

2023

## The Impacts of Siblings on Development Across the Lifespan

Jeanie K. Cox

Whittier College, [jcox1@poets.whittier.edu](mailto:jcox1@poets.whittier.edu)

Follow this and additional works at: <https://scholar.utc.edu/mps>



Part of the [Psychology Commons](#)

---

### Recommended Citation

Cox, Jeanie K. (2023) "The Impacts of Siblings on Development Across the Lifespan," *Modern Psychological Studies*: Vol. 29: No. 1, Article 11.

Available at: <https://scholar.utc.edu/mps/vol29/iss1/11>

This article is brought to you for free and open access by the Journals, Magazines, and Newsletters at UTC Scholar. It has been accepted for inclusion in Modern Psychological Studies by an authorized editor of UTC Scholar. For more information, please contact [scholar@utc.edu](mailto:scholar@utc.edu).

**Abstract**

Most individuals grow up with siblings, and sibling relationships are some of the longest lasting relationships experienced. Studies that have investigated sibling effects on developmental domains and stages throughout an individual's life indicate that older siblings have some of the greatest impacts on younger siblings' social, psychological, and cognitive development. During childhood, sibling relationships revolve around older and younger siblings' prosocial behaviors. During adolescence, sibling power dynamics shift as older siblings relinquish power to younger siblings. In adulthood, siblings tend to experience increased closeness and decreased conflict as they mature and move away from one another. Information on siblings' impacts on development and sibling relationships across the lifespan can provide mental health professionals with better insight on individual developmental differences.

*Keywords:* siblings, sibling relationships, developmental domains, lifespan, literature review

### **The Impacts of Siblings on Development Across the Lifespan**

Majority of the world has siblings; in the United States, 80% of all citizens have at least one sibling (Davis, 2021). Frequently, sibling relationships are disregarded in developmental literature as an impactful factor on social, psychological, and cognitive development, as parental influence is given precedence. Nevertheless, siblings have the most influence on each other's development, and these relationships and their effects can last a lifetime (Jambon et al., 2019; LeBouef & Dworkin, 2021). It is also important to understand how sibling relationships change from infancy to adulthood. Given that most studies do not indicate whether the sibling participants were full biological siblings, step siblings, half siblings, or adopted siblings, research suggests that any form of a sibling can impact an individual's development.

Although there has been a great deal of research on sibling influence and sibling relationships, this topic has remained unexplored through literature reviews. The present literature review will deepen the current body of research on sibling influence by synthesizing and critically analyzing research on how sibling relationships impact various developmental domains from infancy through adulthood, and explore how sibling relationships, as well as their impact, change over time. Empirical articles published between 2016-2022 are used in this review and were found using search engines including PSYCInfo, PSYCArticles, and Google Scholar. By providing information regarding how siblings can influence development and how sibling relationships change over time, mental health professionals will be better equipped to work with clients who have siblings. This information also has the potential to expand a family-systems approach to mental health services and treatment, as mental health providers will be better equipped with the knowledge of how the presence of siblings impacts the family structure as well as how siblings impact individual differences in development.

This literature review will focus on two main aspects of sibling influence: domains of development and relationships/behavior. The domains of development section will be further subdivided into three sections: social development, psychological development, and cognitive development, which are the most frequently researched developmental domains in this literature. The section on relationships/behavior, will also be sub-divided into three sub-sections according to age: child siblings, adolescent siblings, and adult siblings. The literature review will conclude with recommendations for future directions for research on sibling influences.

### **Social, Psychological, and Cognitive Development in Siblings**

#### **Sibling Influence on Social Development**

Social development is a developmental process that allows individuals to form relationships with those around them, and sibling relationships are some of the first relationships developed in life (Jambon et al., 2019; Sang & Nelson, 2017). Siblings serve as role models of social development for one another. Studies using siblings between 18 months to 14 years old have found older siblings, with sibling pairs, have the greatest influence on social development (Jambon et al., 2019; Olson et al., 2020; Persram et al., 2021; Sang & Nelson, 2017). This is attributed to age and maturity levels, as older siblings are better able to provide an example of what social development can look like to younger siblings (Olson et al., 2020; Sang & Nelson, 2017). However, older siblings can also serve as caretakers (Jambon et al., 2019) to their younger siblings, rather than solely modeling development in a sibling role. Moreover, older siblings can influence younger siblings' development through a parental role, directly explaining certain aspects of social development. When not in a caretaking position, older siblings' influence can also be attributed to the development of trust between siblings (Persram et al., 2021). As older siblings have greater experience through living for a longer period of time,

younger siblings turn to older siblings in adolescence for guidance and support in times of need. Past studies show that younger siblings tend to trust their older sibling's opinions and perspectives (Persram et al., 2021).

Although older siblings have the most impact on social development within sibling relationships, more recent findings using siblings ranging from 18 months to 7 years have shown that younger siblings also contribute to the development of empathy and social skills (e.g., sharing, initiating social interactions, and complimenting others) in older siblings (Jambon et al., 2019; Sang & Nelson, 2017). The impacts of younger siblings on empathy and social skills can be attributed to younger siblings mimicking the actions of older siblings, which serves as reinforcement for what caring behaviors look like and encourages older siblings to continue engaging in empathetic behaviors (Jambon et al., 2019; Sang & Nelson, 2017). Younger siblings' influence on older siblings' social skills has been most prevalent in children ages 5 to 7 years old with younger sisters, as older siblings discuss their feelings and emotions with their female siblings, allowing them to then reflect and practice their social skills (Sang & Nelson, 2017).

### ***Gender of Siblings***

Conversely, it has been found that the gender of siblings can negatively impact perspective taking in some sibling pairs, as perspective taking was lower for females with older brothers as compared to females without siblings or females with older sisters (Sang & Nelson, 2017). This lower perspective taking for females with older brothers is potentially due to previous findings that boys tend to have a weaker understanding of their own emotions along with others' emotions. This is largely due to the parents of boys spending less time on average discussing emotions with their sons, compared to parents of girls (Sang & Nelson, 2017).

Without this understanding of emotion, older brothers do not have the tools necessary to model perspective taking for their younger sisters, leading to the decrease in perspective taking for the younger sisters as compared to other sibling pairs. However, there is lower perspective taking for females with older brothers, as males with older brothers showed moderately higher perspective taking as compared to males without siblings (Sang & Nelson, 2017). This research suggests that in same-gendered sibling pairs, siblings tend to show higher levels of care and nurturing to one another in comparison to opposite-gendered siblings (Sang & Nelson, 2017). This differentiation in sibling types could partly explain why girls with older brothers have lower perspective taking compared to the higher perspective taking that boys with older brothers have found to exhibit.

### ***Siblings and Lying***

Consistent with the development of perspective taking of children with siblings, research has also found that siblings have significant influence on the development of lying (Talwar & Crossman, 2022). Although lying is typically looked upon negatively within society, the emergence of lying in young children shows the development of typical social-cognitive functioning (Talwar & Crossman, 2022). Specifically, children with older siblings are more likely to lie, and children with younger siblings are better able to maintain their lies (Talwar & Crossman, 2022). This difference in lying abilities is largely due to birth order and age differences (Talwar & Crossman, 2022). Children with older siblings are more likely to lie after witnessing their older sibling demonstrate the behavior while they learn about the concept. In turn, as the children with younger siblings begin to lie, they are able to better maintain their lies as a result of their life experience. More importantly, children with younger siblings could be learning to maintain their lies in order to keep themselves out of trouble or to place blame on their younger sibling.

### **Sibling Influence on Psychological Development**

Siblings impact psychological development through demonstrating self-care, emotional vulnerability, and gender typing/gender orientation (Buist et al., 2021; Kuchirko et al., 2021; Stein et al., 2020; Stocker et al., 2020). Both longitudinal and cross-sectional studies have found that across the entire lifespan, sibling expressions of warmth towards one another led to multiple benefits for sibling pairs (Buist et al., 2021; Stein et al., 2020; Stocker et al., 2020). In particular, for siblings ranging from 4 years old to 69 years old, high levels of sibling expressions of warmth and care for one another correlated with decreased levels of externalizing problems (e.g., fighting with others or throwing tantrums) and increased levels of self-care, both of which promoted individuals' mental health (Buist et al., 2021; Stein et al., 2020; Stocker et al., 2020). Sibling warmth fosters an environment for the discussion of feelings and emotions between siblings, consequently the need for emotional expression through externalizing problems decreases as conversations are used instead (Buist et al., 2021). Especially within adult sibling pairs, the open communication that is attached to sibling warmth also creates a space for siblings to vent to one another about stressors and other problems faced in life, leading to more self-care practices, as opening up to siblings can serve as a form of self-care (Stein et al., 2020; Stocker et al., 2020).

### ***Conflict With Siblings***

Conversely, conflict between adult siblings, ages 25 to 69 years old, directly correlates to feelings of depression, anxiety, and hostility, regardless of gender or birth order (Stein et al., 2020; Stocker et al., 2020). Much of the conflict faced by adult siblings derives from unresolved childhood disputes or frustrations, increasing the hostility between sibling pairs and leading to increased levels of depression and anxiety in individuals (Stein et al., 2020; Stocker et al., 2020).

Siblings may also feel torn and fear ruining that relationship when in conflict as, on average, sibling relationships are some of the closest relationships in life (Stein et al., 2020). The emotions associated with sibling conflict can disrupt the normal emotion regulation of siblings, contributing to feelings of depression and anxiety (Stein et al., 2020).

Another aspect of psychological development impacted by siblings is gender orientation, especially in 2- to 4-year-olds, as same-gendered siblings are less likely to stray from traditional gender-typed behavior in comparison to mixed-gendered siblings (Kuchirko et al., 2021). Due to 2- to 4-year-olds spending most of their time at home, they may only see gender as it is portrayed by their older siblings. For both same-gendered and mixed-gendered siblings, the younger sibling may feel that the older sibling's portrayal of gender is the only way they should express their own gender identity, resulting in same-gendered siblings having a stronger hold on traditional gender roles compared to mixed-gendered siblings (Kuchirko et al., 2021). Also, older siblings may have strong opinions on how their younger siblings portray their gender based on what they have learned from their peers in school (Buist et al., 2021; Kuchirko et al., 2021). However, as children reach around age 6 and begin to learn from their own peers in school, they begin to form their own opinions on gender identity, which may stray from what is expressed within their home (Kuchirko et al., 2021).

### **Sibling Influence on Cognitive Development**

Recent studies have found that the presence of siblings, from ages 9 months to 67 years old, have no negative impacts on an individual's cognitive development (Workman, 2017), and in turn, can promote aspects of cognitive development, such as literacy (Knoester & Plikuhn, 2016), working memory, and cognitive flexibility (or the ability to switch between two concepts or think about multiple ideas at once; Hill & Palacios, 2019). For literacy development in



siblings, older siblings can discuss stories, suggest readings, and sometimes even read to their younger siblings, serving as an active influence in younger siblings' lives as they unintentionally encourage literacy (Knoester & Plikuhn, 2016). Also, older siblings have a strong influence on literacy development in younger siblings by reading to their younger siblings and acting as a role model. Older siblings can strengthen their own literacy through using literature to interact with their younger siblings, so that the mere presence of a younger sibling has a positive impact, as well (Knoester & Plikuhn, 2016). Older siblings also contribute to shaping and strengthening younger siblings' working memory and cognitive flexibility by providing new ways of learning and retaining information, having already gone through the process themselves (Hill & Palacios, 2019). This then expedites the development of working memory and cognitive flexibility for younger siblings, accelerating their cognitive development in comparison to their peers' who do not have an older sibling (Hill & Palacios, 2019).

Across both longitudinal and cross-sectional studies, cognitive functioning was greater with the presence of an older sibling for individuals ranging from 9 months old to 67 years old, as compared to those without older siblings (Hill & Palacios, 2019; Knoester & Plikuhn, 2016; Nagar et al., 2019; Workman, 2017). Older siblings provide this developmental benefit on cognitive functioning by modeling behaviors to their younger siblings (Hill & Palacios, 2019; Knoester & Plikuhn, 2016; Nagar et al., 2019). On the other hand, studies have found that the presence of a younger sibling had very minor impacts on older siblings' cognitive development, except in the area of literacy (Workman, 2017). This is mostly due to older siblings' development being facilitated by parents and teachers, which begins before a younger sibling is born and when adults are the only role models in their lives (Workman, 2017). Once a younger sibling becomes a part of the family, older siblings continue to learn from the adults in their

lives, as they are the resource older siblings may be most comfortable with; due to their history of only having adults in their lives to learn from (Workman, 2017).

### **Changes in Sibling Relationships Across the Lifespan**

#### **Child Siblings and Prosocial Behavior Development**

While understanding the impacts of siblings on development, it is important to understand how age and sibling age groups impact the type of influence siblings have on each other's development. Childhood serves as the longest period of time most individuals will spend interacting with their siblings, as they typically live in the same household and even the same room for some siblings. With so much time spent together, longitudinal findings have shown that for child siblings, ages 3 to 7 years old, the quality of the relationship between siblings frequently impacts prosocial tendencies in both older and younger siblings (Cirelli et al., 2020; Pike & Oliver, 2017; Tavassoli et al., 2020). For siblings within a five-year age gap, it was found that older siblings' prosocial behavior during play correlated with younger siblings' engagement in more prosocial behaviors (Cirelli et al., 2020; Pike & Oliver, 2017). Similar to the findings of siblings in other developmental domains, this is attributed to older siblings serving as models for their younger siblings (Cirelli et al., 2020). Siblings born within five years of one another who played together in a positive and friendly manner exhibit more prosocial behaviors (e.g., sharing and empathy) regardless of birth order (Cirelli et al., 2020; Pike & Oliver, 2017). This again points to siblings modeling prosocial behaviors for one another, and in turn encouraging one another to apply these behaviors outside of their sibling relationship (Cirelli et al., 2020; Pike & Oliver, 2017; Tavassoli et al., 2020).

Furthermore, the quality of child sibling relationships impacts prosocial behavior development (Pike & Oliver, 2017; Tavassoli et al., 2020). Longitudinal research with children

ages 4 to 7 years old determined that higher levels of sibling negativity in terms of sibling conflict was correlated with a significantly greater risk for future behavior problems (Pike & Oliver, 2017). With frequent conflict, both older and younger siblings learn antisocial behaviors from one another, bringing the learned negative qualities into outside relationships (Pike & Oliver, 2017; Tavassoli et al., 2020). Longitudinal research involving observations of 4-year-old children, their siblings, and friends over a three-year time period indicated that there was a direct influence on relationships with friends based on sibling relationships and modeling of behaviors by older siblings (Tavassoli et al., 2020). It has also been found that, regardless of birth order or sibling age, siblings direct more prosocial refusals (Tavassoli et al., 2020), such as actively choosing not to help someone, towards one another than to their friends (Pike & Oliver, 2017). Siblings may have an easier time directing prosocial refusals towards one another because of the stability of sibling relationships (Tavassoli et al., 2020). As sibling relationships are not voluntary, siblings may not be as fearful of losing the relationship; in contrast, friendships, which are voluntary, have the potential to end (Pike & Oliver, 2017; Tavassoli et al., 2020). Without a fear of losing the sibling relationship, individuals are more comfortable refusing to assist their siblings as compared to their friends, as they do not see as many long-term consequences from prosocial refusals directed at their siblings.

### **Adolescent Siblings and Power Dynamics**

Findings from longitudinal laboratory/analogue studies and cross-sectional questionnaires involving adolescents ranging from 10 to 18 years old have shown that older siblings, within four years of their younger sibling, have the greatest impact on adolescent sibling-relationship quality and changes in power during adolescence (Fry et al., 2021; Lindell & Campione-Barr, 2017; Persram et al., 2021). As older siblings were found to be better equipped to process and handle

social situations than younger siblings, older siblings' reliability and positivity in stressful situations reduced the negative impacts of stressors for younger siblings (Fry et al., 2021; Persram et al., 2021). Since older siblings have gained more life experience, they model for their younger siblings how to successfully navigate stressful or difficult situations (Fry et al., 2021; Persram et al., 2021). Depending on perceptions of closeness and trust between siblings, the modeling behavior of older siblings can positively impact younger siblings' development of independence and social skills (Fry et al., 2021; Persram et al., 2021).

### ***Sibling Relationship Quality***

Exclusively within findings from longitudinal lab studies, sibling relationship quality and structure showed some of the most dramatic changes during adolescence compared to any other age group (Fry et al., 2021; Lindell & Campione-Barr, 2017). Previous studies have found that the power dynamics of sibling relationships change over time as older siblings, who on average hold the most power in sibling relationships, relinquish power as younger siblings become older (Lindell & Campione-Barr, 2017). This change in the power structure of sibling relationships parallels the maturation of siblings during adolescence, as communication increases and respect is earned between older and younger siblings. Thus, allowing older siblings to turn over some of the power they held due to age/birth order to younger siblings (Fry et al., 2021; Lindell & Campione-Barr, 2017). Also, longitudinal findings looking at changes in power dynamics for siblings ranging from 12 to 18 years old showed that siblings who experienced less negativity and more closeness in their sibling relationships when they were younger had a more balanced perspective on sibling power dynamics and simultaneously led to closer sibling connections over time (Fry et al., 2021; Lindell & Campione-Barr, 2017).

### **Adult Siblings and Closeness**

As siblings emerge into adulthood, the dynamics of their relationships with one another substantially change once more as they begin to live their lives apart from one another (Cassinat et al., 2019; Jensen et al., 2018; LeBouef & Dworkin, 2021; Stocker et al., 2020). Within the literature, feelings of closeness (i.e., feelings of belonging together, having support from siblings, and feelings of platonic intimacy) were found to change the most during adulthood (Cassinat et al., 2019; Jensen et al., 2018; LeBouef & Dworkin, 2021; Stocker et al., 2020). Longitudinal studies using adults ages 19 to 35 years old have found that siblings who do not live together reported decreases in both feelings of closeness and conflict with siblings (Jensen et al., 2018). Without constant contact with one another, siblings may begin to grow apart and feel as though they no longer understand their sibling in the way they once did, reducing feelings of closeness (Jensen et al., 2018). Similarly, the lack of constant contact creates a space in which there is not enough time for siblings to interact with one another and develop a conflict, which accounts for the decrease in conflict between adult siblings (Jensen et al., 2018). However, cross-sectional findings from adults (18 to 69 years old) have shown that even though adult siblings spend less time together, they report high levels of sibling closeness (LeBouef & Dworkin, 2021; Stocker et al., 2020). Having separation from siblings can provide the space and time to resolve conflicts from childhood and adolescence, in turn increasing adult siblings' feelings of closeness (Cassinat et al., 2019; LeBouef & Dworkin, 2021).

Feelings of closeness between siblings were also shown to continuously increase and grow stronger across adulthood, as studies using participants ages 18 to 29 years of age showed increased feelings of closeness towards their siblings as compared to their sibling relationship in adolescence. However, they had very low levels of communication with each other compared to adolescents and older adults (Cassinat et al., 2019; LeBouef & Dworkin, 2021). Research in

which participants were on average 25 years old and their siblings ranged from 30 to 35 years old found sibling pairs continuously reported high perceptions of closeness (Jensen et al., 2018). The greatest increase in feelings of closeness between siblings was found in 60- to 69-year-old sibling pairs, showing high levels of warmth towards one another, despite living apart from each other for most of their lives (Stocker et al., 2020). For all age ranges of the sibling dyads, these feelings and perceptions of sibling closeness are mainly attributed to decreased levels of conflict between siblings, rather than viewing the relationship with a false perception of what their relationship used to be during childhood (Cassinat et al., 2019; Jensen et al., 2018; LeBouef & Dworkin, 2021; Stocker et al., 2020). Also, as siblings begin to form their own independent adult lives or families, having children of their own, they may begin to rely on one another for advice on topics like homeowning or raising children. By having their own adult lifestyle or family, more space is allowed for new conversations as siblings will have the opportunity to share new stories with their siblings from their own unique life experiences. Furthermore, potentially creating a sense of increased closeness between siblings as they become more interested in each other's lives.

### **Discussion**

Throughout this literature review, it has been found that older siblings have the greatest impacts on younger siblings' social, psychological, and cognitive development from childhood through adulthood (Cirelli et al., 2020; Knoester & Plikuhn, 2016; Kuchirko et al., 2021; Persram et al., 2021). Studies have found that as parents have more children, they have less time to spend with each child, making the oldest sibling the only child to get information on developmental domains exclusively from parents (Workman, 2017). As eldest siblings have the most knowledge and practice with developmental domains due to time and parental access

(Workman, 2017), they are able to influence their younger siblings' development through modeling a wide range of behaviors (Hill & Palacios, 2019; Olson et al., 2020; Sang & Nelson, 2017). Overall, older siblings had the strongest influences on younger siblings' development of prosocial behaviors, emotional expression, gender identity, perspective taking, working memory, and cognitive flexibility (Buist et al., 2021; Hill & Palacios, 2019; Jambon et al., 2019; Kuchirko et al., 2021; Sang & Nelson, 2017). These findings on the developmental impacts that older siblings have on younger siblings were consistent across literature including studies that used either longitudinal or cross-sectional designs.

Over time, there is a great deal of change that occurs within sibling relationships. During childhood, research on sibling relationships tends to focus on the development of prosocial behaviors as siblings learn from each other through play and modeling behaviors (Cirelli et al., 2020; Tavassoli et al., 2020). Within sibling relationships, there is a lack of fear in terms of losing the relationship, leading to increased prosocial refusals towards siblings in childhood (Tavassoli et al., 2020), power dynamics shifting during adolescence (Lindell & Campione-Barr, 2017), and levels of closeness changing as siblings become adults and potentially form new families of their own (LeBouef & Dworkin, 2021). In adolescence, as siblings begin to mature and develop their own identities, respect increases through communication, leading to power being relinquished by older siblings (Fry et al., 2021; Lindell & Campione-Barr, 2017). As siblings enter adulthood and move away from one another, thus spending less time with each other, siblings self-reported decreases in conflict and increases in feelings of closeness (Jensen et al., 2018; LeBouef & Dworkin, 2021). Regardless of gender, developmental period (childhood through adulthood), or the quality/closeness of the relationship, siblings will always have a strong impact on one another's developmental domains.

## **Limitations**

When using similar methods to look at how younger siblings influence older siblings' development, there were some inconsistencies throughout the literature. Although there has been extensive research on older siblings' impacts on younger siblings' development, very few studies have thoroughly investigated how younger siblings impact older siblings' development. Those few studies which investigated younger siblings' influences on their older siblings' development were inconsistent in their findings. Some studies found that younger siblings had no influence on their older siblings' development while others found that younger siblings strengthened their older siblings' development (e.g., literacy and lying skills; Jambon et al., 2019; Knoester & Plikuhn, 2016; Talwar & Crossman, 2022). Younger siblings have the potential to make just as strong of an impact on their older siblings' lives, given that older and younger siblings spend the same amount of time with one another. By not including this information on younger siblings' influences within the studies, useful information on how older siblings develop is potentially being ignored.

Studies primarily investigated siblings who were born within five years of each other and only looked at sibling pairs, regardless of how many children participating families had, limiting the generalizability of the findings to other cultures or populations where the average number of children per household is much higher. By only studying siblings who are within five-years of one another and sibling pairs, the findings of these studies may not apply to individuals who are more than five years apart from one another or those who have more than one sibling. Many studies have also disregarded the presence of newborn siblings on sibling relationship dynamics and family dynamics, as the new siblings were born partway through longitudinal research and the studies did not have a way to include the new siblings without disrupting the current findings



of the study (e.g., Howe et al., 2017). However, the birth of a younger sibling has the potential to significantly affect the entire family by changing individuals' roles within the family or impacting the family's financial/economic status. This possibly disregards potential behavioral, status, or relationship changes within sibling pairs that could be caused by another sibling being added to the family.

### **Future Directions**

Overall, sibling relationships are extremely unique as they serve as a middle ground between parental and peer relationships, partly because siblings know each other just as well as their parents do, but also because siblings are in a similar age and developmental range as peers. Consequently, this important life-long relationship should be examined further. With these findings, mental health professionals will be able to better attribute certain behaviors to being learned actions from siblings or resulting from the quality of the sibling relationship in order to have a better understanding of individual differences in development. This information on sibling relationships and impacts on development has the potential to be used in a similar fashion as data on socioeconomic status, ethnicity, gender, and other demographic variables that are used as predictors for development. It is evident through recent studies examining different dynamics of sibling relationships across the lifespan, that siblings impact one another's development during all stages of life, and in turn should be studied further to better understand the individuals' unique developmental trajectories.

One strength (although previously listed as a potential limitation) that was consistent throughout the literature was the use of siblings who were only within five years of one another, and in the case of having multiple siblings within the five-year range, focusing on the siblings who were closest in age to one another. This allows for research to be controlled and for findings

to be applied to siblings in the larger population who meet these qualifications. Furthermore, on average families have 1.93 children under 18 years old per household (Statista Research Department, 2021) and the median age between children is 24 to 29 months apart in the United States (Wisner, 2021). As the majority of studies reviewed consisted of participants from the United States or similar Western cultures, the findings from these studies have the potential to be generalized to the larger Western populations. With the average number of children per U.S. household at almost two, studies only looked at the effects of sibling pairs rather than examining sibling interactions between multiple siblings if a family had more than two children or if a child was born in the middle of a longitudinal study. This allowed for control and consistency within the studies, giving the findings stronger direction for where they can be applied.

It will be important for future studies to examine the effects of younger siblings on older siblings' development as well as specifying what types of siblings are being studied. By expanding the literature through the investigation of younger siblings' impacts on older siblings' development and sibling relationships, we will be able to better understand individual differences in development. Also, by conducting research that compares siblings by birth to adopted siblings, to blended family siblings, and comparing the sibling pairs to only children, the findings of the recent studies would be more directly focused on certain groups while making future studies more generalizable to the larger population. Studying siblings with larger age gaps, those who have five or more years between them, would be beneficial to the literature to see if siblings that are much further apart in age have similar impacts on development compared to those closer in age. Furthermore, studying individuals with more than one sibling and including all siblings within the study, would allow for a greater understanding of individual differences in development for those growing up with large families.

**Conclusion**

To conclude, as sibling relationships seem to be the bridge between parental and peer relationships, more research should be conducted on the impacts of siblings on development, as studies have already shown that siblings have a large impact. As sibling relationships typically last across the lifespan, it is evident that the presence of siblings greatly impacts individual development. With an abundant number of factors that have the potential to influence development, understanding how siblings contribute to development allows for more recognition of unique individual differences, which are developed through the presence of siblings. Having information on the ways siblings impact development allows for the expansion of a family-systems approach to mental health services and treatment, promoting a more wholistic approach to individual treatment.

### References

- Buist, K. L., Slagt, M., & de Haan, A. D. (2021). Sibling relationships and school entry psychological functioning: Dual risk or differential susceptibility? *Journal of Family Psychology*. Advance online publication. <http://dx.doi.org/10.1037/fam0000896>
- Cassinat, J. R., Whiteman, S. D., & Jensen, A. C. (2019). Association between perceptions about siblings' development and emerging adults' adulthood attainment. *Personal Relationships*, 26, 694-712. <https://doi.org/10.1111/pere/12300>
- Cirelli, L. K., Peiris, R., Tavassoli, N., Recchia, H., & Ross, H. (2020). It takes two to tango: Preschool siblings' musical play and prosociality in the home. *Social Development*, 29, 964-975. <https://doi.org/10.1111/sode/12439>
- Davis, B. (2021). What percentage of the world have siblings? *Mvorganizing.org*. Retrieved on September 17, 2021, from <https://www.mvorganizing.org/what-percentage-of-the-world-have-siblings/>
- Fry, C. M., Telzer, E. H., & Rogers, C. R. (2021). Siblings as buffers: Social problems and internalizing and externalizing behaviors across early adolescence. *Journal of Family Psychology*, 35, 939-949. <https://doi.org/10.1037/fam0000876>
- Hill, T. Y., & Palacios, N. (2019). Older sibling contribution to younger children's working memory and cognitive flexibility. *Social Development*, 29, 57-72. <https://doi.org/10.1111/sode/12400>
- Howe, N., Rosciszewska, J., & Persram, R. J. (2017). "I'm an ogre so I'm very hungry!" "I'm assistant ogre": The social function of sibling imitation in early childhood. *Infant and Child Development*, 27, 1-17. <https://doi.org/10.1002/icd.2040>
- Jambon, M., Madigan, S., Plamondon, A., Daniel, E., & Jenkins, J. M. (2019). The development

- of empathic concern in siblings: A reciprocal influence model. *Child Development, 90*, 1598-1613. <https://doi.org/10.1111/cdev.13015>
- Jensen, A. C., Whiteman, S. D., & Fingerman, K. L. (2018). "Can't live with or without them:" Transitions and young adults' perceptions of sibling relationships. *Journal of Family Psychology, 32*, 385-395. <http://dx.doi.org/10.1037/fam0000361>
- Knoester, M., & Plikuhn, M. (2016). Influence of siblings on out-of-school reading practices. *Journal of Research in Reading, 39*, 469-485. <https://doi.org/10.1111/1467-9817.12059>
- Kuchirko, Y., Bennet, A., Halim, M. L., Costanzo, P., & Ruble, D. (2021). The influence of siblings on ethnically diverse children's gender typing across early development. *Developmental Psychology, 57*, 771-782. <https://doi.org/10.1037/dev0001173.supp>
- LeBouef, S., & Dworkin, J. (2021). Siblings as a context for positive development: Closeness, communication, and well-being. *Adolescents, 1*, 283-293. <https://doi.org/10.3390/adolescents1030021>
- Lindell, A. K., & Campione-Barr, N. (2017). Relative power in sibling relationships across adolescence. *New Directions for Child and Adolescent Development, 156*, 49-66. <https://doi.org/10.1002/cad.20201>
- Nagar, P. M., Williams, S., & Talwar, V. (2019). The influence of an older sibling on preschoolers' lie-telling behavior. *Social Development, 28*, 1095-1110. <https://doi.org/10.1111/sode.12367>
- Olson, S. L., Ip, K. I., Gonzalez, R., Beyers-Carlson, E. E. A., & Volling, B. L. (2020). Development of externalizing symptoms across the toddler period: The critical role of older siblings. *Journal of Family Psychology, 34*, 165-174.

<http://dx.doi.org/10.1037/fam0000581>

Persram, R. J., Howe, N., & Bukowski, W. M. (2021). Constructing and validating a measure of adolescents' perceptions of sibling trust. *Canadian Journal of Behavioural Science/Revue Canadienne des Sciences du Comportement*, Advance online publication.

<http://dx.doi.org/10.1037/cbs0000281>

Pike, A., & Oliver, B. R. (2017). Child behavior and sibling relationship quality: A cross-lagged analysis. *Journal of Family Psychology*, *31*, 250-255.

<http://dx.doi.org/10.1037/fam0000248>

Sang, S. A., & Nelson, J. A. (2017). The effect of siblings on children's social skills and perspective taking. *Infant and Child Development*, *26*, 1-10.

<https://doi.org/10.1002/icd.2023>

Statista Research Department (2021). Average number of own children under 18 in families with children in the United States from 1960 to 2020. *Statista*. Retrieved on October 27, 2021, from <https://www.statista.com/statistics/718084/average-number-of-own-children-per-family/>

Stein, C. H., Gonzales, S. M., Walker, K., Benoit, M. F., & Russin, S. E. (2020). Self and sibling care attitudes, personal loss, and stress-related growth among siblings of adults with mental illness. *American Journal of Orthopsychiatry*, *90*, 799-809.

<http://dx.doi.org/10.1037/ort0000511>

Stocker, C. M., Gilligan, M., Klopach, E. T., Conger, K. J., Lanthier, R. P., Neppl, T. K., O'Neal, C. W., & Wickrama, K. A. S. (2020). Sibling relationships in older adulthood: Links with loneliness and well-being. *Journal of Family Psychology*, *34*, 175-185.

<http://dx.doi.org/10.1037/fam0000586>

Talwar, V., & Crossman, A. (2022). Liar, liar... sometimes: Understanding social-environmental influences on the development of lying. *Current Opinion in Psychology*, 47, 1-5.

<https://doi.org/10.1016/j.copsyc.2022.101374>

Tavassoli, N., Howe, N., & DeHart, G. (2020). Investigating the development of prosociality through the lens of refusals: Children's prosocial refusals with siblings and friends.

*Merrill-Palmer Quarterly*, 66, 421-446.

<https://doi.org/10.12110/merrpalmquar1982.66.4.0421>

Wisner, W. (2021). How big age gaps between kids change your parenting. *Verywell Family*.

Retrieved on October 27, 2021, from <https://www.verywellfamily.com/big-age-gaps-4778648>

Workman, J. (2017). Sibling additions, resource dilution, and cognitive development during early childhood. *Journal of Marriage and Family*, 79, 462-474.

<https://doi.org/10.1111/jomf.12350>