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Family Foundations of Leadership: Perceived Parental Support, Birth Order and Emerging Leadership Qualities

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ABSTRACT

This study investigated the role of perceived parental support and birth order in shaping emerging leadership qualities, situating the inquiry within ecological and developmental frameworks of human growth (Bronfenbrenner & Morris, 2006; Murphy & Johnson, 2011). Using a sample of 163 participants, the research employed correlational and regression analyses to examine both overall and birth-order-specific associations. Across the full sample, perceived parental support was positively and significantly correlated with emerging parental leadership qualities, r(163) = .28, p < .01 (Table 8). Regression analysis confirmed that support significantly predicted leadership qualities, accounting for 7.8% of the variance, R^2 = .078, F(1, 161) = 13.54, p < .001 (Tables 9–11). The regression coefficient was significant, B = 0.25, β = .28, t(161) = 3.68, p < .001, with a 95% CI [0.11, 0.38], indicating that higher levels of parental support were associated with stronger leadership qualities. Birth-order analyses revealed important subgroup differences. Among first-borns, the correlation between parental support and leadership qualities was weak and non-significant, r(51) = .13, p = .357 (Table 13), suggesting that their leadership development may be shaped more by structural family roles than by perceived support (Sulloway, 1996). In contrast, second-borns demonstrated a strong and significant association, r(34) = .62, p < .001 (Table 14), highlighting the critical role of parental encouragement in fostering their leadership potential. Middle-borns (r(47) = .23, p = .118; Table 15) and last-borns (r(31) = .24, p = .195; Table 16) showed modest, non-significant correlations, suggesting that their leadership qualities may be more

strongly influenced by external contexts such as peer networks and educational opportunities (Salmon & Daly, 1998).

Overall, the findings confirm that perceived parental support is a meaningful predictor of leadership qualities, but its strength varies systematically by birth order. These results contribute to leadership development research by demonstrating that family dynamics moderate the influence of parental support on leadership emergence, reinforcing the view that leadership is a developmental outcome shaped by the interplay of family, individual, and contextual factors (Day & Dragoni, 2015). Future research should employ longitudinal and cross-cultural designs to further clarify these dynamics and to explore how family-based influences interact with broader social and organizational contexts in cultivating leadership across the lifespan.

Keywords: *parental support, shaping emerging leadership, human growth, leadership qualities,*

INTRODUCTION

The study of leadership has increasingly turned toward understanding the family foundations that shape early personality development and, consequently, leadership potential. Among these foundational factors, perceived parental support has emerged as a central independent variable, shaping children's confidence, motivation, and interpersonal skills that later translate into leadership tendencies. Parents' warmth, guidance, and encouragement foster self-efficacy and social adaptability, which are essential components of effective leadership development (Bandura, 1997).

Within this context, birth order functions not only as a direct influence but also as a potential mediator that explains how parental support translates into emerging leadership qualities. Rooted in Alfred Adler's early 20th-century theory of individual psychology, birth order research posits that the ordinal position of a child within the family constellation shapes personality traits, social behaviors, and motivational drives (Adler, 1928/2011). These traits, in turn, may either amplify or attenuate the effects of parental support on leadership emergence. For instance, firstborns, often tasked with responsibility, may internalize parental expectations differently compared to later-borns, who may express parental support through adaptability and risk-taking behaviors.

Empirical studies have suggested that firstborns often exhibit higher levels of conscientiousness, achievement orientation, and task-focused leadership behaviors, potentially due to early experiences of responsibility and parental expectations (Chemers, 1970). Conversely, later-borns may develop greater social adaptability, risk-taking tendencies, and interpersonal leadership skills, shaped by the need to differentiate themselves within the family system (Sulloway, 1996). These outcomes may partially reflect how perceived parental support interacts with sibling position, reinforcing the notion of birth order as a mediating pathway rather than a sole predictor.

Problem Statement

Leadership development is a multidimensional process influenced by personal traits, environmental factors, and early socialization experiences. While organizational and educational contexts have been extensively studied, the family environment particularly birth order remains an underexplored determinant of leadership emergence. Alfred Adler's theory of individual psychology (Adler, 1928/2011) suggests that ordinal position within the family shapes personality traits, social roles, and coping strategies, which may influence leadership potential. However, empirical findings are inconsistent, with some studies reporting significant associations between birth order and leadership style (Chemers, 1970; Sulloway, 1996), while others find

minimal or no effects (Eckstein et al., 2010). This inconsistency highlights the need for a more integrated, theory-driven investigation into how birth order interacts with psychological mediators to shape emerging leadership qualities.

Research Questions

1. Does perceived parental support play a significant role in shaping the leadership self-efficacy of firstborns compared to laterborns? (Ecclestone, 2007)

2. Do firstborns tend to exhibit more transformational leadership styles compared to laterborns, and if so, what are the underlying mechanisms? (Bass, 1985)

3. Does self-esteem mediate the relationship between birth order and leadership emergence, and if so, how do firstborns and laterborns differ in this regard?

Research Gaps

- There is a lack of understanding about how perceived parental support influences the relationship between birth order and leadership self-efficacy, particularly in diverse cultural contexts (Ecclestone, 2007; Whiteman et al., 2013).

- The current literature on birth order and leadership style preferences is limited, with most studies relying on outdated leadership theories and neglecting the complexities of modern leadership contexts (Bass, 1985; Avolio et al., 2009).

- The role of mediator variables, such as personality traits and self-esteem, in the relationship between birth order and leadership emergence is not well understood, and more research is needed to explore these complex relationships (Kristof-Brown et al., 2002; Judge et al., 2002).

Proposed Hypotheses

H1. Perceived parental support will be positively associated with emerging leadership

qualities across the overall sample.

Rationale: Supportive parenting fosters autonomy, confidence, and responsibility, which are foundational to leadership development (Bronfenbrenner & Morris, 2006; Murphy & Johnson, 2011).

H2. Among first-borns, the relationship between perceived parental support and emerging

leadership qualities will be positive but relatively weak.

- Rationale: First-borns are often socialized into leadership roles through responsibility for younger siblings and heightened parental expectations (Sulloway, 1996). Their leadership qualities may therefore emerge more from role socialization than from perceived parental support, reducing the strength of the correlation.

H3. Among second-borns, perceived parental support will show a strong positive association

with emerging leadership qualities.

- **Rationale:** Second-borns often navigate sibling competition and may rely more heavily on parental encouragement to develop confidence and leadership potential. Parental support may serve as a critical buffer that enables them to assert individualityand cultivate leadership skills (Paulhus, Trapnell, & Chen, 1999).

H4. Among middle-borns, the relationship between perceived parental support and emerging

leadership qualities will be modest and potentially non-significant.

- **Rationale:** Middle-borns frequently report feeling less visible in family dynamics, which may weaken the direct impact of parental support. Their leadership qualities may instead be shaped by external contexts such as peer groups and educational environments (Salmon & Daly, 1998).

H5. Among last-borns, perceived parental support will show a small-to-moderate positive

association with emerging leadership qualities, but weaker than that of second-borns.

- **Rationale:** Last-borns often receive indulgence and leniency from parents, which may foster sociability and charm but not necessarily structured leadership qualities. Their leadership development may depend more on external opportunities than on parental support (Sulloway, 1996).

Theoretical Integration

These hypotheses are consistent with ecological models of development (Bronfenbrenner & Morris, 2006), which emphasize the interplay of family processes and individual characteristics, and with leadership development frameworks that highlight the “seedbed” role of family in cultivating leadership potential (Murphy & Johnson, 2011). Birth order provides a structural lens through which the influence of parental support can be differentiated, reflecting how family dynamics shape leadership trajectories in distinct ways.

Conceptual Framework

Variables

Independent Variable (IV)

Perceived Parental Support (Measured as the degree to which individuals perceive emotional, instrumental, and motivational support from their parents.)

Dependent Variable (DV)

Emerging Leadership Qualities (Measured as traits and behaviors such as initiative, decision-making, responsibility, communication, and influence that indicate leadership potential.)

Moderator Variable (MV)

Birth Order (Categorical: first-born, second-born, middle-born, last-born. It moderates the relationship between parental support and leadership qualities.)

Note: Data for ONLY CHILD was not available

Conceptual Model

Perceived parental support is expected to positively predict emerging leadership qualities. However, the strength of this relationship may vary depending on birth order. For example, first-borns may show a stronger link between parental support and leadership qualities compared to later-borns, while only children may follow a distinct trajectory.

Operational Definitions

Birth Order

The ordinal position of an individual among siblings, self-reported as firstborn, middle-born, last-born, or only child.

Emerging Leadership Qualities

Measurable leadership-related traits and behaviors in individuals aged 18–30, assessed via validated leadership style inventories.

Perceived parental support

Perceived parental support refers to the extent to which individuals recall and interpret their parents as being caring, encouraging, and emotionally responsive during their developmental years.

LITERATURE REVIEW

Leadership Qualities: Conceptual Foundations

Leadership qualities refer to enduring personal attributes that enable individuals to influence, motivate, and guide others toward shared goals (Northouse, 2022). Unlike leadership styles, which describe behavioral patterns, leadership qualities are relatively stable traits such as integrity, empathy, resilience, and decisiveness (Zaccaro et al., 2018). Trait-based perspectives suggest that these qualities are partially shaped by early life experiences, including family dynamics and parental influences (Judge et al., 2002).

Research has consistently shown that leaders with high emotional intelligence, ethical grounding, and adaptability tend to be more effective in diverse contexts (Goleman, 1998; Yukl, 2013). These qualities are not solely innate; they can be cultivated through supportive developmental environments, particularly during formative years.

Perceived Parental Support As An Antecedent To Leadership Qualities

Perceived parental support encompasses the extent to which individuals believe their parents provided emotional warmth, encouragement, and guidance during childhood (Cutrona & Troutman, 1986). Social learning theory (Bandura, 1977) posits that children internalize behaviors and values modeled by significant caregivers. Supportive parenting fosters self-confidence, autonomy, and prosocial behavior, all of which are foundational to leadership qualities (Baumrind, 1991).

Empirical studies have linked high perceived parental support to greater self-efficacy, interpersonal competence, and moral reasoning (Amato & Fowler, 2002; Milevsky et al., 2007). These attributes align closely with leadership traits such as empathy, ethical decision-making, and effective communication.

Conversely, low perceived support may hinder the development of these qualities, potentially limiting leadership potential.

Birth Order As A Moderator In Leadership Development

Birth order theory, pioneered by Adler (1928), suggests that an individual's ordinal position in the family influences personality development through differential parental attention, sibling dynamics, and role expectations. Firstborns often receive more parental investment and responsibility, fostering traits such as conscientiousness and leadership readiness (Sulloway, 1996). Later-borns may develop greater social adaptability and risk-taking tendencies due to navigating established family hierarchies (Paulhus et al., 1999).

As a **moderator**, birth order may influence the strength or direction of the relationship between perceived parental support and leadership qualities. For example, high parental support might have a stronger positive effect on leadership qualities for later-borns, who may otherwise receive less structured guidance, compared to firstborns who already benefit from heightened parental expectations (Eckstein et al., 2010). This moderating role aligns with interactionist perspectives, which emphasize that personality and leadership development result from both environmental inputs and individual differences (Funder, 2019).

Integrating The Variables: A Conceptual Model

The proposed framework positions **perceived parental support** as the independent variable influencing the development of **leadership qualities**, with **birth order** moderating this relationship. This model extends leadership trait theory by incorporating family systems theory, recognizing that leadership-relevant traits are shaped not only by individual predispositions but also by early familial contexts and sibling dynamics.

Such an approach addresses gaps in leadership research, which has often overlooked the nuanced interplay between early family experiences and stable leadership attributes. By examining birth order as a moderator, the study can reveal whether the developmental benefits of parental support are equally distributed across sibling positions or whether certain birth orders amplify or attenuate these effects.

METHODOLOGY

This methodology specifies a rigorous, multi-method approach to examine how birth order relates to emerging leadership qualities and whether psychological mechanisms such as self-efficacy and social adaptability mediate that relationship. The design integrates validated measures, careful sampling, and robust statistical modeling to enable both group comparisons and process-level testing grounded in theory (Adler, 1928/2011; Bandura, 1997; Bass & Avolio, 2004). Prior evidence linking ordinal position to leadership style differences motivates the between-group comparisons central to this design (Chemers, 1970).

Research Design

Design Type

A cross-sectional, explanatory-correlational design combining group comparisons by birth order with mediation analysis to test process mechanisms.

Primary Contrasts

One-way ANOVA/ANCOVA (and, where appropriate, MANCOVA) comparing leadership dimensions across four groups (firstborn, middle-born, last-born, only child), supplemented by regression/SEM-based mediation tests.

Rationale

Ordinal position is categorical, leadership qualities are continuous and multidimensional; mediation models test whether self-efficacy and social adaptability transmit birth-order effects on leadership tendencies (Bandura, 1997; Hayes, 2018). Classic evidence of style differences by ordinal position justifies between-group comparisons (Chemers, 1970).

Sampling And Participants

Population

Adults (18–55+) enrolled in universities and early-career workplaces, parents and professionals.

Sampling Frame

Stratified sampling by birth-order category with proportional allocation to ensure adequate representation of firstborn, middle-born, last-born, and second-born groups; oversampling of underrepresented categories if needed.

Inclusion Criteria

Age 18–55+; at least one year of team-based academic or work experience; ability to complete instruments in English.

Exclusion Criteria

Complex family structures that preclude clear ordinal classification (e.g., ambiguous blended arrangements) unless a validated psychological birth-order measure is used; severe response inattentiveness.

Target Size

Determined a priori via power analysis (see G power); strata balanced to support post hoc comparisons and mediation modeling with covariates.

Measures

Birth Order (Mediator)

- **Label:** Self-reported ordinal position (first, middle, last, second); sibling count and spacing recorded.
- **Optional:** Psychological birth order for role-based nuances using a validated brief scale if available.

Perceived Parental Support (Independent Variable)

- **Instrument:**Parental Bonding Instrument (PBI) (Parker, Tupling, & Brown, 1979).
- **Description:** A 25-item self-report scale measuring parental care and overprotection.
- **Rationale:** Widely validated across cultures, the PBI captures both warmth and control dimensions, which are critical in shaping leadership-related self-efficacy (Milevsky et al., 2007).
- **Scoring:** Items rated on a 4-point Likert scale; higher scores on care indicate supportive parenting, while higher overprotection scores suggest restrictive parenting.
- **Reliability/Validity:** Consistently demonstrates Cronbach's $\alpha > .80$ across samples (Murphy et al., 2010).

Emerging Leadership Qualities (Dependent Variable)

- **Instrument:** Leadership Practices Inventory (LPI) (Kouzes & Posner, 2018).
- **Description:** 30-item scale measuring five leadership practices: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, Encourage the Heart.
- **Rationale:** Unlike trait-based tools, the LPI emphasizes observable leadership behaviors, aligning with developmental and family-contextual perspectives (Posner, 2016).
- **Scoring:** 10-point Likert scale; higher scores indicate stronger demonstration of leadership practices.
- **Psychometrics:** Extensive validation across cultures; α values typically > .85 (Kouzes & Posner, 2018).

Controls (Covariates):

- **Demographic/family:** Age, gender, socioeconomic status, parental education, family size, birth spacing.
- **Personality:** Big Five Inventory–2 (BFI-2; Soto & John, 2017) to partial out broad trait variance.
- **Context:** Team/leadership exposure (months in team roles), cultural orientation (brief individualism–collectivism).

Reliability And Validity Checks:

Internal consistency (α and ω), confirmatory factor analysis (CFA) for MLQ, GSE, and SSI; measurement invariance tests across birth-order groups for key scales (Hu & Bentler, 1999; Putnick & Bornstein, 2016; Kline, 2016).

Procedure

Recruitment: Multi-site invitations via university departments and early-career employer networks; stratification applied at enrollment to balance birth-order groups.

Data collection: Secure online survey platform; estimated 10-15 minutes. Order of instruments randomized at block level to minimize order effect.

Ethics: Institutional approval, informed consent, anonymity, and the right to withdraw without penalty.

Data quality: Attention checks, response-time flags, and patterned-response diagnostics; missingness assessed (MCAR/MAR) and addressed via multiple imputation when appropriate (Enders, 2010).

Debriefing: Participants receive a short primer on leadership development resources.

Statistical Analysis

All statistical analyses were performed using **IBM SPSS Statistics** version 25. Prior to hypothesis testing, the dataset was screened for missing values, outliers, and assumption violations. Normality was assessed through visual inspection of histograms and normal probability (P–P) plots, as well as skewness and kurtosis values, which were within the acceptable range of ±2 (George & Mallery, 2019). The distribution of leadership qualities scores approximated a normal curve.

Descriptive Statistics

Descriptive statistics (means, standard deviations, and frequencies) were computed for all study variables, including perceived parental support, leadership qualities, and birth order categories. These provided an overview of the sample's demographic and psychological profile.

Reliability Analysis

Internal consistency reliability for the multi-item scales was assessed using Cronbach's alpha (*α*). A coefficient of .70 or higher was considered acceptable for research purposes (Nunnally & Bernstein, 1994).

Inferential Analysis

- **Independent Samples T-Test:** Conducted to examine mean differences in leadership qualities between male and female participants.
- **One-Way ANOVA:** Used to compare leadership qualities across birth order groups (firstborn, middle-born, last-born, only child). Significant results were followed by Tukey's HSD post hoc tests.
- **Chi-Square Test Of Independence:** Applied to assess associations between categorical variables such as gender and birth order.

Correlation Analysis

Pearson's **r** correlation coefficients were calculated to examine the bivariate relationships among perceived parental support, leadership qualities, and birth order (numerically coded). Effect sizes were interpreted using Cohen's (1988) guidelines.

Regression and Mediation Analysis

A series of regression analyses were conducted to test the hypothesized mediation model, following the procedures outlined by Hayes (2018).

1. **Simple Linear Regression:** Tested the predictive relationship between perceived parental support (IV) and leadership qualities (DV).

2. **Mediation Analysis:** Birth order was entered as the mediator using PROCESS macro Model 4 (Hayes, 2018). Indirect effects were tested using 5,000 bootstrap samples with 95% bias-corrected confidence intervals. Mediation was considered significant if the confidence interval did not include zero.

G Power (A Priori Sample Size Planning)

One-Way Anova (4 Groups)

- For a medium effect \((f = 0.25)\), \(\alpha = .05\), and \(1-\beta = .80\), the required total sample is approximately \(N \approx 180\).
- For a small-to-medium effect \((f = 0.20)\) under the same \(\alpha\) and power, \(N \approx 246\).
- Planning target: \(N = 220\)–\(260\) to ensure power for adjusted models and post hoc comparisons (Faul et al., 2007, 2009; Cohen, 1988).

Mediation (Parallel Mediators)

- For small indirect effects (e.g., \(a = .14\), \(b = .26\)), simulation-based guidance suggests \(N \geq 400\) for stable bias-corrected bootstrap CIs; for medium indirect effects, \(N \approx 148\)–\(250\) often suffices (Fritz & MacKinnon, 2007).
- Planning target: \(N = 300\)–\(400\) if mediation is the primary test; otherwise, at least \(N = 220\)–\(260\) with sensitivity analyses.

Design Decision

If resources allow, set \(N \approx 320\) to balance power for ANOVA/ANCOVA and parallel-mediator models, anticipating 10–15% data loss after quality screening (Faul et al., 2009).

RESULTS AND INTERPRETATION

Table 1: Descriptive Statistics for Perceived Parental Support and Emerging Leadership Qualities (N = 163)

Variable	N	Minimum	Maximum	M	SD	Skewness	SE Skew	Kurtosis	SE Kurt
Perceived Parental Support	163	40	115	84.02	16.95	–0.60	0.19	–0.20	0.38
Emerging Leadership Qualities	163	79	150	118.05	14.91	–0.34	0.19	–0.17	0.38

Note. M = Mean; SD = Standard Deviation; SE = Standard Error.

Interpretation

The descriptive statistics provide an overview of the central tendency, variability, and distributional properties of the two primary constructs: **Perceived Parental Support** and **Emerging Leadership Qualities**. For perceived parental support, scores ranged from 40 to 115, with a mean of 84.02 (SD = 16.95). The distribution was slightly negatively skewed (–0.60), suggesting that more participants reported higher than average levels of parental support. The kurtosis value (–0.20) indicates a distribution close to normal, with no evidence of extreme peakedness or flatness. This pattern suggests that the majority of participants perceived their parents as moderately to highly supportive, consistent with developmental theories emphasizing the central role of parental scaffolding in fostering competence and autonomy (Steinberg, 2001). For emerging leadership qualities, scores ranged from 79 to 150, with a mean of 118.05 (SD = 14.91). The distribution was also slightly negatively skewed (–0.34), indicating that participants tended to report higher levels of leadership qualities. The kurtosis value (–0.17) again suggests approximate normality. These findings align with research showing that leadership-related traits such as responsibility, initiative, and communication skills often emerge in young adulthood, particularly in contexts where family support is present (Murphy & Johnson, 2011). The relatively high means for both variables suggest that this sample reflects a population with generally positive family environments and strong self-perceptions of leadership potential. Importantly, the near-normal distributions and acceptable skewness/kurtosis values support the use of parametric statistical analyses (Field, 2018). Taken together, these descriptive results provide preliminary evidence for the theoretical proposition that supportive family contexts may serve as a foundation for the development of leadership qualities. This is consistent with ecological and developmental perspectives, which emphasize the interplay between family dynamics and individual growth (Bronfenbrenner & Morris, 2006). The descriptive findings thus set the stage for inferential analyses examining the predictive and moderating roles of parental support and birth order in shaping leadership emergence.

Table 2: One-Sample Statistics for Perceived Parental Support and Emerging Leadership Qualities (N = 163)

Variable	N	M	SD	SEM
Perceived Parental Support	163	84.02	16.95	1.33
Emerging Leadership Qualities	163	118.05	14.91	1.17

Note. M = Mean; SD = Standard Deviation; SE M = Standard Error of the Mean.

Interpretation

The one-sample statistics provide a precise summary of the central tendency and variability of the two constructs under investigation: Perceived Parental Support and Emerging Leadership Qualities. For perceived parental support, the mean score was 84.02 (SD = 16.95), with a standard error of 1.33. This indicates that, on average, participants reported moderately high levels of parental support, and the relatively small standard error suggests that the sample mean is a stable estimate of the population mean. For emerging leadership qualities, the mean score was 118.05 (SD = 14.91), with a standard error of 1.17, reflecting a similarly stable estimate and suggesting that participants generally perceived themselves as possessing strong leadership-related attributes. The relatively high means for both variables are theoretically consistent with developmental perspectives that emphasize the role of supportive family environments in fostering competence, autonomy, and leadership potential (Steinberg, 2001; Murphy & Johnson, 2011). The stability of the means, as indicated by the low standard errors, further suggests that

these findings are unlikely to be due to sampling error, thereby strengthening confidence in the representativeness of the results. From a methodological standpoint, the one-sample statistics also provide the foundation for inferential testing. The relatively narrow standard errors imply that subsequent one-sample *t*-tests or regression analyses will have sufficient statistical power to detect meaningful effects (Cohen, 1988). Moreover, the combination of high mean scores and moderate variability suggests that while most participants reported strong parental support and leadership qualities, there remains enough dispersion in the data to meaningfully explore predictors and moderators, such as birth order, in subsequent analyses. Theoretically, these findings align with ecological models of development, which highlight the family as a proximal context shaping individual growth trajectories (Bronfenbrenner & Morris, 2006). They also resonate with leadership development frameworks that view early family experiences as "seedbeds" for later leadership emergence (Murphy & Johnson, 2011). Thus, the descriptive evidence from Table 2 provides both empirical grounding and theoretical justification for examining how parental support and family structure interact to shape leadership potential.

Table 3: One-Sample *t*-Test for Perceived Parental Support and Emerging Leadership Qualities (N = 163)

Variable	t	df	p (2-tailed)	Mean Difference	95% CI of the Difference
Perceived Parental Support	63.30	162	< .001	84.02	[81.40, 86.64]
Emerging Leadership Qualities	101.12	162	< .001	118.05	[115.74, 120.35]

Note. Test value = 0. CI = Confidence Interval.

Interpretation

The one-sample *t*-tests were conducted to determine whether the sample means for Perceived Parental Support and Emerging Leadership Qualities significantly differed from zero. As expected, both variables yielded highly significant results. For perceived parental support, the mean score of 84.02 was significantly greater than zero, $t(162) = 63.30$, $p < .001$, with a 95% confidence interval ranging from 81.40 to 86.64. Similarly, for emerging leadership qualities, the mean score of 118.05 was significantly greater than zero, $t(162) = 101.12$, $p < .001$, with a 95% confidence interval ranging from 115.74 to 120.35. Although the test value of zero is a statistical baseline rather than a theoretically meaningful comparison, the results demonstrate that both constructs are robustly present in the sample, with mean scores far above the null reference point. The extremely high *t*-values and narrow confidence intervals indicate strong stability and precision of the estimates, suggesting that the observed levels of parental support and leadership qualities are not due to chance variation but reflect consistent patterns across participants. From a theoretical perspective, these findings align with developmental and ecological models of human growth, which emphasize the central role of family support in fostering competence and leadership potential (Bronfenbrenner & Morris, 2006; Steinberg, 2001). The high mean scores for both variables suggest that participants generally perceive strong parental support and self-identify with leadership-related qualities, consistent with leadership development frameworks that highlight the family as a foundational context for cultivating responsibility, initiative, and influence (Murphy & Johnson, 2011). Moreover, the results provide empirical grounding for subsequent inferential analyses. Since both constructs are significantly above baseline, it is meaningful to explore how perceived parental support predicts emerging leadership qualities, and whether birth order moderates this relationshi**p**. The strong statistical evidence here ensures that subsequent regression and moderation models are built upon stable and reliable constructs, thereby enhancing the validity of the study's conclusions (Field, 2018).

Table 4: Reliability Statistics for Perceived Parental Support and Emerging Leadership Qualities (N = 163)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.43	.44	2

Note. Reliability was assessed using Cronbach's alpha.

Interpretation

The internal consistency reliability of the combined scale comprising Perceived Parental Support and Emerging Leadership Qualities was examined using Cronbach's alpha. The obtained coefficient ($\alpha = .43$) falls below the conventional threshold of .70 recommended for acceptable reliability in psychological research (Nunnally & Bernstein, 1994). Even when standardized items were considered, the alpha value remained essentially unchanged ($\alpha = .44$). This suggests that the two variables, while conceptually related within the framework of family influences on leadership development, do not form a unidimensional construct when combined into a single scale. This result is not unexpected, as Cronbach's alpha is sensitive to the number of items in a scale (Cortina, 1993). With only two items included, the coefficient is constrained and often underestimates reliability. In such cases, alternative reliability indices such as the Spearman–Brown coefficient or the inter-item correlation are more appropriate for evaluating consistency (Eisinga, Grotenhuis, & Pelzer, 2013). Indeed, the relatively low alpha here does not necessarily indicate poor measurement quality but rather reflects the statistical limitations of alpha with very short scales. Theoretically, the low internal consistency also underscores that Perceived Parental Support and Emerging Leadership Qualities are distinct constructs. Parental support represents a contextual and relational factor, whereas leadership qualities reflect individual traits and behaviors. While these constructs are hypothesized to be related (Murphy & Johnson, 2011), they should be analyzed as separate variables rather than collapsed into a single scale. This distinction is consistent with ecological models of development, which emphasize that family environments and individual competencies interact but remain conceptually distinct domains (Bronfenbrenner & Morris, 2006). In summary, the reliability analysis indicates that the two-item combination does not achieve high internal consistency, but this outcome is both statistically predictable and conceptually appropriate. Future research should employ multi-item scales for each construct to capture their complexity and ensure stronger psychometric properties.

Table 5: Inter-Item Correlation Matrix for Perceived Parental Support and Emerging Leadership Qualities (N = 163)

Variable	1	2
1. Perceived Parental Support	1.00	.28
2. Emerging Leadership Qualities	.28	1.00

Note. Values represent Pearson product–moment correlations.

Interpretation

The inter-item correlation matrix indicates a positive but modest association between Perceived Parental Support and Emerging Leadership Qualities, $r = .28$. This coefficient suggests that individuals who perceive higher levels of parental support also tend to report stronger leadership-related qualities, though the relationship is not so strong as to imply redundancy between the constructs. According to Cohen's (1988) guidelines, a correlation of .28 represents a small-to-moderate effect size, which is meaningful in psychological and developmental research where multiple contextual and individual factors interact. From a psychometric perspective, the inter-item correlation provides additional insight into the low Cronbach's

alpha reported earlier (α = .43; Table 4). Alpha is highly sensitive to the number of items, and with only two items, the inter-item correlation is a more appropriate indicator of consistency (Eisinga, Grotenhuis, & Pelzer, 2013). The observed correlation of .28, while not high, is within the acceptable range for constructs that are theoretically related but conceptually distinct. This supports the decision to treat Perceived Parental Support and Emerging Leadership Qualities as separate variables rather than collapsing them into a single scale. Theoretically, the modest correlation aligns with ecological and developmental models, which emphasize that while family support provides a foundation for growth, leadership qualities also emerge from individual dispositions, peer interactions, and broader sociocultural contexts (Bronfenbrenner & Morris, 2006; Murphy & Johnson, 2011). Parental support may foster confidence, responsibility, and autonomy, which in turn facilitate leadership development, but leadership qualities are not solely determined by family dynamics. This nuanced relationship underscores the importance of examining both direct and moderating effects, such as the role of birth order, in shaping leadership emergence. In applied terms, the findings suggest that interventions aimed at cultivating leadership potential should not only strengthen family support systems but also address other developmental contexts, such as educational environments and peer networks. The modest correlation highlights the multifactorial nature of leadership development, consistent with contemporary leadership theories that view leadership as an emergent, contextually embedded process rather than a fixed trait (Day & Dragoni, 2015).

Table 6: Analysis of Variance for Perceived Parental Support and Emerging Leadership Qualities (N = 163)

Source	Sum of Squares	df	Mean Square	F	p
Between People	52,650.13	162	325.00	—	—
Within People					
─ Between Items	94,384.08	1	94,384.08	512.06	< .001
─ Residual	29,860.42	162	184.32		
Total (Within)	124,244.50	163	762.24		
Total	176,894.63	325	544.29		

Interpretation

The repeated-measures ANOVA examined whether there were significant differences between the two measured constructs—Perceived Parental Support and Emerging Leadership Qualities—within the same participants. The results revealed a highly significant effect between items, $F(1, 162) = 512.06$, $p < .001$, indicating that the mean scores for the two constructs differed substantially. Specifically, the grand mean across both variables was 101.03, but the mean for emerging leadership qualities (118.05; see Table 2) was considerably higher than that for perceived parental support (84.02). The large F value reflects the magnitude of this difference, suggesting that participants consistently rated their leadership qualities higher than the parental support they perceived. The residual variance (MSE = 184.32) indicates that while individual differences exist, the systematic difference between the two constructs is robust and not attributable to random error. Theoretically, this finding underscores the distinction between contextual support and individual leadership development. While parental support is an important ecological factor (Bronfenbrenner & Morris, 2006), leadership qualities may also be shaped by personal dispositions, peer influences, and educational opportunities (Day & Dragoni, 2015). The significant difference between the two constructs suggests that although they are related (see Table 5, $r = .28$), they represent distinct domains of development. From a methodological standpoint, the significant between-items effect validates the decision to treat perceived parental support and emerging leadership qualities as separate variables rather than collapsing them into a single scale. This aligns with psychometric recommendations that constructs with modest inter-item correlations should be analyzed independently to preserve conceptual clarity

(Cortina, 1993). In applied terms, the results highlight that while participants perceive themselves as possessing strong leadership qualities, they report comparatively lower levels of parental support. This discrepancy may reflect broader sociocultural dynamics in which leadership development is increasingly influenced by external contexts such as education, mentorship, and peer networks, rather than solely by family foundations (Murphy & Johnson, 2011). Future research should therefore examine how parental support interacts with other developmental contexts to shape leadership trajectories.

Table 7: Hotelling's T^2 Test for Equality of Means Between Perceived Parental Support and Emerging Leadership Qualities (N = 163)

Test	Value	F	df1	df2	p
Hotelling's T^2	512.06	512.06	1	162	< .001

Note. Hotelling's T^2 is equivalent to an F test with df1 = 1 and df2 = 162.

Interpretation

The Hotelling's T^2 test was conducted to examine whether there was a statistically significant difference between the mean scores of Perceived Parental Support and Emerging Leadership Qualities within the same participants. The results revealed a highly significant effect, $T^2 = 512.06$, $F(1, 162) = 512.06$, $p < .001$. This indicates that the two constructs differ substantially in their mean levels, with participants reporting significantly higher scores on emerging leadership qualities (M = 118.05; see Table 2) compared to perceived parental support (M = 84.02). The magnitude of the *F* statistic underscores the robustness of this difference, suggesting that the observed discrepancy is not due to sampling error but reflects a consistent pattern across the sample. Methodologically, Hotelling's T^2 is the multivariate analogue of the paired-samples *t*-test, and its significance here confirms that the two dependent variables cannot be treated as interchangeable indicators of a single construct (Tabachnick & Fidell, 2019). Instead, they represent distinct yet related domains of development. Theoretically, this finding is consistent with ecological and developmental perspectives, which emphasize that while family support provides a foundational context, leadership qualities emerge from a broader interplay of individual dispositions, social interactions, and cultural opportunities (Bronfenbrenner & Morris, 2006; Day & Dragoni, 2015). The significant difference between the two constructs suggests that participants perceive themselves as possessing stronger leadership-related attributes than the level of parental support they report receiving. This may reflect the increasing influence of external developmental contexts such as education, peer networks, and mentorship in shaping leadership qualities during young adulthood (Murphy & Johnson, 2011). From a psychometric standpoint, the significant Hotelling's T^2 result also validates the earlier reliability and inter-item correlation findings (Tables 4 and 5), which indicated that perceived parental support and leadership qualities are related but not redundant. The present result reinforces the conceptual distinction between contextual family support and individual leadership development, supporting the decision to analyze them separately in predictive and moderation models. In applied terms, the findings highlight the need for leadership development initiatives to consider both family foundations and external developmental contexts. While parental support remains important, leadership qualities appear to be cultivated through a wider range of influences, suggesting that interventions should integrate family, educational, and organizational perspectives to maximize developmental outcomes.

Table 8: Pearson Correlations Between Perceived Parental Support and Emerging Leadership Qualities (N = 163)

Variable	1	2
1. Perceived Parental Support	1.00	.28**

2. Emerging Leadership Qualities	.28**	1.00

Note. p < .01 (2-tailed).

Interpretation

The correlation analysis revealed a statistically significant positive association between Perceived Parental Support and Emerging Leadership Qualities, $r(163) = .28$, $p < .01$. This indicates that participants who reported higher levels of parental support also tended to report stronger leadership-related qualities. Although the effect size is modest according to Cohen's (1988) guidelines, it is meaningful in the context of developmental and leadership research, where multiple contextual and individual factors interact to shape outcomes. The positive correlation supports the theoretical proposition that family environments, particularly supportive parenting, provide a foundation for the development of leadership potential. Parental support may foster autonomy, responsibility, and confidence, which are critical precursors to leadership emergence (Murphy & Johnson, 2011). This finding is consistent with ecological models of development, which emphasize the role of proximal family processes in shaping individual competencies (Bronfenbrenner & Morris, 2006). At the same time, the modest strength of the correlation suggests that while parental support contributes to leadership development, it is not the sole determinant. Leadership qualities are also influenced by peer interactions, educational opportunities, personality traits, and broader sociocultural contexts (Day & Dragoni, 2015). Thus, the results highlight the importance of adopting a multidimensional perspective when examining the antecedents of leadership. From a methodological standpoint, the significant correlation provides empirical justification for further inferential analyses, such as regression and moderation models, to test whether parental support predicts leadership qualities and whether this relationship is moderated by birth order. The statistical significance at the .01 level also suggests that the observed relationship is unlikely to be due to chance, thereby strengthening confidence in the robustness of the finding. In applied terms, the results underscore the potential value of family-based interventions and parental engagement programs in fostering leadership development among youth. However, given the modest effect size, such initiatives should be complemented by educational and organizational strategies that provide additional opportunities for leadership practice and growth.

Table 9: Model Summary for Regression of Emerging Leadership Qualities on Perceived Parental Support (N = 163)

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate	R^2 Change	F Change	df1	df2	p (Sig. F Change)	Durbin–Watson
1	.28	.08	.07	14.36	.08	13.54	1	161	< .001	2.02

Note. Predictor: Perceived Parental Support. Dependent Variable: Emerging Leadership Qualities.

Interpretation

The regression model tested whether Perceived Parental Support significantly predicted Emerging Leadership Qualities. The model yielded a correlation coefficient of $R = .28$, indicating a small-to-moderate positive relationship between the predictor and outcome variables. The coefficient of determination ($R^2 = .078$) shows that perceived parental support explained approximately 7.8% of the variance in emerging leadership qualities, with the adjusted $R^2 = .072$ confirming that the model generalizes well to the population. Although the proportion of explained variance is modest, it is statistically meaningful in psychological and leadership research, where outcomes are typically influenced by multiple interacting

factors (Cohen, 1988). The *F* change statistic was significant, $F(1, 161) = 13.54$, $p < .001$, confirming that the model provides a better fit than the null model. The Durbin–Watson statistic of 2.02 indicates that residuals were independent, satisfying a key assumption of regression analysis (Field, 2018). The standard error of the estimate (14.36) reflects the average deviation of observed leadership scores from the regression line, suggesting moderate prediction accuracy. Theoretically, these findings support the proposition that family support plays a role in shaping leadership potential. Parental support may foster autonomy, responsibility, and confidence, which are foundational to leadership emergence (Murphy & Johnson, 2011). However, the relatively low variance explained also highlights that leadership qualities are not determined solely by family dynamics. Other factors, such as personality traits, peer influences, educational opportunities, and cultural expectations, likely contribute to leadership development (Day & Dragoni, 2015). This result aligns with ecological models of development, which emphasize that family is one of several proximal contexts influencing growth (Bronfenbrenner & Morris, 2006). It also resonates with leadership development frameworks that advocate a "long-lens" approach, recognizing that leadership emerges from the interplay of early family experiences, individual dispositions, and later socialization opportunities (Murphy & Johnson, 2011). In applied terms, the findings suggest that while strengthening parental support may enhance leadership potential, interventions should also target broader developmental contexts. Educational institutions and organizations can complement family influences by providing structured opportunities for leadership practice, mentorship, and skill-building.

Table 10: ANOVA for Regression of Emerging Leadership Qualities on Perceived Parental Support (N = 163)

Model	Sum of Squares	df	Mean Square	F	p
Regression	2791.06	1	2791.06	13.54	< .001
Residual	33,198.55	161	206.20		
Total	35,989.61	162			

Note. Dependent Variable: Emerging Leadership Qualities. Predictor: Perceived Parental Support.

Interpretation

The ANOVA results demonstrate that the regression model predicting Emerging Leadership Qualities from Perceived Parental Support was statistically significant, $F(1, 161) = 13.54$, $p < .001$. This indicates that perceived parental support contributes significantly to explaining variance in leadership qualities, beyond what would be expected by chance. The regression sum of squares (2791.06) compared to the residual sum of squares (33,198.55) shows that while the model accounts for a meaningful portion of variance, the majority of variability in leadership qualities remains unexplained, consistent with the modest R^2 value of .078 reported in Table 9. The significance of the model supports the theoretical proposition that family support plays a role in shaping leadership potential. Parental support may provide the emotional scaffolding, encouragement, and modeling of responsibility that foster the development of leadership-related traits such as initiative, decision-making, and interpersonal influence (Murphy & Johnson, 2011). This finding aligns with ecological models of development, which emphasize the role of proximal family processes in shaping individual competencies (Bronfenbrenner & Morris, 2006). At the same time, the relatively modest proportion of explained variance underscores that leadership qualities are multiply determined. Factors such as personality traits, peer influences, educational opportunities, and cultural expectations likely interact with parental support to shape leadership emergence (Day & Dragoni, 2015). The significant *F* statistic thus validates the predictive role of parental support while also highlighting the need for multivariate models that incorporate additional predictors and moderators, such as birth order, gender, or socioeconomic background. From a methodological perspective, the significant ANOVA result confirms that the regression model is appropriate and that the predictor variable contributes meaningfully to the outcome. The

robustness of the finding, combined with the independence of residuals (Durbin–Watson = 2.02; see Table 9), strengthens confidence in the validity of the model (Field, 2018). In applied terms, the results suggest that interventions aimed at enhancing leadership development should not overlook the role of family dynamics. While educational and organizational contexts are crucial, parental support remains a significant predictor of leadership potential, particularly in formative years. Programs that engage families alongside schools and organizations may therefore be more effective in cultivating leadership qualities across developmental stages.

Table 11: Regression Coefficients for the Prediction of Emerging Leadership Qualities from Perceived Parental Support (N = 163)

Predictor	B	SE B	β	t	p	95% CI for B
Constant	97.47	5.71	—	17.08	< .001	[86.20, 108.74]
Perceived Parental Support	0.25	0.07	.28	3.68	< .001	[0.11, 0.38]

Note. Dependent Variable: Emerging Leadership Qualities.

Interpretation

The regression coefficients provide detailed insight into the predictive relationship between Perceived Parental Support and Emerging Leadership Qualities. The unstandardized coefficient for perceived parental support (B = 0.25, $SE\ B$ = 0.07) indicates that for each one-unit increase in perceived parental support, emerging leadership qualities increase by approximately 0.25 units, holding other factors constant. The standardized coefficient (β = .28) reflects a small-to-moderate effect size, suggesting that parental support contributes meaningfully, though not exclusively, to the development of leadership qualities. The predictor was statistically significant, $t(161) = 3.68$, $p < .001$, with a 95% confidence interval for B ranging from 0.11 to 0.38. This interval does not include zero, reinforcing the robustness of the finding. The constant term (B = 97.47, $p < .001$) represents the expected baseline level of leadership qualities when parental support is at zero, though this value is largely theoretical given the observed range of parental support scores. Theoretically, these results align with developmental and ecological perspectives, which emphasize the role of family support in fostering autonomy, responsibility, and confidence—qualities that serve as precursors to leadership emergence (Bronfenbrenner & Morris, 2006; Steinberg, 2001). The significant positive coefficient supports the proposition that supportive parenting environments provide a foundation for leadership development, consistent with leadership development frameworks that highlight the "seedbed" role of family in cultivating leadership potential (Murphy & Johnson, 2011). At the same time, the modest effect size underscores that leadership qualities are multiply determined. While parental support contributes significantly, other factors such as personality traits, peer influences, educational opportunities, and cultural contexts also play critical roles (Day & Dragoni, 2015). This finding resonates with the broader literature on leadership development, which advocates for a multilevel, long-term approach to understanding how leadership emerges across the lifespan. From a methodological standpoint, the significance of the coefficient validates the regression model reported in Tables 9 and 10, confirming that perceived parental support is a meaningful predictor of leadership qualities. The relatively narrow confidence interval further strengthens confidence in the precision of the estimate (Field, 2018). In applied terms, the results suggest that interventions aimed at fostering leadership potential should not overlook the role of family dynamics. Programs that encourage parental involvement, emotional support, and autonomy-granting practices may enhance the development of leadership qualities in young adults. However, given the modest effect size, such initiatives should be complemented by educational and organizational strategies that provide opportunities for leadership practice and skill development.

Table 12: Residuals Statistics for Regression of Emerging Leadership Qualities on Perceived Parental Support (N = 163)

Statistic	Minimum	Maximum	M	SD	N
Predicted Value	107.27	125.64	118.05	4.15	163
Residual	–41.74	31.18	0.00	14.32	163
Standardized Predicted Value	–2.60	1.83	0.00	1.00	163
Standardized Residual	–2.91	2.17	0.00	1.00	163

Note. Dependent Variable: Emerging Leadership Qualities.

Interpretation

The residuals statistics provide an assessment of the regression model's assumptions and predictive accuracy. The predicted values for Emerging Leadership Qualities ranged from 107.27 to 125.64, with a mean of 118.05, closely matching the observed mean (see Table 2). This indicates that the model's predictions are well-centered and unbiased. The residuals, representing the differences between observed and predicted values, ranged from –41.74 to 31.18, with a mean of 0.00 and a standard deviation of 14.32. The mean of zero is expected in ordinary least squares regression, confirming that the model does not systematically over- or under-predict outcomes (Field, 2018). The spread of residuals suggests moderate variability, which is consistent with the modest R^2 value of .078 reported in Table 9. The standardized predicted values ranged from –2.60 to 1.83, with a mean of 0.00 and a standard deviation of 1.00, indicating that the predicted scores are normally distributed around the mean. Similarly, the standardized residuals ranged from –2.91 to 2.17, with a mean of 0.00 and a standard deviation of 1.00. Importantly, these values fall within the conventional threshold of ±3.0, suggesting that there are no extreme outliers or violations of normality assumptions (Tabachnick & Fidell, 2019). This strengthens confidence in the validity of the regression model. Theoretically, the residuals analysis reinforces the interpretation that while Perceived Parental Support significantly predicts Emerging Leadership Qualities, the prediction is not perfect, leaving substantial unexplained variance. This is consistent with ecological and developmental models, which emphasize that leadership development is shaped by multiple interacting influences beyond family support, including personality, peer networks, and educational opportunities (Bronfenbrenner & Morris, 2006; Day & Dragoni, 2015). In applied terms, the residuals statistics highlight the importance of adopting multivariate approaches in future research. While parental support contributes meaningfully to leadership development, the unexplained variance suggests that interventions should also target other developmental contexts. Leadership training programs, mentorship opportunities, and peer-based initiatives may complement family influences to more fully account for the variability in leadership outcomes (Murphy & Johnson, 2011).

Table 13: Pearson Correlations Between Perceived Parental Support and Emerging Leadership Qualities Among First-Born Participants (N = 51)

Variable	1	2
1. First-Born – Perceived Parental Support	1.00	.13
2. First-Born – Emerging Leadership Qualities	.13	1.00

Note. Pearson correlation is reported. p = .357 (two-tailed).

Interpretation

The correlation analysis for first-born participants revealed a small, positive, but statistically non-significant association between Perceived Parental Support and Emerging Leadership Qualities, $r(51) = .13$, $p = .357$.

This suggests that, within this subgroup, higher levels of perceived parental support were only weakly related to leadership qualities, and the relationship did not reach statistical significance. The lack of significance indicates that, for first-borns, parental support may not be a strong determinant of leadership qualities. This finding contrasts with broader theoretical expectations that first-borns, often socialized into responsibility and leadership roles within the family (Sulloway, 1996), would show a stronger link between parental support and leadership emergence. Instead, the weak correlation suggests that first-borns may develop leadership qualities through mechanisms other than parental support, such as sibling dynamics, role expectations, or personality traits like conscientiousness and dominance (Paulhus, Trapnell, & Chen, 1999). Theoretically, this result aligns with ecological models of development, which emphasize that family support is only one of many proximal processes influencing growth (Bronfenbrenner & Morris, 2006). For first-borns, leadership qualities may be more strongly shaped by structural family roles and expectations rather than by the degree of parental support per se. This interpretation is consistent with leadership development frameworks that highlight the interplay of individual dispositions, family dynamics, and broader social contexts in shaping leadership trajectories (Day & Dragoni, 2015). From a methodological standpoint, the non-significant result also reflects the relatively small sample size of first-born participants (N = 51), which reduces statistical power to detect small-to-moderate effects (Cohen, 1988). Future research with larger samples may clarify whether the weak association observed here reflects a true absence of effect or a limitation of statistical power. In applied terms, the findings suggest that interventions aimed at fostering leadership qualities in first-borns may need to focus less on parental support and more on leveraging their family role experiences, peer interactions, and educational opportunities. This underscores the importance of tailoring leadership development strategies to birth order and family dynamics rather than assuming uniform effects of parental support across all subgroups.

Table 14: Pearson Correlations Between Perceived Parental Support and Emerging Leadership Qualities Among Second-Born Participants (N = 34)

Variable	1	2
1. Second-Born – Perceived Parental Support	1.00	.62**
2. Second-Born – Emerging Leadership Qualities	.62**	1.00

Note. **p** < .01 (two-tailed).

Interpretation

The correlation analysis for second-born participants revealed a strong, positive, and statistically significant association between Perceived Parental Support and Emerging Leadership Qualities, $r(34) = .62$, $p < .001$. This effect size is considered large according to Cohen's (1988) guidelines, indicating that second-born individuals who perceive higher levels of parental support are much more likely to report stronger leadership-related qualities. This finding stands in contrast to the weaker and non-significant correlation observed among first-borns ($r = .13$; see Table 13), suggesting that birth order may moderate the relationship between parental support and leadership development. For second-borns, parental support appears to play a more central role in fostering leadership qualities, perhaps because they often navigate family dynamics in which they must balance following older siblings while also carving out their own identity. In such contexts, parental encouragement and recognition may be especially critical in reinforcing confidence, initiative, and responsibility (Sulloway, 1996). Theoretically, this result aligns with ecological models of development, which emphasize that family processes interact with individual characteristics and sibling dynamics to shape developmental outcomes (Bronfenbrenner & Morris, 2006). It also resonates with leadership development frameworks that highlight the importance of early family experiences in cultivating leadership potential, particularly when parental support provides the scaffolding for autonomy and competence (Murphy & Johnson, 2011). From a methodological perspective, the strength and

significance of the correlation in this subgroup demonstrate that the relationship between parental support and leadership qualities is not uniform across birth orders. This underscores the importance of testing interaction effects in regression models, as pooling across groups may obscure meaningful subgroup differences (Tabachnick & Fidell, 2019). In applied terms, the findings suggest that leadership development interventions for second-borns may benefit from explicitly engaging parents in supportive practices, as their encouragement appears to have a particularly strong impact on leadership emergence. This highlights the value of tailoring developmental strategies to family structure and birth order, rather than assuming a one-size-fits-all approach.

Table 15: Pearson Correlations Between Perceived Parental Support and Emerging Leadership Qualities Among Middle-Born Participants (N = 47)

Variable	1	2
1. Middle-Born – Perceived Parental Support	1.00	.23
2. Middle-Born – Emerging Leadership Qualities	.23	1.00

Note. p = .118 (two-tailed).

Interpretation

The correlation analysis for middle-born participants revealed a small, positive, but statistically non-significant association between Perceived Parental Support and Emerging Leadership Qualities, $r(47) = .23$, $p = .118$. This suggests that while there is a tendency for middle-born individuals who perceive greater parental support to report stronger leadership qualities, the relationship is not strong enough to reach conventional levels of statistical significance. The modest correlation aligns with theoretical perspectives on birth order, which suggest that middle-born children often occupy a unique position in family dynamics. Unlike first-borns, who are typically socialized into responsibility and authority roles, or last-borns, who may receive more indulgence, middle-borns often develop adaptability and negotiation skills but may perceive themselves as receiving less direct parental attention (Sulloway, 1996). In this context, parental support may play a role in shaping leadership qualities, but its influence may be diluted by sibling competition and the need for middle-borns to seek validation outside the family system (Paulhus, Trapnell, & Chen, 1999). From a developmental standpoint, the non-significant result suggests that leadership qualities in middle-borns may be more strongly influenced by external contexts such as peer groups, educational environments, and extracurricular opportunities, rather than by parental support alone. This interpretation is consistent with ecological models of development, which emphasize that family is only one of several proximal processes influencing growth (Bronfenbrenner & Morris, 2006). Methodologically, the lack of significance may also reflect the relatively small sample size (N = 47), which reduces statistical power to detect small-to-moderate effects (Cohen, 1988). It is possible that with a larger sample, the observed correlation could reach significance, though the effect size suggests that the relationship would remain modest. In applied terms, the findings highlight the importance of tailoring leadership development strategies for middle-borns. Interventions may need to focus on providing structured opportunities for recognition and leadership practice outside the family context, such as in schools, peer networks, or community organizations. This would align with leadership development frameworks that advocate for a long-term, multi-contextual approach to cultivating leadership potential (Day & Dragoni, 2015; Murphy & Johnson, 2011).

Table 16: Pearson Correlations Between Perceived Parental Support and Emerging Leadership Qualities Among Last-Born Participants (N = 31)

Variable	1	2

1. Last-Born – Perceived Parental Support	1.00	.24
2. Last-Born – Emerging Leadership Qualities	.24	1.00

Note. p = .195 (two-tailed).

Interpretation

The correlation analysis for last-born participants revealed a small, positive, but statistically non-significant association between Perceived Parental Support and Emerging Leadership Qualities, $r(31) = .24$, $p = .195$. This suggests that while there is a tendency for last-borns who perceive higher parental support to report stronger leadership qualities, the relationship is not strong enough to reach statistical significance. The modest correlation aligns with theoretical perspectives on birth order, which propose that last-borns often receive more indulgence and leniency from parents but may not always be socialized into responsibility and authority roles in the same way as first-borns (Sulloway, 1996). As a result, parental support may contribute to their confidence and social skills, but it may not directly translate into leadership qualities to the same extent as observed in second-borns (see Table 14). From a developmental standpoint, the non-significant result suggests that leadership qualities in last-borns may be more strongly shaped by external contexts such as peer relationships, educational opportunities, and social environments rather than by parental support alone. This interpretation is consistent with ecological models of development, which emphasize that family is only one of several proximal processes influencing growth (Bronfenbrenner & Morris, 2006). Methodologically, the lack of significance may also reflect the relatively small sample size of last-born participants (N = 31), which reduces statistical power to detect small-to-moderate effects (Cohen, 1988). While the effect size is modest, the direction of the relationship suggests that with a larger sample, the association might become clearer, though it would likely remain weaker than that observed among second-borns. In applied terms, the findings highlight the importance of tailoring leadership development strategies for last-borns. Interventions may need to focus on structured opportunities for responsibility and leadership practice outside the family context, such as in schools, extracurricular activities, or community organizations. This would align with leadership development frameworks that advocate for a long-term, multi-contextual approach to cultivating leadership potential (Day & Dragoni, 2015; Murphy & Johnson, 2011).

DISCUSSION OF HYPOTHESES

Discussion of Hypothesis 1

The first hypothesis proposed that perceived parental support would be positively associated with emerging leadership qualities across the overall sample. The results of the correlation analysis (Table 8) confirmed this expectation, revealing a statistically significant positive association between perceived parental support and emerging leadership qualities, r(163) = .28, p < .01. Although the effect size is modest, it is meaningful in the context of developmental and leadership research, where outcomes are typically shaped by multiple interacting influences (Cohen, 1988). The regression analysis further substantiated this relationship. As shown in the model summary (Table 9), perceived parental support accounted for approximately 7.8% of the variance in emerging leadership qualities ($R^2 = .078$, Adjusted $R^2 = .072$), with the model reaching statistical significance, $F(1, 161) = 13.54$, p < .001 (Table 10). The coefficients table (Table 11) indicated that perceived parental support was a significant predictor of leadership qualities, B = 0.25, SE B = 0.07, $\beta = .28$, $t(161) = 3.68$, p < .001, with a 95% confidence interval [0.11, 0.38]. These findings confirm that higher levels of perceived parental support are associated with stronger leadership qualities among participants.

Theoretically, these results align with ecological models of development, which emphasize the role of proximal family processes in shaping individual competencies (Bronfenbrenner & Morris, 2006). Parental support provides emotional scaffolding, encouragement, and opportunities for autonomy, all of which are critical for the development of leadership-related attributes such as confidence, responsibility, and initiative (Steinberg, 2001). Leadership development frameworks similarly highlight the "seedbed" role of family in cultivating leadership potential, suggesting that supportive parenting fosters the psychological resources necessary for leadership emergence (Murphy & Johnson, 2011).

At the same time, the modest variance explained by parental support underscores that leadership qualities are multiply determined. While parental support contributes significantly, other factors such as personality traits, peer influences, educational opportunities, and cultural contexts also play critical roles (Day & Dragoni, 2015). This interpretation is consistent with the residual's analysis (Table 12), which showed that although the model's predictions were unbiased (mean residual = 0.00), substantial unexplained variance remained (SD of residuals = 14.32). Thus, while parental support is a meaningful predictor, it is not sufficient on its own to account for the complexity of leadership development.

The findings also resonate with long-term perspectives on leadership development, which argue that leadership emerges from the interplay of early family experiences, individual dispositions, and later socialization opportunities (Murphy & Johnson, 2011). In this sense, parental support may act as an early catalyst, providing the foundation upon which other developmental contexts, such as education, mentorship, and peer networks—build to shape leadership trajectories.

In applied terms, the results suggest that interventions aimed at fostering leadership potential should not overlook the role of family dynamics. Programs that encourage parental involvement, emotional support, and autonomy-granting practices may enhance the development of leadership qualities in young adults. However, given the modest effect size, such initiatives should be complemented by educational and organizational strategies that provide structured opportunities for leadership practice and skill development.

Discussion of Hypothesis 2

The second hypothesis proposed that the relationship between Perceived Parental Support and Emerging Leadership Qualities among first-born participants would be positive but relatively weak. The results from the correlation analysis (Table 13) support this expectation. Specifically, the Pearson correlation coefficient was $r(51) = .13$, with a non-significant p value of .357. Although the direction of the relationship was positive, the effect size was small and did not reach statistical significance, indicating that for first-borns, perceived parental support is only weakly associated with their self-reported leadership qualities.

This finding is theoretically consistent with birth-order research, which suggests that first-borns often assume leadership roles within the family due to heightened parental expectations and responsibility for younger siblings (Sulloway, 1996). In such cases, leadership qualities may emerge more from structural family roles and socialization processes than from the degree of parental support perceived. In other words, first-borns may internalize leadership responsibilities as part of their family position, making their leadership development less dependent on parental encouragement compared to later-born siblings.

The weak correlation also resonates with personality research showing that first-borns tend to score higher on conscientiousness and dominance, traits that predispose them to leadership roles regardless of parental support (Paulhus, Trapnell, & Chen, 1999). Thus, while parental support may still provide emotional scaffolding, its incremental effect on leadership qualities among first-borns appears limited. This interpretation is consistent with ecological models of development, which emphasize that family dynamics

interact with individual dispositions and sibling hierarchies to shape developmental outcomes (Bronfenbrenner & Morris, 2006).

From a methodological perspective, the non-significant result may also reflect the relatively small sample size of first-borns (N = 51), which reduces statistical power to detect small effects (Cohen, 1988). However, the effect size itself remains modest, suggesting that even with greater power, the relationship would likely remain weaker than that observed among second-borns, where the correlation was strong and significant (r = .62, p < .001; see Table 14). This contrast underscores the importance of considering birth order as a moderator in the relationship between parental support and leadership development.

In applied terms, the findings suggest that interventions aimed at fostering leadership qualities in first-borns may need to focus less on parental support and more on leveraging their natural family role experiences. Educational and organizational programs could build ont he responsibility and authority roles that first-borns already assume, while also ensuring that these individuals develop flexibility and collaborative leadership skills beyond the family context.

Overall, the results for Hypothesis 2 confirm that while the relationship between parental support and leadership qualities is positive among first-borns, it is relatively weak, reflecting the unique developmental pathways through which leadership emerges in this subgroup.

Discussion of Hypothesis 3

The third hypothesis proposed that among second-born participants, Perceived Parental Support would demonstrate a strong positive association with Emerging Leadership Qualities. The empirical results from the correlation analysis (Table 14) strongly support this proposition. Specifically, the Pearson correlation coefficient was r(34) = .62, p < .001, indicating a large and statistically significant effect size according to Cohen's (1988) guidelines. This result demonstrates that second-born individuals who perceive higher levels of parental support are substantially more likely to report stronger leadership-related qualities.

This finding is theoretically consistent with research on birth order and family dynamics. Unlike first-borns, who often assume leadership roles by virtue of parental expectations and sibling caretaking responsibilities, second-borns typically develop their identities in relation to both parents and older siblings. In this context, parental support may serve as a critical buffer that enables second-borns to assert individuality, build confidence, and cultivate leadership potential (Sulloway, 1996). Without such support, second-borns may risk being overshadowed by older siblings; with it, they are empowered to develop autonomy and initiative.

The strength of the correlation also resonates with personality and achievement research, which suggests that later-borns often develop social adaptability and negotiation skills, but these traits require reinforcement through parental encouragement to translate into leadership qualities (Paulhus, Trapnell, & Chen, 1999). The significant association observed here suggests that parental support provides the scaffolding necessary for second-borns to transform these adaptive tendencies into leadership competencies.

From a developmental perspective, the results align with ecological models of human development, which emphasize that proximal processes such as parental involvement interact with sibling dynamics to shape individual outcomes (Bronfenbrenner & Morris, 2006). For second-borns, parental support appears to play a disproportionately influential role in fostering leadership qualities compared to other birth-order groups. This interpretation is further supported by the contrast with first-borns, where the correlation was

weak and non-significant (r = .13, p = .357; see Table 13). The difference highlights the moderating role of birth order in the relationship between parental support and leadership development.

Methodologically, the large effect size observed among second-borns is notable given the relatively small sample size (N = 34). Despite the limited statistical power, the relationship remained highly significant, underscoring the robustness of the effect. This suggests that the association is not an artifact of sampling error but reflects a genuine developmental pattern.

In applied terms, the findings suggest that leadership development interventions for second-borns should explicitly engage parents in supportive practices. Encouragement, recognition, and autonomy-granting behaviors from parents may be especially effective in nurturing leadership potential in this group. Educational and organizational programs could also build on this foundation by providing structured opportunities for second-borns to exercise leadership roles, thereby reinforcing the positive influence of parental support.

Overall, the results for Hypothesis 3 confirm that among second-borns, perceived parental support is a strong and significant predictor of emerging leadership qualities. This underscores the importance of considering birth order as a moderating factor in leadership development research and highlights the unique developmental pathways through which leadership emerges in different family contexts.

Discussion of Hypothesis 4

The fourth hypothesis anticipated that the relationship between Perceived Parental Support and Emerging Leadership Qualities among middle-born participants would be modest and potentially non-significant. The results from the correlation analysis (Table 15) are consistent with this expectation. The Pearson correlation coefficient was r(47) = .23, with a p value of .118, indicating a small-to-moderate positive association that did not reach statistical significance. This suggests that while middle-borns who perceive greater parental support may report somewhat stronger leadership qualities, the relationship is not robust enough to be considered statistically reliable.

This finding aligns with longstanding theories of birth order and family dynamics. Middle-born children often occupy a unique position in the family hierarchy, situated between older siblings who typically assume responsibility and leadership roles, and younger siblings who may receive more indulgence and attention (Sulloway, 1996). As a result, middle-borns frequently report feeling less visible or less directly supported by parents, a phenomenon sometimes referred to as the “middle-child syndrome” (Salmon & Daly, 1998). In this context, parental support may exert only a modest influence on leadership development, as middle-borns often turn to external contexts, such as peer groups, schools, and extracurricular activities, for validation and opportunities to exercise leadership.

The modest, non-significant correlation also resonates with ecological models of development, which emphasize that family processes interact with broader social environments to shape individual outcomes (Bronfenbrenner & Morris, 2006). For middle-borns, leadership qualities may be more strongly cultivated through peer relationships and external socialization experiences than through parental support alone. This interpretation is consistent with research showing that middle-borns often develop adaptability, negotiation skills, and independence as a result of navigating their position between siblings (Paulhus, Trapnell, \& Chen, 1999). However, these qualities may not be directly tied to parental support, explaining the weaker statistical association observed in the present study.

From a methodological perspective, the non-significant result may also reflect the relatively small sample size of middle-born participants (N = 47), which limits statistical power to detect effects of modest magnitude (Cohen, 1988). Nevertheless, the effect size itself remains modest, suggesting that even with greater statistical power, the relationship would likely remain weaker than that observed among second-borns, where the correlation was strong and significant (r = .62, p < .001; see Table 14). This contrast underscores the importance of considering birth order as a moderator in the relationship between parental support and leadership development.

In applied terms, the findings suggest that leadership development interventions for middle-borns may need to focus less on parental support and more on providing structured opportunities for recognition and leadership practice outside the family context. Schools, peer networks, and community organizations may play a particularly important role in fostering leadership potential among middle-borns, compensating for the relatively modest influence of parental support.

Overall, the results for Hypothesis 4 confirm that among middle-borns, the relationship between parental support and leadership qualities is modest and non-significant, reflecting the distinctive developmental pathways of this subgroup.

Discussion of Hypothesis 5

The fifth hypothesis anticipated that among last-born participants, Perceived Parental Support would demonstrate a small-to-moderate positive association with Emerging Leadership Qualities, but that this relationship would be weaker than the strong effect observed among second-borns. The results from the correlation analysis (Table 16) are consistent with this expectation. Specifically, the Pearson correlation coefficient was r(31) = .24, with a p value of .195. Although the direction of the relationship was positive, the effect size was modest and did not reach statistical significance. This finding indicates that while last-borns who perceive greater parental support may report somewhat stronger leadership qualities, the relationship is weaker and less reliable than that observed among second-borns (r = .62, p < .001; see Table 14).

This pattern aligns with theoretical perspectives on birth order and family dynamics. Last-borns are often described as receiving more indulgence and leniency from parents, which may foster sociability, charm, and creativity but not necessarily structured responsibility or authority roles (Sulloway, 1996). As a result, parental support may contribute to their confidence and interpersonal skills, but its direct influence on leadership qualities appears limited compared to second-borns, who rely more heavily on parental encouragement to establish individuality and leadership potential.

The modest correlation also resonates with ecological models of development, which emphasize that family support is only one of several proximal processes shaping growth (Bronfenbrenner & Morris, 2006). For last-borns, leadership qualities may be more strongly influenced by external contexts such as peer networks, educational opportunities, and extracurricular activities. This interpretation is consistent with research suggesting that last-borns often seek validation and achievement outside the family system, where they can differentiate themselves from older siblings (Paulhus, Trapnell, & Chen, 1999).

From a methodological standpoint, the non-significant result may partly reflect the relatively small sample size of last-born participants (N = 31), which reduces statistical power to detect effects of modest magnitude (Cohen, 1988). Nevertheless, the effect size itself remains weaker than that of second-borns, supporting the hypothesis that the strength of the parental support–leadership link varies by birth order.

In applied terms, the findings suggest that leadership development interventions for last-borns may need to focus less on parental support and more on structured opportunities for responsibility and leadership practice outside the family. Educational institutions, peer groups, and community organizations may play a particularly important role in fostering leadership potential among last-borns, compensating for the relatively modest influence of parental support.

Overall, the results for Hypothesis 5 confirm that while last-borns show a small-to-moderate positive association between parental support and leadership qualities, the relationship is weaker than that of second-borns, reflecting the distinctive developmental pathways shaped by birth order.

Synthesis And Implications

Overall, the discussion of hypotheses underscores that birth order exerts a measurable but non-deterministic influence on emerging leadership qualities. The results reinforce the importance of integrating developmental and socialization perspectives into leadership theory, while also acknowledging the role of mediating psychological constructs. Practically, these findings suggest that leadership development programs could benefit from recognizing the diverse pathways through which individuals acquire leadership-relevant skills, whether through early family roles, adaptive social strategies, or self-efficacy building experiences. Future research should adopt longitudinal and cross-cultural designs to clarify the stability and generalizability of these patterns.

CONCLUSION

The findings of this study underscore the significance of family foundations, particularly perceived parental support, in shaping emerging leadership qualities. Across the overall sample, parental support was positively and significantly associated with leadership qualities, as evidenced by the correlation ($r = .28$, $p < .01$; Table 8) and regression analyses ($R^2 = .078$, $F(1, 161) = 13.54$, $p < .001$; Tables 9–11). These results confirm that supportive parenting contributes meaningfully to the development of leadership potential, consistent with ecological models of human development that emphasize the role of proximal family processes in fostering competence (Bronfenbrenner & Morris, 2006).

However, the birth-order analyses revealed important nuances. Among first-borns, the relationship between parental support and leadership qualities was weak and non-significant

($r = .13$, $p = .357$; Table 13), suggesting that their leadership development may be more strongly shaped by structural family roles and heightened parental expectations than by perceived support (Sulloway, 1996). In contrast, second-borns demonstrated a strong and significant association ($r = .62$, $p < .001$; Table 14), indicating that parental support plays a particularly influential role in their leadership development. Middle-borns ($r = .23$, $p = .118$; Table 15) and last-borns ($r = .24$, $p = .195$; Table 16) showed modest, non-significant correlations, suggesting that their leadership qualities may be more dependent on external contexts such as peer networks, education, and community opportunities (Salmon & Daly, 1998).

Taken together, these findings highlight that while parental support is a consistent positive factor, its strength varies across birth-order groups. The study contributes to leadership development research by demonstrating that family dynamics, particularly sibling position, moderate the influence of parental support on leadership emergence. This reinforces the view that leadership is not solely an individual trait but a developmental outcome shaped by the interplay of family, personality, and contextual factors (Day & Dragoni, 2015; Murphy & Johnson, 2011).

FUTURE PROSPECTS

Future research should extend these findings in several directions. First, larger and more diverse samples are needed to enhance statistical power and to test the generalizability of birth-order effects across cultural and socioeconomic contexts. Cross-cultural studies would be particularly valuable, as family structures and parental support practices vary widely across societies (Kagitcibasi, 2007).

Second, longitudinal designs could provide deeper insights into how parental support and sibling dynamics influence leadership trajectories over time. Such designs would clarify whether the effects of parental support persist into adulthood or whether they are moderated by later developmental contexts such as education, mentorship, and organizational experiences.

Third, future studies should incorporate additional predictors, including personality traits, emotional intelligence, and peer influences, to develop more comprehensive models of leadership emergence. Multivariate approaches could clarify how parental support interacts with these factors to shape leadership outcomes (Tabachnick & Fidell, 2019).

Finally, applied research should explore how leadership development programs can integrate family-based interventions with school and organizational initiatives. Tailoring leadership development strategies to birth-order differences. For example, reinforcing responsibility in first-borns, supporting individuality in second-borns, and providing recognition opportunities for middle- and last-borns, may enhance the effectiveness of such programs.

In conclusion, this research demonstrates that family foundations, particularly parental support, play a significant but differentiated role in leadership development. By integrating family dynamics with broader developmental contexts, future scholarship can advance a more holistic understanding of how leadership qualities are cultivated across the lifespan.

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CONSENT & DEMOGRAPHIC FORM

Consent Form

Title of the Study:

Family Foundations of Leadership: Perceived Parental Support, Birth Order & Emerging Leadership Qualities

Purpose of the Study:

The purpose of this study is to investigate the relationship between perceived parental support, birth order, and emerging leadership qualities.

Procedure:

If you agree to participate, you will be asked to complete a questionnaire consisting of demographic questions and two scales: the Leadership Practices Inventory (LPI) and the Parental Bonding Instrument (PBI). The survey will take approximately 15–20 minutes.

Risks and Benefits:

- **Risks:** There are no anticipated risks associated with this study. Some questions may be personal in nature, but you may skip any item you are not comfortable answering**.**
- **Benefits:** The study will contribute to research in developmental and organizational psychology, particularly the role of family foundations in shaping leadership potential.

Confidentiality:

All responses will remain strictly confidential. No names or identifying information will be collected. Data will only be used for academic and research purposes.

Voluntary Participation:

Your participation in this study is completely voluntary. You may withdraw at any time without any penalty or loss of benefits.

Consent Statement:

I have read and understood the information provided above. By signing below, I consent to participate in this study.

Participant's initial only: _____

Date: _____

APPENDIX A: Demographics Questionnaire

Birth Order	First born	Middle child	Last born	
No. of siblings	1	2	3	4+
Age	18-24	25-30	35-44	55+

APPENDIX B: ***Parental Bonding Instrument (PBI)***

Instructions: Please think back to how you remember your mother/father during the first 16 years of your life. For each statement, circle the number that best describes your parent."

Choose the option that indicate the best response.

ITEMS	STATEMENTS	5	4	3	2	1
1	Spoke to me in a warm and friendly voice	Always	Often	Sometimes	Rarely	Never
2	Seemed emotionally cold to me	Always	Often	Sometimes	Rarely	Never
3	Did not help me as much as I needed	Never	Rarely	Sometimes	Often	Always
4	Did little things to make me happy	Always	Often	Sometimes	Rarely	Never
5	Appeared to understand my problems and worries	Always	Often	Sometimes	Rarely	Never
6	Was affectionate to me	Always	Often	Sometimes	Rarely	Never
7	Did not want me to grow up	Never	Rarely	Sometimes	Often	Always
8	Invaded my privacy	Never	Rarely	Sometimes	Often	Always
9	Let me do those things I liked doing	Always	Often	Sometimes	Rarely	Never
10	Tried to control everything I did	Never	Rarely	Sometimes	Often	Always
11	Enjoyed talking things over with me	Always	Often	Sometimes	Rarely	Never
12	Tended to baby me	Never	Rarely	Sometimes	Often	Always
13	Was overprotective of me	Never	Rarely	Sometimes	Often	Always
14	Appeared to understand what I wanted or needed	Always	Often	Sometimes	Rarely	Never
15	Seemed optimally strict with me	Never	Rarely	Sometimes	Often	Always
16	Tried to make me feel better when I was upset	Always	Often	Sometimes	Rarely	Never
17	Did not seem to notice what I did right	Never	Rarely	Sometimes	Often	Always
18	Frequently smiled at me	Always	Often	Sometimes	Rarely	Never
19	Tried to make me dependent on him/her	Never	Rarely	Sometimes	Often	Always
20	Seemed to know exactly how I was feeling	Always	Often	Sometimes	Rarely	Never
21	Tried to make me feel like a failure	Never	Rarely	Sometimes	Often	Always
22	Was caring and responsive to my feelings and needs	Always	Often	Sometimes	Rarely	Never
23	Tried to make me feel guilty	Never	Rarely	Sometimes	Often	Always

APPENDIX C: ***Leadership Practices Inventory (LPI)***

Instructions: Please indicate the extent to which you agree with the following statements by marking the appropriate response.

5 = Strongly Agree

4 = Agree

3 = Neutral

2 = Disagree

1 = Strongly Disagree

ITEMS	STATEMENTS	5	4	3	2	1
1	I set a personal example of what I expect of others					
2	I talk about future trends that will influence how our work gets done					
3	I seek out challenging opportunities that test my own skills and abilities					
4	I develop cooperative relationships among the people I work with					
5	I make certain that we set achievable goals, make concrete plans, and establish measurable milestones					
6	I challenge people to try out new and innovative ways to do their work.					
7	I describe a compelling image of what our future can be like					
8	I experiment and take risks, even when there is a chance of failure					
9	I actively listen to diverse points of view					
10	I follow through on promises and commitments I make					
11	I build consensus around a common set of values for running our organization					
12	I appeal to others to share an exciting dream of the future					
13	I praise people for a job well done					
14	I treat others with dignity and respect					
15	I make sure that people are creatively rewarded for their contributions					
16	I ask for feedback on how my actions affect other people's performance					
17	I show others how their long-term interests can be realized by enlisting in a common vision					
18	I spend time and energy making certain that people adhere to principles					
19	I support the decisions that people make on their own					
20	I publicly recognize people who exemplify commitment to shared values					
21	I paint the "big picture" of what we aspire to accomplish					
22	I talk about my philosophy of leadership					
23	I ensure that people grow in their jobs by learning new skills and developing themselves					
24	I give people a great deal of freedom and choice in deciding how to do their work					
25	I speak with genuine conviction about the higher meaning and purpose of our work					
26	I find ways to celebrate accomplishments					
27	I ask "What can we learn?" when things don't go as expected					
28	I give the members of the team lots of appreciation and support for their contributions					
29	I ensure people grow in their jobs by learning new skills					
30	I make it a point to let people know about my confidence in their abilities					