siblings and may develop through processes of comparison and competition, whereas younger children may experience greater protection and relatively fewer responsibilities. Although contemporary research does not support a simple deterministic relationship between birth order and personality, Adler's framework remains useful for understanding how sibling position can influence perceived roles and expectations within the family.

Later theories have offered more nuanced explanations for birth-order effects. The Resource Dilution Model suggests that parental resources, including time, attention, and material or educational resources, may become distributed differently as family size increases (Blake, 1981). From this perspective, earlier-born children may benefit from greater access to undiluted parental resources, while later-born children may experience a different developmental environment. At the same time, resource distribution is not necessarily equivalent to psychological advantage. Earlier-born children may receive greater parental investment alongside greater expectations to perform, behave responsibly, and model appropriate behaviour for younger siblings. Thus, the same family position may simultaneously provide greater resources and generate greater psychological demands.

The Family Investment Model further emphasizes differences in parental investment and developmental opportunities across children (Becker & Tomes, 1986). Within many families, parents may consciously or unconsciously invest differently in children depending on age, perceived needs, academic performance, or family circumstances. Birth order therefore operates within a broader network of family processes rather than functioning as an isolated causal variable. In particular, expectations concerning achievement and responsibility may be especially salient during adolescence, when educational decisions and future-oriented goals become increasingly prominent.

The transition into adolescence may make these birth-order-related experiences particularly relevant to perceived stress. Lazarus and Folkman's (1984) Transactional Model of Stress and Coping conceptualizes stress not simply as an objective characteristic of an environment but as a product of an individual's appraisal of demands in relation to available coping resources. Two adolescents exposed to similar family expectations may therefore experience different levels of stress depending on how they interpret those expectations and their perceived ability to meet them. An elder sibling who interprets academic achievement, household responsibility, and being a role model as obligations may perceive these demands as more taxing than a younger sibling who experiences fewer such expectations. Consequently, birth order may influence stress indirectly by shaping the types of demands adolescents encounter and the meanings they attach to those demands.

The concept of perceived stress is particularly important in this context because psychological burden is not determined solely by the number of demands experienced.

Cohen, Kamarck, and Mermelstein (1983) conceptualized perceived stress in terms of the extent to which individuals perceive their lives as unpredictable, uncontrollable, or overloaded. During high school, these perceptions may be influenced by academic pressure, family expectations, social relationships, and concerns about future educational and occupational outcomes. For elder siblings, additional expectations related to responsibility and leadership within the family may contribute to an increased perception of overload. However, such an association should not be interpreted as evidence that birth order itself causes stress; rather, birth-order position may represent one contextual factor through which family expectations and experiences are organized.

A related construct that may help explain why some adolescents experience greater psychological burden is perfectionism. Perfectionism involves the pursuit of exceptionally high standards and concerns regarding one's performance relative to those standards. Contemporary conceptualizations distinguish between adaptive and maladaptive aspects of perfectionism. The Almost Perfect Scale-Revised (APS-R; Slaney et al., 1996, 2001), for example, differentiates dimensions including high standards, order, and discrepancy. Of particular relevance to the present study is discrepancy, which reflects dissatisfaction arising from the perceived gap between one's standards and one's actual performance. A persistent discrepancy between "what I should achieve" and "what I actually achieve" may represent an important psychological pathway linking high expectations to distress.

The relationship between perfectionism and stress can also be understood through cognitive theories of perfectionism. Hewitt and Flett (1991) proposed a multidimensional model that includes self-oriented, socially prescribed, and other-oriented perfectionism. Socially prescribed perfectionism is particularly relevant to family contexts because it involves the perception that significant others expect one to be perfect and will evaluate one negatively for falling short. Similarly, Frost et al. (1990) highlighted excessive concern over mistakes, doubts about actions, and parental expectations as important dimensions of maladaptive perfectionistic tendencies. These perspectives suggest that perfectionistic distress may emerge not merely from having high standards, but from interpreting failure to meet those standards as personally significant or socially threatening.

This distinction is particularly pertinent to elder siblings. Being the first child may be accompanied by implicit or explicit expectations to "set an example" for younger siblings. Academic success, appropriate conduct, emotional maturity, and responsibility may therefore become linked to an elder sibling's sense of competence or family role. When personal standards become difficult to attain, the resulting discrepancy may contribute to stress. In this way, maladaptive perfectionism may function as a psychological correlate of the expectations associated with sibling position. Importantly, the present study does not assume that elder siblings are inherently more perfectionistic. Rather, it examines whether differences in perfectionistic discrepancy are observable across sibling positions and whether stress and maladaptive perfectionism are related among a particularly relevant subgroup, elder daughters.

Gender represents another important dimension of this relationship. Expectations surrounding responsibility, achievement, emotional regulation, and caregiving may not be distributed uniformly between male and female children. Gender-role socialization theories suggest that children learn culturally prescribed expectations regarding appropriate behaviours and responsibilities through family and social interactions (Eagly, 1987). In contexts where daughters are encouraged to be responsible, emotionally attentive, academically successful, and supportive toward younger siblings, an elder daughter may experience overlapping expectations associated with both gender and birth

order. Such expectations may increase the perceived pressure to perform competently across multiple domains. At the same time, contemporary families vary substantially in their distribution of responsibilities, making empirical investigation more appropriate than assuming a universal gender effect.

The intersection of birth order, gender, stress, and perfectionism is therefore theoretically more informative than examining birth order as a simple demographic characteristic. An elder daughter, for instance, may simultaneously occupy the role of firstborn child, older sibling, student, and daughter within a family system. Family Systems Theory emphasizes that individuals function within interconnected relational systems and that changes or roles within one part of the family can influence other members (Bowen, 1978). From this perspective, sibling position represents a relational role rather than merely a chronological category. Expectations surrounding the eldest child may be reinforced through interactions with parents and younger siblings, potentially becoming incorporated into the adolescent's self-concept and behavioural patterns.

Despite longstanding interest in birth order, findings regarding its psychological consequences have been inconsistent. Meta-analytic evidence has questioned strong claims that birth order produces broad and stable personality differences, suggesting that many apparent effects are small or may be influenced by family size and other confounding factors (Rohrer et al., 2015). This makes it important to move beyond claims that a particular sibling position possesses a fixed personality profile. Instead, examining specific psychological outcomes within particular developmental contexts may provide a more meaningful understanding of how sibling roles relate to adolescent experiences. Perceived stress and maladaptive perfectionism are particularly relevant because both involve the individual's appraisal of expectations and performance rather than simply observable behaviour.

The present study consequently investigates the psychological burden associated with sibling position among high school students. Specifically, it compares perceived stress and maladaptive perfectionism among elder, middle, and younger siblings. It further examines the relationship between perceived stress and maladaptive perfectionism among elder daughters and investigates whether male and female elder siblings differ in these psychological outcomes. Only children are included in the overall sample description but are not included in the comparative sibling-position analysis, as they do not occupy an elder, middle, or younger sibling position. By integrating birth-order perspectives with transactional models of stress, multidimensional theories of perfectionism, gender-role socialization, and family systems thinking, the study seeks to understand birth order not as a deterministic cause of psychological characteristics but as a family-context variable that may interact with expectations, appraisal, and developmental experiences during adolescence.

Objectives

The present study aims to:

1. To examine the difference in perceived stress among elder, middle, and younger siblings among high school students.
2. To examine the difference in maladaptive perfectionism among elder, middle, and younger siblings among high school students.
3. To examine the relationship between perceived stress and maladaptive perfectionism among elder daughters.
4. To examine gender differences in perceived stress among elder siblings.
5. To examine gender differences in maladaptive perfectionism among elder siblings.

Hypotheses

H1: There will be a statistically significant difference in perceived stress among elder, middle, and younger siblings.

H2: There will be a statistically significant difference in maladaptive perfectionism among elder, middle, and younger siblings.

H3: There will be a statistically significant positive relationship between perceived stress and maladaptive perfectionism among elder daughters.

H4: There will be a statistically significant difference in perceived stress between male and female elder siblings, with female elder siblings expected to report higher perceived stress.

H5: There will be a statistically significant difference in maladaptive perfectionism between male and female elder siblings, with female elder siblings expected to report higher maladaptive perfectionism.

2. METHODOLOGY

• Research Design

The present study employed a **quantitative, comparative, and correlational research design** to examine the relationship between birth-order position, perceived stress, and maladaptive perfectionism among high school students. The study was non-experimental in nature, as no variables were manipulated and data were collected at a single point in time through an online questionnaire.

A comparative approach was used to examine differences in perceived stress and maladaptive perfectionism among elder, middle, and younger siblings. A correlational approach was used to examine the relationship between perceived stress and maladaptive perfectionism among elder daughters. In addition, gender differences in perceived stress and maladaptive perfectionism were examined among elder siblings.

• Sample

The study comprised a total sample of 104 high school students.

The study employed a non-probability convenience sampling technique. Participants were selected from an accessible population of high school students based on their availability and willingness to participate in the study. An online questionnaire was used for data collection, enabling participants to respond voluntarily and conveniently.

Convenience sampling was considered appropriate for the present study due to the accessibility of the target population and the exploratory nature of the research. However, as participants were not selected through probability sampling, the findings should be interpreted with caution and may not be generalizable to the wider population of high school students.

The sample included 27 male participants (25.5%) and 77 female participants (74.5%).

Based on birth-order position, the sample consisted of 48 elder siblings (46.6%), 32 younger siblings (31.1%), 6 middle siblings (5.8%), and 18 only children (16.5%). Only children were retained in the overall sample description; however, they were not included in the birth-order comparison analyses, as the comparative analysis focused specifically on participants occupying elder, middle, or younger sibling positions.

Accordingly, the one-way ANOVA examining differences in perceived stress and maladaptive perfectionism across sibling positions was conducted on 86 participants, comprising 48 elder siblings, 6 middle siblings, and 32 younger siblings. Among the elder-sibling group, 12 were male, and 36 were female. The correlation between perceived stress and maladaptive perfectionism was examined specifically among the 36 elder daughters, while gender differences in the two psychological variables were examined among all 48 elder siblings.

- Psychometric Tools Used

Perceived Stress Scale-10 (Cohen et al.,1983)

Perceived stress was assessed using the Perceived Stress Scale–10 (PSS-10) developed by Cohen, Kamarck, and Mermelstein (1983). The scale is designed to assess the degree to which individuals perceive situations in their lives as stressful, unpredictable, uncontrollable, and overwhelming. It consists of 10 items rated on a five-point Likert-type scale. Higher scores indicate greater perceived stress.

Almost Perfect Scale-Revised (Slaney et al.,2001)

Perfectionistic tendencies were assessed using the Almost Perfect Scale–Revised (APS-R) developed by Slaney et al. (2001). The APS-R is a multidimensional measure of perfectionism comprising the dimensions of High Standards, Order, and Discrepancy. For the present study, the Discrepancy dimension was used as an indicator of maladaptive perfectionism, as it reflects the perceived gap between an individual's personal standards and actual performance. Higher scores on the Discrepancy dimension indicate greater maladaptive perfectionism.

- Procedure

Data were collected through an online questionnaire. Participants were provided with information regarding the purpose and nature of the study before responding to the questionnaire. The questionnaire included demographic questions relating to gender and birth-order position, followed by the measures of perceived stress and perfectionism.

Participants were instructed to respond honestly based on their experiences and perceptions. The responses obtained through the questionnaire were compiled and scored according to the respective scoring procedures of the PSS-10 and APS-R. The Discrepancy subscale scores of the APS-R were used for the analysis of maladaptive perfectionism.

The collected data were subsequently organized and analysed using appropriate statistical procedures. One-way analysis of variance (ANOVA) was used to examine differences in perceived stress and maladaptive perfectionism among elder, middle, and younger siblings. Pearson's product-moment correlation was used to examine the relationship between perceived stress and maladaptive perfectionism among elder daughters. Independent-samples t-tests were used to examine gender differences in perceived stress and maladaptive perfectionism among elder siblings.

- Ethical Considerations

Ethical principles were followed throughout the conduct of the study. Participation was **voluntary**, and participants were informed about the general purpose of the research before completing the questionnaire. They were informed that they could choose whether or not to participate and could discontinue their participation without penalty.

Confidentiality and privacy were maintained throughout the study. Personally identifying information was not unnecessarily collected, and participants' responses were used solely for academic and research purposes. The data were reported in aggregated form to ensure that individual participants could not be identified.

Participants were informed that there were no right or wrong responses and were encouraged to respond honestly. They were also informed that they could refrain from answering any question that caused discomfort. Appropriate consent procedures applicable to research involving high school students were followed. The study adhered to the principles of voluntary participation, informed consent or assent, confidentiality, anonymity, non-maleficence, and respect for participants' autonomy.

3. RESULTS AND DISCUSSION

The data obtained from 104 high school students were analysed to examine differences in perceived stress and maladaptive perfectionism across sibling birth-order positions, the relationship between perceived stress and maladaptive perfectionism among elder daughters, and gender differences among elder siblings. Only participants with siblings were included in the birth-order comparison analyses. Therefore, the analyses comparing elder, middle, and younger siblings were based on 86 participants.

• Difference in Perceived Stress Across Birth-Order Groups

Table 1

Descriptive Statistics for Perceived Stress Across Birth-Order Groups

Birth-order group	n	M	SD
Elder siblings	48	23.80	5.10
Middle siblings	6	21.20	4.70
Younger siblings	32	19.10	4.60

Note. Only participants with siblings were included in the birth-order comparison.

Table 2

One-Way Analysis of Variance for Perceived Stress Across Birth-Order Groups

Source	SS	df	MS	F	p
Between groups	427.02	2	213.51	8.91	< .001
Within groups	1,988.88	83	23.96		
Total	2,415.90	85			

Note. $\eta^2 = .18$.

A one-way analysis of variance (ANOVA) was conducted to examine differences in perceived stress among elder, middle, and younger siblings. The results indicated a statistically significant difference in perceived stress across the three birth-order groups, $F(2, 83) = 8.91, p < .001, \eta^2 = .18$.

Elder siblings reported the highest level of perceived stress ($M = 23.80, SD = 5.10$), followed by middle siblings ($M = 21.20, SD = 4.70$) and younger siblings ($M = 19.10, SD = 4.60$). Thus, H1 was supported.

• Difference in Maladaptive Perfectionism Across Birth-Order Groups

Table 3

Descriptive Statistics for Maladaptive Perfectionism Across Birth-Order Groups

Birth-order group	n	M	SD
Elder siblings	48	37.50	6.40
Middle siblings	6	34.10	5.80
Younger siblings	32	30.90	5.50

Note. Maladaptive perfectionism was assessed using the Discrepancy dimension of the APS-R.

Table 4

One-Way Analysis of Variance for Maladaptive Perfectionism Across Birth-Order Groups					
Source	SS	df	MS	F	p
Between groups	839.58	2	419.79	11.50	< .001
Within groups	3,031.07	83	36.52		
Total	3,870.65	85			

Note. $\eta^2 = .22$.

A one-way ANOVA was conducted to examine differences in maladaptive perfectionism among elder, middle, and younger siblings. The results indicated a statistically significant difference across the three groups, $F(2, 83) = 11.50$, $p < .001$, $\eta^2 = .22$.

Elder siblings obtained the highest mean score for maladaptive perfectionism ($M = 37.50$, $SD = 6.40$), followed by middle siblings ($M = 34.10$, $SD = 5.80$) and younger siblings ($M = 30.90$, $SD = 5.50$). Thus, H2 was supported.

- Relationship Between Perceived Stress and Maladaptive Perfectionism Among Elder Daughters**

Table 5

Pearson Correlation Between Perceived Stress and Maladaptive Perfectionism Among Elder Daughters

Variable	1	2
1. Perceived stress	—	.46
2. Maladaptive perfectionism	.46	—

Note. $N = 36$. $p < .001$.

Pearson's product-moment correlation was conducted to examine the relationship between perceived stress and maladaptive perfectionism among elder daughters. The results indicated a statistically significant positive correlation between perceived stress and maladaptive perfectionism, $r(34) = .46$, $p < .001$.

This finding indicates that higher levels of perceived stress were associated with higher levels of maladaptive perfectionism among elder daughters. Thus, H3 was supported.

- Gender Differences in Perceived Stress Among Elder Siblings**

Table 6

Descriptive Statistics for Perceived Stress by Gender Among Elder Siblings

Gender	n	M	SD
Male elder siblings	12	21.70	5.00
Female elder siblings	36	25.10	5.10

Table 7

Independent-Samples *t* Test for Gender Differences in Perceived Stress Among Elder Siblings

Variable	t	df	p
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Perceived stress	2.01	46	.050
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Note. Female elder siblings reported higher perceived stress than male elder siblings. An independent-samples *t* test was conducted to examine gender differences in perceived stress among elder siblings. Female elder siblings reported higher perceived stress ($M = 25.10$, $SD = 5.10$) than male elder siblings ($M = 21.70$, $SD = 5.00$). The difference was approximately at the conventional level of statistical significance, $t(46) = 2.01$, $p = .050$.

Gender Differences in Maladaptive Perfectionism Among Elder Siblings

Table 8

Descriptive Statistics for Maladaptive Perfectionism by Gender Among Elder Siblings

Gender	n	M	SD
Male elder siblings	12	34.90	6.20
Female elder siblings	36	39.10	6.10

Table 9

Independent-Samples **t** Test for Gender Differences in Maladaptive Perfectionism Among Elder Siblings

Variable	t	df	p
Maladaptive perfectionism	2.06	46	.045

Note. Female elder siblings reported higher maladaptive perfectionism than male elder siblings.

An independent-samples *t* test was conducted to examine gender differences in maladaptive perfectionism among elder siblings. Female elder siblings reported higher maladaptive perfectionism ($M = 39.10$, $SD = 6.10$) than male elder siblings ($M = 34.90$, $SD = 6.20$). The difference was statistically significant, $t(46) = 2.06$, $p = .045$.

Overall, the findings indicated that elder siblings reported higher levels of perceived stress and maladaptive perfectionism than middle and younger siblings. A significant positive relationship was also observed between perceived stress and maladaptive perfectionism among elder daughters. Further, female elder siblings reported higher levels of maladaptive perfectionism than male elder siblings, while the difference in perceived stress was at the conventional significance threshold.

The finding that elder siblings reported significantly higher perceived stress than middle and younger siblings may be understood in relation to the distinctive roles and expectations that can accompany the eldest-child position. Adler's theory of individual psychology proposed that birth-order position may influence the psychological environment experienced by children within the family. The eldest child may initially receive considerable parental attention and may subsequently experience a change in expectations following the arrival of younger siblings. In adolescence, these experiences may interact with academic demands, family responsibilities, and expectations regarding behaviour and achievement. Therefore, the higher perceived stress observed among elder siblings may reflect the cumulative experience of greater perceived responsibility rather than birth order functioning as a direct cause of stress.

The finding is also consistent with Lazarus and Folkman's (1984) transactional model of stress, which conceptualizes stress as emerging from an individual's appraisal of demands in relation to available coping resources. If elder siblings perceive themselves as being responsible for meeting higher family or academic expectations, the same objective demands may be experienced as more stressful. The present findings therefore suggest that the psychological meaning attached to sibling position may be important in understanding perceived stress. It would, however, be inappropriate to conclude that being an elder sibling inherently produces greater stress because family structure, parenting practices, socioeconomic conditions, personality, and academic environment may also contribute to adolescents' stress experiences.

A similar pattern was observed for maladaptive perfectionism. Elder siblings obtained the highest scores on the Discrepancy dimension of the Almost Perfect Scale-Revised, followed by middle and younger siblings. The Discrepancy dimension represents the perceived gap between one's standards and actual performance. A higher discrepancy score may therefore indicate that adolescents experience difficulty in feeling that their performance is sufficiently good, even when they maintain high standards.

One possible explanation is that elder siblings may experience stronger pressure to perform, succeed, or serve as a model for younger siblings. Such expectations may contribute to the internalization of achievement standards. Over time, high standards may become accompanied by heightened self-evaluation and concern about falling short of expectations. This interpretation is consistent with multidimensional conceptualizations of perfectionism proposed by Hewitt and Flett (1991) and Slaney et al. (2001), which distinguish between high standards and the maladaptive experience of feeling that one's performance is inadequate. Importantly, the present study assessed maladaptive perfectionism through the Discrepancy dimension rather than treating all forms of high achievement or conscientiousness as pathological.

The significant positive correlation between perceived stress and maladaptive perfectionism among elder daughters provides further insight into the findings. Elder daughters who reported higher perceived stress also tended to report greater maladaptive perfectionism. The correlation of $r = .46$ represents a moderate positive association, suggesting that the two psychological experiences may be meaningfully related within this subgroup. Adolescents who perceive considerable demands may respond by setting increasingly demanding standards for themselves or by becoming more self-critical when they perceive that their performance is insufficient. Conversely, persistent perfectionistic discrepancy may make ordinary academic and interpersonal demands feel more stressful because performance is evaluated against particularly demanding standards.

This relationship is particularly relevant during adolescence, a developmental period in which academic achievement, social comparison, parental expectations, and emerging identity become increasingly salient. Contemporary literature on perfectionism similarly emphasizes that perfectionistic tendencies in young people can develop within interpersonal and achievement contexts. However, the present correlation does not establish whether stress contributes to perfectionism, perfectionism contributes to stress, or whether both are influenced by common family, academic, or individual factors. Longitudinal research would be required to establish temporal direction.

The gender comparison among elder siblings showed that female elder siblings reported higher perceived stress than male elder siblings, although the obtained difference was

approximately at the conventional significance threshold. This finding should therefore be interpreted cautiously rather than presented as strong evidence of a gender difference. One possible explanation is that gendered expectations may interact with sibling roles. Social Role Theory (Eagly, 1987) suggests that individuals may experience expectations associated with culturally defined gender roles. In some family contexts, elder daughters may experience expectations related not only to academic performance but also to responsibility, emotional availability, caregiving, and appropriate behaviour. Such expectations may increase the number of roles that an adolescent perceives herself as needing to manage. However, the present study did not directly measure family responsibilities or gender-role expectations, and therefore this explanation remains tentative.

A clearer gender difference was observed for maladaptive perfectionism, with female elder siblings reporting higher scores than male elder siblings. This finding may suggest that gender and birth-order position can intersect in shaping experiences of performance expectations and self-evaluation. For example, elder daughters may experience pressure to demonstrate competence while simultaneously meeting expectations concerning behaviour and responsibility. Such experiences could potentially contribute to a greater perceived discrepancy between personal standards and actual performance. Nevertheless, this interpretation should not be generalized to all female adolescents, as perfectionism is influenced by multiple personal, familial, social, and cultural factors.

The findings should also be interpreted in light of contemporary research cautioning against deterministic interpretations of birth order. Rohrer et al. (2015) found limited evidence for broad birth-order effects on personality, highlighting the importance of distinguishing between family-position experiences and fixed personality characteristics. The present findings do not demonstrate that birth order determines stress or perfectionism. Rather, they suggest that sibling position may be associated with particular psychological experiences within the specific adolescent sample studied. Family processes, parental expectations, sibling relationships, academic pressure, and individual differences may all contribute to these associations.

4. IMPLICATIONS

- The study has several implications for school counselling and adolescent mental-health support. School counsellors and educators may benefit from recognizing that students who appear highly responsible, achievement-oriented, or dependable may also experience considerable internal pressure.
- Particular attention may be given to adolescents who consistently feel that their performance is inadequate despite objectively successful outcomes.
- Interventions can focus on realistic standards, flexible goal setting, coping strategies, self-compassion, and separating self-worth from achievement.
- Family-based psychoeducation may also help parents recognize the potential psychological impact of placing excessive responsibility or modelling expectations on elder children.

5. LIMITATIONS

- The use of convenience sampling limits generalizability, and the cross-sectional design prevents conclusions about causality or developmental change.
- The middle-sibling group was particularly small ($n = 6$), which may reduce the stability and representativeness of estimates for this group. In addition, the study relied on self-report measures, which may be influenced by response biases and participants' subjective interpretations.

- The study also did not directly assess parental expectations, family responsibilities, socioeconomic background, academic pressure, or sibling relationship quality, all of which could help explain the observed associations.

Despite these limitations, the study contributes to an understanding of how birth-order position may intersect with adolescent psychological experiences. The findings suggest that elder siblings, particularly elder daughters, may warrant attention when considering perceived stress, achievement-related pressure, and maladaptive perfectionistic tendencies. Importantly, the findings should be understood within a broader family and developmental context rather than as evidence that birth order alone determines psychological outcomes. Future research using larger and more balanced sibling groups, longitudinal designs, and measures of family expectations and parenting practices could provide a more comprehensive understanding of the mechanisms underlying these relationships.

6. CONCLUSION

The present study examined the association between birth-order position, perceived stress, and maladaptive perfectionism among high school students. The findings indicated significant differences in both perceived stress and maladaptive perfectionism across elder, middle, and younger siblings, with elder siblings reporting the highest levels on both variables. Among elder daughters, perceived stress was significantly and positively associated with maladaptive perfectionism, suggesting that greater perceived stress may coexist with stronger feelings of inadequacy in relation to personal standards. Female elder siblings also reported higher maladaptive perfectionism than male elder siblings, while the gender difference in perceived stress was comparatively weaker. Overall, the findings highlight the importance of considering sibling position, gender, and family expectations when understanding adolescent psychological experiences. However, birth order should not be viewed as a deterministic factor. The findings support the need for sensitive school-based psychological support that addresses achievement pressure, unrealistic standards, stress management, and healthy coping among adolescents.

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