Factors Associated with Parent Agreement about their Child, Relationship, and Family: A Latent Profile Analysis of Parents of Autistic Children

by

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Factors Associated with Parent Agreement about their Child, Relationship, and Family: A Latent Profile Analysis of Parents of Autistic Children

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Factors Associated with Parent Agreement about their Child, Relationship, and Family: A Latent Profile Analysis of Parents of Autistic Children

Autism spectrum disorder (ASD), a neurodevelopmental disorder that is diagnosed in approximately 1 in 36 children, causes restricted and repetitive patterns of behaviors, interests, and activities and deficits in reciprocal social communication (APA, 2013; CDC, 2023). Although boys are four times more likely to be diagnosed than girls, ASD occurs across all racial, ethnic, and socioeconomic groups (CDC, 2023). Symptom presentation and symptom severity ranges broadly across autistic individuals (Gulsrud & Renno, 2021). In addition to impacting the diagnosed member, ASD impacts the entire family as families with an autistic child have been found to experience lower family functioning than families with non-autistic children (Pisula, & Porębowicz-Dörsmann, 2017). Raising an autistic child also impacts the parents individually and can also impact the relationship between parents. Parents of autistic children report lower relationship satisfaction than parents of non-autistic children (Sim et al., 2016) and report more frequent, severe, and unresolved conflict, and less cooperative problem-solving than parents with non-autistic children (Hartley et al., 2017).

Parents can disagree about different aspects of their family including the characteristics of their child, their romantic relationship, and their overall family functioning. An extensive body of work with parents of non-autistic children shows that parents do not always agree about characteristics of their child, such as the presence or severity of their child's behavioral problems and that such disagreement may be more pronounced in parents of younger children (see Duhig et al., 2000 for meta-analysis) and parents with elevated depressive symptoms (Treutler & Epkins, 2003). A smaller amount of research has found that parents can also disagree about aspects of their own relationship, such as their satisfaction with their marriage, and such disagreement may also be more pronounced in parents of younger children (Twenge et al., 2003). The few studies that have examined parent agreement regarding aspects of their overall family functioning have found that parents can disagree about this as well (e.g., Feldman, 2000; Knafl et al., 2007; Xu et al., 2014).

Existing work has not examined whether the family factors that impact parent agreement regarding characteristics of the child, such as the child's age or parents' depressive symptoms, also impact their agreement regarding their relationship satisfaction or their family functioning. The current body of work has also not examined whether parents who disagree about one aspect of their family also disagree about other aspects of their family. This prevents understanding of whether parent disagreement tends to be contained to a specific topic or whether it persists across multiple aspects of the family. Further, there is a paucity of research examining agreement between parents of autistic children. Because the child's behavior, parents' relationship, and overall family functioning is impacted by the child's autism diagnosis, patterns of agreement between parents of autistic children, and the factors that impact such agreement, may differ from those of parents with non-autistic children. The current study aims to examine agreement between parents of autistic children in their views of their child, their romantic relationship, and their overall family, to examine family factors associated with such agreement, and to examine whether parents who disagree about one aspect of their family (i.e., their child, relationship, or family) also disagree about the other aspects of their family.

Family Systems Theory

Discrepant parent perceptions of their children or family show that each parent is unique and has a unique perception of, or experience with, their family and family members and each parent's unique perception of their family may be impacted by their own individual characteristics. Differences between parents and differential parent experiences are highlighted by family systems theory. Family systems theory (Cox & Paley, 1997) conceptualizes the family as a system comprised of interconnected subsystems. Each family member is an individual component of the family system and each relationship between two family members (i.e., mother-child, father-child, and mother-father relationship) is a subsystem. The components of the system (i.e., individual family members) and family subsystems (i.e., all of the relationships between family members) collectively comprise the overall family system. Family systems theory posits that the overall family system, the subsystems, and individual components all influence each other bi-directionally. The characteristics of each family member, each relationship between two family members, and the overall family unit will influence all other individual family members, all relationships between family members, and the overall family unit as a whole.

Prior work exemplifies these bidirectional links between family members and family relationships. For example, characteristics of the child influence characteristics of each parent individually as well as the parents' relationship with each other as child behavior problems have been associated with parent stress as well as marital discord (Christensen et al., 1983; Solem et al., 2011). Characteristics of the parents' relationship with each other, in turn, impacts each parent and each child individually as well as each parents' relationship with their child. For example, the amount of support and conflict in parents' co-parenting relationship relates to individual parent stress and depression, child behavioral compliance, the amount of warmth in parent-child interactions, and hostile parenting practices (Campbell, 2022). Further, characteristics of the individual parents impact their marital relationship and their child, as parent depressive symptoms relate to increased marital conflict and child internalizing and externalizing behaviors (Cummings et al., 2005). It is possible that the parents' depressive symptoms are impacting their parenting behaviors, contributing to the child's increased behavioral problems. Taken together, these studies support the notion that each family member and relationship between family members both impact, and are impacted by the other members and relationships between members.

Mothers and Fathers

An important component of family systems theory is that each family member is unique. Consequently, mothers and fathers are different from each other. Research findings often differ for mothers and fathers. For example, mothers report being more authoritative than fathers (see Yaffe, 2023 for review) and mothers of autistic children report experiencing closer relationships with their child compared to fathers (Hartley et al., 2011). Mothers and fathers also experience parenting stress differently such that mothers report more stress associated with feelings of incompetence, concern over health problems, and relationship problems with their spouse while fathers experience more parenting stress associated with feelings of social isolation (Widarsson et al., 2013). Further, mothers spend more time caring for their children than fathers (Pakaluk & Price, 2020). Despite this, fathers are often absent from family research and many studies using samples of only mothers generalize results to both parents assuming that there are not differences between mothers and fathers (Cassano et al., 2006). Through family systems theory, it is important to consider both parents' perspectives as each parent is unique and parents may have different perceptions of aspects of their family and family members.

Mothers' and fathers' experience of their marital relationship may be differentially impacted by their child. A meta-analysis found that mothers experienced less marital satisfaction than fathers and that mother, but not father satisfaction, was lowest when the child was an infant

(Twenge et al., 2003). These results suggest that having a child impacts mothers' satisfaction more so than fathers' satisfaction and that child age may also differentially impact satisfaction. Other work has found that mother, but not father, marital satisfaction related to the quality of family interactions (e.g., cooperative family alliance & family coordination; Korja et al., 2016) which suggests that characteristics of the larger family system may impact mothers' views of their marriage more so than fathers' views. Mothers' and fathers' own characteristics such as their mental health may relate to their marriage differentially as well. Kouros and Cummings (2011) found that husbands' and wives' depressive symptoms related to different aspects of their marriage (i.e., marital conflict for wives & marital satisfaction for husbands). Studies have also found that husbands' but not wives' depressive symptoms lead to decreased satisfaction for their partner (Kouros & Cummings, 2011; Meyer et al., 2019). Because mothers and fathers are differentially impacted by their child, their own mental health, their marriage and their family environment, they may have different perspectives of their family and its characteristics and those perspectives may not always align.

Informant Discrepancies

Family research has long acknowledged inconsistencies between different reporters' (e.g., teachers, parents, & clinicians) evaluation of child behavior (Achenbach et al., 1987). Inconsistencies, or discrepancies, between two or more reporters are termed rater discrepancies or informant discrepancies. These discrepancies were originally viewed as a barrier to obtaining an accurate report about the child (Achenbach et al., 1987; De Los Reyes & Kazdin, 2005). More recently, these discrepancies have been used to gain insight into the nuanced information about the child's behavior, the reporters themselves, and other aspects of the family system. For example, De Los Reyes et al. (2009; 2023) assert that discrepancies between parent and another adult authority figure (e.g., teacher) report of child behavior is reflective of differences in child behavior when interacting with the parent compared to the other adult. Lohaus et al. (2020) found that discrepancies between mother and child report of child externalizing behavior were associated with maternal parenting stress suggesting that mothers experiencing more stress may perceive their child's behavior as more severe than their child does. Further, Grills and Ollendick (2003) found greater agreement between parent and child report of child behavior in families with less family conflict.

Despite evidence that discrepancies between mothers and fathers also relate to characteristics of the family and its members (e.g., Vassilopoulos et al., 2021), fathers are often missing from family research utilizing informant discrepancies and much of the extant informant discrepancy research that includes the perspective of parents uses either mother report or father report, but not both. Some studies gather both mother and father report, but only examine mother-child and father-child discrepancies. For example, a meta-analysis examining discrepancies between different informant pairs (e.g., parent-teach, parent-child, etc.) did not distinguish between mothers and fathers when examining discrepancies between parents and other informants (e.g., teacher or child) and did not report descriptives on, or the moderating effect, of parent sex (De Los Reyes et al., 2015). Consequently, although there is a growing body of research identifying informant discrepancies, less effort has been made to understand discrepancies between parents to or to understand differences between mothers and fathers as informants.

A Brief Background on Informant Discrepancies

In the decades following the formal recognition of informant discrepancies in family research, several frameworks for conceptualizing and examining such discrepancies have been developed. One of the earliest approaches to informant discrepancies was that of converging operations (Garner et al., 1956), which posits that one informant's rating is insufficient to establish an accurate report, but when many informant reports are compared, instances of convergence (i.e., when raters agree) are considered to be reflective of accurate information and instances of divergence (i.e., when raters disagree) are reflective of inaccurate information. Through this framework, divergence is attributed to random error or rater bias and, consequently, diverging information is discarded while converging information is kept and assumed to be accurate (see De Los Reyes et al., 2023 for detailed history). Instances of divergence, however, may not always reflect random or rater error and instead may reflect domain-relevant information, or differences in behavior across different social contexts (De Los Reyes, 2011). For example, differences between teacher-report and parent-report of child behavior may reflect differences in the way a child behaves at school compared to at home. Dismissing these discrepancies as random or rater error can prevent the detection of nuanced information about child behavior across different contexts.

A closer examination of why raters may disagree about the behavior they are rating lead to the development of the attribution bias context model (De Los Reyes & Kazdin, 2005) which proposes that discrepancies between informants can be attributed to one of three differences in context. They can result from (1) differences in informant interpretation of whether a behavior is attributable to the situational context or to the child's personality, (2) differences between raters in threshold of what constitutes a particular behavior, or (3) differences in the environment that the child is observed in (i.e., parents observing their child at home compared to a teacher observing the child at school). After acknowledging that discrepancies can be reflective of meaningful context-specific information, or of rater bias or measurement error, instances of divergence were conceptualized as falling into one of two categories; diverging operations are reflections of context-specific information, and compensatory operations are reflections of rater bias or measurement error (De Los Reyes et al., 2013).

Building on the attribution bias context model, the operations triad model is a framework designed to determine when discrepancies are reflective of error (compensatory operations) and when they are instead reflective of meaningful context-specific information (diverging operations; De Los Reyes et al., 2013). Through this model, diverging operations are viewed as reflecting meaningful differences in context where both informants' reports are accurate, but different because of such context. Compensatory operations are those where one or both informants' reports are inaccurate due to unreliable or invalid data and discrepancies thus do not reflect meaningful differences in the behavior or phenomena being assessed.

Both the attribution bias context model and the operations triad model focus on meaningful underpinnings of diverging operations and generally view instances of compensatory operations as lacking meaning. In response to the recognition of informant discrepancies another theory also emerged where what the attribution bias context model views as compensatory operations do, in fact, reflect meaningful discrepancies. The depression distortion hypothesis asserts that depressed mothers consistently over-report child behavior problems as their perceptions of their child are distorted by their depressive symptoms (Richters, 1992). This would be an instance where rater bias, a compensatory operation, is meaningful as such bias is reflective of maternal depressive symptoms. Findings testing this theory have been mixed and methodological shortcomings of previous work contribute further uncertainty to the theory's validity (De Los Reyes et al., 2015; De Los Reyes et al., 2023; Ordway, 2011). Additional uncertainty arises regarding the theory's target population as studies testing the depression distortion hypothesis have only used samples of mothers and it is unclear whether findings are meant to generalize to fathers as well or be specific to mothers.

Although the depression distortion hypothesis and the operations triad model propose different phenomena underlying informant discrepancies, the two theories need not be mutually exclusive. It may, in fact, be possible that sometimes discrepancies are reflective of meaningful rater bias (e.g., depressive symptoms) and other times are reflective of differences in behavior in different contexts, differences in what raters attribute behavior to (e.g., situation-induced vs. disposition-induced), or differences in raters' threshold for what constitutes a certain behavior. To date, a framework has not emerged recognizing all four possible sources of rater discrepancies as potentially meaningful. Conversely, the most recent extension of the operations triad model (De Los Reyes et al., 2023) advocates for the use of structurally different informants. Structural differences between informants can be differences in where the informant observes the subject (i.e., parents who observe a child at home compared to teachers who observe the child at school), differences in relationships between the informant and subject (e.g., a parent compared to a peer), or differences in perspective between informants (e.g., a child reporting on their self-perceptions compared to a parent reporting on their observations). Because structurally different informants have different relationships with the subject and see them in different settings, the possibility of rater bias can effectively be ignored as discrepancies can always be attributed to other differences between informants (e.g., differences in behavior threshold or disposition/environmental behavior attribution) or differences in the way that the subject behaves with such informants. Whether or not De Los Reyes et al. (2023) view mothers and fathers as structurally different informants is not clear and is not explicitly addressed in their work. Mothers and fathers are both parents of the child and both view the child in the home, which contributes to some structural similarity. However, through a family systems framework, mothers and fathers are different individuals, have different relationships with the child, and may play different roles in their family and in parenting their child. Consequently, mothers and fathers should be viewed as structurally different.

Advocating for structurally different informants may be useful when the goal is to gain insight regarding the child and structurally different informants can be kept separate (i.e., the teacher does not come into the home setting and the parent does not attend school with the child), but this approach does not accommodate situations where both informants are structurally different, but also regularly observe the subject interacting with the other informant. De Los Reyes et al. (2009) found evidence that some children in a laboratory setting behaved differently in the presence of a stranger compared to the presence of their parent which supports the idea that discrepancies in report reflect discrepancies in behavior. When both informants are parents however, the child may behave differently with each parent, but each parent may also have an opportunity to observe the difference in behavior with the other observer (e.g., the father overhears the child behaving with more compliance when interacting with the mother) and may consequently use those observations in their ratings of the child behavior. This makes it especially difficult to determine whether discrepancies between parent informants reflect differences in child behavior or other phenomena.

Both the depression-distortion hypothesis and the operations triad model take a child-centered approach to informant discrepancies as the depression-distortion hypothesis views mother depression as distorting the view of the child and the operations triad model works to view both informants' reports as meaningful information about the child. While both theories consider some information about the informants (i.e., their depressive symptoms or their relationship with the child), neither theory aims to understand the relationship between the informants nor the family. When both parents are informants, though, considering their relationship, personal characteristics, and family dynamics is critical to understanding discrepant perceptions of the child. For example, parents who communicate more may discuss their child's behavior more and may consequently agree more about such behavior than parents who communicate less. Further, parents who trust each other more may be more likely to incorporate their partner's account of their child's behavior into their own opinion. Vafaeenejad et al. (2020) found that both parents' marital satisfaction positively predicted agreement in parenting styles used with their children, suggesting that couples who are satisfied with their marriage may tend to agree more about other aspects of their family. De Los Reyes et al. (2015) found more agreement between mothers and fathers in perception of their child's behavior than other informant pairs (e.g., parent-teacher) and attributes this agreement to the overlap in the context and environment in which parents observe their child. By this logic, when parents do disagree about their child, despite such overlap in context and environment, this disagreement may be indicative of other problems in their relationship or in their family. Because the depression distortion hypotheses and operations triad model only aim to understand the child, they do not consider the relationship between informants unless one informant is the child.

Since both the depression-distortion hypothesis and the operations triad model are relatively child-focused, their utility may be limited when examining parent discrepancies in experience of other aspects of their family. For example, some variables involve personal subjective feelings or appraisals rather than perceptions of observational phenomena. Parent relationship satisfaction is one of these variables. Parents may have similar or discrepant levels of satisfaction, but these discrepancies reflect differences in the way each partner feels about their relationship rather than their appraisals of observable phenomena such as child behavior. Differences in the environment the variable is observed in (e.g., school and home) are not applicable and neither are differences in threshold for what constitutes a certain behavior or differences in whether a behavior is attributable to the subject's disposition or the situation. Although an individual's observable behaviors may impact their partner's satisfaction levels, differences in satisfaction reflect differences in subjective feelings about their relationship with their partner and not differences in appraisals of the same subject's behavior. Because of these differences, and the inseparable relationship between informants, the operations triad model is ill-equipped for the examination of discrepancies in relationship satisfaction.

The depression distortion hypothesis is also ill-equipped to examine discrepancies in relationship satisfaction. Although one's depressive symptoms may lead them to feel less satisfied in their relationship than they otherwise would, it is also possible that one's depressive symptoms are due to their dissatisfaction with their marriage. In fact, several theories have been developed to explain associations between depressive symptoms and marital satisfaction. One of these theories views depression as an outcome of experiencing a dissatisfying marriage (Beach et al., 1990) and another one views depression and marital satisfaction as a relational process whereby depressed individuals behave in a way that causes those close to them to express negative feedback which reinforces their depressive symptoms (Coyne, 1976). The depression distortion hypothesis does not account for either of these possibilities.

Other variables that parents may disagree about such as the family environment also differ from child behavior in that each family member including the informants themselves contribute to the family environment and the family environment is rather abstract. While the family environment does involve perceptions of external phenomena (unlike marital satisfaction), the operations triad model and depression distortion hypothesis may not be appropriate tools with which discrepant parent perceptions of the family environment should be approached. Overall, the current frameworks for understanding informant discrepancies may be useful when the goal is to gather observable information regarding a third party (i.e., child) and when both informants are not parents. However, these frameworks are ill-equipped to examine discrepancies between parents. To examine discrepancies between parents, a framework must be developed that considers relationships between informants as well as characteristics of the overall family and its members.

One method of potentially better understanding parent discrepancies that has, to my knowledge, not been used before is examining parent discrepancies across different levels of the family (i.e., child-, couple-, family-level). The operations triad model views discrepancies as reflecting context specific to the child. If parents who disagree about their child are also disagreeing about other aspects of their family, it may be that discrepancies are not due to context specific to the child or to the other aspect of the family being examined, but instead are symptomatic of a deeper issue causing a disconnect between parents. Alternatively, if parents are only disagreeing about one aspect of their family such as their child, it may be more likely that it is context associated with that singular aspect of the family that is underpinning such discrepancy. Further, variables including child age and parent depressive symptoms have been associated with parent discrepancies regarding their child. If these variables also associate with parent discrepancies regarding other aspects of their family (e.g., their marriage or their family functioning) it may be that these variables are more responsible for discrepancies than the aspect of the family being disagreed upon. For example if child age relates to discrepancies regarding the child only, it may be more likely that processes identified in the attribution bias context model are responsible for the discrepancies. Perhaps when children are younger, parents are more likely to have different thresholds for what constitutes a certain behavior or are more likely to differ in whether they attribute a behavior to the child's disposition or the environment. Alternatively, if child age relates to discrepancies in perception of the child and discrepancies in other aspects of the family, such as marital relationship satisfaction or perceptions of family functioning, it may be more likely that when children are younger, a deeper disconnect is occurring between parents leading to discrepant experiences of multiple aspects of the family. Unfortunately, due to the lack of research examining discrepancies in parent perception of aspects of their family other than their child, and lack of framework for examining discrepancies between parents in general, determining an exact cause of discrepancies between parents is not realistic at this time. However, examining discrepancies across multiple levels of the family is an important first step to better understanding parent discrepancies as it can help determine whether parent disagreement is specific to the child or whether it is persists across multiple aspects of the family, possibly reflecting a deeper disconnect between in the parents.

Analyses Used to Examine Informant Discrepancies. Just as frameworks for viewing informant discrepancies have evolved since their formal recognition in family research, so have the methods used to statistically analyze them. While methods of analysis are rapidly evolving, it is commonly accepted that traditional means of analysis were flawed (Laird & De Los Reyes, 2013). These traditional methods include examining raw differences between reporters' scores. With this method, if Rater 1 gives the higher rating, the difference score will be positive, but if Rater 2 gives the higher rating, the difference score will be negative which leads to instances where the distance between raters' scores is the same, but the difference score is different (i.e., one score is negative and the other is positive). This can be remedied by using the absolute value of the raw difference score, but when using absolute values, analyses are unable to distinguish which rater (e.g., mother or father) gave the higher rating (see De Los Reyes & Kazdin, 2005 for detailed review). However, although both raw and absolute difference scores can assess the distance between raters' scores, neither can capture where on the rating scale, informants' scores are falling. For example, difference scores cannot differentiate between instances where both parents are rating high and where both parents are rating low. Also problematic, some studies examine discrepancies using *t*-tests comparing informants' scores. These *t*-tests can detect whether, across an entire sample, one informant's scores (e.g., mothers) were significantly higher or lower than the other's (e.g., fathers). Within a sample, however, there are likely to be some rater pairs who agree, some who disagree with rater 1 (e.g., mothers) rating higher and some who disagree with rater 2 (e.g., fathers) rating higher. *T*-tests cannot generate information about the subgroups that may exist within a sample. The use of difference scores and *t*-tests are limited the number and type of research questions that can answer in discrepancy research.

In recent decades, advanced methods of examining discrepancies have been developed. These methods have expanded the number and type of questions that discrepancy researchers can explore. One of these methods is latent profile analysis (LPA; see Ferguson, 2020 for detailed explanation). Latent profile analysis is an advanced form of cluster analysis that is able to identify groups within a sample that have a similar pattern of responses across a designated number of items (e.g., high rating on item 1, low rating on item 2, etc.). When using LPA for discrepancy research, patterns of responses across rater 1 (e.g., mother) and rater 2 (e.g., father) are examined. These analyses are useful as they consider where on the scale raters are rating in addition to the distance between raters' scores. They also yield information regarding the number of subgroups that exist within a sample and the number of participants in each of these groups. Associations between group membership and auxiliary variables can be estimated as well.

Parent Discrepancies

Although the majority of the family research addressing discrepancies focuses on discrepancies between the parent and child, a smaller body of research has examined discrepancies between parents. This research has mostly examined discrepancies between parent perception of child behavior (e.g., Duhig et al., 2000) and of parenting behaviors, and some studies have examined parent perception of the family environment.

Parent Discrepancies Regarding their Child. Some research has examined discrepancies between parents in their perception of their child. A meta-analysis (Duhig et al., 2000) found more agreement between parents in perception of their child's externalizing behaviors compared to their internalizing behaviors. Because externalizing behaviors are more overt than internalizing behaviors, it may be the case that parents tend to agree more about overt, observable behaviors compared to more subtle internalizing behaviors. The difference between parents' perceptions of internalizing compared to externalizing behaviors, however, was small and could be due to differences in study design. This meta-analysis also found that mothers tended to report more total behaviors (i.e., internalizing and externalizing) than fathers and found more agreement regarding internalizing and externalizing behaviors in parents of adolescents compared to parents of younger children suggesting that mothers may view behavior as more severe than fathers do and that parents may agree more about their child's behaviors when their child is older. The severity of the child's behavior problems has been associated with parent discrepancies as Vassilopoulos et al. (2021) found that disagreement between parents was lower when child defiance and aggression was more severe and higher when learning and inattention problems were more severe. Other work shows that parent depressive symptoms also relate to discrepancies in parent perception of their child's internalizing behavior. Kelley et al. (2017) found that mothers with more depressive symptoms reported more internalizing child behaviors than fathers did and Hughes and Gullone (2010) found that parent depressive symptoms contributed to discrepancies between parents' reports of their child's internalizing behaviors when their child was the opposite sex as the parent (i.e., mothers' depressive symptoms contributed to higher ratings of sons' internalizing symptoms and fathers' depressive symptoms contributed to higher ratings of daughters' internalizing symptoms). These studies' results suggest that child age, sex and problem behavior severity, and parent depressive symptoms may contribute to parent discrepancies regarding their child's behavior.

Although Duhig et al. (2000) found some differences in parent perception of internalizing behaviors compared to externalizing behaviors in their meta-analysis, and other work has found that discrepancies in perception of both internalizing and externalizing behaviors relate to other variables, much of the current work has not examined discrepancies in both internalizing and externalizing behaviors in the same study (e.g., Hughes & Gullone, 2010; Kelley et al., 2017). Since sample characteristics, methods of measurement, and analyses differ between studies, discrepancies in perception of internalizing and externalizing behaviors need to be examined in the same study to determine whether they differentially relate to other family variables such as child sex or parent depressive symptoms. One of the few studies that did include both internalizing and externalizing behaviors found that mother and father psychological symptoms related to discrepancies in parent report of child internalizing and externalizing behavior, but found that child time spent with the mother uniquely related to discrepancies in reports of internalizing behavior (Treutler & Epkins, 2003). Results of this study suggest that some family variables may impact discrepancies in both internalizing and externalizing behaviors while others may uniquely relate to only one child behavior type.

Parent Discrepancies Regarding their Relationship Satisfaction. Few studies have examined discrepancies between parents in their relationship satisfaction. However, findings from a meta-analysis examining marital satisfaction more generally suggest that discrepancies may exist between parents in their marital satisfaction. Mothers have been found to experience less marital satisfaction than fathers and mother, but not father, satisfaction is lowest when the child is an infant (Twenge et al., 2003). These findings of group-level differences between mothers and fathers suggest that couple-level differences in satisfaction may also exist especially in couples with younger children. Much work has found associations between depressive symptoms and marital satisfaction and has found differences in the ways depressive symptoms impact one's own and their partners' marital satisfaction (see Goldfarb et al., 2019 for review). These differential impacts suggest that when one or both partners are experiencing depressive symptoms, their marital satisfaction may differ from their partner's.

One of few studies that did examine discrepancies in relationship satisfaction found that mothers reported lower dyadic satisfaction than fathers (Gau et al., 2012). This study examined discrepancies directly but did not explore variables associated with discrepancies. One study of Israeli families that also examined discrepancies directly did explore correlates of agreement between parents in their marital satisfaction and found that when parents agreed in their satisfaction, the father was more likely to be sensitive to and ready to interact with his infant (Feldman, 2000). A father's perception of his child's behavior may be impacted by his sensitivity to and level of interaction with his child. The couples in this study who experienced similar levels of relationship satisfaction were ones where the father was more sensitive to and involved with the child. Perhaps these couples would be more likely to also view their child's behavior similarly as well as they already have similar views of their relationship, and the father is more involved with his child than other fathers. This study shows that parent agreement regarding one aspect of the family (e.g., relationship satisfaction) can relate to variables that may impact levels of agreement regarding other aspects of the family (e.g., child behavior).

Parent Discrepancies Regarding the Family Environment. Few studies have examined discrepancies between parents in perceptions of the family environment. One study examining such discrepancies in parents of autistic children found that mothers perceived their family to seek and receive social support more so than fathers did, but found no difference between parents in perceptions of their family cohesion, adaptability, or satisfaction with family functioning (Altiere & Kluge, 2009). Another study in Taiwan found that mothers reported lower family functioning than fathers (Gua et al., 2012). These studies did not examine whether other variables such as parent depressive symptoms or child age related to agreement between parents and also did not examine whether some couples agreed more than others. A study of families with a child with a genetic condition that did probe for differences between couples in their levels of agreement in family satisfaction and family hardiness (i.e., adaptability) found several distinct groups of couples with different levels of agreement. The largest group agreed on both family satisfaction and hardiness and in the second largest group, mothers reported more satisfaction and hardiness than fathers (Knafl et al., 2007). Perhaps Altiere and Kluge (2009) did not find differences between parents in perception of their family because they did not examine whether some couples agreed more than others or consider that there could be distinct groups in their sample with different patterns of agreement. One study in China that did examine whether other variables (i.e., child sex) related to parent agreement found agreement between parents in perceptions of family functioning, but also found that mothers reported more conflict when the child was a girl and fathers report more control issues when the child was a boy (Xu et al., 2014). These studies all reflect different findings; however, the findings of Knafl et al. (2007) show that several groups of participants with different types of agreement may exist within each sample and it is possible that the findings discussed above reflect that several patterns of agreement exist between parents. The findings of Xu et al. (2014) show that characteristics of the family or its members impact parent agreement. Thus, it is important to account for the possibility of different pattern types and to attempt to identify what family or couple characteristics are associated with each pattern type.

Parents with Autistic Children

Parents of autistic children, and their relationship, will differ from parents of non-autistic children or parents of children with other disabilities due to unique factors related to their child's autism diagnosis. Parents of autistic children experience higher burden, more stress and psychological distress, less social support, and more dysphoria than other parents (Dumas et al., 1991; Estes et al., 2013; Hayes & Watson, 2013; Picardi et al., 2018; Sanders & Morgan, 1997). The child's autism diagnosis, or autism related behaviors, may also impact mothers differently than fathers which may lead to different discrepancies between parents of autistic children compared to parents of non-autistic children. For example, when a family has an autistic child, mothers are more likely provide more childcare than fathers (Hartley et al., 2014) showing that raising an autistic child often leads to more childcare for mothers than fathers. Despite providing less childcare than mothers, fathers report more stress than mothers and fathers' but not mothers' stress increases as autism symptom severity increases (Rivard et al., 2014). Increases in father, but not mother stress could differentially spill over into how the father views his marriage and overall family functioning.

Autism-related symptoms will impact the entire family in families with autistic children. In addition to experiencing autism symptoms, some autistic children attempt to appear non-autistic. The phenomenon in which autistic individuals behave in ways that make them appear to be non-autistic has been assigned different terminology (e.g., masking, camouflaging, compensation, etc.) and has been conceptualized in different ways (see Libsack et al., 2021 & Cook et al., 2021 for review). A wide variety of behaviors and strategies can be used to camouflage autism symptoms including resisting engaging in repetitive motions, using memorized scripts to navigate social interactions, and imitation of behaviors observed in others. Efforts to hide or camouflage autism symptoms can be made either consciously or subconsciously and previous work has found that autistic girls tend to engage in more camouflaging of their autism symptoms than autistic boys (Dean et al., 2017). Parents of autistic children may not only have differing levels of difficulty in identifying their child's autism symptoms, but they may also have differing levels of difficulty in identifying when their child is camouflaging their symptoms, which may be particularly pronounced for parents of autistic girls compared to parents of autistic boys. Additionally, parents with autistic children have been found to possess various autistic traits themselves, albeit at a subclinical level. Mild manifestations of autistic traits are referred to as the broader autism phenotype (BAP). Individual studies differ in reports of BAP prevalence, but a review found that BAP is more common in parents with autistic children compared to parents of non-autistic children and in fathers compared to mothers (Rubenstein & Chawla, 2018). Not only do parents with autistic children have different parenting experiences than those without autistic children, but their own traits may differ as well as one or both parents may possess BAP traits. Possessing BAP traits may impact parents' communication with each other and their child and may also impact parents' views of their child, relationship, and family.

The autistic child will also impact their parents' relationship both directly and indirectly through the way they impact each parent as an individual (e.g., increased parenting stress). The divorce rate of parents of autistic children is twice that of parents with non-autistic children, which supports the notion that the parent relationship is also affected by raising an autistic child (Hartley et al., 2010) and parents of autistic children report lower levels of relationship satisfaction than parents with non-autistic children (Brobst et al., 2009; Sim et al., 2016). Parents of autistic children also experience altered patterns of relationship satisfaction over time compared to parents of non-autistic children as previous longitudinal work shows that the relationship satisfaction of parents of autistic children decreases during time periods known for increased relationship satisfaction in parents of non-autistic children (Gorchoff et al., 2008; Hartley et al., 2012). Most studies examining relationship satisfaction in parents of autistic children only include the perspective of mothers or combine mother and father scores (Sim et al., 2016). This negates the idea that factors affecting marital quality may impact mothers differently than fathers. For example, maternal stress has been associated with marital satisfaction for mothers, but not for fathers of autistic children (Brobst et al., 2009). Since parents of autistic children and their marriages differ from those of non-autistic children, research utilizing parents of non-autistic children may not generalize to parents of autistic children.

Autism and Parent Discrepancies

Parent Discrepancies Regarding their Child. Few studies have examined discrepancies between parents of autistic children in perception of their child, marital relationship, or their overall family functioning. Of those that have examined parent perceptions of their child, Kalyva (2010) found no difference between mothers and fathers of autistic children in reports of their child's social skills. Van Steensel et al. (2013) and Matson et al. (2013) found significant relations between mother and father report of their autistic child's social skills and anxiety but did not examine potential discrepancies. None of these studies examined whether other variables such as child age or parent depressive symptoms related to agreement or disagreement between parents' perceptions of their child. One variable that may be particularly important to consider when examining parent perceptions of their autistic child is child sex as autistic girls engage in camouflaging of their social deficits than autistic boys (Dean et al., 2017). Research examining parents' ability to detect their daughters' camouflaging behaviors excludes fathers (Anderson et al., 2020; Lockwood et al., 2021). Differences between mothers' and fathers' ability to detect camouflaging behaviors could impact patterns of parent discrepancies regarding autistic girls compared to autistic boys.

Although few studies of families with autistic children have examined discrepancies between parents in perception of their child, there is reason to predict both more and less agreement between parents of autistic children compared to parents of non-autistic children. Prior work has found that the degree of parental role specialization, such that mothers provide more childcare and fathers provide more household income, increases as children's autism-related behaviors increases (Hartley et al., 2014). If mothers of autistic children are specializing in childcare more so than mothers of non-autistic children, there may be more disagreement between parents of autistic children as fathers who are less involved with their child may be more likely to perceive their child differently than their more-involved wives. This would be consistent with work with parents of non-autistic children finding that parent discrepancies increased when child inattention and learning problems increased (Vassilopoulos et al., 2021). Alternatively, autistic children are professionally evaluated more often than non-autistic children as they are regularly assessed by school IEP teams, doctors, and behavior therapists. Regular behavioral evaluations may lead both parents to monitor their behavior more closely and discuss their behavior more regularly, which could contribute to more agreement between parents of autistic children.

Prior work has examined discrepancies in parent perception of child internalizing and externalizing behaviors in parents of non-autistic, but not parents of autistic children. The social and communication deficits associated with autism may make internalizing behaviors such as depression or anxiety symptoms harder to detect in autistic children. A review found that rates of suicide behaviors and ideation in autistic individuals under the age of 18 ranges from 11 to 73% and attributed differences in findings to differences in sample size and characteristics and study measures (Oliphant et al., 2020). Because autistic children may have an elevated risk of suicide behaviors and ideations and a diminished capacity to clearly communicate their feelings, it may be especially important to examine parent agreement regarding child internalizing behaviors in parents of autistic children. Further, because parent discrepancies in perception of internalizing behavior may differentially relate to other variables (e.g., parent depressive symptoms) compared to parent discrepancies in perception of externalizing behaviors, it is important to examine parent perception of internalizing and externalizing behaviors separately.

Parent Discrepancies Regarding their Relationship Satisfaction. The two studies that have examined differences between mothers and fathers with autistic children in relationship satisfaction have found mixed results. Gau et al. (2012) examined aspects of marital satisfaction in couples raising an autistic child and couples raising a non-autistic child in Taiwan. They found that mothers of autistic children were less satisfied than mothers of non-autistic children, but there was no differences in satisfaction levels between fathers of autistic children compared to fathers of non-autistic children. Despite this, both mothers of autistic children and mothers of non-autistic children in Taiwan experienced less marital satisfaction than their spouse. Kaniel and Siman-tov (2011), however, found that mothers of autistic children in Israel reported more relationship satisfaction than fathers. Neither study examined whether levels of parent agreement related to other variables such as child age, parent depressive symptoms, or child symptom severity. Further because one study was conducted in Taiwan and the other was conducted in Israel, cultural differences may account for the differences in findings and may prevent either finding from generalizing to parents raising an autistic child in the USA.

Parent Discrepancies Regarding their Family Environment. Mixed findings have also emerged in parent perception of family functioning. Altiere and Kluge (2009) found no difference between mothers and fathers of autistic children in perceptions of the family's coping skills or cohesiveness. Gau et al. (2012) found that mothers perceived lower family cohesion than fathers. Since they also found that mothers reported less marital satisfaction than fathers, this is one of few studies that examines discrepancies between parents across different levels of the family (e.g., couple- and family-level). This study, however, only examined group level differences in perception of couple satisfaction and family cohesion and did not examine couple level differences across these variables. Neither of these studies examined whether parent agreement varied by child age, parent depressive symptoms, or child symptom severity. The lack of autistic family research examining discrepancies between parents is unfortunate since research with families with non-autistic children may not generalize to families with autistic children.

The Current Study

Previous research has examined the extent to which parents of non-autistic children agree about characteristics of their family (e.g., child behavior and parenting practices) and has found relations between levels of parental agreement and variables within the family. However, there is a paucity of research examining discrepancies between parents of autistic children in their perceptions of the child, their marital relationship, and the family environment. The proposed study aims to examine patterns of parent agreement across levels of the family system and identify characteristics of the child and parents that are associated with patterns of agreement. In this study, I will examine discrepancies between parents' ratings of child internalizing and externalizing behavior, couple relationship satisfaction, and the quality of the family environment. I consider patterns of parent agreement/disagreement across levels of the family (e.g., agreement about child, couple, and family variables, agreement about couple variable only, disagreement about child, couple, and family variables, etc.). Finally, I will examine associations between patterns of parent agreement/disagreement and the following child- and parent -level variables: (1) child-level: sex, age, and autism symptom severity, and (2) parent-level: depressive symptoms and BAP. This study addresses the following research questions:

Research Question One

How many profiles of mother-father agreement or disagreement exist with respect to perceptions of child internalizing and externalizing behaviors, couple relationship satisfaction, and the family environment, and what are the characteristics of each profile that emerges for each construct (e.g., parents agree and both rate internalizing behavior as high)?

(a) Child Internalizing and Externalizing Symptoms.

(i) Because previous work with non-autistic families has found higher correspondence in ratings of child internalizing and externalizing behaviors between mothers and fathers of younger children, but has also found that mothers tend to rate behavior as more severe than fathers (Duhig et al., 2000) and work with families of autistic children has found associations between parents' reports of child anxiety and social skills (Kalyva, 2010; Matson et al., 2013; Van Steensel et al., 2013), I predict that at least one agreement profile and one disagreement profile, with mothers rating behaviors as higher than fathers, will emerge for both internalizing and externalizing behaviors.

(ii) Because previous work with non-autistic families has found higher correspondence in ratings of child internalizing and externalizing behaviors between mothers and fathers of adolescent children compared to younger children and our sample consists of adolescents, I predict that group membership will be highest for the single agreement profile (or for the collective agreement profiles if more than one agreement profiles emerge) for both internalizing and externalizing behaviors.

(b) Parent Relationship Satisfaction.

(i) Jackson et al. (2014) found no differences between husbands and wives in reports of marital satisfaction. This meta-analysis included couples without children and did not include couples with an autistic child. A review of autistic families reported two studies finding differences between mothers and fathers of autistic children in relationship satisfaction, but one study found mothers were more satisfied and the other found that fathers were more satisfied (Sim et al., 2016). I predict that at least one profile will emerge with mothers rating satisfaction as higher than fathers and at least one profile will emerge with fathers rating satisfaction as higher than mothers.

(c) Family Environment.

(i) Since one study of autistic families found no difference between mothers and fathers in ratings of family cohesion (Altiere & Kluge, 2009), a study of families with a child with a genetic condition found a group where mothers rated family level variables higher than fathers (Knafl et al., 2007), and a study of autistic families in Taiwan found that mothers reported lower levels of cohesion than fathers (Gua et al., 2012) I predict that at least one agreement, one disagreement profile with fathers giving the higher rating, and one disagreement profile with mothers giving the higher rating will emerge.

(ii) Since Altiere and Kluge (2009) found no difference between parents in perceptions of family cohesion and Knaft et al. (2007) found that the largest number of participants agreed on family level characteristics and the second largest number of participants disagreed with mothers rating family characteristics better than fathers, I predict that the single agreement profile (or collective agreement profiles) will have the largest profile membership, followed by the disagreement profile(s) with mothers rating the family environment as better than fathers.

Research Question Two

Do patterns of profiles exist across constructs (child internalizing and externalizing symptoms, couple relationship satisfaction, and the family environment)? I will determine patterns of parent agreement/disagreement across child-level (i.e., child internalizing and externalizing behaviors), couple-level (i.e., parent relationship satisfaction), and family-level (i.e., family environment) variables (e.g., parents agree about internalizing behavior, but disagree about relationship satisfaction and the family environment). Since one study of families with autistic children found that mothers reported less marital satisfaction and family cohesion than fathers, I predict that those who disagree regarding marital satisfaction will also disagree regarding family cohesion (Gau et al., 2012). I also predict that when couples disagree across constructs, the parent who gives the more negatively valenced rating on one construct (e.g., more internalizing behaviors) will also give the more negatively valenced rating on the other construct (e.g., less relationship satisfaction).

Research Question Three

Are child- (i.e., sex, age, and autism symptom severity) and/or parent- (i.e., parent depressive symptoms and BAP) level variables associated with patterns of discrepancies?

(a) Child Variables.

(i) Sex.

1. Child internalizing and externalizing behaviors. Research with non-autistic samples has yielded mixed results regarding differences in parent perception of internalizing and externalizing behaviors for girls compared to boys and may not generalize to parents of autistic children. Further, autistic girls are more likely to camouflage their social impairments (Dean et al., 2017) and such camouflaging may also hide their internalizing behaviors as well. However, whether one parent is better able to detect girls' internalizing behaviors despite camouflaging efforts is unclear. Consequently, I have no a priori hypotheses regarding the impact of child sex on profile membership for internalizing or externalizing behaviors.

2. Parent relationship satisfaction. Research with non-autistic families has found that fathers are more involved with their sons and mothers with sons are happier with their marriages (Baker & Milligan, 2016; Raley & Bianchi, 2006). Because role

specialization with mothers providing more childcare than fathers is greater for couples with autistic children, it is unclear whether higher father involvement, which could contribute to more relationship satisfaction, would persist in couples raising an autistic son. Due to the paucity of research examining autistic child sex on both parent's relationship satisfaction, I have no a priori hypotheses regarding associations between child sex and profile membership.

3. Family environment. Xu et al. (2014) found that mothers of non-autistic children in China reported more family conflict than fathers when their child was a girl. Boys tend to display more physical aggression while girls tend to display more indirect aggression (Bjorkqvist, 2018). Perhaps fathers are less likely to recognize indirect aggression occurring between mothers and daughters. If a profile emerges with mothers rating family as less cohesive than fathers, I predict that this profile will be associated with families with autistic girls.

(ii) Age.

1. Child internalizing and externalizing behaviors. Since previous work examining non-autistic families has found more correspondence in parent report of child internalizing and externalizing behaviors between parents of adolescents compared to younger children (Duhig et al., 2000), I predict that child age will be higher in agreement profiles compared to disagreement profiles for internalizing and externalizing behaviors.

2. Parent relationship satisfaction. A meta-analysis of non-autistic families found that mother satisfaction increased as child age increased while father satisfaction was stable across levels of child age (Twenge et al., 2003). If an agreement profile

characterized by moderate levels of satisfaction emerges, I predict that this profile with be associated with older children.

3. Family environment. While some studies have examined parent agreement regarding the family environment (e.g., Altiere & von Kluge, 2009; Knafl et al., 2007; Xu et al., 2014), none have examined associations between parent agreement and child age. I have no a priori hypotheses regarding agreement profile membership and child age.

(iii) Autism Symptom Severity.

1. Child internalizing and externalizing behaviors. One study of non-autistic families found that behavior severity associated with parent agreement but yielded mixed results regarding the direction of the association as child inattention and learning problem severity positively and defiance and aggression symptom severity negatively associated with disagreement between parents in perception of their child's externalizing behaviors (Vassilopoulos et al., 2021). Another study of non-autistic families found that the amount of time spent with the mother associated with more discrepancies in perception of internalizing behaviors (Treutler & Epkins, 2003). As autistic symptom severity increases, so does the amount of time spent with the mother compared to the father, which may lead to more discrepancies between mothers and fathers. Conversely, more severe impairments to social communication and more severely rigid behavior could make internalizing symptoms less detectable to both parents, leading to more agreement between parents. I predict that autism symptom severity will be associated with profile membership for both internalizing and externalizing behaviors, but have no specific a priori hypotheses regarding which profile memberships will be associated with autism symptom severity.

2. Parent relationship satisfaction. Siman-Tov and Kaniel (2011) found that autism symptom severity was negatively associated with relationship satisfaction for both mothers and fathers. If an agreement profile characterized by low levels of relationship satisfaction emerges, I predict that this profile's membership will be associated with more severe autism symptoms.

3. Family environment. While some studies have examined parent agreement regarding the family environment (e.g., Altiere & von Kluge, 2009; Knafl et al., 2007; Xu et al., 2014), none have examined associations between parent agreement and symptom severity. Other work has found that father, but not mother stress increases as autism symptom severity increases (Rivard et al., 2014). This increased stress for fathers may lead fathers to perceive family environment as more chaotic than mothers. If a profile emerges with fathers rating the family environment as less cohesive than mothers, I predict that this profile will be associated with higher symptom severity.

(b) Parent Variables.

(i) Parent Depressive Symptoms.

1. Child internalizing and externalizing behaviors. Previous research with non-autistic families found that both mother and father psychological symptoms were associated with parent discrepancies regarding child behavior (Treutler & Epkins, 2003). I predict that both mother and father depressive symptoms will be associated with disagreement profile membership for both internalizing and externalizing behaviors.

2. Parent relationship satisfaction. There is a paucity of work examining associations between depressive symptoms and discrepancies in marital satisfaction. Several studies, however, have found associations between one's depressive symptoms

and their relationship satisfaction (e.g., Kouros & Cummings, 2011). Consequently, I predict that depressive symptoms will be associated with discrepancies in relationship satisfaction such that father depressive symptoms will be associated with discrepancies where father rates satisfaction lower and mother depressive symptoms will be associated with discrepancies where mother rates satisfaction as lower. Some studies though, have found that depressive symptoms negatively impact both partners' relationship satisfaction (Morgan et al., 2018). If a profile emerges with both parents rating satisfaction as low, this profile may be associated with higher mother or father (or both) depressive symptoms.

3. Family environment. While some studies have examined parent agreement regarding the family environment (e.g., Altiere & von Kluge, 2009; Knafl et al., 2007; Xu et al., 2014), none have examined associations between parent agreement and parent depressive symptoms. Through a depression distortion framework, parents experiencing more depressive symptoms should perceive their environment as less cohesive as a result of their symptoms. Alternatively, if one parent perceives their family environment as more chaotic than the other, that parent may either be experiencing more burden associated with raising their autistic child, resulting in elevated depressive symptoms. If a disagreement profile emerges, I predict that the profile will be associated with elevated depressive symptoms in the parent rating the environment as more chaotic.

(ii) BAP.

1. Child internalizing and externalizing behaviors. Dovgan et al. (2022) found that mothers with higher levels of BAP reported more autistic symptoms in their children compared to the child's teacher. I predict that discrepancy profiles for both internalizing

and externalizing behaviors will be associated with higher levels of parent BAP in the parent who reported more autism symptoms.

2. Parent relationship satisfaction. Pollmann et al. (2010) found that more autistic traits associated with diminished relationship satisfaction for husbands but not wives and that one's autistic traits did not impact their partner's relationship satisfaction for either husband or wives. If one or more profiles emerge with mothers reporting more satisfaction than fathers, I predict that these profiles will be positively related to fathers' BAP scores.

3. Family environment. Previous work has not examined ways in which BAP levels impact perceptions of the family environment. BAP traits include deficits in social behavior and communication. Such deficits may cause one to fail to detect or to misinterpret aspects of their family's communication and interactions leading to differences in perception of the family environment. If one or more discrepancy profiles emerge, I predict such profiles will relate to parent BAP scores.

Method

Participants

Participants in this multi-site study included 117 triads of mothers and fathers and their autistic child between 10 and 17 years old (M_{age} = 13.08 years, *SD* = 2.17 years). Consistent with diagnostic rates (i.e., boys are diagnosed four times as frequently as girls), 95 families had an autistic son and 22 families had an autistic daughter. Families were recruited from the Dallas/Fort Worth area through advertisements posted at a variety of locations likely to be frequented by families with an autistic child and through the SPARK (Simons Powering Autism Research) database. Parents were required to be married or cohabitating for at least 1 year, to be living with their child at least 50% of the time, and to read and speak English. Their autistic child was required to have a community diagnosis of autism and could not have a co-occurring intellectual disability, a schizophrenia diagnosis, a visual or hearing impairment, nor a physical impairment that limited mobility. The autistic child also had to be verbally fluent (i.e., able to speak in 2–3 word sentences), have an IQ score greater than 75 (Differential Ability Scale-II; Elliott, 2007), and receive a receptive language score greater than 70 (Picture Peabody Vocabulary Test; Dunn & Dunn, 2007).

Procedure

This study took place at two universities in the Dallas/Fort Worth area. Participants generally visited the study site closest to where they lived. The study was approved by both universities' institutional review boards. Potential participants were screened through a phone call with a trained graduate student. Families appearing to meet eligibility requirements were invited to participate in an additional in-person screening (Time 1 Visit 1) to confirm that their child met the IQ and language criteria and to gather additional information about the child including their autism symptom severity (Autism Diagnostic Observation Schedule – Module 3; Lord et al., 2012). During this visit, one parent provided informed consent and their child assented to being a part of the study. Qualifying families returned to the research lab on campus to complete study activities (Time 1 Visit 2). During this visit, all three family members completed various questionnaires and completed an observational family task, and the couple completed a separate observational task. The current study only utilizes parent survey responses from this study visit.

Measures

Child-Level

Autism Symptoms. The Autism Diagnostic Observation Schedule-II (ADOS-II; Lord et al., 2012) is a clinical instrument used to assess the presence and severity of current autism symptoms and is also used to diagnose autistic individuals. This instrument has several different modules; each is used for different age ranges and different levels of verbal fluency. This study utilized Module 3 as children were required to have verbal language skills in order to meet eligibility criteria for the study. To administer this module, a trained research assistant conducted a semi-structured interview and play-based activities that assess the core characteristics of autism (social communication/interaction and restrictive and repetitive behaviors). Administrators coded the child behaviors displayed during the ADOS-II and compared them to clinical cutoffs to assess the level of autism the child has. Reliability across the two study sites was established at 80% agreement on 20% of the administrations. In the event the reliability fell below 80%, coders discussed their differences and came to an agreement for a consensus code. This measure produces a social awareness score and a restricted and repetitive behavior score. Both scores are summed to yield a total symptom severity score that is then converted to a calibrated severity score. A higher score indicates greater symptom severity.

Child Internalizing and Externalizing Behaviors. The Child Behavior Checklist (CBCL: Achenbach, 1999) is a valid 73-item measure of parent perceptions of their child's internalizing and externalizing behaviors. The internalizing behaviors subscale (mothers, $\alpha = .87$; fathers, $\alpha = .86$) and externalizing behaviors subscale (mothers, $\alpha = .92$; fathers, $\alpha = .91$) were utilized in this study. Statements such as "[my child] feels too guilty, feels worthless or inferior, and doesn't seem to feel guilty after misbehaving," were presented and parents were asked whether each statement was not true, somewhat true, or always true in the last 2 months. Although the CBCL was not designed specifically for evaluating autistic children, it has been used to examine behavior of autistic children in previous studies (e.g., Gadow et al., 2008). Responses were measured on a three-point Likert-type scale and scores were summed to achieve an internalizing behavior raw sum score and an externalizing behaviors raw sum score.

Parent-Level

Parent Depressive Symptoms. Parent depressive symptoms were measured using the 64-item Inventory of Depression and Anxiety Symptoms (IDAS; Watson et al., 2007). Parents were presented with statements such as "I was proud of myself, I felt depressed, and I felt inadequate," and then indicated on a five-point Likert-type scale (1 = *not at all*, 5 = *extremely*) to rate how true statements were in the previous two weeks. Although the measure contains several subscales (e.g., well-being, panic, social anxiety), we administered an abbreviated version and only the 20-item general depression subscale was used to measure parent depressive symptoms (mothers, α =.90; fathers, α = .88). The IDAS is a valid measure of depressive and anxiety symptoms and has been used in research examining parents of autistic children (e.g., Ekas et al., 2023). Item scores were summed to achieve a total general depression score.

Broad Autism Phenotype. The 36-item Broad Autism Phenotype Questionnaire (BAPQ; Hurley et al., 2007) was completed by both mothers and fathers to assess subclinical autism-related traits. The questionnaire includes three subscales: aloofness, rigid personality, and pragmatic language. Items were scored on a six-point Likert-type scale (1 = *very rarely*, 6 = *very often*). Scores for each subscale were averaged to yield a general BAP score. (mothers, α =.92; fathers, α = .93).

Relationship Satisfaction. Relationship satisfaction was measured using the 16-item Couple Satisfaction Index (CSI-16; Funk & Rogge, 2007) which measures the degree to which the respondent is satisfied with their romantic relationship with their partner/spouse (mothers, α =.97; fathers, α = .97). Responses were measured using a six-point Likert-type scale. Statements associated with each point on the Likert-type scale varied based upon the question. For example, for statements such as "My relationship with my partner makes me happy, our relationship is strong, and I have a warm and comfortable relationship with my partner" responses ranged from never true (1) to completely true (6); however, for statements such as "how often do you and your partner have minor conflicts?" responses ranged from once in a while (1) to just about every day (6). The CSI is a valid measure of couple satisfaction and has been used to examine the relationship satisfaction of parents with an autistic child (e.g., Sim et al., 2019). Scores were summed to achieve a total relationship satisfaction score.

Family-Level

Family Environment. The Family Environment Scale (FES; Moos & Moos, 1987) is a valid 45-item parent report measure of the family environment containing several subscales that examines how family members perceive their family environment. Statements about the family (e.g., "We fight a lot in our family" or "Family members really help and support on another") are marked either true or false. The family relationship index (mothers, α =.75; fathers, α = .81), comprised of the cohesion (mothers, α =.63; fathers, α = .72), expressiveness (mothers, α =.51; fathers, α = .52), and conflict (mothers, α =.73; fathers, α = .75) will be used. This measure has been used with families with an autistic child (e.g., Bahri et al., 2023). Sum scores were generated for each subscale. Then, the family relationship index score was calculated by summing the cohesion and expressiveness sum scores and subtracting the conflict sum score.

Analysis Plan

Descriptive and Covariate Analyses and Data Preparation

The following analysis plan was pre-registered before analyses were conducted. Means and standard deviations were calculated for all study variables and reported separately by parent gender. Pearson's correlations were performed to examine the direction and strength of associations between all study variables. Statistical assumptions were tested in SPSS before data was imported into Mplus version 8 (Muthen & Muthen, 2017). All continuous variables were examined to determine whether they were normally distributed. Mother and father reports of child internalizing and externalizing behaviors, marital satisfaction, and family environment were inspected for multicolinearity.

Current tools for conducting power analyses could not be utilized with latent profile analyses as power is dependent upon the number of profiles that emerge as well as the distance between profiles and neither are determined until after analyses have been conducted (Ferguson et al., 2019; Tein et al., 2013). One study with a sample of autistic children had sufficient power to produce four profiles with a sample size of 98 participants (Dekker et al., 2021). Thus, the current sample size of 119 was sufficient for the analyses conducted.

RQ 1: Parent Agreement Regarding Child-, Couple-, and Family-Level Variables

Latent profile analysis (LPA) is a statistical analysis that groups participants (i.e., mother-father dyads) with similar scores across a designated number of items. Through LPA, every participant is placed in a group (profile) and assigned a profile probability value which represents the probability that their response patterns across the designated items match those characteristic of the profile compared to those characteristic of other profiles. Higher values indicate higher probability that the participant belongs to their assigned profile rather than another profile in the model. These values, when averaged across all members assigned to a profile, can be used to determine the degree of separation or distinction between profiles with higher values indicating more distinction between profiles (Ferguson et al., 2019).

To identify patterns of parent agreement/disagreement in report of their child's internalizing and externalizing behaviors, their own relationship satisfaction, and the family environment, four, separate LPAs were conducted in Mplus. These analyses yield information regarding the number of profiles (i.e., patterns of mother-father report of a single variable) that exist within a sample as well as the characteristics of each profile (e.g., mother reports low and father reports high levels, father report low and mother report high levels, or mothers and father both report moderate levels). LPA is useful for examining discrepancies between informants as these analyses are able to group participants based upon both parents' ratings of the construct in question. Unlike traditional means of examining discrepancies (e.g., raw difference scores), LPA can differentiate between instances of disagreement where the mother is the higher rater and when the father is the higher rater. When parents agree in their scores, LPA will differentiate between instances where both parents are giving high ratings and instances where both parents are giving low ratings. For a detailed history of the use of different methods of examining informant discrepancies, see De Los Reyes et al. (2023).

For each LPA, mother scores and father scores were entered as indicator variables (i.e., variables from which profile membership is derived) and the number of profiles were determined by comparing model fit of several models with different numbers of profiles and choosing the model best fit for the data. First, a one-profile model was specified. Then a two-profile model was specified and its model fit was compared to that of the one-profile model. If the two-profile model had better model fit it was then compared to a three-profile model. Models with one profile more than the previous were continued to be compared until model fit ceased to improve. The best fitting model was retained. When comparing models, goodness of model fit was indicated with lower Akaike's information criteria (AIC; Akaike 1987) and Bayesian information criterion (BIC; Schwarz 1978) scores (when compared to scores of the other models) and higher Entropy values (Muthen, 2000), as well as significant chi-square values on the Lo-Mendell-Rubin Adjusted (LMR) Likelihood Ratio tests (Lo et al., 2001) and average latent class probabilities above 0.70 (Nagin, 2005). A low average latent class probability value (i.e., less than .70) for one or more profiles in a model, may indicate that too few profiles are specified and that some participants in such profiles should actually be grouped together in a separate profile. It may indicate that too many profiles are specified in the model and that two or more of those profiles should actually be combined. If an average latent class probability value for one or more profiles is continuously low across models, it may indicate that the profile(s) contain one or more outlier participants who have low probabilities of belonging to any of the profiles. If average latent class probabilities were low for one or more profiles across multiple models, data would have been plotted and visually inspected and individual profile probability values for each participant would have been examined. Average latent class probabilities, however, were not consistently low across multiple models. Additionally, consistent with previous work (Hirschi & Valero, 2017), prior to conducting analyses, Mahalanobis distances and associated p values for each participant were generated in Mplus and participants with p values $< .001$ would have been considered outliers and removed. All Mahalanobis p values were greater than .001 and no outliers were removed prior to conducting analyses.

The profiles that emerged from each of the final models retained were graphed, visually inspected, and categorized as either agreement profiles (i.e., mothers and fathers report similar levels of the construct), disagreement profiles with mothers giving the higher rating, or disagreement profiles with fathers giving the higher rating.

RQ 2: Parent Agreement Across Child-, Couple-, and Family-Level Variables

When conducting latent profile analyses in Mplus, a variable is generated representing the profile that each couple belongs to. Consequently, four new variables were generated; one representing the couples' internalizing behaviors profile membership, one representing their externalizing behaviors profile membership, one representing their relationship satisfaction profile membership, and one representing their family environment profile membership. These four variables were used to address research question two.

To examine patterns of parent agreement/disagreement across child-level (i.e., child internalizing and externalizing behaviors), couple-level (i.e., parent relationship satisfaction), and family-level (i.e., family environment) variables, two latent class analyses were conducted. Both latent class analyses used parent relationship satisfaction and family environment profile membership variables as indicator variables, but one analysis used child internalizing behaviors profile membership variable as the child-level variable and the other used child externalizing behavior profile membership variable as the child-level indicator variable. For each analysis the three variables were entered into Mplus as indicator variables. Latent class analysis (LCA) is conceptually identical to LPA; however, LCA uses categorical indicator variables. The groups of participants that emerge from LCA are termed classes while the groups that emerge from LPA are termed profiles. Emerging classes from each analysis represented the couple's patterns of profile membership across child internalizing or externalizing symptoms, relationship satisfaction, and family environment profiles. For example, Class 1 may represent participants who are in Profile 1 on child internalizing behaviors, Profile 2 on relationship satisfaction and

Profile 1 on family environment ratings. If all three of these profiles are classified as agreement profiles, we can conclude that the couples in Class 1 agreed about all three constructs.

RQ 3: Correlates of Profile Membership

To determine whether child sex, age, or autism symptoms, or parent depressive symptoms or BAP, associate with child internalizing and externalizing symptom, parent relationship satisfaction, or family environment profile membership (i.e., profiles generated from Research Question 1) the three-step BCH (Bolck, Croon, and Hagenaars) method outlined in Asparouhov and Muthen (2020) was utilized in Mplus to estimate a model examining associations between profile membership and child sex, age, and autism symptom severity and mother and father depressive symptoms. There are several methods of examining associations between profile membership and other variables within the Mplus software. The proposed method was chosen because of the ability to estimate associations with both continuous and categorical variables. In the first step, the final model retained is re-run with the inclusion of an additional command prompting Mplus to create a new data file including a variable representing each participant's profile membership probability value. Next the new file with the additional variable imported into Mplus and replaces the old file. Finally, the new file is used to estimate mean-level differences between profiles in levels of mother depressive symptoms, father depressive symptoms, autism symptoms and child age, and differences between profiles in number of parents of autistic girls compared to autistic boys.

When covariates are added into the model, they can influence the profile membership such that the profile that each participant is assigned is now influenced not only by the selected indicator variables, but also by the covariates in the model. This can cause fluctuations in individual and average profile probability values compared to the model without covariates. If these fluctuations cause the model with the covariates to be significantly different than the model without covariates, the model may fail to converge. If the model does not fail to converge, but still has significant fluctuations in profile probability values, a note will be generated in the Mplus output. The three-step BCH method is designed to reduce profile fluctuations. Originally I planned to use the three-step BCH method to examine associations between profile membership and covariates and planned that if the model fails to converge (see Asparouhov & Muthen, 2020), a variable representing each couple's profile membership would be exported from Mplus and imported into SPSS and post-hoc analyses would be conducted in SPSS with chi-square analyses examining differences in child gender across profiles and one-way ANOVA analyses examining differences in child age, autism symptom severity, and mother and father depressive symptoms and BAP. Another method of examining covariates in Mplus was used and is described in the results section.

Results

Assumptions and Descriptive Statistics

Variables were inspected in SPSS to ensure they met assumptions of normality and multicollinearity. All variables were normally distributed (skewness $\leq |1.78|$, kurtosis $\leq |2.47|$). Multicollinearity was assessed using the variable inflation statistic (VIF) and all values were $\leq$ 3.50 indicating that they did not violate the assumption of multicollinearity. Data were also inspected for multivariate outliers using Mahalanobis distance *p* values and all *p* values were non-significant (*p*s > .05), indicating that no outliers were present. An outlier was, however, identified when conducting latent profile analyses for parent perception of child externalizing behaviors (see Research Question 1, Mother and Father Perception of Child Externalizing

Behaviors for full description) and was removed from all analyses using the perception of child externalizing behaviors variable.

Analysis of participants' demographic information revealed that most mothers and fathers were White, had at least some college education, and had an annual family income over $100,000 (see Table 1). Correlations between all study variables are reported in Table 2 and means and standard deviations for study variables are reported in Table 3.

Table 1

Mother and Father Race/Ethnicity, Education, and Income

Variable	Family	Mothers	Fathers
Race/Ethnicity			
White	--	73.50%	76.10%
Asian	--	4.30%	4.30%
Black	--	1.7%	4.30%
Hispanic	--	14.50%	12.80%
Native American	--	0.90%	1.70%
Multi	--	5.10%	0.90%
Education			
Less than high school	--	0.90%	0.00%
Some high school	--	1.70%	1.70%
High school diploma/GED	--	6.80%	6.00%
Technical/vocational degree	--	3.40%	6.00%
Some college	--	22.20%	24.80%
College degree	--	46.20%	41.00%
Post college degree	--	18.80%	20.50%
Household Income			
< $50,000	13.1%	--	--
$50,000 - $60,000	5.2%	--	--
$60,000 - $80,000	13.0%	--	--
$80,000 - $100,000	15.7%	--	--
$100,000 - $150,000	27.8%	--	--
> $150,000	25.2%	--	--

Table 2

Bivariate Correlations between Study Variables

		Age	Autism Symptom Severity	BAP		Depressive Symptoms		Child Internal. Behaviors		Child External. Behaviors		Couple Satisfaction		Family Environment	
		Child	Child	M	F	M	F	M	F	M	F	M	F	M	F
Age	Child	--													
Autism Symptom Severity	Child	**-.22***													
BAP	M	-0.08	0.11												
	F	-0.07	-0.14	0.14											
Depressive Symptoms	M	-0.01	0.08	**.25****	**.20***										
	F	-0.14	-0.01	-0.02	**.25****	**.29****									
Child Internal. Behaviors	M	0.05	-0.01	**.25****	0.11	**.40****	0.17								
	F	0.01	-0.12	0.07	0.06	**.22***	**.29****	**.48****							
Child External. Behaviors	M	-0.08	0.11	0.15	0.05	**.33****	0.07	**.54****	**.27****						
	F	-0.12	0.01	0.17	0.06	**.29****	**.23***	**.31****	**.54****	**.70****					
Couple Satisfaction	M	**.18***	0.03	0.04	-0.11	-0.12	-0.11	0.01	0.04	-0.18	**-.27****				
	F	0.09	0.10	0.03	-0.16	-0.16	**-.37****	0.05	-0.13	-0.11	**-.33****	**.63****			
Family Environment	M	-0.01	-0.14	-0.14	-0.12	**-.42****	-0.04	**-.23***	-0.17	**-.50****	**-.47****	**.62****	**.33****		
	F	-0.06	0.06	0.09	**-.20***	**-.31****	**-.43****	-0.16	**-.35****	**-.32****	**-.48****	**.36****	**.64****	**.38****	--

Note. Bold denotes a significant correlation. *p< .05; **p < .01; M = mother; F = father; BAP = Broad autism phenotype.

Table 3

Means and Standard Errors of Study Variables

Variable	Child *M (SE)*	Mother *M (SE)*	Father *M (SE)*
Autism Symptom Severity	11.94 (4.34)	--	--
Broad Autism Phenotype	--	2.74 (.64)	3.06 (.65)
Depressive Symptoms	--	42.85 (11.75)	39.91 (10.65)
Perception of Child Internalizing Behaviors	--	15.41 (9.07)	14.46 (7.64)
Perception of Child Externalizing Behaviors	--	12.54 (9.65)	12.63 (8.88)
Couple Satisfaction	--	62.64 (15.93)	61.78 (15.92)
Perception of Family Environment	--	9.94 (4.22)	9.48 (4.93)

Research Question 1: Latent Profile Analysis

Child Internalizing Behaviors

In order to determine the number of profiles of parent perception of their child's internalizing behaviors, models were estimated in an iterative manner with an increasing number of profiles. For each model estimated, model fit statistics were compared to those of the model with one less profile. Henceforth, when referring to different models, the model number represents the number of profiles or classes in the model (e.g., Model 1 = a model with one profile or class). For mother and father perception of their child's internalizing behaviors, model fit statistics produced support for retention of multiple models (i.e., Models 3, 4, and 5; see Table 4). All three of those models had acceptable profile probability values, but had non-significant LMR *p* values indicating that they were not significantly better than the model with k – 1 profiles. When compared to Model 3, Model 4 had superior AIC, SABIC, and entropy values, but had a less superior BIC value. Overall, Model 4 was chosen as superior to Model 3. When compared to Model 4, Model 5 had superior AIC, SABIC, and entropy values, but had a less superior BIC value. Model 5, however, was not retained as the final model because the smallest profile had less than 5% of the sample and was similar in characteristics to another profile in the model, which indicates that the smallest profile was actually a subset of a larger profile.

Table 4

Model Fit Values for Mother and Father Report of Child Internalizing Behaviors

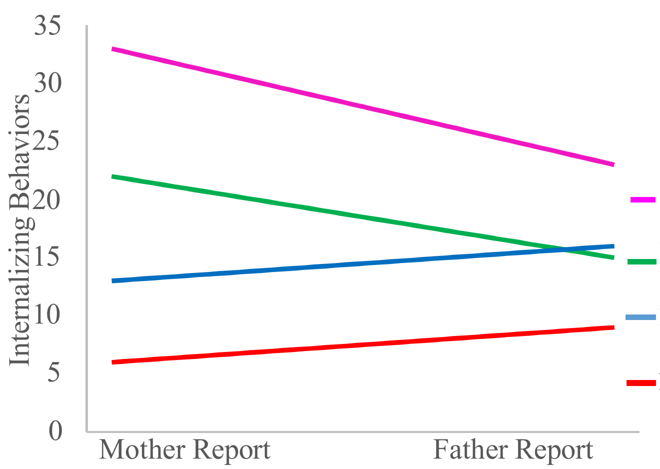
Number of Profiles	AIC	BIC	SABIC	Entropy	LMR *p* value	Smallest profile %	Profile Probabilities				
							1	2	3	4	5
1	1648.61	1659.62	1646.98	--	--	100	1.00				
2	1628.38	1647.66	1625.53	0.68	0.219	20.2	0.92	0.85			
3	1621.87	1649.41	1617.80	0.73	0.198	11.1	0.88	0.89	0.85		
4	1617.16	1652.95	1611.86	0.78	0.275	8.3	0.89	0.90	0.82	0.92	
5	1616.81	1660.86	1610.29	0.83	0.299	1.8	0.92	0.87	0.89	0.92	0.94

Note. Bold profile number represents the final model. Superior model fit was indicated by AIC, BIC, and SABIC values < k - 1, and significant LMR *p* values. Acceptable entropy values are > .70 and probability values are > .80.

Model 4, the final model, contains four profiles. Parent scores ranged from 0 to 40 (M = 14.93, SD = 8.33). To aid the reader in differentiating between profiles, profiles were assigned descriptive names. Names of profiles characterized by parent agreement begin with "agreement" and names of profiles characterized by disagreement begin with a description of the direction of the disagreement (e.g., "mother higher"). In instances where multiple agreement or multiple disagreement profiles emerged, profile names contain a description of where the profile fits in relation either to the sample average or in relation to the other profiles. In Profile 1 (33.4% of sample), both mothers and fathers rated child internalizing behaviors as below the sample average, but mothers rated internalizing behaviors as slightly lower than fathers did. This was characterized as an agreement profile with parents rating internalizing behavior low and is henceforth referred to as “agreement, low.” In Profile 2 (29.7% of sample), mothers rated child behavior as slightly below average and fathers rated behavior as slightly above average. This was characterized as an agreement profile with parents rating behavior near the average and is referred to as “agreement, average.” Profiles 3 and 4 were both characterized as disagreement profiles. In Profiles 3 (28.6% of sample) and 4 (8.3% of sample), mothers rated child internalizing behaviors as higher than fathers and both parents rated behavior higher than the sample average. In Profile 4, both mother and father scores were higher than mothers and fathers of Profile 3. Profile 3 was labeled as “mother higher, above average” and Profile 4 as “mother higher, high.” Overall, two agreement profiles and two disagreement profiles emerged. Follow-up paired samples *t*-tests examining differences between mother and father ratings of child internalizing behaviors were conducting separately for each profile. Each *t*-test found significant differences between mother and father rating of child internalizing behaviors but effect sizes for the agreement profiles were small – medium and effect sizes for disagreement profiles were large (see Figure 1 for values).

Figure 1

Profiles of Mother and Father Ratings of Child Internalizing Behavior



Sample %	Mother *M (SE)*	Father *M (SE)*	*t(df)*	*p*	*d*
Profile 3 (28.6%)	22.64 (1.41)	15.56 (1.92)	6.06(33)	<.01	1.04
Profile 2 (29.7%)	13.41 (1.06)	16.25 (1.56)	2.52(32)	.02	.43
Profile 1 (33.4%)	6.41 (0.77)	9.43 (1.03)	4.09(38)	<.01	.65

Child Externalizing Behaviors

In order to determine the number of profiles of parent perception of their child's externalizing behaviors, models were estimated in an iterative manner with an increasing number of profiles. For each model estimated, model fit statistics were compared to those of the model with one less profile. For mother and father perception of their child's externalizing behaviors, model fit statistics produced support for retention of multiple models (i.e., Models 3, 4, and 5). All three models had acceptable profile probability values. When compared to Model 3, Model 4 had superior AIC, BIC, and SABIC values, but had a lower entropy value. Both models had a non-significant LMR *p* value, indicating that neither model was superior to a model with k –1 profiles. Overall, Model 4 was chosen as superior to Model 3 because of its superior AIC, BIC, and SABIC values. When compared to Model 4, Model 5 had superior AIC, SABIC, and entropy values, but had a less superior BIC value. Model 5 also had a significant LMR *p* value indicating that it was significantly superior to Model 4. Model 5, however, contained a profile with only one participant. This profile's characteristics were dissimilar to all other profiles. Inclusion of outliers can result in profiles with only a few cases (Spurk et al., 2020). Although the multivariate Mahalanobis exam performed before conducting analyses did not identify outliers (ps > .001), because this participant was placed in a profile with no other participants and because their Mahalanobis score was just above the cutoff ($p = .0014$) this participant appeared to be an outlier and was removed from analyses utilizing parent perception of externalizing behavior variables. Analyses were conducted with the outlier removed and results are reported in Table 5. When the outlier was excluded, model fit statistics supported a 4 profile model as all values were superior for the 4 profile model than for the 3 and 5 profile models.

Table 5

Model Fit Values for Mother and Father Report of Child Externalizing Behaviors

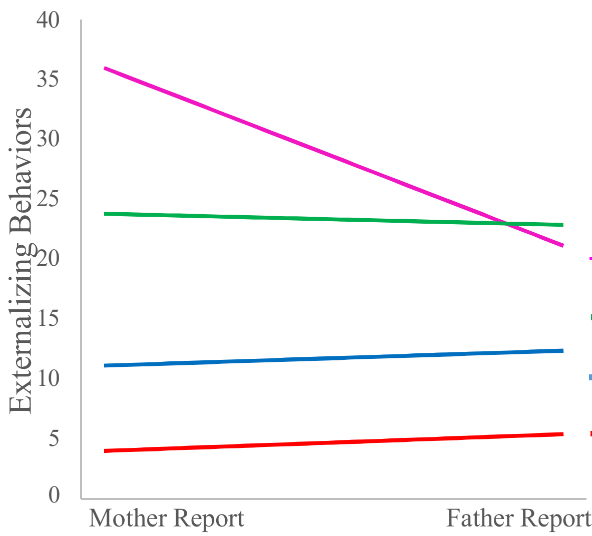
Number of Profiles	AIC	BIC	SABIC	Entropy	LMR *p* value	Smallest profile %	Profile Probabilities				
							1	2	3	4	5
1	1668.54	1679.55	1666.91	--	--	100	1.00				
2	1586.30	1605.58	1583.45	0.91	> .001	22.4	0.97	0.97			
3	1581.57	1609.11	1577.50	0.70	.470	20.6	0.78	0.87	0.95		
4	1571.40	1607.19	1566.10	0.83	.027	4.3	0.94	0.97	0.90	0.89	
5	1578.12	1622.17	1571.60	0.71	.683	0.0	0.00	0.80	0.84	0.92	0.93

Note. Bold profile number represents the final model. Superior model fit was indicated by AIC, BIC, and SABIC values < k - 1, and significant LMR *p* values. Acceptable entropy values are > .70 and probability values are > .80.

Model 4, the final model, contains four profiles. Parent scores ranged from 0 to 44 (*M* = 12.56, *SD* = 9.20). Profiles 1, 2, and 3 were characterized as agreement profiles. In Profiles 1 and 2, both parents rated behavior below the sample average and in Profile 3, both parents rated behavior above the sample average. In Profile 1 (33.0% of sample), both mothers and fathers rated child externalizing behavior lowest. Profile 1 was labeled as “agreement, lowest.” In Profile 2 (42.9% of sample) mothers and fathers rated child externalizing behaviors as below the sample average, but higher than mothers and fathers in Profile 1. Profile 2 was labeled as “agreement, below average.” In Profile 3 (18.9% of sample), mothers and fathers rated child externalizing behavior above the sample average. Profile 3 was labeled as “agreement, above average.” Profile 4 was a disagreement profile (4.3% of sample) with mothers rating child externalizing behavior as highest and fathers rating child externalizing behavior as slightly lower than the fathers in Profile 3. Profile 4 was labeled as "mother higher". Follow-up paired samples *t*-tests examining differences between mother and father ratings of child externalizing behaviors were conducting separately for each profile. Mother and father's scores did not differ significantly for any of the agreement profiles, but did differ significantly for the single disagreement profile (see Figure 2 for values).

Figure 2

Profiles of Mother and Father Ratings of Child Externalizing Behavior



Sample %	Mother *M (SE)*	Father *M (SE)*	*t(df)*	*p*	*d*
Profile 4 (4.3%)	35.98 (2.01)	21.13 (2.14)	5.49(4)	<.05	2.46
Profile 3 (18.9%)	23.76 (1.87)	22.87 (1.87)	.547(21)	.29	.12
Profile 2 (43.9%)	11.12 (0.68)	12.37 (0.97)	1.58(50)	.12	.22
Profile 1 (32.7%)	4.00 (0.77)	5.41 (0.76)	1.70(36)	.10	.28

Couple Satisfaction

In order to determine the number of profiles of parent couple satisfaction, models were estimated in an iterative manner with an increasing number of profiles. For each model estimated, model fit statistics were compared to those of the model with one less profile. For mother and father couple satisfaction, model fit statistics produced support for Model 4. All models except Model 2 had non-significant LMR *p* values. When compared to Model 3, Model 4 had superior AIC, BIC, SABIC, and entropy values. Model 4 was chosen as superior to Model 3. When compared to Model 4, model 5 had a superior SABIC value, but had inferior AIC, BIC, and entropy values. Model 4 was chosen as superior to model 5 and was retained as the final model.

Table 6

Model Fit Values for Models of Mother and Father Report of Couple Satisfaction

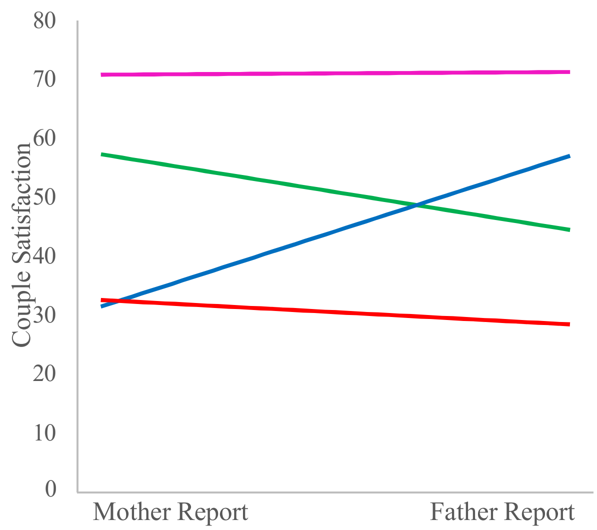
Number of Profiles	AIC	BIC	SABIC	Entropy	LMR *p* value	Smallest profile %	Profile Probabilities				
							1	2	3	4	5
1	1949.64	1960.65	1948.01	--	--	100	1.00				
2	1870.64	1889.91	1867.78	0.89	.003	26.6	0.94	0.98			
3	1850.92	1878.46	1846.85	0.87	.183	11.0	0.93	0.97	0.88		
4	1834.95	1870.75	1829.66	0.92	.187	7.0	0.91	0.87	0.94	0.99	
5	1835.14	1879.19	1828.62	0.89	.599	1.9	0.99	0.88	0.93	0.78	0.96

Note. Bold profile number represents the final model. Superior model fit was indicated by AIC, BIC, and SABIC values < k - 1, and significant LMR *p* values. Acceptable entropy values are > .70 and probability values are > .80.

Model 4, the final model, contains four profiles. CSI-16 ranged from 8 – 81 and scores below 51.5 are indicative of notable relationship dissatisfaction. The sample average was 62.21 (*SD* = 15.81). Profile 1 (7.1% of sample) was an agreement profile with both mothers and fathers reporting below the satisfaction cutoff value. Profile 1 was assigned the label “agreement, low.” Profile 2 (7.0% of sample) was a disagreement profile with mothers reporting below and fathers reporting above the satisfaction cutoff value. Profile 2 was referred to as “father higher.” Profile 3 (20.5% of sample) was a disagreement profile with mothers reporting above and fathers reporting below the satisfaction cutoff value. Profile 3 was labeled “mother higher.” Profile 4 (65.3% of sample) was an agreement profile with both parents reporting satisfaction levels above the satisfaction cutoff value and above mothers and fathers in all other profiles. Profile 4 was labeled as “agreement, high”. Follow- up paired samples *t*-tests examining differences between mother and father ratings of couple satisfaction were conducting separately for each profile. Results revealed significant differences between mothers' and fathers' scores in the disagreement profiles and no differences between parents' scores in the agreement profiles (see Figure 3 for values).

Figure 3

Profiles of Mother and Father Ratings of Couple Relationship Satisfaction



Sample %	Mother *M (SE)*	Father *M (SE)*	*t(df)*	*p*	*d*
Profile 4 (65.3%)	70.94 (0.98)	71.34 (0.78)	.41(75)	.68	.05
Profile 3 (20.8%)	57.36 (3.06)	44.50 (3.22)	4.92(23)	<.01	1.01
Profile 2 (6.9%)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Profile 1 (7.0%)	32.63 (6.49)	28.47 (2.43)	.84(7)	.43	.30

Family Environment

In order to determine the number of profiles of parent perception of the family environment, models were estimated in an iterative manner with an increasing number of profiles. For each model estimated, model fit statistics were compared to those of the model with one less profile. For mother and father couple satisfaction, model fit statistics produced support for Models 3 and 4. Both Models 3 and 4 had superior AIC, SABIC, and entropy values and significant LMR *p* values. Both models had inferior BIC values. The profiles of Model 3 were compared to those of Model 4. In Model 3, Profile 3 contained 71.4% of the sample and appeared to be an agreement profile. In Model 4, that agreement profile had split into two separate profiles, one disagreement profile with mothers rating the family environment as higher

(40.6% of sample) and one disagreement profile with fathers rating the family environment as higher (35.6% of sample). Because it appears that two separate profiles were combined in Model 3, Model 4 was retained as the final model.

Table 7

Model Fit Values for Models of Mother and Father Report of the Family Environment

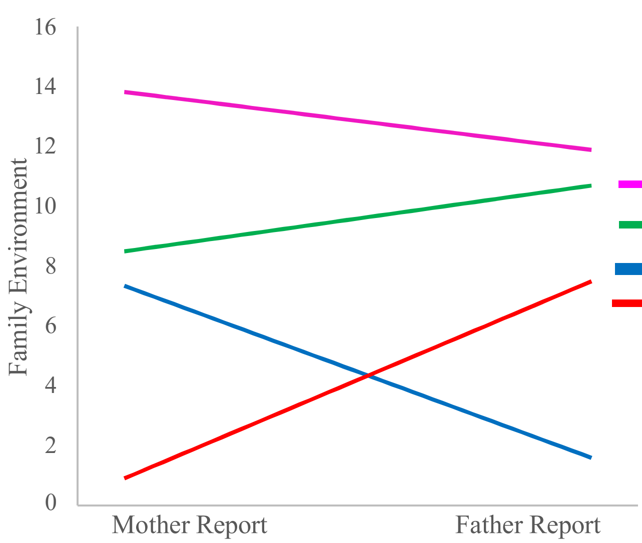
Number of Profiles	AIC	BIC	SABIC	Entropy	LMR p value	Smallest Profile %	Profile Probabilities				
							1	2	3	4	5
1	1368.68	1379.69	1367.05	--	--	100	1.00				
2	1343.91	1363.19	1341.06	0.74	.077	25.0	0.90	0.93			
3	1339.59	1367.13	1335.52	0.80	.025	7.6	0.84	0.88	0.93		
4	1332.23	1368.03	1326.94	0.88	.022	7.6	0.91	0.91	0.93	0.84	
5	1335.57	1379.63	1329.06	0.77	.691	6.1	0.91	0.93	0.86	0.69	0.85

Note. Bold profile number represents the final model. Superior model fit was indicated by AIC, BIC, and SABIC values < k - 1, and significant LMR p values. Acceptable entropy values are > .70 and probability values are > .80.

Model 4, the final model, contains four profiles. Scores ranged from -7 to 18 (M = 9.72, SD = 4.57). Profile 1 (7.3% of sample) was a disagreement profile with mothers reporting low and fathers reporting slightly below the sample average quality of family environment. Profile 1 was labeled as "father higher, below average." Profile 2 (16.5% of sample) was a disagreement profile with mothers reporting slightly below sample average and fathers reporting low quality of family environment. Profile 2 was referred to as "mother higher, below average." Similar to Profiles 1 and 2, Profiles 3 and 4 are disagreement profiles. However, there was a markedly smaller degree of disagreement (e.g., distance between mother and father scores) in Profiles 3 and 4. Profile 3 (35.6% of sample) was a disagreement profile with mothers reporting slightly below sample average and fathers reporting slightly above sample average quality of family environment. Profile 3 was referred to as “father slightly higher, near average.” Profile 4 (40.6% of sample) was a disagreement profile with mothers and fathers both reporting above average quality of family environment but mothers reporting higher than fathers. Profile 4 was labeled as “mother slightly higher, above average.” Follow- up paired samples *t*-tests examining differences between mother and father ratings of the family environment were conducting separately for each profile. Results revealed significant differences between mother and father report in all four profiles with large effect sizes in Profiles 1 and 2 and medium effect sizes in Profiles 3 and 4 (see Figure 4 for values).

Figure 4

Profiles of Mother and Father Ratings of the Quality of the Family Environment



Sample %	Mother *M (SE)*	Father *M (SE)*	*t(df)*	*p*	*d*
Profile 4 (39.6%)	13.83 (0.42)	11.89 (0.56)	3.79(45)	<.01	.55
Profile 3 (37.1%)	8.50 (0.49)	10.79 (0.68)	3.86(42)	<.01	.59
Profile 2 (15.5%)	7.35 (0.53)	1.6 (1.11)	6.93(17)	<.01	1.63
Profile 1 (7.8%)	0.91 (0.93)	7.46 (1.04)	4.87(8)	<.01	1.62

Research Question 2: Patterns of Profiles Across Constructs

Child Internalizing Behaviors, Couple Satisfaction, Family Environment

In Research Question 1, each latent profile analysis yielded four profiles for each construct (i.e., perception of child internalizing behaviors, perception of child externalizing behaviors, couple relationship satisfaction, and perception of the family environment) and a variable was saved for each construct representing the couple's profile membership. Profile membership variables for perception of child internalizing behaviors, couple relationship satisfaction, and perception of the family environment were entered into a latent class analysis as indicator variables. Models were estimated in an iterative manner with an increasing number of profiles. For each model estimated, model fit statistics were compared to those of the model with one less profile. Model fit statistics supported Model 2. Model 2 had superior AIC, BIC, and SABIC values than Model 1 and Model 3. It did however have a less superior entropy value than Model 3. Both Model 2 and 3 had non-significant LMR p values. Overall, Model 2 was chosen as the final model.

Table 8

Model Fit Values for Models of Profile Membership Across Perception of Child Internalizing Behaviors, Couple Satisfaction, and Perception of the Family Environment

Number of Classes	AIC	BIC	SABIC	Entropy	LMR *p* value	Smallest class %	Profile Probabilities		
							1	2	3
1	824.94	849.80	821.35	--	--	100	1.00		
2	795.15	847.63	787.57	0.83	.251	31.6	0.90	0.97	
3	801.84	881.94	790.27	0.89	.998	9.4	0.95	1.00	0.94

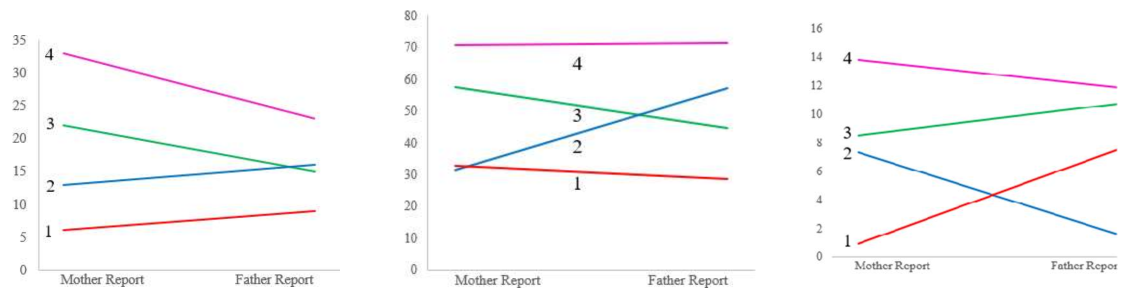
Note. Bolded class number represents the final model chosen. Superior model fit was indicated by AIC, BIC, and SABIC values < k - 1, and significant LMR *p* values. Acceptable entropy values are > .70 and probability values are > .80.

In Model 2, Class 1 contained 32% of the sample. For parent perception of internalizing behaviors, participants in Class 1 had the highest probability of coming from Profile 2 (agreement, average), followed by Profiles 3 (mother higher, above average) and 1 (agreement, low), and had the lowest probability of coming from Profile 4 (mother higher, high). Probability values for each profile, however, were similar (i.e. ranging from .16 to .30). Consequently, participants in Class 1 had a similar likelihood of coming from any one of the four profiles. For couple satisfaction, participants in Class 1 had the highest probability of coming from Profile 3 (mother higher), followed by Profiles 2 (father higher) and 1 (agreement, low). Participants had the lowest probability (P = .13) of coming from Profile 4 (agreement, high) despite Profile 4 having the majority of the sample (65.3% of sample). Overall, couples in Class 1 disagreed about their satisfaction or agreed about having low satisfaction. For perception of the family environment, participants in Class 1 had the highest probability of coming from Profile 2 (mother higher, below average), followed by Profiles 3 (father higher, near average) and 1 (father slightly higher, below average). Participants had no probability ($p < 0.001$) of coming from Profile 4 (mother slightly higher, above average) despite Profile 4 having the most participants compared to the other profiles (40.6% of sample). Overall, participants in Class 1 were characterized by higher levels of disagreement and lower perceptions of the quality of the family environment. In summary, Class 1 was characterized by discrepant and low couple satisfaction and perceptions of the family environment.

Class 2 contained 68% of the sample. For parent perception of child internalizing behaviors, participants had the highest probability of coming from Profile 1 ($P = .36$; agreement, low) followed by Profiles 3 ($P = .31$; mother higher, above average) and 2 ($P = .29$; agreement, average) and had the lowest probability of coming from Profile 4 ($P = .08$; mother higher, high). Participants in Class 2 had roughly equal chance of coming from internalizing behaviors Profiles 1 – 3 (i.e., *P*s range from .29 - .36), but had little chance of coming from Profile 4. For couple satisfaction, participants had the highest probability of coming from Profile 4 (agreement, high) followed by Profile 3 (mother higher) and had no probability of coming from Profiles 1 (agreement, low) or 2 (mother higher). For perception of the family environment, participants had the highest probability of coming from Profile 4 (mother slightly higher, above average), followed by Profile 3 (father slightly higher, near average). Participants had nearly no probability of coming from Profile 2 ($P = .03$; mother higher, below average) and had no probability of coming from Profile 1 (mother slightly higher, above average). Overall, Class 2 was characterized by agreement and high ratings of couple satisfaction and quality of the family environment.

Figure 5

Classes of Profile Membership across Perception of Child Internalizing Behaviors, Couple Satisfaction and Perception of the Family Environment



	Perception of internalizing behaviors		Couple satisfaction		Perception of family environment	
	Profile no. (% of sample in profile)	Prob.	Profile no. (% of sample in profile)	Prob.	Profile no. (% of sample in profile)	Prob .
Class 1 (32% of sample)	4 (8.3%)	0.16	4 (65.3%)	0.13	4 (40.6%)	0.00
	3 (28.6%)	0.26	3 (20.6%)	0.43	3 (35.6%)	0.31
	2 (29.7%)	0.30	2 (7.0%)	0.23	2 (18.5%)	0.51
	1 (33.4%)	0.28	1 (7.1%)	0.23	1 (7.3%)	0.19
Class 2 (68% of sample)	4 (8.3%)	0.04	4 (65.3%)	0.89	4 (40.6%)	0.57
	3 (28.6%)	0.31	3 (20.6%)	0.11	3 (35.6%)	0.40
	2 (29.7%)	0.29	2 (7.0%)	0.00	2 (18.5%)	0.00
	1 (33.4%)	0.36	1 (7.1%)	0.00	1 (7.3%)	0.03

Note. Prob. = probability that a participant in this class came from this profile.

Child Externalizing Behaviors, Couple Satisfaction, Family Environment

In research question 1, each latent profile analysis yielded four profiles for each construct (i.e., perception of child internalizing behaviors, perception of child externalizing behaviors, couple relationship satisfaction, and perception of the family environment) and a variable was saved for each construct representing the couple's profile membership. Profile membership variables for perception of child externalizing behaviors, couple relationship satisfaction, and perception of the family environment were entered into a latent class analysis as indicator variables. Model fit statistics supported both Model 2 and Model 3. Compared to Model 3, Model 2 had superior AIC and BIC values. Model 2 also had a significant LMR *p* value while Model 3 did not. The SABIC value and entropy value was superior in Model 3 though. Overall, Model 2 was chosen as the final model.

Table 9

Model Fit Values for Models of Profile Membership Across Perception of Externalizing Behavior, Couple Satisfaction, and Perception of the Family Environment

Number of Classes	AIC	BIC	SABIC	Entropy	LMR *p* value	Smallest class %	Profile Probabilities		
							1	2	3
1	797.98	822.84	794.39	--	--	100	1.00		
2	745.112	797.60	737.54	0.82	.035	31.6	0.90	0.97	
3	745.48	825.59	733.92	0.96	.143	21.3	0.99	0.99	0.95

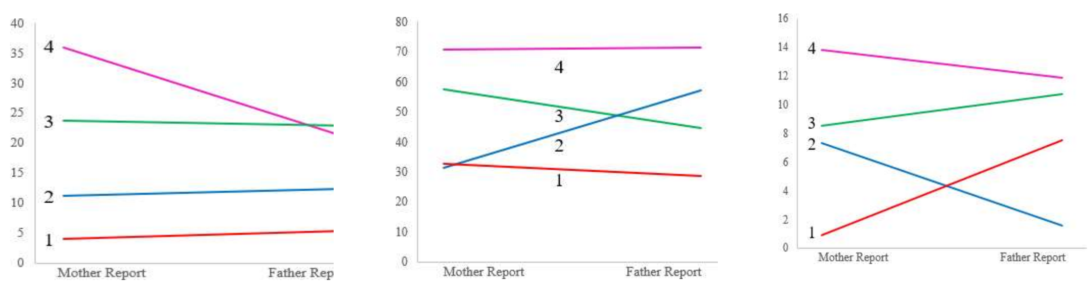
Note. Bolded class number represents the final model chosen. Superior model fit was indicated by AIC, BIC, and SABIC values < k - 1, and significant LMR *p* values. Acceptable entropy values are > .70 and probability values are > .80.

For Model 2, Class 1 contained 58.1% of the participants. For perception of child externalizing behaviors, participants had the highest probability of coming from Profile 2 (agreement, below average), followed by Profile 1 (agreement, lowest), and had no probability of coming from Profiles 3 (agreement, above average) or 4 (mother higher). Consequently, all participants in Class 2 came from Profiles 1 or 2. Overall, Class 1 was characterized by agreement regarding low externalizing behaviors. For couple satisfaction, participants had the highest probability of coming from Profile 4 (agreement, high), followed by Profile 3 (mother higher), and no probability of coming from Profiles 1 (agreement, low) or 2 (father higher). Consequently, all participants came from Profiles 3 or 4. Overall, Class 1 was characterized by agreement with high levels of marital satisfaction for both partners. For perception of the family environment, participants had the highest probability of coming from Profile 4 (mother slightly higher, above average), followed by Profile 3 (father slightly higher, near average), and had no probability of coming from Profiles 1 (father higher, below average) or 2 (mother higher, below average). Thus, all participants came from Class 3 or 4. Although all family functioning profiles were disagreement profiles, Profiles 4 and 3 were characterized by a smaller degree of difference between parents' scores and by higher reports of family functioning than Profiles 1 and 2. Overall, Class 1 was characterized by higher reports of family functioning and more agreement regarding family functioning. In summary, Class 1 was characterized by more agreement and more positive reports (e.g., low externalizing behaviors or high marital satisfaction) than Class 2 (described below).

Class 2 contained 41.8% of the participants. In Class 2, for perception of externalizing behaviors, participants had the highest probability of coming from Profile 3 (agreement, above average), followed by Profiles 2 (agreement, below average) and 1 (agreement, lowest), and had the lowest probability of coming from Profile 4 (mother higher). Although participants had the lowest probability of coming from Profile 4 (the only disagreement profile in the model), participants in Profile 4 had a 0% probability of belonging to Class 1. Thus, all couples who disagreed about their child's externalizing behaviors belonged to Class 2. Consequently, overall, Class 2 was characterized by agreement about high levels of externalizing behaviors and disagreement about externalizing behaviors with both parents reporting above average behavior levels. For couple satisfaction, participants had the highest probability of coming from Profile 4 (agreement, high), followed by Profile 3 (mother higher), and had the equally lowest probability of coming from Profiles 2 (father higher) and 1 (agreement, low). Couples in Profiles 1 (agreement, low) and 2 (father higher) had a 0% probability of belonging to Class 2. Thus, all couples in Profiles 1 and 2 belonged to Class 1. Overall, Class 2 was characterized by disagreement regarding satisfaction levels and by below average satisfaction levels. For perception of the family environment, participants had the highest probability of coming from Profile 3 (father slightly higher, near average), followed by Profiles 2 (mother higher, below average) and 1 (father higher, below average), and had no probability of coming from Profile 4 (mother slightly higher, above average). Overall, Class 2 was characterized by disagreement regarding perception of family functioning and lower reports of family functioning. In summary, Class 2 was characterized by more disagreement and more negative reports (e.g., high externalizing behaviors or low marital satisfaction) than Class 1 (described below).

Figure 6

Classes of Profile Membership across Perception of Child Externalizing Behaviors, Couple Satisfaction and Perception of the Family Environment



	Perception of externalizing behaviors		couple satisfaction		Perception of family environment	
	Profile no. (% of sample in profile)	Prob.	Profile no. (% of sample in profile)	Prob.	Profile no. (% of sample in profile)	Prob.
Class 1 (58.1%)	4 (4.3%)	0.00	4 (65.3%)	0.88	4 (40.6%)	0.69
	3 (18.9%)	0.00	3 (20.6%)	0.12	3 (35.6%)	0.31
	2 (43.9%)	0.58	2 (7.0%)	0.00	2 (16.5%)	0.00
	1 (32.7%)	0.42	1 (7.1%)	0.00	1 (7.3%)	0.00
Class 2 (41.8%)	4 (4.3%)	0.10	4 (65.3%)	0.36	4 (40.6%)	0.00
	3 (18.9%)	0.46	3 (20.6%)	0.32	3 (35.6%)	0.45
	2 (43.9%)	0.25	2 (7.0%)	0.16	2 (16.5%)	0.37
	1 (32.7%)	0.19	1 (7.1%)	0.16	1 (7.3%)	0.18

Note. Prob. = probability that a participant in this class came from this profile.

Research Question 3: Correlates of Profile Membership

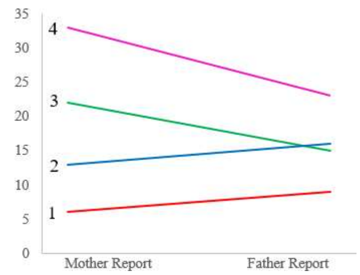
Correlates of profile membership were originally proposed to be examined in Mplus using the three-step BCH method to prevent changing class probabilities (see Analysis Plan). The three-step BCH method was not able to be used due to an error in Mplus. The automatic BCH method was used instead for all continuous variables and the DCAT method was used for the categorical variable as categorical correlates cannot be modeled using the automatic BCH method. The automatic BCH and DCAT methods carry the risk of changing profile probabilities when auxiliary variables are added to the model. When auxiliary variables were added to the model however, profile probabilities did not change for any of the models tested. Continuous values reported below were obtained using the automatic BCH method and categorical values reported below were obtained using the DCAT method.

Parent Perception of Child Internalizing Behaviors

For parent perception of child internalizing behaviors, child age, child gender, child autism symptom severity, Mother and Father BAP, and Father depressive symptoms did not vary across profiles. Mother depressive symptoms were significantly higher in Profiles 3 (mother higher, above average) and 4 (mother higher, high) versus Profile 1 (agreement, low; see Table 9) and in Profile 4 (mother higher, high) versus Profile 2 (agreement, average).

Table 10

Correlates of Profile Membership for Profiles of Mother and Father Perception of Internalizing Behaviors



	Child Age	Child Gender	Child Autism Symptoms	Mother BAP	Father BAP	Mother Depressive Symptoms	Father Depressive Symptoms
Profile	*M (SE)*	Prob. Male *(SE)*	*M (SE)*	*M (SE)*	*M (SE)*	*M (SE)*	*M (SE)*
1	12.95 (0.39)	0.86 (0.06)	12.15 (0.85)	2.68 (0.11)	2.99 (0.10)	38.85 (1.99)	38.43 (1.78)
2	13.06 (0.46)	0.83 (0.08)	12.22 (0.99)	2.59 (0.10)	3.00 (0.14)	42.38 (2.19)	37.60 (2.08)
3	13.25 (0.45)	0.77 (0.10)	11.34 (0.81)	2.83 (0.11)	3.12 (0.14)	44.77 (2.15)	42.48 (2.12)
4	13.41 (0.79)	0.66 (0.26)	12.18 (0.44)	3.23 (0.46)	3.38 (0.24)	54.04 (5.51)	45.33 (4.92)
Comparison	χ^2	χ^2	χ^2	χ^2	χ^2	χ^2	χ^2
Overall	0.48	1.51	0.78	4.59	2.95	**9.80***	5.08
Profile 1 vs. 2	0.03	0.04	0.00	0.32	0.00	1.14	0.08
Profile 1 vs. 3	0.26	0.47	0.48	1.03	0.62	**4.16***	2.20
Profile 1 vs. 4	0.28	0.53	0.00	1.39	2.27	**6.71****	1.74
Profile 2 vs. 3	0.07	0.15	0.40	2.33	0.31	0.52	2.33
Profile 2 vs. 4	0.15	0.43	0.00	1.92	1.86	**3.91***	2.12
Profile 3 vs. 4	0.03	0.11	0.71	0.66	0.79	2.23	0.26

Note. Bolded χ^2 values are have significant *p* values. **p* < .05, ***p* < .01, ****p* < .001.

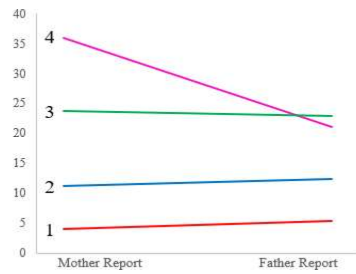
Parent Perception of Child Externalizing Behaviors

For parent perception of child externalizing behaviors, child age, child autism symptom severity, mother and father BAP, and father depressive symptoms did not vary across profiles.

All couples in Profile 4 had boys and the probability of having a boy was significantly higher in Profile 4 compared to Profiles 1, 2, and 3. Mother depressive symptoms were higher in Profiles 3 (agreement, above average) and 4 (mother higher) versus Profile 1 (agreement, lowest), higher in Profile 3 (agreement, above average) versus Profile 2 (agreement, below average), and higher in Profile 4 (mother higher) versus Profiles 2 (agreement, below average).

Table 11

Correlates of Profile Membership for Profiles of Mother and Father Perception of Externalizing Behaviors



	Child Age	Child Gender	Child Autism Symptoms	Mother BAP	Father BAP	Mother Depressive Symptoms	Father Depressive Symptoms
Profile	*M (SE)*	Prob. Male *(SE)*	*M (SE)*	*M (SE)*	*M (SE)*	*M (SE)*	*M (SE)*
1	165.96 (5.44)	0.78 (0.22)	11.25 (0.79)	2.70 (0.08)	3.03 (0.10)	39.69 (1.66)	38.49 (2.02)
2	151.81 (3.82)	0.85 (0.15)	12.39 (0.70)	2.63 (0.08)	3.00 (0.11)	40.90 (1.83)	39.86 (1.50)
3	153.98 (5.46)	0.73 (0.09)	11.75 (0.97)	3.09 (0.21)	3.22 (0.15)	50.55 (3.00)	42.43 (2.79)
4	154.21 (9.99)	1.00 (0.00)	13.45 (1.71)	2.70 (0.23)	3.30 (0.21)	52.45 (3.13)	41.36 (4.57)
Comparison	χ^2	χ^2	χ^2	χ^2	χ^2	χ^2	χ^2
Overall	4.05	**27.72*****	1.74	3.83	2.87	**22.49*****	1.46
Profile 1 vs. 2	3.72	0.28	0.95	0.25	0.02	0.19	0.24
Profile 1 vs. 3	2.43	0.15	0.15	2.94	1.06	**10.08****	1.30
Profile 1 vs. 4	1.06	**6.85****	1.34	0.00	1.39	**12.90*****	0.33
Profile 2 vs. 3	0.10	0.90	0.27	3.79	1.19	**7.22****	0.62
Profile 2 vs. 4	0.05	**4.11***	0.32	0.08	1.58	**10.12****	0.09
Profile 3 vs. 4	0.00	**7.59****	0.70	1.40	0.09	0.18	0.03

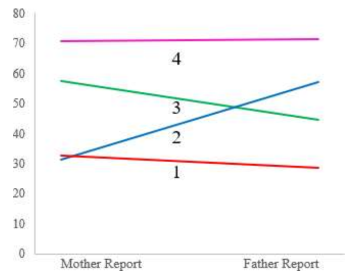
Note. Bolded χ^2 values are have significant *p* values. **p* < .05, ***p* < .01, ****p* < .001.

Parent Perception of Couple Relationship Satisfaction

Child age, child gender, mother BAP, and mother depressive symptoms did not vary across profiles of mother and father couple satisfaction. Child autism symptoms were higher in Profiles 3 (mother higher) and 4 (agreement, high) versus Profile 1 (agreement, low). Father BAP was higher in Profile 2 (father higher) versus Profiles 3 (mother higher) and 4 (agreement, high). Father depressive symptoms were higher in Profile 3 (mother higher) versus Profile 4 (agreement, high).

Table 12

Correlates of Profile Membership for Profiles of Mother and Father Couple Satisfaction



	Child Age	Child Gender	Child Autism Symptoms	Mother BAP	Father BAP	Mother Depressive Symptoms	Father Depressive Symptoms
Profile	*M (SE)*	Prob. Male *(SE)*	*M (SE)*	*M (SE)*	*M (SE)*	*M (SE)*	*M (SE)*
1	12.07 (0.62)	0.83 (0.15)	9.06 (1.08)	2.24 (0.28)	3.23 (0.28)	45.01 (7.03)	44.46 (5.56)
2	12.69 (.98)	0.55 (0.26)	13.09 (2.14)	2.94 (0.24)	3.46 (0.06)	47.85 (4.64)	38.89 (5.75)
3	12.94 (0.51)	0.86 (0.07)	11.97 (0.74)	2.86 (0.13)	3.03 (0.15)	44.74 (2.54)	45.38 (2.68)
4	13.31 (0.25)	0.81 (0.05)	12.11 (0.52)	2.74 (0.07)	3.01 (0.08)	41.49 (1.24)	37.78 (0.98)
comparison	χ^2	χ^2	χ^2	χ^2	χ^2	χ^2	χ^2
overall	3.83	1.36	7.04	4.53	**21.69*****	3.20	**8.42***
Profile 1 vs. 2	0.27	0.88	2.78	3.51^	0.58	0.11	0.47
Profile 1 vs. 3	1.07	0.03	**4.57***	3.77	0.38	0.00	0.02
Profile 1 vs. 4	3.41	0.02	**6.42***	2.95	0.58	0.24	1.39
Profile 2 vs. 3	0.04	1.29	0.21	0.09	**6.16***	0.31	0.94
Profile 2 vs. 4	0.38	1.01	0.19	0.66	**20.52*****	1.74	0.03
Profile 3 vs. 4	0.40	0.33	0.02	0.61	0.01	1.27	**6.86****

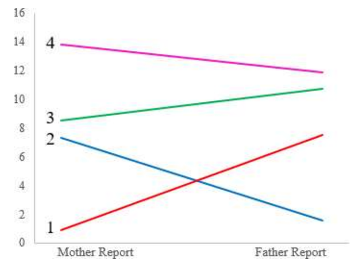
Note. Bolded χ^2 values are have significant *p* values. *$p < .05$, **$p < .01$, ***$p < .001$.

Parent Perception of the Family Environment

Child age and gender did not vary across profiles of mother and father perception of the family environment. Child autism symptoms were higher in Profile 3 (father slightly higher, near average) versus Profiles 2 (mother higher, below average) and 4 (mother slightly higher, above average). Mother BAP was higher in Profile 3 (father slightly higher, near average) versus Profile 4 (mother slightly higher, above average). Father BAP was higher in Profile 1 (father higher, below average) versus Profiles 3 (father slightly higher, near average) and 4 (mother slightly higher above average). Mother depressive symptoms were higher in Profile 1 (father higher, below average) versus Profiles 3 (father slightly higher, near average) and 4 (mother slightly higher, above average), higher in Profiles 2 (mother higher, below average) and 3 (father slightly higher, near average) versus Profile 4 (mother slightly higher, above average). Father depressive symptoms were higher in Profile 2 (mother higher, below average) versus Profile 1 (father higher, below average), 3 (father slightly higher, near average), or 4 (mother slightly higher, above average).

Table 13

Correlates of Profile Membership for Profiles of Mother and Father Perception of the Family Environment



	Child Age	Child Gender	Child Autism Symptoms	Mother BAP	Father BAP	Mother Depressive Symptoms	Father Depressive Symptoms
Profile	*M (SE)*	Prob. Male *(SE)*	*M (SE)*	*M (SE)*	*M (SE)*	*M (SE)*	*M (SE)*
1	14.00 (0.69)	0.88 (0.12)	12.65 (1.62)	2.87 (0.22)	3.41 (0.13)	55.77 (2.86)	34.62 (2.58)
2	12.57 (0.52)	0.79 (0.21)	11.29 (0.79)	2.56 (0.20)	3.05 (0.17)	47.81 (3.63)	51.16 (3.46)
3	12.73 (0.42)	0.77 (0.23)	13.75 (0.79)	2.97 (0.12)	3.06 (0.12)	45.05 (2.18)	38.34 (1.84)
4	13.48 (0.35)	0.84 (0.16)	10.28 (0.67)	2.60 (0.08)	3.01 (0.11)	36.55 (1.33)	37.83 (1.32)
comparison	χ^2	χ^2	χ^2	χ^2	χ^2	χ^2	χ^2
overall	4.50	0.80	**9.98***	6.07	6.49	**45.39*****	**15.45 ****
Profile 1 vs. 2	2.68	0.31	0.55	1.05	2.72	2.83	**14.02*****
Profile 1 vs. 3	2.41	0.63	0.36	0.13	**3.91***	**8.68****	1.32
Profile 1 vs. 4	0.46	0.10	1.83	1.40	**5.48***	**37.26*****	1.22
Profile 2 vs. 3	0.05	0.03	**4.17 ***	2.58	0.00	0.37	**9.51****
Profile 2 vs. 4	2.13	0.14	0.96	0.02	0.04	**8.54****	**13.05*****
Profile 3 vs. 4	1.59	0.36	**9.51****	**5.25***	0.07	**9.98****	0.04

Note. Bolded χ^2 values are have significant p values. *$p < .05$, **$p < .01$, ***$p < .001$.

Discussion

The current study used latent profile analysis to identify patterns of mother and father agreement/disagreement in perception of their autistic child's internalizing and externalizing behaviors, their couple satisfaction, and the quality of their family environment. This study also aimed to identify the extent to which profile membership regarding one construct related to profile membership of the other constructs and aimed to identify correlates of discrepancies. Analyses revealed four distinct profiles of agreement/disagreement for each construct (i.e., child internalizing and externalizing behavior, relationship satisfaction, and the family environment) and revealed two patterns of agreement/disagreement across constructs. Analyses also revealed that levels of child autism symptom severity, parent BAP, and parent depressive symptoms varied across the emerging profiles. The results are described and the implications for research and clinical practice are discussed below.

Profiles and Correlates of Child Internalizing and Externalizing Behavior

This study sought to identify profiles of agreement/disagreement in parents' perception of their child's internalizing and externalizing behaviors, in their couple satisfaction, and in their perception of the family environment and to identify correlates of profile membership. Separate latent profile analyses were conducted for each construct and four profiles emerged for each construct. For perception of child internalizing behaviors, two agreement profiles (i.e., profiles 1 and 2) and two disagreement profiles, with mothers rating internalizing behaviors as higher than fathers (i.e., Profiles 3 and 4), emerged. This is consistent with study hypotheses predicting that at least one agreement profile and one profile with mothers rating behavior higher than fathers would emerge and with prior research finding that mothers tend to report more behavior problems than fathers (Duhig et al., 2000). Collectively, 64% of the sample belonged to an agreement profile which is consistent with the hypothesis that profile membership would be greater for agreement profiles than disagreement profiles. Although parents disagreed, in both disagreement profiles both parents reported more child internalizing behaviors than parents in the agreement profiles. This suggests that disagreement regarding internalizing behaviors may be more likely to occur when internalizing behaviors are higher than when they are lower as when parents agreed about internalizing behaviors, they both reported lower behavior levels. It may be that when internalizing behaviors are higher, both parents are able to detect the internalizing behaviors, but disagree about how severe the symptoms are. This finding is particular concerning as children with higher internalizing symptoms are at higher risk for self-harm and suicide (Soto-Sans et al., 2019) and children with higher internalizing symptoms may be less likely to receive appropriate care if their parents do not agree about the severity of their symptoms. Since mothers were the higher rater in both disagreement profiles, fathers may be less able to identify, or have less opportunity to observe, internalizing behaviors because mothers tend to spend more time with their child (Pakaluk & Price, 2020).

Mother depressive symptoms was the only variable that differed across profiles of perception of child internalizing behavior and mother depressive symptoms were higher in profiles where mothers rated internalizing behaviors as more severe than fathers. There are multiple explanations for these findings. The depression distortion hypothesis would assert that the mothers' depressive symptoms caused them to overrate their child's internalizing symptoms because their own depression distorted their view of their child (Richters, 1992). Alternatively, it is possible that instead of depressive symptoms being the cause of the higher mother ratings, the depressive symptoms are a byproduct of situations where mothers perceive their child's internalizing symptoms as more severe than their husband. Situations where mothers rate internalizing behaviors higher than fathers may be ones where the mother is providing disproportionately more childcare than the father and her depressive symptoms could be the result of the greater burden of childcare or the result of feeling that her husband does not perceive their child in the same way that she does. The depression distortion hypothesis does not consider alternative explanations for the associations between informant discrepancies and depressive symptoms. The most current informant discrepancy theory (i.e., the operations triad model) criticizes the depression distortion hypothesis for assuming that depressive symptoms cause inaccurate rater reports without exploring alternative explanations. Despite this criticism, the operations triad model urges researchers to sidestep examining associations between informant discrepancies and depressive symptoms altogether by designing studies with raters who do not observe the child in the same setting (e.g., teacher only observes the child at school and parent only observes the child at home) and to assume that depression does not distort perception of the child (De Los Reyes et al., 2022). Consequently, neither existing framework has made meaningful efforts to empirically examine why associations between depressive symptoms and parent discrepancies in perception of their child are observed.

Although it was hypothesized that other correlates would be related to profile membership (e.g., child age and autism symptom severity), these hypotheses were not supported. Previous work has not examined correlates of discrepancies between parents regarding their child in families with autistic children, but results are inconsistent with prior work with families with non-autistic children which has suggested that age and child behavior severity related to parent agreement about their child (Duhig et al., 2000; Vassilopoulos et al., 2021). It is possible that non-autistic, but not autistic, children become better able to express their internalizing behaviors as they age and this is why age did not differ between agreement and disagreement profiles. Prior work with non-autistic families finding associations between behavior severity and parent discrepancies in perception of their child (e.g., Vassilopoulos et al., 2021) did not examine parent discrepancies in perception of internalizing behaviors specifically, so it is possible that behavior or autism symptom severity may impact discrepancies in perception of some child characteristics, but not others.

Consistent with hypotheses, profiles emerging for parent perception of their child's externalizing behaviors included three agreement profiles (profiles 1, 2, and 3) and one disagreement profile (Profile 4) with mothers rating externalizing behaviors as higher than fathers. Since the disagreement profile only contained 4.3% of the sample, most parents agreed about their child's externalizing behaviors, which supported the hypothesis that profile membership for agreement profiles would be greater than that of disagreement profiles. More parents disagreed about their child's internalizing behaviors (36.9% of sample) than their externalizing behaviors (4.3% of sample) which is similar to previous research (see Duhig et al., 2000 for meta-analysis). Externalizing behaviors (e.g., aggression) may be easier to identify because they are overt and directly observable compared to internalizing behaviors (e.g., sadness) which may have contributed to the higher rates of agreement in perception of externalizing behaviors compared to internalizing behaviors. Additionally, similar to results for perceptions of internalizing behaviors, the disagreement profile of externalizing behaviors was characterized by high reports of externalizing behavior by both parents which lends support to the conclusion that disagreement may be more likely to occur when behavior is more severe. Since the disagreement profile, however, only contained five participants, this finding should be considered with caution.

For perception of child externalizing behaviors, child gender and mother depressive symptoms varied across profiles. Emerging profiles, however, were all agreement profiles except for Profile 4 which only contained five participants. Since both parents agreed about externalizing behaviors in all profiles but Profile 4, differences between Profiles 1 - 3 in mother depressive symptoms may simply be reflective of actual differences in behavior. For example, mother depressive symptoms increased as shared perception of child externalizing behaviors increased. Although one disagreement profile did emerge, because this profile only contained five participants, the profile lacks adequate power for meaningful comparisons between this profile and the agreement profiles to be made. Additionally, although there were significantly more boys in Profile 4 than the other profiles, this result should also be interpreted with caution because of the small number of participants in the Profile 4.

Profiles and Correlates of Couple Relationship Satisfaction

Profiles identified for parent relationship satisfaction included two agreement profiles and two disagreement profiles. Consistent with study hypotheses, in one disagreement profile mothers rated satisfaction higher and in the other, fathers rated satisfaction higher. Notably as I did not specifically predict that an agreement profile would emerge, the majority of parents belonged to the agreement profile characterized by high satisfaction (i.e., Profile 4; $N = 65.3\%$) which suggests that most parents agree about their satisfaction levels. This result coincides with findings of a meta-analysis examining relationship satisfaction in couples without children or with non-autistic children and conflicts with findings of the two previous studies that have examined correspondence in relationship satisfaction in couples with an autistic child (Jackson et al., 2014; Sim et al., 2016). One of the two studies using parents with autistic children found that mothers were more satisfied than fathers and the other found that fathers were more satisfied than mothers (Sim et al., 2016). Although results of these two past studies are inconsistent with our findings that most couples agreed about their couple satisfaction, they are consistent with our findings of two smaller disagreement profiles, one with mothers rating satisfaction higher and the other with fathers rating satisfaction higher. Much of the previous body of work examining discrepancies between parents has examined group level differences and these studies have produced conflicting findings. Our results suggest that conflicting findings of previous work may be due to analyses used and, within each sample, there may be instances of agreement and instances where either parent is the higher rater. In both disagreement profiles, both parents reported lower satisfaction than the parents in the high satisfaction agreement profile which suggests that couples may be more likely to have discrepant satisfaction levels when mean levels of satisfaction between both partners is lower. This pattern of results is consistent with perception of internalizing and externalizing behavior analyses where disagreement occurred when child behavior was rated as more severe.

For ratings of couple relationship satisfaction, child autism symptom severity, father BAP and father depressive symptoms varied across profiles. Inconsistent with hypotheses, child symptom severity was higher in the profile where parents agreed with high satisfaction compared the profile where parents agreed with low satisfaction. Perhaps challenges associated with raising an autistic child who has more severe autism symptoms brought parents closer to each other and allowed them to bond over their challenging experience. In a past qualitative study, couples reported that raising an autistic child initially strained their marriages, but ultimately lead to deeper relationship intimacy and commitment over time (Hock et al., 2011). Autism symptom severity was also higher in the profile where mothers were more satisfied than fathers compared to the profile where parents agreed with low satisfaction. Since mothers tend to provide more childcare than fathers and this discrepancy increases as autism symptom severity increases (Hartley et al., 2014), it is possible that when symptom severity is higher, mothers are more preoccupied with childcare and spend more time focusing on their child than their marital relationship. Because they are preoccupied with childcare, these mothers may not notice deficiencies in their marital relationship, but such deficiencies may be more apparent to their husbands who are less preoccupied at home with childcare. When autism symptom severity is lower, and disproportionate childcare between mothers and fathers is less severe, perhaps both parents have the bandwidth to recognize problems in their marital relationship. A previous study finding fathers' work-family balance satisfaction decreased as mothers' time spent on childcare increased also concluded that fathers may feel neglected when mothers focus on parenting (Buchanan et al., 2020).

Father, but not mother BAP was higher in the profile where fathers reported more satisfaction than mothers than the profile where mothers reported more satisfaction than fathers and the profile where parents agreed with high satisfaction. Previous work has found that father, but not mother BAP related to his own and his partner's feelings of positive affect during couple problem solving events (Hartley et al., 2019). This coincides with our findings that father, but not mother BAP varied across profiles. However, father BAP impacting both his own and his partner's affect would suggest that both partners should have decreased satisfaction and our findings showed that father BAP was highest in the profile where mothers were less satisfied than fathers. It is possible that when fathers have higher BAP scores, although they also experience more negative affect during problem solving events in addition to their wives (Hartley et al., 2019), they do not associate that negative affect with their satisfaction with their relationship but their wives do. Those with aloof personality traits, which are BAP symptoms, generally do not enjoy social interactions. Fathers with high BAP may associate their negative affect during marital interactions with their general lack of enjoyment of social interactions. Previous work suggests that women may value emotional intimacy more than men (e.g., Gaia, 2002) and it is also possible that BAP symptoms in fathers such as aloofness and rigid adherence to routines may lead their wives to feel less emotionally connected to their husbands and then experience lower relationship satisfaction.

Father, but not mother depressive symptoms varied across couple satisfaction profiles such that fathers had higher depressive symptoms in the profile where they reported lower satisfaction than mothers compared to the profile where parents agreed with high satisfaction. Similar to the logic underlying the depression distortion hypothesis, it is possible that fathers' depressive symptoms lead them to perceive other aspects of their life, such as their marital relationship, more negatively due to their depression symptoms. Alternatively, fathers who feel more depressive symptoms may feel that they need more support from their partner. Because mothers commonly take on the majority of the parenting responsibilities, they may not be able to provide extra support to their depressed husbands, leading the husbands in particular to experience decreased relationship satisfaction. Depressive symptoms have been associated with decreased empathy, especially empathy towards one's children (Salo et al., 2020). It is possible that when fathers experience more depressive symptoms, they are less understanding of child related tasks that take up their partner's time due to decreased empathy for their child, which may lead them to be less satisfied with their relationship. Notably, a parallel finding with mothers was not found such that mother depressive symptoms were not significantly higher in the profile where the mother was less satisfied with the relationship than her husband. Mother, but not father depressive symptoms differed across child internalizing and externalizing behavior profiles. It is possible that mother depressive symptoms were more related to her child's behavior and that is why associations between couple relationship satisfaction profiles and depressive symptoms did not emerge for mothers.

Profiles and Correlates of Perception of the Family Environment

Profiles identified for parent perception of the family environment included two disagreement profiles with mothers rating the quality of the family environment as higher (i.e., Profiles 2 and 4) and two disagreement profiles with fathers rating the quality of the family environment as higher (i.e., profiles 1 & 3). Having at least one disagreement profile with mothers rating higher and at least one with fathers rating higher is consistent with study hypotheses. In two of the disagreement profiles (i.e., 1 &2), the degree of the discrepancy is greater and the reports of the family environment are lower than the other two disagreement profiles (i.e., 3 & 4), which, consistent with results of other study analyses, also suggests that more disagreement occurs when reports are more negative (e.g., more problem behaviors, less satisfaction, and lower quality of the family environment). This is one of the only findings that was consistent across all constructs. For each analysis, different characteristics and correlates of agreement and disagreement emerged. Despite heterogenous findings, disagreement was consistently more prominent when reports were more negative. Identifying aspects of parent discrepancies that are consistent across multiple and diverse constructs (e.g., the child, the couple relationship, and the family environment) is an important first step in understanding parent discrepancies especially because existing theoretical framework (e.g., depression distortion hypothesis and operations triad model) were developed to understand what informant discrepancies imply about child behavior, and do not consider what parent discrepancies imply about the parents themselves or the overall family.

I predicted that the agreement profile(s) would have the largest number of participants followed by disagreement profile(s) with mothers rating higher. Results partially support this hypothesis as no agreement profiles emerged, but more participants belonged to the profiles characterized by a smaller degree of discrepancy than the profiles characterized by a larger degree of discrepancy. Since this is the only analysis where no agreement profiles emerged, parents disagreed most about the quality of the family environment. Family systems theory posits that the family is a complex and nuanced system comprised of all individual family members and all relationships between family members. Characteristics of all family members and all relationships between family members impact the overall family system. Although few studies have examined parent discrepancies in perception of the family environment, through a family systems framework, it makes sense that parents agreed the least about the most complex aspect of the family, its overall functioning. Parents may be least likely to agree about the complex family system than they are to agree about a single relationship between two family members (e.g., their marriage) or about individual family members (e.g., their child). It may be that the more nuanced or complex a construct, the more likely parents are to disagree. Other findings of this study support this conclusion as well as rates of disagreement were highest for perception of family functioning, were similar for couple satisfaction and internalizing behaviors, and were lowest for externalizing behaviors. Although couple satisfaction is arguably more complex than child internalizing behaviors as it involves the relationship between two family members, internalizing behaviors are subtle and may be especially complex in autistic children. Externalizing behaviors though, are the least complex of all constructs examined as they only involve one family member and they are overt and easily observable.

Child autism symptom severity, mother BAP, and both mother and father depressive symptoms varied across profiles. Child autism symptom severity was higher in Profile 3 (i.e., father higher, slight discrepancy) than in Profiles 2 (i.e., mother higher, large discrepancy) and 4 (mother higher, slight discrepancy). Profiles 2 and 4 are profiles where mothers reported better quality family environment than fathers. Results suggest that when autism symptoms are higher, fathers may be more likely to feel that the family environment is more cohesive than mothers. Because mothers provide higher proportions of childcare when child symptoms are higher (Hartley et al., 2014), it is possible that fathers perceive the family environment more positively because they are having to care for their autistic child less. Additionally, mother BAP was higher in Profile 3 (father higher, slight disagreement) than Profile 4 (mother higher, slight disagreement). Mothers' BAP symptoms such as aloof personality and rigidity in preference for routine may lead her to perceive the family environment as more negative because of her increased difficulty in coping with changes in routine and with having to provide constant care and supervision for her child when she may prefer to have more time alone.

A general trend emerged where mother depressive symptoms tended to be higher in profiles where mothers reported less positive family functioning and father depressive symptoms also tended to be higher in profiles where fathers reported less positive family functioning. This is consistent with previous work that has found that parents' perceptions of family functioning is related to their levels of depression (e.g., see Guerrero-Munoz et al., 2020 for meta-analysis) Differences between profiles in parents' depressive symptoms may, in part, simply reflect that their depressive symptoms increase as their own perceptions of their family functioning decreases.

Patterns of Profile Membership Across Domains

Another aim of this study was to examine whether parents who disagreed about one aspect of their family (e.g., their child's behaviors) were more likely to also disagree about other aspects of their family (e.g., their couple relationship satisfaction or perception of their family environment). One analysis used child internalizing behaviors as the child behavior indicator variable and the other used child externalizing behaviors as the child behavior indicator variable. Results of both analyses identified one latent class with a majority of the participants characterized by agreement and higher ratings of both couple satisfaction and the family environment and one latent class with a minority of the participants characterized by disagreement and lower ratings of both couple satisfaction and the family environment. This finding is consistent with the only other study identified that also examined parent discrepancies across two different family domains (Knafl et al., 2007). Results suggest that discrepancies regarding couple satisfaction are related to discrepancies regarding overall family functioning. Although this study is one of the first to evaluate whether discrepant parent perceptions persist across different aspects of the family, results are consistent with family systems theory (Cox & Paley, 1996) as family systems theory posits that all family members and dynamics are impacted by all the other family members and dynamics. Through a family systems framework, it is possible that discordant views of couple satisfaction could lead to discordant views of family functioning and vice versa. Through a family systems framework, it is also possible that a dynamic occurring within the home could lead simultaneously to both discrepancies in views of couple satisfaction and the family environment.

When perception of child internalizing behavior was used as the child behavior indicator variable, profiles of child internalizing behavior had similar probability of belonging to either the class characterized by positive ratings and agreement as belonging to the class characterized by negative ratings and disagreement regarding couple satisfaction and the family environment which indicates that those who agreed or disagreed about both couple satisfaction and the family environment did not necessarily also agree or disagree about their child's internalizing behaviors. These results suggest that discrepant perceptions of the child may not relate to discrepant perceptions of the marriage or overall family functioning. Perhaps because internalizing behaviors are more subtle and less disruptive than other types of behaviors (e.g., depressed mood compared to aggression or violent outbursts), discrepant perceptions regarding child internalizing behaviors specifically may be less impactful to other aspects of the family. This conclusion is reflected by previous findings as Sikora et al. (2013) found that autistic child externalizing, but not internalizing behaviors related to marital and sibling impact. It was, unfortunately, difficult to determine whether disagreement regarding the couple and the family environment extended to disagreement regarding child externalizing behavior, which is more overt and disruptive than child internalizing behavior, because only one disagreement profile emerged for perception of child externalizing behaviors and that profile only contained 4.3% of the sample. All of the participants in the single disagreement profile did belong to the class characterized by disagreement regarding couple satisfaction and the family environment, which does suggest that disagreement regarding child externalizing behaviors may extend to disagreement regarding other aspects of the family, but because few participants belonged to the child externalizing behavior disagreement profile, this result needs to be interpreted with caution.

Implications

Despite findings that traditional methods of examining discrepancies cannot detect or measure nuanced information about the characteristics of discrepancies that exist within a sample (see De Los Reyes, 2023 for review), research examining discrepancies continues to use outdated methods of assessing discrepancies. Much of the previous work using outdated methods of examining discrepancies has produced conflicting results. Our results suggest that results of previous studies that appear to conflict with each other may be the product of the analysis method and not of truly conflicting data. For example, one study examining relationship satisfaction in parents of autistic children found that mothers were more satisfied and another found that fathers were more satisfied (Higgins et al., 2005; Kaniel & Siman-Tov, 2011; see Sim et al., 2016 for review). Our results found one disagreement profile consistent with the findings of Higgins et al. (2005) and another disagreement profile consistent with the findings of Kaniel and Kiman-Tov (2011) as well as two agreement profiles. Because studies using outdated methods are not able to detect multiple groups within a sample, it is possible that both Higgins et al. (2005) and Kaniel and Siman-Tov (2011) would have also found multiple types of discrepancies in their samples if they had examined them using different statistical analyses. Our results highlight the need for the use of advanced statistical methods to assess discrepancies. Our results also highlight the need in research to begin to incorporate multiple reports into family research. Although there is a growing body of research identifying and examining informant discrepancies, most family research continues to rely on reports from only one reporter. Findings of parent discrepancies regarding every level of the family system highlights the need for researchers to begin shifting away from relying on a single reporter in family research.

This study's findings have important clinical implications as well. One of the findings that was consistent across all study variables was that more disagreement occurred when perceptions were more negative in nature (e.g., more problem behaviors, less couple satisfaction, etc.) This finding is concerning because couples may be more likely to seek help and participate in interventions when both partners agree that the problem is severe. This finding is also important for clinicians because those that are more likely to need clinical intervention for their child, marriage, or family are those who are experiencing more severe child, marriage, or family problems. Families who may be in the most need for clinical intervention may also be the families who are experiencing more disagreement between parents. Clinicians need to be aware of the potential for parent discrepancies and have a plan for how to identify and handle them. Findings that more agreement occurred when reports were less negative suggest that one parent's report of an aspect of the family to a clinician may be sufficient when the parent reports low levels of problems as it is more likely that their partner perceives similar problem levels. When a parent reports higher levels of a problem within the family to a clinician, however, it may be more important for the clinician to attempt to obtain the other parent's report as well since parent perception of such problem is more likely to differ more drastically. Since most parents agreed about externalizing behaviors, obtaining only one parent's perspective may be sufficient for clinicians providing interventions involving child externalizing behaviors, but it may be more important for clinicians to obtain and consider both parents' perspectives when administering interventions for child internalizing behaviors. Although it may be ideal for both parents to fully participate in all family related interventions, parents of autistic children may struggle to both be available to participate in clinical interventions as they have more difficulty accessing and coordinating childcare and one or both parents may have inflexible work schedules (Houser et al., 2014). Consequently, clinicians should balance the burden associated with both parents making themselves available to participate in interventions with the degree of benefit of obtaining the other parent's perspective and insist that both parents participate when parent's perceptions are more likely to be different from each other.

This study is one of few that have examined parent discrepancies across several constructs. The finding of a distinct group of participants who disagreed about both couple satisfaction and the family environment imply that couples who disagree about one aspect of their family may be more likely to also disagree about other aspects of their family. The group who disagreed about both couple satisfaction and the family environment, however, were not necessarily more likely to disagree about their child, which also shows that while disagreement may extend beyond one construct, it may not extend to all constructs. Since this study found that disagreement about one construct may extend to some, but not all other family constructs, efforts need to be made to continue to explore the extent to which discrepancies regarding one aspect of the family extend to other aspects of the family. Great strides have been made in recent years to build theoretical framework and to identify advanced statistical analyses for examining discrepancies (e.g., De Los Reyes et al., 2023), but to date, efforts have not been made to determine whether, or explain why discrepancies across multiple constructs may occur. Current theoretical models were developed with the purpose of better understanding child behavior and consider informant discrepancies as always being reflective of some aspect of the child (e.g., reflective of differences in informant relationship with the child, differences in environment that informant observes the child in, etc.) instead of reflective of informant personal characteristics (e.g., depressive symptoms) or dynamics associated with the relationship between informants. If parent discrepancies are consistent across multiple constructs, they may have more to do with dynamics of the parent relationship or with individual parent characteristics and less to do with characteristics of the child. Our results identify a need to continue exploring parent discrepancies across multiple constructs and a need to empirically examine whether parent discrepancies are more reflective of parent characteristics, couple dynamics, or child characteristics.

Limitations and Future Directions

This study's design has considerable strength as it is one of the first to utilize advanced statistical methods capable of producing detailed information to examine discrepancies between parents with autistic children. This study, however, is not without limitations. Although LPA is more advanced than other analyses as it can detect multiple distinct groups and several different discrepancy types within a sample. Its weakness, however, is a lack of guidance in determining what constitutes agreement. Prior work does not describe how researchers determined whether a profile constitutes agreement or disagreement between parents (e.g., Kang et al., 2023). It seems that agreement or disagreement is determined by a visual inspection of the means for each rater in each profile and not by a statistical test. In our analyses, after completing the LPA analyses in Mplus, we used paired samples *t* tests to determine whether differences between parents' scores in each profile were significant. A significant statistical difference between parents' scores, however, does not necessarily imply a practical significance. For example, our results found that for internalizing behaviors, mother and father report in Profile 2 differed statistically significantly by 2.84 points. Although the difference was statistically significant, since scores ranged from 1 to 35, a difference of less than 3 points may still be reflective of parent agreement for practical purposes. Future studies, however, need to work to develop guidance on how to determine whether a profile represents parent agreement or disagreement.

Several profiles that emerged contained a small number of participants and those profiles may lack the statistical power for differences in family characteristics (e.g., child sex or age) across profiles to be detected. When profiles are small, there is increased concern that those profiles and the characteristics of those profiles may not generalize to the greater population of families with autistic children. Additional studies need to be conducted to determine whether profiles and their characteristics replicate across studies. Future studies should also aim to recruit larger samples so that small profiles can be adequately powered for differences between profiles to be detected. Similar to the population of children with autism, our sample contained less families with autistic daughters than families with autistic sons. The small number of families with autistic daughters may have made child gender differences less detectable. Future work should endeavor to include more autistic girls to better determine the role of child gender in discrepancies between parents. Since girls are better able to hide their autism symptoms, parents may disagree more about their daughter's behaviors.

Results also may have been impacted by sampling bias as characteristics of families who were willing and able to come into the research lab may differ from the greater population of families with autistic children. Future work should aim to include a more diverse sample including families with more diverse racial backgrounds and socioeconomic statuses. Discrepancies could also be more pronounced in samples that include autistic children with more severe autism-related symptoms. For example, parents of children who are nonverbal or who have co-occurring intellectual disability may have more pronounced discrepancies in perception of their child as their child has greater communication impairment than the children included in our sample. Discrepancies may also be more pronounced in non-traditional families such as in families who have adopted a child or families that include step parents as parents who have not raised the child from birth have had less time to bond with and get to know the child and may be less able to understand or identify the child's behavior. Finally, results revealed differences between mothers and fathers, but it is unclear whether such differences are attributable to parent gender or to differences in childcare responsibilities as mothers tend to take on the role of primary caregiver. Future studies should seek to evaluate whether it is parent gender, or primary caregiver status that accounts for parent discrepancies by recruiting families where the father is the primary caregiver and including primary caregiver status as a study variable.

Conclusions

The current study found that different patterns of parent agreement/disagreement emerged for each construct. For example, most parents agreed about their child's externalizing behaviors but most parents disagreed about the family environment which shows that within the family, there are some constructs that parents are more likely to disagree about than others. Despite diversity in profiles that emerged for each construct, across all constructs, parent disagreement was more pronounced when parent ratings were more negative. This finding has clinical implications as it suggests that parents who have more negative views of a particular construct are at higher risk for disagreeing. When couples are at higher risk for disagreeing should both partners should participate in child or family interventions so that clinicians can consider both parents' perspectives. This study also found that child autism symptoms, parent depressive symptoms, and parent BAP related to discrepancies between parents, but that the relations differed as a function of which construct was being examined. Finally, this study found that parents who disagree about their relationship are more likely to also disagree about their family environment, but not their child. Overall, this study showed that parent discrepancies are not uniform across a sample nor are they uniform across family constructs and that parent discrepancies are related to characteristics of parents and their children. This study is an important first step in examining discrepancies between parents of autistic children in a manner that considers characteristics of each family member.

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VITA

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ABSTRACT

FACTORS ASSOCIATED WITH PARENT AGREEMENT ABOUT THEIR CHILD, RELATIONSHIP, AND FAMILY: A LATENT PROFILE ANALYSIS OF PARENTS OF AUTISTIC CHILDREN

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Previous work has found that parents can disagree in their perception of their child. There is a paucity of research examining whether parents also disagree in perception of their own relationship and family environment. This study used latent profile analysis to examine discrepancies in parent ratings of their autistic child's internalizing and externalizing behaviors, their couple relationship satisfaction, and their perception of their family environment. This study also identified patterns of agreement across aspects of the family (i.e., child's behavior, couple relationship satisfaction, or the family and identified correlates of agreement and disagreement. Results revealed different profiles of agreement/disagreement for each construct, but also for each construct, disagreement between parents occurred when ratings were more negative. Couples who disagreed about their relationship satisfaction also agreed about their family environment, but not necessarily their child's internalizing or externalizing behaviors. Finally, child autism severity, parent depressive symptoms, and parent broad autism phenotype differed across agreement and disagreement profiles. Results have clinical implications for families with autistic children.