Toward More Accurate Measures of Family Structure: Accounting for Sibling Complexity

In this article, we argue that accounting for sibling complexity is a necessary step toward more accurate assessments of family structure. First, we argue that current conceptualizations of family structure are rooted in (and reinforce) Eurocentric definitions of family, and we highlight contradictions between family theory and measurements of family structure. Second, we discuss the prevalence of diverse sibling compositions in families and show the informative value of accounting for sibling complexity. Third, we explore the barriers to accounting for sibling structure by evaluating the extent to which complex sibling compositions are captured in publicly available secondary datasets recently used to study families. Finally, we consider both theoretical and methodological implications of failing to account for sibling complexity in family research and offer recommendations for future data collection efforts.

In recent decades, family structures in the United States and beyond have become increasingly diverse and complex (Cherlin, 2010; Raley & Sweeney, 2020). Less than half (46%) of children in the United States live with two parents in their first marriage, down from 73% of children in 1960 (Pew Research Center, 2015). The diversification of family forms is attributable to a number of trends, including delays in marriage (Carlson, 2020), increases in cohabitation and nonmarital childbearing (Manning, Brown, & Stykes, 2015), high rates of relationship dissolution and divorce (Schweizer, 2020), high rates of repartnering and stepfamily formation (Stykes & Guzzo, 2015), increases in multipartner fertility (Guzzo, 2014), increases in multigenerational households (Wu, 2018), and a growing number of LGBTQ+ parent families (Reczek, 2020). In addition, young people increasingly experience family structure change. Life course estimates suggest that children experience about one family structure transition by 12 years of age, and over a quarter experience two or more transitions by 12 years of age (Brown, Stykes, & Manning, 2016). These phenomena, among others, have resulted in family compositions that are “more diverse, complex, fluid, extended, nuanced, and ambiguous” than ever before (Demo et al., 2005, p. 133).

Consequently, “family” is increasingly recognized as a fluid and subjective concept (Demo et al., 2005; Sanner, Ganong, & Coleman, 2021). Although hegemonic definitions have traditionally centered the role of genetic and legal ties in defining family, family membership is socially constructed, based not just on biology and law but also on affect, cognition, communication,
and behavior (Sanner et al., 2020). In the study of family structure, however, researchers tend to conflate families with households, comparing specific residential units or the basis of their living arrangements (Demo et al., 2005). For instance, children residing in families with two married biological parents are often compared to their counterparts living in never-married single-parent households, divorced family households, andstepfamily households on outcomes such as academic achievement, antisocial behavior, family dynamics, mental health, and more (Brown, 2004; M. J. Carlson & Corcoran, 2001; Fomby & Cherlin, 2007; Fomby & Sennott, 2013; Pearce et al., 2018). In addition, as we will argue, these efforts tend to prioritize certain characteristics of household composition over others.

Nevertheless, in response to the growing diversity of children’s living arrangements, family structure has frequently been analyzed as a correlate or context for child and family well-being (Hadfield et al., 2018). The premise that family structure matters for individuals and families is consistent with a family systems perspective (Cox & Paley, 1997). Indeed, the structure of family relationships can shape family processes and yield unique sets of family demands and capabilities, with implications for family adjustment and adaptation over time (Patterson, 2002). At the same time, the effects of family structure on child and family outcomes have been found to vary across racial groups. For instance, White children appear to benefit more than Black children from living in a two-parent family (Cross, 2020). For Black youth, access to resources, more than family structure, matters for children’s educational success, suggesting that, for families experiencing stress and disadvantage resulting from historic and contemporary structural racism, such as unequal access to resources, additional stress incurred by living in a nonnuclear family form is only marginally impactful (Cross, 2020). Although there is evidence that family structure has a distinct role in shaping individual and family experiences in some groups (Blum et al., 2000; Hetherington et al., 1998), it appears to best explain child and family outcomes when considered within racial and ethnic contexts. Consequently, it is our view that both accurate and contextualized measures of family structure optimize our ability to honor the lived experiences of individuals and families; enhance our ability to uncover understudied family dynamics; and position us to advocate for families that are marginalized, underserved, stigmatized, overlooked, or otherwise misunderstood on the basis of their family structure (Letiecq, 2019; Russell et al., 2018).

As a whole, research focused on family structure rests on the assumption that of primary importance to understanding children’s living arrangements is the status of romantic relationships between adults in the household (Brown et al., 2015; Harcourt & Adler-Baeder, 2015). Categories of family structure are growing in number, but their commonality is that they tend to describe parents’ marital status, grouping children on the basis of whether their parents are single, married, cohabiting, divorced, remarried, and more. Before we argue for expanding our conceptualizations of family structure, we discuss the history of defining family and highlight contradictions between family theory and family measurements.

**Defining family forms**

Perhaps the most widely applied macro theory in the field of family science is family systems theory, which draws attention to the interconnectedness of family members and family subsystems. For all the heterogeneity in the family science discipline, scholars readily agree that people are better understood in the context of families and that what happens in one subsystem has effects that reverberate throughout the entire family unit. Subsystems can consist of individual family members, dyads (e.g., couple, parent–child), or larger family groups (e.g., siblings, cross-residential coparents), but regardless of family composition, family systems theory emphasizes that subsystems create a whole that is greater than the sum of its parts.

Yet, only one part is consistently passed as being representative of the whole in research on family structure. Somewhere along the way, parents’ marital status became the key indicator of a family’s makeup. Other subsystems (e.g., siblings, not to mention extended family systems or community networks) took a backseat to the spousal dyad in their informative value to understanding family composition. To be sure, scholarly measures of family structure are not disconnected from sociohistorical understandings of kin. Conceptualizations of
family structure are rooted in Eurocentric definitions of family, meaning they favor a White, European-settler view of the world and erase knowledge and perspectives from historically oppressed groups, such as Black and Indigenous populations. To illustrate, we offer a very brief description of the very long history that led to current conceptualizations of family in North America.

For most of human history, humans lived in small foraging societies in which everything from food to childrearing was shared (Ryan & Jethá, 2012). As nothing was “owned,” nothing was “passed down,” making biological paternity and family lineage largely irrelevant. This changed with the advent of agriculture. With people farming the same land season after season, private property replaced communal ownership, and paternity became a crucial concern, changing the ways that farming communities thought of and defined family (Ryan & Jethá, 2012). With the colonization of North America, European settlers who established agrarian societies brought with them Eurocentric definitions of family that emphasized biological ties. They also brought Christianity, which was almost inarguably the greatest influence on the Western postcolonial institution of marriage, establishing marriage as both permanent and the foundation upon which family is built (Coontz, 2006). These influences, with their emphasis on family units consisting of two married parents and their shared biological children, gave rise to the nuclear family in North America. Having two married parents became seen as the best and most appropriate family form—the quintessential version of American kinship (Smith, 1993)—to which all other family forms were compared. By the 1940s and 1950s, advertisements and public service announcements broadcast across the country were specifically designed to promote marriage and the nuclear family ideal (Simmel, 1950). Subsequent rises in divorce and single-parent families were seen as problematic and symptomatic of a breakdown in societal views. Arguably, marriage as the centerpiece of family structure became more entrenched, even as family forms diversified.

In this way, conceptualizations of family structure that rely solely on parents’ marital status reinforce Eurocentric definitions of family. Although scholars readily acknowledge that families are complex units comprised of interacting subsystems, our measures of family structure are far less holistic. The family systems perspective so widely embraced by the field is not reflected in most measurements of family structure. Instead, the centrality of parents’ marital status to defining family structure reveals a legacy of Eurocentric ways of thinking about kin.

Looking beyond a monocultural perspective, we see several groups and cultures that have historically embodied more fluid and comprehensive definitions of family. For instance, Crosbie-Burnett and Lewis (1993) proposed that although the U.S. legal system reflects patri-focal norms for defining family (i.e., definitions based on the status of romantic relationships between adults), Black families tend to embody pedi-focal definitions of family or family systems that are centered around the children. Pedi-focal families are not rooted in biological and legal ties but in reciprocal love and support, mutual efforts to maintain relationships, and interest in each other’s well-being. Children, rather than adults, are the basis for defining these relationships, and family is defined as anyone who is involved in raising a child. These definitions are rooted in a long history of strong communal networks in African societies, “a tradition that was amplified with the forced migration of Africans to the American colonies” and the forced separation of families sold into slavery (Crosbie-Burnett & Lewis, 1993, p. 243). A child’s survival was often contingent upon other adults assuming parental roles and caring for children who were not biologically theirs. Summarizing the essence of pedi-focal families, the authors explained: “It means putting the needs of children above adult’s conjugal needs. Children are prized, and being a part of their rearing is a privilege, not a burden” (p. 244).

Today, empirical support exists for more expansive family networks among families of color. For instance, studies have found that Black and Hispanic children are more deeply embedded in their extended families than White children, spending more time with extended family members and receiving from them greater emotional and practical support (Cross, 2020; Margolis et al., 2014). There are clear benefits of adopting pedi-focal definitions of family, particularly in complex family structures. In postdivorce families, pedi-focal systems encourage extended family members,
nonresidential parents and stepparents, former stepfamily members, and other community members to remain involved in the lives of children amid family structure transitions, maximizing children’s support system “regard-
less of changes in relationships among adults” (Crosbie-Burnett & Lewis, 1993, p. 244; Sanner, Coleman, & Ganong, 2018).

In addition, many Indigenous communities show little differentiation between immediate, extended, and non-blood ties, both in language and in practice (Morphy, 2006; Tam, Findlay, & Kohen, 2017). Communities’ members are perceived as a collective and thus part of the family. In some Inuit communities, for example, the term uncle is a universal label, meaning everybody (Tam et al., 2017). In other Indigenous cultures, there is no word for family—the equivalent of “family” is the community, nullifying the need for a label that establishes boundaries around individual units (Tam et al., 2017). In this context, to measure family solely as the members in one household would be to analyze a single thread in a wider tapestry.

Similarly, the LGBTQ+ community has historically embraced more fluid and inclusive definitions of kin than dominant culture. Because same-gender partners were denied access to marriage and parenthood via adoption and reproductive technology (Karpman, Rupple, & Torres, 2018), sexual and gender minorities established family relationships outside the bonds of blood and legal ties (Weston, 1997). The boundaries and meanings of family and parenthood continue to be transformed, challenged, and renegotiated within LGBTQ+ subcultures (Cao et al., 2016). Queer theorists have brought these issues to the forefront, drawing attention to the ways in which rigid categories, including that of family membership, are social constructions that limit and restrain (Allen & Mendez, 2018).

We share these examples to emphasize that, just because traditional measures of family structure focus primarily (if not solely) on parents’ marital status, we should not mistake this as the only (or best) way to conceptualize family structure. Rather, these measurements reflect Western, White, middle-class, heteronormative values and ways of “doing family” (Bulanda, 2011). We see our call for the inclusion of sibling complexity as one step toward a greater effort to modernize and decolonize current measures of family structure specifically and scholarly approaches to defining and studying families more broadly. We now turn to the prevalence of diverse sibling compositions in families and the informative value of accounting for sibling complexity.

**Accounting for sibling complexity**

Although most measures of family structure emphasize the role of romantic relationships between adults, most children live in households with nonadult family members. National data from the 2010 Current Population Survey indicate that 82% of children under the age of 18 years live with at least one sibling (King et al., 2010). Moreover, as families have become increasingly complex, so too have sibling compositions. Because adults are increasingly having children with multiple partners, the number of half-siblings is growing (Guzzo, 2014; Meyer et al., 2005). Stepsiblings are also common; 31% of remarried stepfamilies are families in which both partners have children from prior relationships (Stykes & Guzzo, 2015).

Unlike biological siblings (i.e., individuals who genetically share the same mother and father), half-siblings share a biological connection to one parent only. Stepsiblings are not genetically related but are linked because their parents have romantically repartnered. According to the Pew Research Center (2011), 3 in 10 American adults report having a half- or stepsibling, a number that is higher for those under the age of 30 years (44%) and for Black (45%) and Hispanic (38%) adults. Sibling structure is changing in non-Western societies as well. For instance, in China, the reversal of the one-child policy and implementation of the two-child policy has resulted in more children growing up with siblings than did a generation ago (Qian & Jin, 2018). In South Korea, the fertility rate is the lowest in the world, and fewer children have siblings than at any point in the last seven decades (World Bank, 2019).

The presence or absence of siblings, the diversity of sibling types, and the structural complexity of sibling relationships in families provides key information about family composition. However, sibling complexity is not captured sufficiently in traditional measures of family structure (Raley & Sweeney, 2020). Scholars have taken note of this; Harcourt and Adler-Baeder (2015) argued for a more nuanced approach to studying family structure that would
allow researchers to (a) assess variation within broad family types (such as variation based on sibling structure) and (b) track changes in family structure over time (including entrances and exits of half- and stepsiblings). To address this gap, they developed a cumulative measure of family structure and instability called family mapping (see Harcourt & Adler-Baeder, 2015).

Similarly, Brown et al. (2015) advocated for a measure of family complexity that is inclusive of half- or stepsiblings in the household, a concept that “broadens the scope by shifting attention away from the parent(s) to the siblings” (p. 187). In conjunction with family structure, they argued that the inclusion of family complexity would allow for a more holistic understanding of associations between family composition and child outcomes.

Research examining these associations tends to be conducted by two groups of researchers: (a) stepfamily researchers and (b) family demographers/sociologists. The former group tends to focus on half-sibling relationships and the latter on multipartner fertility. Of course, multipartner fertility produces half-sibling relationships, so although these strains of research tend to run parallel to one another, they are very much intertwined and would benefit from more explicit attempts to converge. Nevertheless, these researchers have increasingly accounted for sibling complexity in studies of child well-being, and findings from these studies suggest that such measures are necessary (see Sanner, Russell et al., 2018 for a review). For instance, accounting for sibling composition in addition to family structure was found to better predict children’s economic well-being than family structure alone (Brown et al., 2015). Specifically, the presence of a half- or stepsibling in the household was negatively associated with children’s economic well-being, and this association was the strongest for children living in two-parent married families. In other studies, sibling structure alone was more strongly associated with children’s educational and behavioral outcomes than parents’ marital status (Apel & Kaukinen, 2008; Halpern-Meekin & Tach, 2008; Harcourt & Adler-Baeder, 2015; Strow & Strow, 2008).

Specifically, children living with a parent and stepparent who had no half-siblings scored the same on educational achievement scores as children living with both biological parents and no half-siblings. However, children living with half-siblings displayed relative deficits regardless of whether they lived with a parent and stepparent or two married biological parents (Halpern-Meekin & Tach, 2008; Strow & Strow, 2008; Tillman, 2008).

Siblings also can contribute to changes in family structure. Although research on family structure transitions tends to focus on changes in parents’ relationship status, many children experience changes in household composition brought on by entrances and exits of siblings (full, half, or step), which may impact child outcomes in ways that are unique and overlooked (Raley et al., 2019). Indeed, family scientists have highlighted the ways in which the introduction of half- and stepsiblings to the household has significant implications for family dynamics (Ganong & Coleman, 2017). The additional complexity of half- and stepsiblings means more people in the household, more relationships to negotiate, and more potential stressors to manage. Half- and stepsiblings can also serve as valuable sources of support (Ganong & Coleman, 2017). Family researchers and developmental psychologists alike have explored the ways in which siblings can impact child outcomes, including through the development of skills such as perspective-taking, emotional understanding, negotiation, persuasion, and problem-solving (Dunn, 2007).

Although past research primarily focused on biological siblings, researchers are uncovering ways in which half- and stepsiblings influence development and affect children’s adjustments to family transitions (Sanner, Russell et al., 2018). Indeed, these emerging lines of research suggest that traditional measures of family structure that do not account for sibling complexity are missing an important piece of the puzzle.

In addition to facilitating more inclusive between-group contrasts across family structures, measures of family structure that account for sibling complexity can enable researchers to engage in valuable within-group explorations of specific family structures. That is, consistent with a normative-adaptative perspective (Ganong & Coleman, 2017), detailed measures of sibling complexity can facilitate deeper investigations of unique family structures and experiences, the results of which could enrich the knowledge base applied by family professionals. For instance, exploring within-group variation would allow researchers to better identify factors and processes that promote
resilience within specific family forms (Raley & Sweeney, 2020). To date, research on half- and stepsiblings has been guided primarily by resource and investment theories, which suggest that individuals with half- or stepsiblings fare worse than those without them because additional siblings dilute the family’s financial, material, and emotional resources (Sanner, Russell et al., 2018). Evolutionary psychology perspectives are also common, which generally propose that less genetic relatedness leads to greater competition and conflict and that relationships should be less close among siblings who lack full biological ties (Sanner, Russell et al.). Although research on biological siblings has examined the strengths and resources that siblings can offer during childhood, adolescence, and adulthood (e.g., interpersonal skills, social capital; McHale et al., 2012), such perspectives are seldom used in explorations of half- and stepsiblings. Identifying factors and processes that promote resilience within complex family forms is an avenue ripe for future research; however, the appropriateness of practical implications gleaned from these studies likely depends on the extent to which measures of family structure accurately represent people’s living arrangements. Accounting for sibling complexity helps researchers more closely align scientific parameters with family realities.

We also believe that placing greater focus on sibling complexity in families is consistent with recent calls to dismantle systems of family privilege that advantage the Standard North American Family (SNAF), which is generally characterized as White, middle-class, married, opposite-sex, monogamous couples who rear biological children (Letiecq, 2019). Although family structures are increasingly diverse, the SNAF continues to be the most supported, legitimized, and revered family form in North American culture. In family structure research, it is the standard by which all other family forms are judged and compared. Reducing families to structural axes (e.g., married, not married) without considering their positioning on an intersectional matrix reinforces the “SNAF as best ideology” (Letiecq, 2019, p. 3). Letiecq offers many excellent suggestions for how to dismantle systems of family privilege in family science research, but two in particular include: (a) employing within-group designs and strengths-based approaches to better document the strengths of diverse family forms and (b) embracing more complex family-level analyses that challenge “monolithic thinking and oversimplistic or reductive representations of familial experiences” (p. 5). We believe that attending to sibling variation in families is one avenue for advancing this family science agenda.

In accounting for sibling complexity, attending to the diversity that exists within sibling compositions is also critical. Half- and stepsiblings are often combined as a single group in research analyses, but qualitative investigations suggest important distinctions between these relationships that make combining them problematic (Sanner, Russell et al., 2018). Analyzing these relationships as a single group can mask meaningful nuance that distinguishes participants’ family realities. We now turn to the complexity within sibling compositions.

**Complexity in sibling compositions**

Half- and stepsiblings are not a homogeneous group. Structurally, of course, they are different; half-siblings share a biological connection, and stepsiblings do not. Whereas half-sibling relationships typically begin at the birth of the younger half-sibling (much in the same way that biological sibling relationships do), stepsiblings typically meet as strangers after their parents have divorced or separated and repartnered. Relationships develop alongside the maintenance of parent–child relationships and the development of stepparent–stepchild ties (Jensen & Howard, 2015). Residential stepsiblings move in together and negotiate issues pertaining to space, resources, boundaries, communication, and conflict. Whereas biological and half-siblings gradually develop shared history and patterns of interaction, stepsiblings are thrust into a system where different sets of already established symbols, values, traditions, and routines must be renegotiated immediately (Papernow, 2013, Papernow, 2018).

Within-group variations also exist; whether half-siblings are older or younger reveals important information about the order of family structure transitions. For instance, having older half-siblings means that parents had children from prior relationships. A child with older half-siblings might live with married biological parents, and although family structure transitions have occurred, these transitions happened...
before the child was born. Conversely, having younger half-siblings generally means that a child directly experienced family transitions and may have firsthand memories of parents’ separation or divorce, repartnering or remarriage, and the birth of a new shared child. Further variation exists in whether children have maternal half-siblings, paternal half-siblings, or both. Stepsiblings, too, can be acquired through mother’s repartnering, father’s repartnering, or both. In addition, children may reside either full time or part time with any combination of siblings, half-siblings, or stepsiblings, or they may never share a residence. The diversity of sibling compositions is rich and vast, and collapsing this diversity into the single measure of “half- or stepsiblings” erases critical contextual information about these relationships and the family processes they might produce. To help shed light on this complexity, consider the following scenarios that demonstrate the range of sibling compositions that fall under the broad umbrella of “half- or stepsiblings.”

**Jim.** Jim is a shared child in a stepfamily, meaning he was born into the repartnered family (Sanner, Ganong, & Coleman 2020). His parents, Gerald and Betsy, both had children in their first marriages. When Gerald and Betsy married, they formed a stepfamily; Gerald became a stepfather to Betsy’s children, Betsy became a stepmother to Gerald’s children, and their children became stepsiblings. Gerald and Betsy then shared a child together, Jim. Although Jim was born into a stepfamily and had older half-siblings from his parents’ previous partnerships, he grew up with two married, biological parents.

Assessing family structure solely on the basis of the parental relationship, Jim would appear to have grown up in a traditional nuclear family; if he were completing a survey, he would indicate living with married biological parents, and researchers would presume a relative lack of complexity compared to other family forms. However, Jim also grew up in a family where stepparent–stepchild relationships, half-sibling relationships, stepsibling relationships, and divorced coparenting relationships were present. Capturing Jim’s sibling composition is critical to understanding his family structure as having older half-siblings reveals that Jim was born into a stepfamily even when growing up with married biological parents. Important contextual layers are stripped away if his living arrangement is viewed solely through the prism of his parents’ marital status.

**Pam.** In contrast, Pam grew up with parents who had divorced and remarried. She was an only child, and after her parents separated, her mother repartnered with Susan when Pam was four. Susan had one daughter from a previous relationship, Penny, but Penny lived primarily with her father. Pam knew that, technically, she had a stepsibling, but she identified as an only child. From a researcher’s perspective, because Pam grew up with a biological parent and a stepparent, she would be categorized as living in a stepfamily, which is often assumed to represent a higher degree of family complexity than growing up with two biological parents. However, Jim’s family structure, which would likely be mistaken as a nuclear family, is far more structurally complex than Pam’s stepfamily. This would be unknown to researchers unless they accounted for sibling complexity.

**Michael.** Finally, consider Michael. Michael was a shared child in a stepfamily, much like Jim, and had older half-siblings from his parents’ previous relationships. Unlike Jim, Michael’s parents eventually divorced, and both went on to remarry. Michael’s stepparents both had children from prior unions, meaning he had stepsiblings on both sides of his family. His mother and stepfather, as well as his father and stepmother, went on to have shared children, meaning Michael had two sets of younger half-siblings. In addition, Michael may have relationships with his half-siblings’ half-siblings (what some people have called “quarter-siblings,” a type of sibling complexity that has been largely overlooked; Sanner et al., 2020). If either of his parents redivorce, his stepsiblings may become “ex-stepsiblings”—another relationship that has received scant empirical attention. Still, with maternal and paternal older half-siblings, maternal and paternal stepsiblings, and maternal and paternal younger half-siblings (as well as potentially biological siblings), Michael’s scenario represents the highest degree of sibling complexity. Assessing parents’ marital status alone, both he and Pam would appear to live in a stepfamily, but his stepfamily is far more structurally complex than Pam’s. Accounting for the diverse sibling relationships present in his family sheds light on key differences between their family structures.
In addition, consider that, in response to the simple question “Do you have a half- or stepsibling?,” all of these individuals would answer “yes”; yet there is substantial variability in each of their sibling compositions and family dynamics. Consequently, typical strategies for accounting for family structure (e.g., identifying respondents with half- or stepsiblings, identifying how a child is related to household adults) are insufficient for yielding complete information about family structure and associated family dynamics. As we have shown, charting sibling ties is a critical task. To what extent have extant data sources managed this task?

### Sibling Information in Publicly Available Secondary Datasets

Although primary data collection efforts can yield rich data about sibling compositions and family complexity, we now focus on reviewing recently used and publicly available secondary datasets, many of which encompass representative samples of youth and families that are used to generate findings related to family experiences with high levels of external validity. Thus, it is our intent to evaluate whether extant data sources adequately capture information about sibling composition as an indicator of family complexity. Another advantage to our focus on publicly available secondary datasets is their relative accessibility to family researchers.

To begin, we used Google Scholar to identify the top three family studies journals with respect to the h5-index (i.e., the largest number h such that h articles published in 2013–2017 have at least h citations each): (a) Journal of Child and Family Studies (h5-index = 46), (b) Journal of Marriage and Family (h5-index = 43), and (c) Journal of Family Psychology (h5-index = 37). We then reviewed all original articles published in 2019 in the three journals to identify recently used and publicly available secondary datasets. We identified additional relevant datasets from a recent systematic review focused on family structure (Hadfield et al., 2018). Table 1 lists and summarizes information about the 33 publicly available secondary datasets identified for our review.

We focused on the extent to which datasets included information related to the following: (a) the existence and/or number of siblings, (b) the type of sibling relationships present (i.e., biological siblings, half-siblings [either maternal or paternal], or stepsiblings [either through maternal repartnership or paternal repartnership]), and (c) the proportion of time sharing residence among siblings. As a supplement, we also identified whether datasets possessed information about the dynamics and qualities of sibling relationships. To begin, we contacted dataset representatives via email to solicit information. As needed, we also examined relevant dataset documentation to the extent it was publicly available (we were unable to retrieve relevant information associated with 4 of 33 the identified datasets). Particular attention was paid to household rosters and family composition variables.

Of the 30 datasets we were able to evaluate, 27 (90%) provided information about the existence and/or number of siblings in the family. This signals a growing awareness among researchers of the general importance of sibling relationships, particularly in the context of research on child development in family environments. Of the 30 evaluated datasets, 22 (73%) provided some amount of information about the types of sibling relationships embodied in the families studied. We should note that information on this front varied. Most datasets measured how household residents were related to the primary survey respondent, often a parent. As a result, only partial information was gathered about potential sibling ties. For instance, a parent respondent could report two household residents as biological children, but in relation to each other, those two children could be either full siblings or half-siblings. Some datasets measure how all listed household residents were related to each other, providing a more detailed picture of family structure and sibling ties.

Of the 30 evaluated studies, 25 (83%) provided some amount of information about shared residence among siblings in the family. In most cases, this information was obtained from items asking respondents to list individuals who maintained primary residence in their household, usually in the last 6 months. What was generally missing from many of the datasets was information about the extent to which children spent time in other households and with whom they shared that time. As a result, many datasets were unable to provide information about transhousehold family ties, including complex sibling relationships. In terms of supplemental information about sibling relationship quality, 7 (23%) of the 30 studies provided at least one relevant measure.
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<td>Project Website</td>
<td>gap.education.uci.edu/msalt</td>
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Table 1. Continued

(B) Additional datasets identified in recent systematic review of studies focused on family structure (Hadfield et al., 2018)

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(e.g., sibling closeness, sibling communication, sibling conflict).

Overall, on the basis of our review of commonly used secondary datasets, researchers might be well positioned to begin exploring sibling compositions as an indicator of family structure; however, there remain opportunities to advance investigations into the complexity of sibling compositions. At this point, we want to acknowledge that dataset omissions of sibling complexity measures likely stem from logistical challenges in data collection. Indeed, it is one thing to know that complex sibling information is important; it is quite another thing to execute data collection efforts that capture this information adequately. From this perspective, the omission of items measuring complex sibling compositions is understandable, albeit suboptimal.

**Implications and Recommendations**

Our call for more accurate measures of family structure has both theoretical and methodological implications. Before we offer specific recommendations for future data collection efforts, we first revisit our discussion of defining family with a focus on how different theories offer different messages about how families are (or should be) organized.

*Theoretical implications*

Based on the ideas presented here, we believe that some theories are better positioned to guide research on family structure than others. Obviously, outdated family theories that offer a socially imposed blueprint for how to best organize family forms should be abandoned, and their legacies should be challenged. Structural functional theory, for example, was an early family theory that occupied a central place in family studies and argued that families serve two primary functions: (a) the socialization of children and (b) the stabilization of adults into institutional role structures (Kingsbury & Scanzoni, 2009; Parsons & Shils, 1951). For these goals to be met, structural functionalism proposed that family members must subscribe to a specific role structure (e.g., fathers should assume the role of the instrumental superior; mothers the role of expressive superior; and sons and daughters the roles of instrumental inferior and expressive inferior, respectively).

Central to structural functionalism was that sufficiently fulfilling these roles meant doing so within the nuclear family structure, which was considered optimal for family functioning (Kingsbury & Scanzoni, 2009). If a family was an “incomplete version” of the nuclear unit (e.g., a single-parent family or stepfamily), it was deemed dysfunctional. For instance, early structural functionalists were careful to call stepfamilies *reconstituted families* to suggest that remarriages represented (or should represent) an attempt to restore the family back to the nuclear ideal.

Such propositions in an era when families are increasingly diverse and complex seem ill-positioned for being implemented with any popularity or frequency. Yet, tenets of structural functionalism continue to influence research on family structure. Although scholars today are unlikely to find structural functionalism as a keyword in a journal article, it would be remiss to believe that the theory’s influence on family research has expired. In the modern era of family science, the legacy of structural functionalism is perhaps most visible in (a) current unchallenged conceptualizations of family structure and (b) deficit-comparison research designs driven by the underlying assumption that family members in nonnuclear family structures fare worse than their counterparts. The corpus of family structure research compares individual or family outcomes by parents’ marital status. These approaches both (a) reinforce Eurocentric definitions of family by prioritizing the role of marriage and (b) ignore the differential returns of marriage by race. Given the evidence that marriage benefits White families more than Black or Hispanic families (Cross, 2020), it is time to rethink conceptualizations of family structure that prioritize the White family experience. When theoretical approaches and accompanying measurements emphasize marital status at the expense of other characteristics of family structure, they send clear messages about the perspectives of family most honored by research.

Fortunately, there are theories well positioned to challenge rigid definitions of family and sensitize researchers to the need to more carefully develop measures that honor and align with participants’ realities. Critical theories, such as critical race theory, feminist theory, queer theory, and intersectional perspectives, have pushed researchers to challenge dominant ideologies.
and approaches to studying families, including assumptions about best practices for measuring family structure that reflect the status quo (Allen, 2016; Burton et al., 2010). These theories also draw our attention to the social construction of knowledge based on power (in other words, whose perspectives are most represented and whose are least represented in the scholarly mode of production?). Researchers studying family structure would be wise to leverage theories calling for a deeper, more critical analysis of contemporary approaches. Challenging dominant Eurocentric definitions of family creates space for seeing new and better ways of conceptualizing family structure, ways that have been relegated to the margins of consideration for too long.

Other theories also draw attention to the need to develop measures that better align scientific and colloquial definitions of family. For instance, symbolic interaction theory highlights the ways in which individuals are active members in constructing their own social and familial realities, which occurs through an interpretative process of meaning-making about social interactions and relationships (Blumer, 1969). Similarly, social construction theory emphasizes the subjectivity of ideas and the constructed nature of knowledge (Berger & Luckmann, 1967). Applied to families, social construction focuses on how boundaries of family membership are based not just on genetics but also on affection, cognition, and behavior (Sanner et al., 2020). Mid-range theories such as “doing family” have also been used to challenge hegemonic definitions of family structures (Bulanda, 2011). Doing family involves “moving beyond singular, normative definitions of the family to see family as malleable and subjective” and emphasizing that individuals “construct, shape, and define family ties and family roles through interaction” (Bulanda, 2011, p. 184).

Indeed, there is ample evidence that boundaries of family membership are fluid and often at odds with researcher-imposed definitions. In a national study of Irish stepfamilies, 10% of stepfamilies (as defined by researchers) did not identify themselves as stepfamilies; either the biological parent or the stepparent in the household marked the stepparent as a “parent,” “adoptive parent,” or “other nonrelative” (Hadfield & Nixon, 2013, p. 210). In another European study, 63% of Dutch stepparents included their stepchildren as part of their family network in 1992, and by 2009, 85% of these same stepparents included their stepchildren (Suanet et al., 2013). Two studies based on the National Longitudinal Study of Adolescent Health (Add Health) and the National Study of Families and Households (NSFH) datasets also explored the methodological implications of family boundary ambiguity. Using Add Health data, Brown and Manning (2009) explored within-family variation in describing family structure and found that adolescent and mother reports of family structure were most discrepant when family boundary ambiguity was high, particularly in cohabiting steppfamilies. Using NSFH data, Lynn White (1998) found that sibling salience (i.e., the extent to which siblings were important to respondents) played a role in why adults reported different numbers of siblings over a 5-year period. She concluded that, “left to their own devices, it appears that respondents will use widely different definitions of who is family” (p. 731).

These findings highlight important discrepancies between family researchers and the families we research (Sanner et al., 2020). The extent to which hegemonic definitions of family structure align with participants’ understandings of their own family structures often goes unquestioned. It seems likely, however, that when participants reflect on their family structure, they do not solely have their parents’ marital status in mind. Ultimately, theories that push researchers to adopt more holistic measures of family structure so that no one part is passed as representative of the whole will advance efforts toward more accurate assessments of family structure. We now turn to the methodological implications and offer recommendations for future data collection efforts.

Methodological implications

First, and perhaps most obviously, descriptions of family structure rely on the perceptions of the individual being interviewed or surveyed. That is, descriptions of family can vary across family members, resulting in disparate conclusions about a family’s structure (this is a noted limitation of US census data; Teachman & Tedrow, 2008). As a result, researchers should be calculated and deliberate in their efforts to elicit information from a family member or members that will yield the most accurate and complete
view of the family’s structure. Erring on the side of inclusivity seems advantageous—the more perspectives the better; post hoc decisions can always be made about which family member’s perspective will be most suitable to the aims of a specific research question. In any case, data collection will benefit when respondents are allowed to indicate how all family members are related to one another, not just how they are related to the primary respondent.

Second, moving beyond a simple assessment of whether “half- or stepsiblings” are present is paramount. Other critical questions center around which children have half-siblings, which children have stepsiblings, which children have both half-siblings and stepsiblings, and how households sibling relationships are experienced. Given that large national datasets often confound families with households, accessing information about sibling relationships across residences may be most challenging for researchers. However, a greater understanding of the extent to which participants experience sibling complexity on multiple sides of their families is vital to forming a more complete picture of familial variation. Having one full-time residential half-sibling is a substantively different family structure than having a combination of half- and stepsiblings across multiple households. We strongly encourage scholars conducting primary research to collect information about interhousehold sibling complexity. Of course, scholars engaging in secondary data analysis are bound by the limitations of available data; however, our review of secondary datasets signal promising opportunities for analysts to incorporate richer measures of sibling complexity. At the least, secondary data analysts can use more granular categorizations of family structure that incorporate available information about sibling ties. Such categorizations will result in the creation of a more detailed family structure variable, which—depending on the aims of a study—could be (a) used as a control variable, (b) used to identify family structure groups for between-group analyses, (d) used to identify an understudied family structure for within-group analysis, or (d) analyzed as a moderating influence on associations between other variables of interest.

Third, another critical question centers on the sequencing of sibling relationship formation. That is, attention should be paid to whether a focal child has (a) younger half- or stepsiblings, (b) older half- or stepsiblings, or (c) both younger and older half- or stepsiblings. This sequencing of sibling ties speaks to whether a focal child has experienced past family structural transitions (e.g., parental divorce or separation, the death of a parent, parental repartnership) or was born into a relatively stable family structure, at least at the time of data collection. A related question centers on the timing of various family structural transitions. Children might not remember a family structural transition that occurred when they were very young, so for them, their “complex” family structure is simply their family, or their “half-sibling” is simply their sibling. Other children experience a particular family structure for an extended period of time before a family structural transition occurs, resulting in shifts or disruptions in family dynamics and outcomes.

Fourth, there are opportunities to expand the empirical view of sibling networks to include relationships like “quarter-siblings,” or a focal child’s half-sibling’s half-siblings. This could be especially important when a focal child spends some amount of time in a residence with their half-siblings that also includes their half-siblings’ half-siblings. Similar opportunities exist for studying quasi-stepsibling relationships that develop when a parent becomes temporarily involved with a new partner who has children. In addition, researchers know little about the extent to which “ex-stepsibling” relationships exist in complex families. Certainly, efforts to expand the empirical view of sibling networks could become unwieldy depending on how wide one’s sibling network stretches. Calibrating the scope of investigations into complex family structures can be informed by respondents’ perceptions of what constitutes “family” for them.

Giving primacy to respondents’ definitions of family membership might pose challenges for quantitative researchers who often align with positivist and postpositivist perspectives. Indeed, crafting closed-response survey questions requires a certain amount of presupposition on the part of the survey developer, which could place undue constraints on respondents. Further challenges are posed by the lack of agreed-upon language used to succinctly describe complex family relationships and structures, as well as the lack of shared meaning surrounding seemingly straightforward family labels (Sanner
et al., 2020). For instance, survey developers, assuming that these terms are well understood, might not provide definitions for half-sibling and stepsibling, but people who are “technically” half- or stepsiblings may not identify with these labels. Giving primacy to respondents’ relational worlds and definitions means that survey items must be clear yet flexible—precise but not restrictive. Researchers developing family structure surveys might consider adding language to emphasize: “We are interested in learning about your living arrangements with half- and stepsiblings, even if you think of them as brothers and sisters, or if you don’t think of them as family at all.” Qualitative researchers should be creative and seek to incorporate more flexible, open-ended tools to inquire about family structure in general and sibling complexity in particular.

Finally, consistent with the concept of cognitive pretesting in measurement development (Woolley et al., 2004), we encourage quantitative researchers to consider conducting small-scale qualitative pilot tests of family structure measures with the goal of uncovering socially constructed definitions of families (Sanner et al., 2020). Qualitative interviews provide opportunities for researcher–subject divergence to surface, such as when participants question their eligibility for a study based on being a half-sibling (Harris, 2006). Assessments of sibling structure that seem straightforward to researchers (e.g., asking participants to identify if they have half- or stepsiblings) may not have shared meanings for research participants. In other words, potential study participants who researchers would see as falling into various family structure categories may not see themselves as belonging to those categories. Efforts to reduce researcher–subject divergence are particularly important in complex families, where the boundaries of family structure are especially fluid.

Conclusions

Although family compositions are “more diverse, complex, fluid, extended, nuanced, and ambiguous” than ever before (Demo et al., 2005, p. 133), traditional measures of family structure tend to focus on only dimension of structural diversity: parents’ marital status. The emphasis on marriage is rooted in, and reinforces, Eurocentric definitions of family, overlooking the ways in which many families—particularly Black and Indigenous families and LGBTQ-parent families—historically have defined and practiced kinship. Accounting for sibling complexity is one way to shift the focus away from marriage, challenging monolithic representations of family structure and tapping into the rich complexity of the family structure landscape. Emerging research shows the informative value of accounting for sibling complexity, although doing so sufficiently will require more attentive and creative methodological approaches, ideally guided by theories that encourage critical analysis of dominant ideologies and assumptions embedded within the study and measurement of family structure. Exciting opportunities lie ahead as researchers work to more accurately capture the complex relational structures experienced by an increasing number of families and youth in the United States and beyond. We believe these efforts will create paths toward a deeper, more holistic understanding of individuals and families.

References


