The Parents Divorcing Conflict Scale:
Initial Tool Development and Exploratory Factor Analysis

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Abstract: Practical measures to screen for high levels of pre-divorce conflict offer a unique opportunity for early intervention by forensic social work professionals in divorces where children are at risk of being exposed to high levels of interparental conflict and subsequent maladjustment. There is a lack of validated short screening instruments specifically addressing pre-divorce conflict for parents with at least one minor child. An instrument of this nature would support those in the forensic social work field in identifying families that may be at risk for a high-conflict divorce process. Accordingly, this study describes the development of a self-report measure to assess conflict in parenting couples who are in the process of divorce. An Exploratory Factor Analysis (EFA) was conducted with data from a sample of parents in the process of divorce (n=114), and multiple factor structures were examined. The EFA confirmed that a one-factor model offered the best fit. The short 8-item Parents Divorcing Conflict Scale (PDCS) is a promising measure for use in forensic social work, research, and clinical and policy settings as it captures pertinent themes of conflict, including communication, social network, parent characteristics, satisfaction with agreements, and mistrust, and can inform early intervention strategies that will serve to support healthy communication practices amongst divorcing couples throughout the marriage dissolution process.

Keywords: Forensic social work, conflict scale, factor structure, divorce and separation

Interparental conflict is a complex construct. Researchers find that high conflict often results in adverse effects on the family as a unit or individual members, most notably the children (Anderson et al., 2010). Children with divorced parents in high-conflict dynamics have an increased risk of substance use, mental health and behavioral problems, poor academic performance, and social adjustment issues (Amato, 2001; Arbuthnot et al., 1997; Bacon & McKenzie, 2004; Pedro-Carroll et al., 1999). Families experiencing high conflict can also pose additional burdens on the court and child welfare resources (Saini & Birnbaum, 2007). Although the relationship between high-conflict post-divorce and child maladjustment is well-documented, the extant social science and legal literature do not clearly define what behaviors or indices indicate high interparental conflict (Birnbaum & Bala, 2010; Haddad et al., 2016). As such, forensic social work professionals are often reactive in their assessment and treatment approach rather than being able to identify and preemptively intervene with families who pose a risk for high-conflict divorce proceedings.

There is a meaningful difference between pre-divorce conflict, defined as conflict occurring after the decision to separate but before a judgment of divorce, and post-divorce conflict. Interparental conflict immediately following the decision to separate is considered

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normative and is expected to subside within two years, which may explain why much of the divorce conflict literature focuses on the prolonged conflict or conflict lasting after the divorce (Buchanan & Heiges, 2001; Emery, 1994; Johnston, 1994; Ponzetti & Cate, 2008). However, improved understanding and assessment of pre-divorce interparental conflict – that is, the conflict that exists during the divorce process from the decision to separate through negotiations, but before a legal judgment of divorce—is essential for efficient dispute resolution during the divorce process and effective service delivery by legal, forensic social work, clinical mental health, and policy professionals addressing the family during and after this often-stressful family transition (Salts, 1985). Notably, those in high-conflict marriages are likely to continue with prolonged conflict after the divorce as they have evidenced an inability to employ successful dispute resolution tactics (Johnston, 1994). This prolonged conflict after divorce is a significant contributing factor to child maladjustment (Emery, 1994; Johnston, 1994). The divorce conflict literature draws a further distinction between high- and low-conflict pre-divorce (during the marriage), with children appearing to benefit from the divorce of parents in high-conflict marriages and suffer from the divorce of parents in low-conflict marriages (Booth & Amato, 2001; Joyce, 2016).

This distinction between pre-and post-divorce conflict suggests that a forensic social worker's ability to understand and assess pre-divorce conflict may be essential to identifying effective interventions for parents who may have the potential for lingering conflict after the divorce. However, the research on conflict assessment with this population overwhelmingly focuses on identifying and assessing post-divorce conflict. This paper sought to fill this gap in the research by developing and testing a short assessment tool for pre-divorce interparental conflict, known as the Parents Divorcing Conflict Scale (PDCS).

Existing Tools Measuring Interparental Conflict

One of the most frequently used and more widely adapted measures of co-parenting quality is the Quality of Co-parental Communication Scale (QCCS), which captures the dimensions of support and conflict in divorced parents (Ahrons, 1981). However, as researchers continue to study interparental conflict, it is clear that it is a multidimensional construct, which may require consideration of various factors, including the co-parenting relationship, communication styles, interpersonal conflict, and violence or aggression (Ferraro et al, 2016). Therefore, researchers continue to employ a number of scales to measure interparental conflict, many of which focus on post-divorce conflict.

In considering post-relationship conflict, frequently used measures include the Post-Dissolution Relational Communication Index (PDRCI), which specifically evaluates antagonistic and reassuring communication between former romantic partners (Lambert South & Hughes, 2018); the Post-Divorce Parental Conflict scale (PDPC), which measures parental conflict from the perspective of the child (Morris & West, 2000); and the Psychological Adjustment to Separation Test (PAST) which assesses parental psychological well-being post-divorce (Sweeper & Halford, 2006). More recently, the Divorce Conflict Scale (DCS) was developed to fill the need for a short screening

instrument to measure post-divorce conflict (Hald et al., 2020). Although these tools have proven validity and reliability in post-divorce populations, they have not been used in separated couples who are not legally divorced. This gap leaves legal and forensic social work practitioners without means of assessing the conflict levels in these divorcing parents.

In addressing the lack of pre-divorce assessment tools, practitioners may consider the several tools that serve to measure conflict in romantic relationships. These romantic relationship assessment tools, however, do not specifically consider divorce conflict. These tools include the frequently used 39-item Revised Conflict Tactics Scale (CTS2; Straus et al., 1996) and the Romantic Partner Conflict Scale (RPCS; Zacchilli et al., 2009). The literature is insufficient on pre-divorce conflict measurement tools. The 25-item Level of Conflict Assessment of Divorcing or Separating Couples (LOCA) was the only identified instrument specific to pre-divorce or separation conflict (Langenbrunner et al., 2013). Given that there are stressors that are unique to divorcing couples, rather than just separating couples, a specific tool for pre-divorce conflict is missing from the literature. Stressors that may exist for a divorcing parent but not a separating parent may include role clarification (e.g., from spouse to now ex-spouse) or the insertion of the adversarial legal system. Further, in developing a pre-divorce-specific tool, there are benefits to developing a short screening instrument for this population as well.

A short screening tool may be used in court, either at the time of filing for divorce or as the case moves through the legal process of divorce. Practically speaking, a short screening tool that takes little time to complete, little physical space to store (many courts still use paper filings), and is less burdensome to participants will be most effective in these cases, particularly when considering the complex nature of defining conflict. As conflict is a complex construct, a single instrument may not capture the many nuances and variations of conflict—rather, information gathered from a short screening tool can help flag cases that may need further assessment and possible early intervention. As such, a short screening tool that is made easily available to the court could be considered another data point when addressing the greater question of what, if any, family intervention plan is needed to facilitate successful adjustment post-divorce. For example, if the conflict is exceptionally high and parents are unable to communicate, the court may consider an intervention where only one parent holds decision-making power. Alternatively, in cases where collaboration may be possible, the parents may benefit from psychoeducation or the assistance of a parenting coordinator. It is worth noting that the decision to include a short screening tool rather than a longer measurement tool may mean the complexity of conflict as a variable is oversimplified. However, if the survey results are considered another data point, a shorter screening instrument may offer more flexibility in identifying conflict. With the specificity of a more extensive multi-item scale, practitioners and researchers may over-rely on an instrument that may inadvertently exclude key facets of conflict, particularly given that there is seldom a perfect measure of an abstract concept (McDonald, 2005).

These instruments, compared in Table 1, are not an exhaustive list of available instruments but are a representation of instruments for various conflict assessments. To these authors' knowledge, no published short-form validated measures specifically addressing and measuring pre-divorce interparental conflict exist.

Table 1. *Comparison of Prevalent Conflict Measurement Tools*

Instrument	Pre/Post Dissolution	Intended Respondent	# of items	Construct Measured	Reference
QCCS	Post	Divorced parents	10	Support; Conflict	Ahrons, 1981
PDRCI	Post	Previous partners	25	Communication	Lambert et al., 2018
PDPC	Post	Child of divorce	82	Conflict	Morris & West, 2000
PAST	Post	Previous partners	32	Negativity; Attachment; Conflict	Sweeper & Halford, 2006
DCS	Post	Divorced parents	6	Conflict	Hald et al., 2020
CTS2	n/a	Romantic partners	39	Conflict	Straus et al., 1996
RPCS	n/a	Romantic partners	39	Conflict	Zacchilli et al., 2009
LOCA	Pre	Divorcing parents	25	Conflict	Langenbrunner et al., 2013

Note: n/a indicates scales used for in-tact relationships as well as post-dissolution

Theoretical Components for Interparental Conflict Pre-Divorce

The first step in developing a short-form measurement tool for pre-divorce conflict was to identify predictors for high interparental conflict in divorcing couples by reviewing the theoretical and empirical social science literature. Notably, a review of the extant theoretical literature on high-conflict divorcing parents revealed wide variability in the definition of "high-conflict" with researchers continuing to publish new conceptualizations of the topic as recently as 2019 (Smyth & Moloney, 2019). The variability in defining "high-conflict" contributes to the difficulty in identifying " high-conflict " predictor variables and subsequently measuring the construct. Further complicating matters, the literature denotes significant attention to post-divorce conflict rather than pre-divorce conflict, as evidenced by the assessment tools described in Table 1. However, the systematic review conducted by these authors that informed the current study, titled "Identifying High-conflict Divorcing Parents: A Systematic Review of the Literature," (under review) identifies possible pre-divorce predictors and categorizes them into one of five themes: Conflict Resolution/Communication, Social Network, Satisfaction with Agreements, Parent Characteristics, and Pervasive Mistrust. The systematic review initially yielded 4,126 articles for a title and abstract screen, of which 78 articles were advanced to a full-text screen review. Ultimately, 11 articles were included in the review. These 11 articles were thematically reviewed and coded to create the final five themes of pre-divorce predictors as derived from theoretical and empirical literature. The first theme, Conflict Resolution/Communication, refers to a couple's communication practices and their tendency to either decrease conflict by employing negotiation tactics (Cohen & Finzi-Dottan, 2012), or increase conflict, by not communicating at all (Bergman & Rejmer, 2017). In differentiating between high conflict and normative conflict, Anderson et al. (2010) noted that couples who were more successful in conflict resolution engaged in issue-focused discussions, rather than person-focused attacks that are frequently seen with high-conflict couples.

The Social Network theme pertains to the influence that surrounding friends, family, or communities may have on the couple's conflict, particularly when a parent may feel that their community is not supportive of the co-parenting relationship (Finzi-Dottan & Cohen, 2012; Polak & Saini, 2018). Social networks may have a protective or risk factor influence

on a couple's conflict. Social networks may be imperative to supporting a parent and encouraging a co-parenting relationship that ultimately reduces conflict. However, if the social network is not supportive, or if triangulation occurs when a third party becomes involved in the couple's dynamic through gossip and/or venting, the conflict may be increased or prolonged (Anderson et al., 2010).

Research also notes that a parent's satisfaction with underlying agreements pertaining to custody and finances decreases interparental conflict (Bergman & Rejmer, 2017; Johnston, 1994; Malcore et al., 2010; Polak & Saini, 2018). Financial disagreements may pertain to child support but also to property division or an equitable division of financial obligations for the child's medical or extracurricular activities.

The next predictor category, Parent Characteristics, pertains to character traits that may influence the conflict, for example: hatred for the other parent (Smyth & Moloney, 2017); immature defense mechanisms (Cohen & Finzi-Dottan, 2012); or personality disorders (Finzi-Dottan & Cohen, 2012; Malcore et al., 2010; Polak & Saini, 2018). Ultimately, with these parent characteristics, the conflict is not discussed in an issue-focused manner but rather in a person-focused manner. The individual may be motivated by self-protection rather than by issue resolution (Cohen & Finzi-Dottan, 2012). For example, for those with mature defense mechanisms, such as humor, an issue may be resolved quickly rather than prolonged with an increase of anxiety or mistrust.

The final theme, Perceived Mistrust, pertains to a parent's perception of a justified reason for mistrusting the other parent, perhaps due to violence (Anderson et al., 2010; Bergman & Rejmer, 2017; Johnston, 1994; Polak & Saini, 2018; Smyth & Moloney, 2019); substance use (Bergman & Rejmer, 2017; Polak & Saini, 2018; Smyth & Moloney, 2019), or unfitness (Bergman & Rejmer, 2017; Polak & Saini, 2018; Smyth & Moloney, 2019). Dyadic trust between the divorcing couple is greatly compromised as conflict increases, negatively impacting the divorce process (Ponzetti & Cate, 2008).

These five themes developed from a systematic review of the theoretical and empirical social science literature pertaining to divorce and family law informed the development of the PDCS. We hypothesized that all five of these themes represent a singular underlying construct: conflict. It is possible that several of these themes may be more closely related than others and that a two- or three-factor model may present itself. For example, if one is satisfied with an agreement, this may be the result of a successful conflict resolution or communication style. Similarly, one may have pervasive mistrust as a result of some parenting characteristics. This would mean that these four themes could collapse into two themes such that (1) Conflict Resolution and (2) Satisfaction with Agreements align to create a new theme (e.g., "Resolution") and (3) Parent Characteristics and (4) Perceived Mistrust align to create a new theme (e.g., "Parent Attributes"). In this instance, with the addition of the final theme of Social Network, we may see a three-factor model. It is also possible that Social Network may align with either of these two collapsed themes, such that the social network influences whether conflict is resolved or perhaps the social network is a source of mistrust. In that instance, we would see a two-factor model. Ultimately, these themes seem to group together in a number of ways, indicating that a one-factor model may be most applicable as the underlying theme would simply be conflict.

Current Study

The purpose of this study was to develop and determine the factor structure and describe the scale development process of the PDCS measure, which captures the primary construct of pre-divorce conflict for parents with at least one minor child. This information can then be used by forensic social work professionals when engaging with families during the "pre-divorce" process so that appropriate conflict-reducing interventions can be introduced, and long-term court involvement ultimately avoided. The "pre-divorce" timeframe is defined as the time after the decision to separate as a couple but before the judgment of divorce is rendered. This study follows the guidelines proposed by experts in psychometrics (see Cabrera-Nguyen, 2010; DeVellis, 2017; Muthén & Muthén, 2007; Worthington & Whittaker, 2006). More specifically, this paper presents: (1) the procedures used to develop a new scale of conflict for divorcing parents; (2) efforts toward identifying the factor structure of the PDCS; and (3) an exploration of the hypothesized one-factor structure of the PDCS.

Methods

Sampling Method

Instrument Development

Through a systematic review of the theoretical and empirical literature—the results of which are reported in a prior study (under review)—an initial list of 30 items was generated. The items were generated from a thematic coding procedure in which articles were reviewed for salient themes: Conflict Resolution/Communication, Social Network, Satisfaction with Agreements, Parent Characteristics, and Pervasive Mistrust. From these salient themes, 30 items were generated for possible use in a screening tool. Following DeVellis' (2017) recommendations, feedback was solicited at several time points during the instrument development through review from seasoned professionals in the field and pilot testing. After seasoned professional review, these 30 items were condensed to 10 items (displayed in Table 2) and were then piloted on a small sample of participants (n=9).

Field Professional Review

Field professionals (n=9) were consulted to identify possible issues with conceptualizing the primary construct of interest. The 30-item pool was submitted to content and measurement seasoned practitioners (Bradburn et al., 2004; DeVellis, 2017). These professionals included judges (n=2), mental health professionals in the field of family law (n=2), family law attorneys (n=3), and measurement professionals (n=2). Modifications made to the measure based on professional feedback included: a change in response format (i.e., changing from an agree-to-disagree scale to a frequency scale); elimination of redundant questions (i.e., expressing a similar idea in somewhat different ways through multiple items); rewording of misleading or ambiguous phrasing (e.g., changing "My co-parent and I can have a conversation on problems concerning our

children" to "My co-parent and I can have a *civil* conversation on problems concerning our children"); and improvement in clarity (e.g., double-barreled items or unnecessary wordiness).

From this feedback, the 30-item instrument was synthesized into a 10-item instrument. For example, there were four items originally generated to address pervasive mistrust: 1) I am concerned my co-parent cannot adequately care for my child(ren); 2) I am concerned my co-parent exposes our child(ren) to violence, substances, or inappropriate conduct; 3) My co-parent is appropriate with my child(ren); and 4) My child(ren) and I are safe with my co-parent. These four items were collapsed into two items: 1) I am concerned my co-parent cannot adequately care for my child(ren), and 2) My child(ren) and I are safe around my co-parent.

Piloting Sample

The 10-item instrument was then entered into Qualtrics, an online survey platform. Instructions for completion of the instrument and questions to collect demographic data were added. A self-administered pilot test of the 10-item instrument was conducted with parents (n=9) in the process of divorce. These participants were selected by convenience due to their similarity with the instrument's target population, namely being in the process of divorce and having at least one minor child.

These nine parents also participated in cognitive interviews, a method for scale revision to detect discrepancies between participant and researcher understanding of survey items, to provide validity evidence that explains how respondents interpret and respond to the 10-item PDCS. Following recommendations from Willis (1999) and Boeije and Willis (2013), participants were asked to rephrase survey questions in their own words, provide their understanding of specific words, and note any confusing or unclear terminology. Overall, pilot participants had a high level of understanding of the survey items. Some formatting suggestions were adopted, instructions were clarified, and specific terms (e.g., "benefit") were interpreted in ways that were different from what was intended were altered (e.g., the actual observed benefit versus the overall assumption of a benefit to having two involved parents). Thus, modifications to the instrument following the completion of the pilot test included: clarifying that the measure is concerned with the respondent's perception of events and adding additional page breaks to the online instrument. Table 2 shows the final PDCS items after expert review and pilot testing and further indicates items that eventually dropped from the scale. All items use a 4-point likert scale set of response options (1= *never*, 2= *rarely*, 3= *often*, 4= *always*).

Table 2. *PDCS Item Iterations*

Conflict Dimension	Original Items	Final Items
Conflict Resolution/ Communication	1. I can explain my side of a disagreement to my co-parent. 2. My co-parent shows respect for my feelings on a disagreement 3. My co-parent can explain their side of a disagreement to me. 4. I can agree to try a solution to a disagreement relating to our children that my co-parent suggests. 5. My co-parent and I communicate well. 6. Co-parent's personality is extremely different from mine. 7. I can negotiate with my co-parent. 8. My co-parent and I can have a conversation on problems concerning our children.	1. My co-parent and I communicate well. 2. I can negotiate with my co-parent. 3. My co-parent and I can have a conversation on problems concerning our children.
Social Network	9. My close friends and family support my co-parenting relationship. 10. My close friends and family speak negatively about my co-parent.	4. *My close friends and family support my relationship with my co-parent.
Parent Characteristics	11. My co-parent and I share in childrearing tasks. 12. My co-parent and I can attend an event for our child(ren) at the same time. 13. My child(ren) benefit from a relationship with my co-parent. 14. My co-parent puts my child's well-being first. 15. I can remember good times in my marriage. 16. I am able to laugh at myself pretty easily. 17. People tend to mistreat me. 18. I respect my co-parent. 19. My co-parent helps me see different perspectives in childrearing. 20. I have forgiven myself for the breakup of the marriage. 21. I have forgiven my co-parent for the breakup of the marriage. 22. I trust my co-parent. 23. My co-parent caused the breakup of the marriage.	5. My co-parent and I share in childrearing tasks. 6. My child(ren) benefit from a relationship with my co-parent.
Satisfaction With Agreements	24. I feel satisfied with the agreement to divide our property, assets, and debts. 25. I feel satisfied with our agreement to financially support our child(ren). 26. I feel satisfied with our agreement on parenting time.	7. I feel satisfied with our agreement on parenting time. * 8. I feel satisfied with our agreement on financial matters.
Pervasive Mistrust	27. I am concerned my co-parent cannot adequately care for my child(ren). 28. I am concerned my co-parent exposes our child(ren) to violence, substances, or inappropriate conduct. 29. My co-parent is appropriate with my child(ren). 30. My children and I are safe around my co-parent.	9. I am concerned my co-parent cannot adequately care for my child(ren). 10. My child(ren) and I are safe around my co-parent.

Note: * indicates items dropped from the final model

Final Sample

One hundred and fourteen divorcing parents provided responses on the PDCS instrument. This sample size was deemed adequate as each item had approximately eleven responses (Worthington & Whittaker, 2006). There was nearly an even split between male (n=54, 47.4%) and female (n=57, 50%) participants. On average, participants were 36.8 years old (SD = 6.8 years). Most participants had two or fewer children with their former partners (n=98, 86%), and were employed full or part-time (n=100, 87%). Forty-two participants (36.8%) earned a combined household income of at least $100,000 in 2019. Forty-two (37%) participants described their relationship with their co-parent as hostile, 47 participants (41%), reported that their relationship with their co-parent was civil, while 22 participants (19%) categorized their relationship with their co-parent as friendly or very friendly. Twenty-four participants (21%) reported that a restraining order between them and their co-parent had been applied for. Of these, a restraining order was put in place between 19 participants and their co-parents (79% of participants who reported that a restraining order was applied for, 17% of total participants). A full description of the sample is presented in Table 3.

Table 3. *Sample Description*

Variable	Frequency (%)
Relationship with co-parent	
Hostile	42 (36.8%)
Civil but not friendly	47 (41.2%)
Friendly	15 (13.2%)
Very friendly	7 (6.1%)
Restraining order with co-parent	
No	89 (78.1%)
No, but one was applied for	5 (4.4%)
Yes	19 (16.7%)
Gender	
Male	54 (47.4%)
Female	57 (50.0%)
Another	2 (1.8%)
Country of Residence	
USA	97 (89.0%)
Non-USA	12 (11.0%)
	M (*SD*)
Age (years)	36.8 (6.78)
Average number of children	1.7 (.72)
Average age of children (years)	7.4 (4.31)

Data Collection

The final step in the scale development process was to complete an exploratory factor analysis of the 10-item version of the instrument iteratively developed through research and expert and cognitive interviews. Exploratory factor analysis empirically explores the scale's properties, including the number and meaning of the constructs that underlie the

instrument and the individual item quality (DeVellis, 2017). Muthén and Muthén (2007) advise a small instrument pilot for exploratory factor analysis. Since a convenience sample was used here, further testing will be needed to address generalizability. The revised PDCS was entered into Qualtrics—a user-friendly survey platform, and a convenience sample of 114 parents of minor child(ren) in the divorce process was recruited through Reddit, a social networking website where communities, or "subgroups," are created on interests, so as to reach a wide population of potential participants. The Qualtrics survey was also sent to divorce and family law-related subgroups. Potential subjects were informed that their participation was voluntary, and the IRB reviewed the study at the University of North Carolina—Chapel Hill, IRB #20-2379.

Data Analysis

Descriptive Analysis

Distributional properties of the items and correlations, which were polychoric correlations, between items were reviewed to confirm linear relations among observed variables (Table 4 and 5). Minimal missing data was observed. Table 4 shows that, per item, the maximum missing data was one response (0.88 of the sample). As the missing data stemmed from one instrument, it is assumed that participants began the survey and did not complete it. As a result, that participant's data was removed from all analyses.

Exploratory Factor Analysis

All analyses were conducted in Mplus Version 8.4 (Muthén & Muthén, 2007). The Mplus method for weighted least squares means and variance adjusted (WLSMV) was used, as it provides accurate parameter estimates and a model fit that is more robust to ordinal data due to the use of polychoric correlations to assess model fit (Li, 2016; Muthén & Muthén, 2007). Mplus' default oblique rotation method was retained, as it is less restrictive (Cabrera-Nguyen, 2010; DeVellis, 2017). Decisions about determining the number of factors were made after attending to multiple pieces of information, including scree plots of eigenvalues, communality estimates (i.e., values > .5), rotated factor loadings (i.e., values > .3; Costello & Osborne, 2005), the presence of a simple solution of interpretable factors, and model fit measures (i.e., Chi-square; RMSEA: mediocre if 0.8 to 10, good if < .05; CFI/TLI, acceptable if > .90, excellent if > .95; Hu & Bentler, 1999; Kline, 2005).

Table 4. *Distributional Properties of PDCS Items*

Response Options	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10
					n (%)					
1	22 (19.3%)	29 (25.4%)	23 (20.2%)	10 (8.8%)	31 (27.2%)	16 (14.0%)	23 (20.2%)	45 (39.5%)	19 (16. 7%)	12 (10.5%)
2	55 (48.3%)	46 (40.6%)	41 (36.0%)	23 (20.2%)	32 (28.1%)	31 (27.2%)	20 (17.5%)	25 (21.9%)	29 (25.4%)	22 (19.3%)
3	29 (25.4%)	24 (21.1%)	28 (24.6%)	46 (40.6%)	24 (21.1%)	30 (27.2%)	43 (37.7%)	29 (25.4%)	36 (31.6%)	29 (25.4%)
4	8 (7.0%)	15 (13.2%)	22 (19.3%)	34 (29.8%)	25 (22.8%)	36 (31.6%)	27 (23.7%)	14 (12.3%)	29 (25.4%)	50 (43.9%)
Missing				1 (0.88%)	1 (0.88%)	1 (0.88%)	1 (0.88%)	1 (0.88%)	1 (0.88%)	1 (0.88%)
					M(SD)					
	2.2 (.87)	2.2 (.98)	2.4 (1.00)	2.9 (.93)	2.4 (1.12)	2.8 (1.05)	2.7 (1.06)	2.1 (1.07)	2.7 (1.04)	3.0 (1.03)

Table 5. *Correlations among PDCS items*

	M (SD)	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10
Item 1	2.20 (.87)	1.00									
Item 2	2.22 (.98)	.77*	1.00								
Item 3	2.43 (1.0)	.77*	.76*	1.00							
Item 4	2.92 (.93)	.44*	.44*	.40*	1.00						
Item 5	2.40 (1.12)	.56*	.59*	.63*	.43*	1.00					
Item 6	2.76 (1.05)	.52*	.48*	.57*	.23*	.53*	1.00				
Item 7	2.65 (1.06)	.29	.33*	.34*	.14	.17	.29*	1.00			
Item 8	2.10 (1.07)	.60*	.59*	.58*	.33*	.44*	.50*	.52*	1.00		
Item 9	2.66 (1.04)	.61*	.51*	.64*	.33*	.67*	.67*	.27*	.52*	1.00	
Item 10	3.03 (1.03)	.60*	.54*	.61*	.36*	.50*	.54	.11	.42*	.66*	1.00

Note: * indicates that correlations were statistically significant (i.e., p<.05)

Results

Exploratory Factor Analysis (EFA) Results

The initial EFA (i.e., Version 1) included all 10 piloted PDCS items and explored whether a one, two, or three-factor model was the best fit. Despite the RMSEA improving in the two- and three-factor models, the decision to move forward with a one-factor solution was supported by the scree plot of eigenvalues as well as review of the eigenvalues for each factor, communality estimates (i.e., values > .5), rotated factor loadings (i.e., values > .3), the presence of a simple solution of interpretable factors for a one-factor model, and in consideration of the other model fit measures. Additionally, a review of the relevant literature led to a one-factor model hypothesis. Ultimately, the one-factor Version 1 of the PDCS demonstrated high reliability (α = .90).

Two items with communalities less than .5 were removed for subsequent analyses because low communalities indicate that the latent construct accounts for only a small proportion of variation in the measured variable responses (Fabrigar & Wegener, 2011). Factor loadings and communality estimates for the one-factor solution of all piloted PDCS items can be found in Table 6. Model fit measures can be found in Table 7.

The decision to drop two items is supported based on a theoretical and empirical review of the literature, including an extensive systematic review described in a prior study. It is posited that these items (#4 and #7) may reflect circumstances that increase conflict post-divorce but may not have the same effect pre-divorce. These items, one pertaining to social network support for the co-parenting relationship and the other related to satisfaction in parenting schedule, both reflect circumstances likely to change after divorce. For example, a couple still married but in the process of divorce may continue to live together, which may mean that a couple's social network is still supportive of the relationship and that access to children is unfettered. Furthermore, item number 4 was a double-barreled question which may have impacted the results.

A subsequent EFA (i.e., Version 2; Final Version) included 8 PDCS items. Multiple factor-structure models were run to confirm findings that a one-factor model provided the simplest solution (i.e., from Version 1). The Version 2 EFA produced a one-factor solution as evidenced by the scree plot of eigenvalues, the presence of a simple solution of interpretable factors, and model fit measures. More specifically, rotated factor loadings ranged from 0.71 to 0.92, well above the 0.3 threshold, and all communalities were $\geq$ 0.5. Although the RMSEA indicated mediocre (at best) fit to the data, other fit indices indicate very good fit to the data (χ^2 =60.32; df= 20; RMSEA [90%CI]= .133 [095, .172]; CFI= .985; TLI= .979). A review of communality estimates and rotated factor loadings confirmed that all eight items met the criteria for inclusion in the final version. Version 2 (the final version) of the PDCS demonstrated high reliability (α = .92). Factor loadings and communality estimates for the final PDCS items can be found in Table 6, and model fit measures can be found in Table 7.

Table 6. *Communalities and Rotated Factor Loadings for PDCS Items*

| | Version 1 | | Version 2; Final Version | |
| | Communalities | Rotated Factor Loadings | Communalities | Rotated Factor Loadings |
Item				
1	0.84	.92	0.84	.92
2	0.79	.89	0.79	.89
3	0.83	.91	0.83	.91
4	0.28	.53	*NA*	*NA*
5	0.61	.78	0.61	.78
6	0.54	.73	0.55	.74
7	0.17	.42	*NA*	*NA*
8	0.54	.73	0.50	.71
9	0.74	.86	0.75	.87
10	0.62	.79	0.63	.79

Table 7. Model *Fit Indices for PDCS*

EFA	$\chi^2(df)$	RMSEA [90% CI]	CFI	TLI	Eigenvalues	Explained variance
One Factor	110.57(35)***	.138 [.109, .167]	0.972	0.964	6.14	0.61
Two Factor	65.65(26)***	.116 [.081, .151]	0.985	0.975	6.14, 1.06	.54, .40
Three Factor	20.25(18)	.033 [<.001., .092]	0.999	0.998	6.14, 1.06 .84	.53, .52, .49
Reduced (Final)	60.32(20)***	.133 [.095, .172]	0.985	0.979	5.67	0.7
*p < .05; **p < .01; ***p < .001						

Discussion

This study's goals were to develop and determine the factor structure and describe the scale development process of the PDCS measure, which captures the primary construct of pre-divorce conflict for parents with at least one minor child. This instrument is scored by collecting a total cumulative score for all items, where the higher the score, the greater the conflict. This study followed the scale development guidelines proposed by experts in the field of psychometrics (DeVellis, 2017; Fabrigar & Wegener, 2012). To test the hypothesis of a one-factor construct, three separate EFAs were conducted using the data collected as part of the PDCS measure's small pilot. EFAs were conducted to evaluate the factor structure of PDCS as well as to explore the psychometric properties of specific items. EFA provides a statistical method for construct identification, allowing researchers to rely on more than intuition and theory in developing and evaluating new measurement instruments (Fabrigar & Wegener, 2012). Ultimately, two items were dropped as they did not meet the communality estimates cutoff criteria (i.e., >.50).

The first dropped item ("My close friends and/or family support my co-parenting relationship") is reflective of the robust research naming the contributions that social networks, including family and friends, can have on the well-being of divorced individuals (Cohen & Savaya, 2000; Finzi-Dottan & Cohen, 2012; McCurdy, 2005). However, there is divergent research about the role that social networks play in divorce conflict as they can impede or support harmonious co-parenting (Johnston & Campbell, 1988). Finally, like the

majority of research on interparental conflict and divorce, this research focuses on post-divorce. It is possible that the variable of social networks functions differently for conflict pre- and post-divorce. Furthermore, this item was phrased as a double-barreled question, with friends and family included in the item. Further research could delineate these as two separate items. For now, this EFA supports removing this item.

Similarly, the second item dropped from the PDCS instrument due to lack of fit ("I feel satisfied with our parenting time schedule") may also be because of this scale's specific focus on pre-divorce conflict during which parents may still be litigating and/or determining what a parenting time schedule will look like post-separation. Further, Bergman and Rejmer (2017) found that pre-divorce disputes relating to the scarce resource of time with the child amounts to a conflict of interest, and in their analysis of 33 cases, they found that conflict of interest is less common than conflict of values, or differences in opinions.

The remaining eight items of the PDCS represent four of the five themes identified in the systematic review: Conflict Resolution/Communication (items 1-3), Parent Characteristics (items 5-6), Satisfaction with Agreements (item 8), and Pervasive Mistrust (items 9-10). The fifth theme, Social Network, did not fit in the model, and the lack of fit, as discussed above, may be supported by the theoretical literature, both as it pertains to the stage of divorce (pre-divorce) and the ambiguity around the significance of social network on divorce conflict. The four remaining themes create the final eight-item instrument, showing a one-factor model with high reliability ($\alpha = .92$). The significance of the one-factor finding shows that these four themes speak to the singular underlying construct of pre-divorce conflict. This study was a pilot study of the factorial structure of a scale using a convenience sample. This study aimed, in part, to begin the development of a pragmatic instrument for use by forensic social work professionals and clinicians engaged with divorcing families. In developing the PDCS, several criteria were considered to support the practical use of the instrument, but further research is needed, including a confirmatory factor analysis, before further use (Powell et al., 2017). At eight items, the PDCS is brief relative to any existing instrument measuring interparental conflict and significantly shorter than the LOCA, the only other known divorcing conflict scale (Langenbrunner et al., 2013). Furthermore, the PDCS and LOCA have comparable high reliability at ($\alpha = .92$) and ($\alpha = .94$), respectively. The PDCS does not require multiple steps for scoring and merely totals a cumulative score with higher numbers indicating a higher conflict level. When considering this instrument's ease, the PDCS may be administered by pen and paper or through electronic means.

Limitations

The current study has several limitations pertinent to external validity worth noting. This study's convenience recruitment strategy does not ensure that the participants represent the entire population, eliminating generalizability claims. Additionally, participant selection bias may exist as the study was posted on social media, and participants volunteered to take the survey. Therefore, those who responded to the survey may have a predisposition to continued discussions around their divorce, which may be

indicative of high-conflict behavior. Similarly, as the PDCS is a self-report measure, it is prone to the participants' social desirability, which may have led to bias in their reporting. Worth considering is whether participants would consider scoring high or low on the PDCS as being more socially desirable. Some participants may wish to score high on the scale to validate their decision to divorce or to access interventions. Other participants may want to score low on the scale to avoid interventions, as many may require collaboration with an ex-partner. As this study was a pilot test, it is unlikely that these social desirability considerations exist, but future research should consider these possibilities. Finally, the sample was recruited via an electronic survey published in a number of subgroups on Reddit. It is possible that people responded to the instrument more than once, which would violate the independence of observation assumption.

Despite these limitations, this study's results represent significant progress towards understanding pre-divorce conflict in parents with at least one minor child, and leveraging that understanding to inform forensic social work professionals in identifying effective, proactive interventions through assessment of risk factors identified on the PDCS. This analysis provides statistical insight into defining the construct of pre-divorce conflict. Prior to developing the PDCS, there has not been a validated short screening instrument that captures pre-divorce conflict, with prior measures overwhelmingly focused on post-divorce conflict. This study helped close this research gap, though future psychometric research is needed to replicate the present study's findings.

Future Research

Although this EFA has promising results, the PDCS is a new instrument that requires further evaluation. The PDCS should be investigated through confirmatory factor analysis, instrument validation efforts, and additional reliability testing. Further, additional assessment of the PDCS as a pragmatic instrument will require legal and mental health professionals to assess whether the PDCS is compatible with their needs and whether its results are helpful in decision-making. With continued development and future implementation, the PDCS may strengthen its claim as a pragmatic instrument.

Conclusion

This study's findings provide preliminary evidence of the internal reliability and factorial validity of the eight-item Parents Divorcing Conflict Scale for evaluating pre-divorce conflict. The PDCS is highly applicable in forensic social work, research, clinical, and policy settings and merits further investigation of its reliability and validity with a larger sample size. The PDCS has significant implications for legal and forensic social work practitioners as a short screening tool to identify families that may need more intensive support during and after the divorce. For researchers and policymakers, this screening instrument also offers a differential understanding of couples in the process of divorcing, which creates new possibilities for designing interventions and creating policies that address specific subgroups of divorce conflict.

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Appendix

Parents Divorcing Conflict Scale (PDCS)

Directions: Indicate how often the statements listed below occur by checking off one of the following. (1=never; 2=rarely, 3=often, 4-always)

1) My co-parent and I communicate well.
☐ Never ☐ Rarely ☐ Often ☐ Always

2) I can negotiate with my co-parent.
☐ Never ☐ Rarely ☐ Often ☐ Always

3) My co-parent and I can have a conversation on problems concerning our children.
☐ Never ☐ Rarely ☐ Often ☐ Always

4) My co-parent and I share in childrearing tasks.
☐ Never ☐ Rarely ☐ Often ☐ Always

5) My child(ren) benefit from a relationship with my co-parent.
☐ Never ☐ Rarely ☐ Often ☐ Always

6) I feel satisfied with our agreement on financial matters.
☐ Never ☐ Rarely ☐ Often ☐ Always

7) I am concerned my co-parent cannot adequately care for my child(ren).
☐ Never ☐ Rarely ☐ Often ☐ Always

8) My child(ren) and I are safe around my co-parent.
☐ Never ☐ Rarely ☐ Often ☐ Always