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# Projective Drawings of Mothers and Children Exposed to Intimate Partner Violence: A Mixed Methods Analysis

Amy Backos and Kristin W. Samuelson

## Abstract

*The Kinetic Family Drawing (KFD) and the Draw-A-Person: Screening Procedure for Emotional Disturbance (DAP: SPED) are intended to facilitate therapeutic discussion and assess emotional disturbance; however, little research exists on their use with victims of trauma or for identifying posttraumatic stress disorder (PTSD). This study examined drawings by 43 mothers who experienced intimate partner violence and 56 children who witnessed violence between parents. Quantitative analysis of drawings showed no differences between participants with and without PTSD. A grounded theory approach to analysis of the KFD identified themes that differentiated the groups. Our results conflict with previous research on the DAP: SPED as an effective screening tool, and confirms research indicating that qualitative interpretation of drawings is a useful tool with trauma-exposed clients.*

Projective drawings provide subjective understandings of the inner lives of clients. Drawing assessment research in art therapy and psychology ranges from development of scoring systems that systematically quantify performance or personality to more global approaches that aim to understand the subjective experience of individual clients and aid in treatment planning. Art therapists have attempted to understand diagnostic or identifying features of drawings and the subjective experiences of clients as a tool to guide treatment (Piperno, Di Biasi, & Levi, 2007) and continue to utilize projective drawings with rating systems to understand personality in ways not easily obtained via self-report (Betts & Groth-Marnat, 2014). This article contributes to the growing body of literature in both art therapy and psychological assessment, which supports the use of global systems of assessing projective figure and family drawings made by children and adults who have experienced trauma.

For victims of trauma, projective drawings access important personality aspects that are difficult to obtain via self-report (Reithmiller & Handler, 1997; Sleger-Moore,

2003). Additionally, art assessment might provide a greater ability to access implicit memory and types of imagery that are stored in the nondominant hemisphere (Collie, Backos, Malchiodi, & Spiegel, 2007; Foa, Keane, & Friedman, 2000). Drawings allow expression of preverbal material and are useful for treatment and assessment; however, the validity of projective drawings has been questioned since their inception (Betts, 2006; Betts & Groth-Marnat, 2014; Robak, 1968; Smith & Dumont, 1995; Swenson, 1957). Early scoring systems suffered from poor reliability and validity, in part because scoring rules were ambiguous, or they did not use normative samples (Naglieri, McNeish, & Bardos, 1991). Some art therapists have recommended such assessments be used very selectively (Gantt, 2004; Kaplan, 2000) while maintaining the importance of using them to understand subjective experiences. Art therapy researchers have endorsed global coding systems as a way to understand drawings, and in recent years, art therapists have provided increasing precision in art assessment using both quantitative and qualitative means (Goldner & Scharf, 2011).

Art therapy research has addressed many of the criticisms of projective drawings including construct and content validity, as well as the need to capture holistic and specific data (Betts & Groth-Marnat, 2014). Betts (2003) noted the difficulty of determining what is truly reflected in drawings. She encouraged art therapists to develop assessments that are more sensitive to clients with special needs, such as the Face Stimulus Assessment. Gantt's variation on the figure drawing, the Person Picking an Apple from a Tree, assesses the formal elements of the drawings, rather than relying on content (Bucciarelli, 2011; Gantt, 2004; Gantt & Anderson, 2009). The Bird's Nest Drawing, a theoretically based assessment, was designed to assess problems in attachment in a less threatening way than a family drawing (Kaiser & Deaver, 2009). Understanding how psychologists and art therapists use these tools is essential, particularly because global assessments, in contrast to item analysis, are recommended throughout the art therapy literature (Harmon-Walker & Kaiser, 2015; Holt & Kaiser, 2001; Kaiser & Deaver, 2009; Goldner & Scharf, 2011), and art therapists need an understanding of how projective drawings are used outside of the field (Hagood, 2003).

The Draw-A-Person (DAP) and the Kinetic Family Drawing (KFD) are two of the most widely used projective drawing measures in art therapy and psychological assessment. Whereas psychology assessment highlights standardized scores and indicators in drawings to identify pathology, art

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therapy has traditionally used drawings to elicit identifiers and subjective experiences, with more recent procedures that increase reliability and validity. The scoring procedures remain relevant for both disciplines to provide quantifiable data from which to compare children or gauge progress (Hagood, 2003), as well as to provide incremental validity to an assessment and aid treatment planning.

Naglieri et al. (1991) developed a scoring system for the DAP as a screening procedure for emotional disturbance. This Screening Procedure for Emotional Disturbance (DAP:SPED) improved on early psychometric problems by establishing clearer scoring rules and a nationally representative normative sample for calculating standard scores. Considerable research exists documenting its effectiveness as a broad screening measure (Matto, 2002; Matto & Naglieri, 2005; McNeish & Naglieri, 1993; Naglieri et al., 1991; Naglieri & Pfeiffer, 1992). Naglieri and Pfeiffer (1992) found the DAP:SPED accurately differentiated children with conduct and oppositional defiant disorder from a control group. McNeish and Naglieri (1993) found the DAP:SPED differentiated special education students with emotional disturbance from students in regular education classrooms.

The KFD was designed to elicit subjective experiences of living in one's family and is relevant for understanding a person's relational experience with family members and the overall family experience (Goldner & Scharf, 2011). KFDs provide a useful perspective of a person's social environment, and have been used to understand attachment (Fury, Carlson, & Sroufe, 1997; Goldner & Scharf, 2011), home life quality among sexually abused children (Hackbarth, Murphy, & McQuary, 1991), social functioning for children with incarcerated parents (Dallaire, Ciccone, & Wilson, 2012), resilience in children with HIV-positive mothers (Ebersöhn et al., 2012), and mother's psychopathology (Führer & McMahan, 2009).

Projective drawings show efficacy in differentiating abused from nonabused children, but the drawings are less effective at identifying type of abuse. A meta-analysis of 12 studies found a large effect size ( $d = .87$ ) for projective assessments in differentiating sexually abused from nondistressed children (West, 1998). Medium to large effects ( $d = .76$ ) were found in studies that attempted to differentiate sexually abused children from other distressed children. Sleger-Moore (2003) found the DAP and the KFD did not differentiate among sexually abused, physically abused, and nonabused children. In another study, KFDs by 143 abused and 150 nonabused children were assessed on dimensions of action, family figures, family dynamics, and family symbols (Lee, Kim, & Park, 2006). They found drawings by the abused children demonstrated more alienation in their family and parents were seen as negative and aggressive, as compared to drawings of the nonabused. Older studies have demonstrated efficacy of the KFD in differentiating between children with and without mood disorders (Tharinger & Stark, 1990), and psychiatric disorders (Levenberg, 1975).

Psychological assessment researchers have sought to identify components of KFDs that suggest psychopathology or trauma. Piperno et al. (2007) examined family drawings of 12 physically abused, 12 sexually abused, and 12 nonabused children, finding the abused children were significantly more likely to include distorted bodies, lack of details, and lack of a primary caregiver in their drawings. A 2012 meta-analysis concluded controlled studies using projective drawing did not provide consistent evidence of specific indicators to identify abuse in children (Allen & Tussey, 2012). Research supporting the use of projective drawings in differentiating children with and without post-traumatic stress disorder (PTSD) is lacking.

Using quantitative and qualitative approaches, this study examined the utility of the DAP:SPED and the KFD in differentiating groups of mothers and children based on PTSD status as a result of experiencing or witnessing intimate partner violence (IPV). This study offers a unique look at family drawings by mothers and their children exposed to a shared trauma. It was hypothesized that children who have PTSD would show significantly more indicators on the DAP:SPED than children who did not have PTSD. We hypothesized that mothers and children with PTSD would show more themes of negative family interaction on the KFD than mothers and children without PTSD. Although it is not normed on adults, we also explored use of the DAP:SPED with adults and hypothesized that mothers with PTSD would have significantly higher scores on the DAP:SPED than mothers without PTSD. Finally, the study asked an exploratory question regarding the holistic analysis of KFDs: What features are present in KFD drawings of IPV-exposed mothers and children with and without PTSD?

## Methods

This study was part of a larger research project examining the effects of IPV and maternal PTSD on children's emotional, behavioral, and neuropsychological functioning and was approved by the review board of the sponsoring institution (Backos, 2009). Participants were recruited from a pool of prior research participants at the university that sponsored the research, online advertising, and word of mouth. Mothers and children were given detailed information about the study and mothers gave informed consent for themselves and their children and the children gave their assent.

## Participants

Participants were from a large West Coast city and included 43 mothers and 56 children who completed either the DAP, the KFD, or both. To be included in the study, mothers had to be at least age 18, a victim of IPV (physical, sexual, or verbal abuse), out of the abusive relationship for at least 6 months, and living separately from the abuser. Children had to be living with the mother, and witnessed at least one incident of the mother's IPV. The majority of the children were African American (67.8%), followed by

biracial (15.3%), Hispanic (11.9%), White (5.1%), and Asian (2.2%). They ranged in age from 7 to 17 ( $M = 12.9$ ,  $SD = 2.96$ ). The children's fathers were identified as the abuser 64% of the time; 13% were stepfathers and 23% were intimate partners without a caregiver role. Mothers were mostly African American (69.8%), followed by Hispanic (14.0%), White (11.6%), Asian (2.3%), and biracial (2.3%). The mean age of the mothers was 35.9 years old ( $SD = 6.6$ ), with a range from 25 to 55 years old. They had a mean and median of 13 years of education with a range of 10 to 18 years. The majority of mothers were unemployed (65.4%) and most families (68.3%) were living below the poverty line as determined by the Health and Human Services Poverty Guidelines (U.S. Department of Health and Human Services, 2007).

## Measures

The mothers completed the Clinician-Administered PTSD Scale (CAPS; Weathers, Keane, & Davidson, 2001), a semistructured interview considered the gold standard for assessing PTSD. The CAPS has excellent reliability and validity across a variety of populations. Internal consistency is high with an alpha of .94 for the total score and a range of .85 to .87 for the symptom clusters (Blake et al., 1995). The CAPS has strong convergent validity (.83) when compared to the Structured Clinical Interview for DSM-IV (Foa & Tolin, 2000). The mothers were specifically asked about PTSD symptoms in response to their IPV experience. Women were considered PTSD+ if they met full diagnostic criteria for PTSD and PTSD- if they did not.

The children completed the Clinician-Administered PTSD Scale, Child and Adolescent Version (CAPS-CA; Nader et al., 1996), a modified version of the CAPS intended for children ages 8 to 18. The CAPS-CA has excellent reliability and validity (Weathers et al., 2001). Internal consistency is high (.75-.85) for symptom clusters (Weems, Saltzman, Reiss, & Carrion, 2003) with good concurrent correlation ( $r = .64$ ) when compared to the Child PTSD Checklist (Weems et al., 2003). Children were asked about PTSD symptoms related to witnessing IPV and were considered PTSD+ if they met either full or subsyndromal PTSD (meeting diagnostic criteria on the reexperiencing cluster and one additional cluster). Subsyndromal PTSD in children has been associated with equivalent levels of functional impairment as full PTSD (Blanchard, Hicking, Taylor, Loos, & Gerardi, 1994; Carrion, Weems, Ray, & Reiss, 2002).

Both mothers and children completed the DAP, which consists of three drawings: a man, a woman, and the self. Participants were given three sheets of 8.5 × 11-in. white drawing paper, a number two pencil with eraser, and 5 min to complete each drawing. The DAP:SPED provides a score for each picture, which is subsequently totaled and translated into an age-adjusted  $t$  score. A cutoff  $t$  score of 55 serves to identify children for whom further testing is recommended. The DAP:SPED has an appropriate level of internal reliability for a screening tool (Matto & Naglieri, 2005; Naglieri et al., 1991). They calculated Cronbach's

alpha for each of the age groups and found a range of .62 to .78. Interrater and intrarater reliability were calculated as .844 and .830, respectively (Naglieri et al., 1991). There are 55 possible indicators of emotional disturbance on the DAP:SPED, including extremely large or small figures; missing body parts; vacant, crossed, or closed eyes; figures depicted as monsters or in uniform; figures drawn in impossible configurations; and objects attached to the figure.

Both mothers and children completed the KFD; they were asked to draw a picture of their whole family, including themselves, "doing something together." We used Burns's (1982) system of analysis because it focuses on the perception of family dynamics. This descriptive scoring tool identifies KFD features yielding a portrayal of family disturbance on several variables. In a review of the KFD literature, Handler and Habenich (1994) reported that the studies they reviewed had very good to excellent interrater reliability with correlation coefficients ranging between .87 and .95. However, the test-retest studies reported that the reliability on some drawing features such as omission of body parts, rotated figures, arm extensions, elevated figures, and barriers was high (.70-.90), whereas other features such as omission of family member and relative size of self test-retest reliability were much lower across the pairs of pictures (.46-.60). Although the KFD lacks standardized scoring, a normative sample, or comparison groups, it provides a list of features to score as present or absent to aid in the development of a clinical hypothesis. Each picture was also reviewed using Knoff and Prout's (1985) category of style, which includes compartmentalization, encapsulation, and use of underlining and edging.

## Data Analysis

A multimethod analysis was employed. First, DAP drawings were analyzed quantitatively using traditional scoring tools of the DAP:SPED (Naglieri et al., 1991) by the first author. A second board-certified art therapist scored 16 of the DAP:SPED tests (17.5%). There was disagreement on 111 of the 2,640 possible scores (4%) and discrepancies were resolved through joint review of the manual.

Second, the KFD drawings were qualitatively analyzed using a grounded theory approach to explore how mothers and children who had experienced IPV might depict their families using the KFD (Burns, 1982). Seven mental health and education professionals who were blind to PTSD status were enlisted to conduct the analysis. They were trained by the first author on the process of grounded theory and to observe general themes of the KFD in these areas: actions of and between figures, figure characteristics, position, distance, barriers, style, and symbols as described by Knoff and Prout (1985). They each made observations about the KFD drawings individually to avoid premature group consensus. Next, we coded, tallied, and summarized the raters' observations. Finally, we developed a theory, grounded in the drawings and on the rater observations, to describe how each group of mothers and children depicted their families. Clusters of observations were combined into broad

categories and then compared across the two groups, the PTSD+ group and the PTSD- group.

## Results

Of the 43 mothers, 23 met diagnostic criteria for PTSD (52.0%) according to their scores on the CAPS. Of the 56 children, 19 (33.9%) met full or subsyndromal criteria for PTSD. Thirty-eight mothers and 56 children completed the KFD; 37 mothers and 54 children completed the DAP:SPED.

There were no significant differences between scores of mothers with PTSD ( $M = 52.80$ ,  $SD = 8.02$ ) and those without ( $M = 50.00$ ,  $SD = 10.50$ ) on the DAP:SPED,  $t(36) = -.919$ ,  $p = .365$ . Children categorized as having PTSD ( $M = 54.95$ ,  $SD = 9.12$ ) did not score significantly differently from children without PTSD ( $M = 53.06$ ,  $SD = 10.55$ ) on the DAP:SPED,  $t(53) = -0.64$ ,  $p = .52$ . Mean scores of all groups fell into the DAP:SPED category that indicated no further testing is recommended.

Examining the KFD scores using Burns's method, mothers with PTSD ( $M = 0.6$ ,  $SD = 0.75$ ) did not show more indicators of emotional disturbance than mothers without PTSD ( $M = 0.89$ ,  $SD = 0.89$ ),  $t(36) = 1.076$ ,  $p = .289$ . Children with PTSD ( $M = .68$ ,  $SD = .75$ ) also did not show more indicators of emotional disturbance than children without PTSD ( $M = .80$ ,  $SD = .79$ ),  $t(53) = .553$ ,  $p = .583$ .

Grounded theory analysis of the KFD yielded themes for each of the groups, which are listed together in Table 1. The following themes were identified for drawings of PTSD+ mothers: mother depicted separately from the family, a limited range of activity included, unidentifiable activity included, and negative or mixed affective quality. Mother depicted separately from the family included portrayal of the mother in independent activity from the children, separation via line or encapsulation, or mother drawn on a separate piece of paper. Ninety-six percent ( $n = 22$ ) of PTSD+ mothers drew the family engaging in separate activities or with the mother separated from the family in another area. Examples included no family interaction, mother talking on the phone, mother crying and looking distressed, and children on separate hills at the park with the mother separate and looking away from the children. Three (13%) of these pictures were drawn as nonkinetic family portraits; that is, not depicting activity.

Drawings by PTSD+ mothers showed a limited range of activity: low-level interaction, passive activity, or unidentified activity. Three (13.0%) showed no activity and five drawings (21.7%) displayed unidentifiable activity of the family members. Only three (13.0%) included positive family interaction such as a picnic and the family jumping rope. For example, Figure 1 displays PTSD+ themes: no or low level of activity, negative affect, and separation of the family members from one another.

Raters commented on negative and mixed affective quality, noted in seven (30%) of the pictures: flat expressions, tension, appearing distressed, unhappy, sad, lonely, and bored. Positive affect was observed in only three (13%) of the drawings, where figures were smiling, calm, happy, and pleasant. Five (22%) pictures included both positive and negative affective ratings.

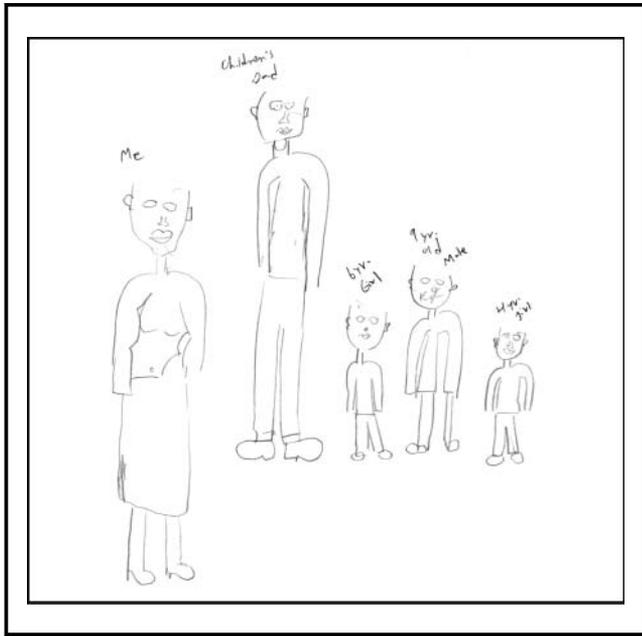
Raters identified three themes in the drawings by PTSD- mothers: subtle separation from family, variety of identifiable activities, varied affect, and family connection. Of the 20 PTSD- mothers, 18 (90%) depicted the mother with subtle separation from family by using a different drawing style for the mother, depicted distinctly different facial expressions or clothing for her, and depicted her watching the family activity rather than participating in it. Qualitatively different from the separation depicted by PTSD+ mothers, PTSD- mothers' drawings were described as having the mother figure depicted larger than other family figures, having more detail than other family members with different clothes and more facial details, and in separate areas from the children.

Drawings by PTSD- mothers displayed a greater variety of family activities compared to the PTSD+ mothers. Activities depicted in drawings of PTSD- mothers included attending a baseball game, playing basketball together, attending the theater, swimming, eating together, walking the dog, and watching TV. Of the 20 drawings, in 18 (90%) the activities were easily identifiable by raters. The drawings contained varied affective tone. Seven (35%) were positive: happy, smiling, loving, pleasant, and connected. See Figure 2 for a family drawing that demonstrates the themes of positive affect and family connection, although family members are not engaged in an activity. Six (30%) depicted negative affect representing figures, as characterized by the raters as guarded, manic, chaotic, lost, vacant, just going

Table 1. Kinetic Family Drawing Themes Identified in Grounded Theory Analysis

PTSD+ Mothers	PTSD- Mothers	PTSD+ Children	PTSD- Children
Depicted separately	Subtle separation	Isolation/estrangement	Shared activity
Limited activities	Variety of activities	Negative interactions	Positive interactions
Activity is unidentifiable	Activity is identifiable	Incomplete figures	Incomplete figures
Negative/mixed affect	Varied affect		Positive/mixed affect
	Connection to family		

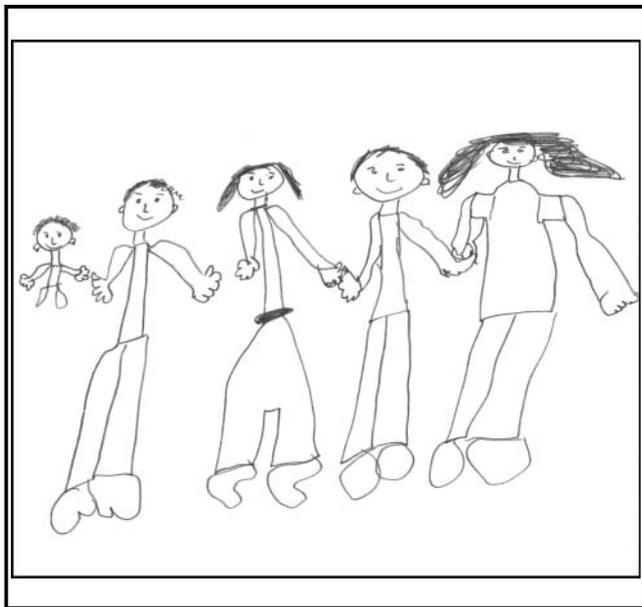
Note. PTSD = posttraumatic stress disorder.



**Figure 1.** Kinetic Family Drawing by PTSD+ 28-Year-Old African American Mother

through life, overstimulated, sad, or confused. Eight (40%) were categorized as having neutral expressions.

Themes in the drawings of 19 PTSD+ children included estrangement or isolation from the family, negative family interaction, and incomplete figures. Isolation or estrangement from the family designated drawings that show children isolated without proximity or activity with other family members. Five (26.3%) children drew no activity and another five (26.3%) depicted family members engaged in isolated activities. Examples include a mother



**Figure 2.** Kinetic Family Drawing by PTSD- 42-Year-Old African American Mother

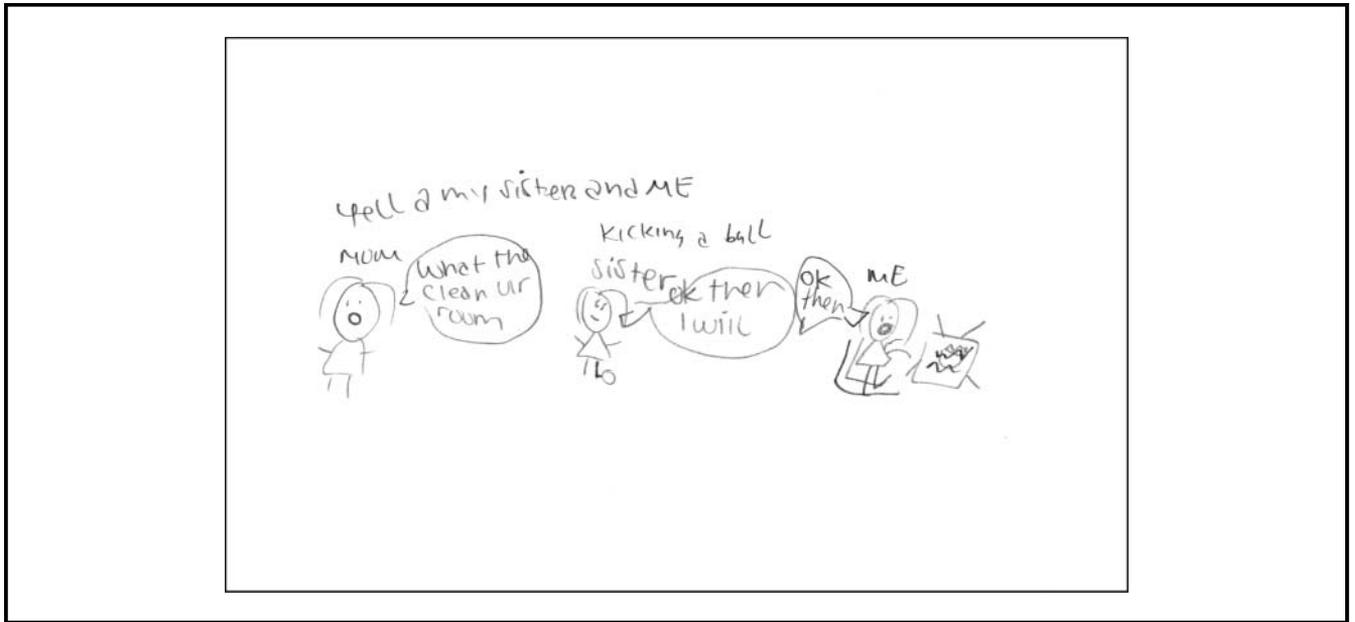
not interacting with her child, mothers who were separate from the children, a mother and daughter saying goodbye, a child looking at the mother while the mother looks away, and drawings in which the viewer is unable to differentiate family members from one another. Eight (42.1%) children created drawings with negative family interactions (see Figure 3 for an example), including a mother yelling at her children, a mother vomiting while her daughter cries and tries to help her, a father who looks scary, and a drawing with deliberate scribbles on one figure's face. Figure 4 is an example of the themes of isolation with family members encapsulated together and the father not included. Twelve (63.2%) of the drawings include incomplete figures, including missing body parts, no faces, and failed body integration.

Themes of drawings of children rated as PTSD- include positive family interactions, positive affective tone, and shared activity. Of the PTSD- children, 23 (62.2%) depicted the family engaged in a pleasant activity, including watching a baseball game, bowling, picnicking, cooking together, jumping rope, playing a video game together, and visiting a park. Figure 5 includes the theme of a shared activity: extended family members engaged in a pleasant activity of swimming together. The parents were both included in the picture, but drawn outside of the pool. Conversely, 10 (27.0%) depicted the family engaged in separate activities (Figure 6) and four (10.8%) were family portraits (Figures 1 and 2). Like PTSD+ children, 23 (62.2%) of the pictures by PTSD- children contained missing or unattached body parts.

## Discussion

This mixed methods study sought to assess for the presence of PTSD in drawings of mothers and children exposed to IPV to allow for distinctions between participants who have endured trauma without developing PTSD (PTSD-) versus those who met the criteria for a diagnosis of PTSD (PTSD+). We hypothesized that both the DAP:SPED and the KFD would differentiate mothers and children with and without PTSD, but the groups were not significantly different. The drawings of mothers and children exposed to IPV, with or without PTSD, displayed fewer than expected indicators of emotional disturbance, using the scoring guidelines for the DAP:SPED. Notably, no individuals in either group reached a threshold score on the DAP:SPED that indicated further evaluation was needed. Our findings imply that the DAP:SPED does not effectively detect emotional disturbance in a PTSD+ population that presumably should have signs of emotional disturbance, indicating a high rate of false negative responses. Type II error is particularly problematic in the DAP:SPED, a tool designed to cast a wide net to determine if further evaluation is warranted.

Additionally, there were no differences in number of indicators of family disturbance using Burns's (1982) scoring system, and both groups had similarly low levels of indicators of family disturbance. Little evidence exists to support a one-to-one association between drawing features



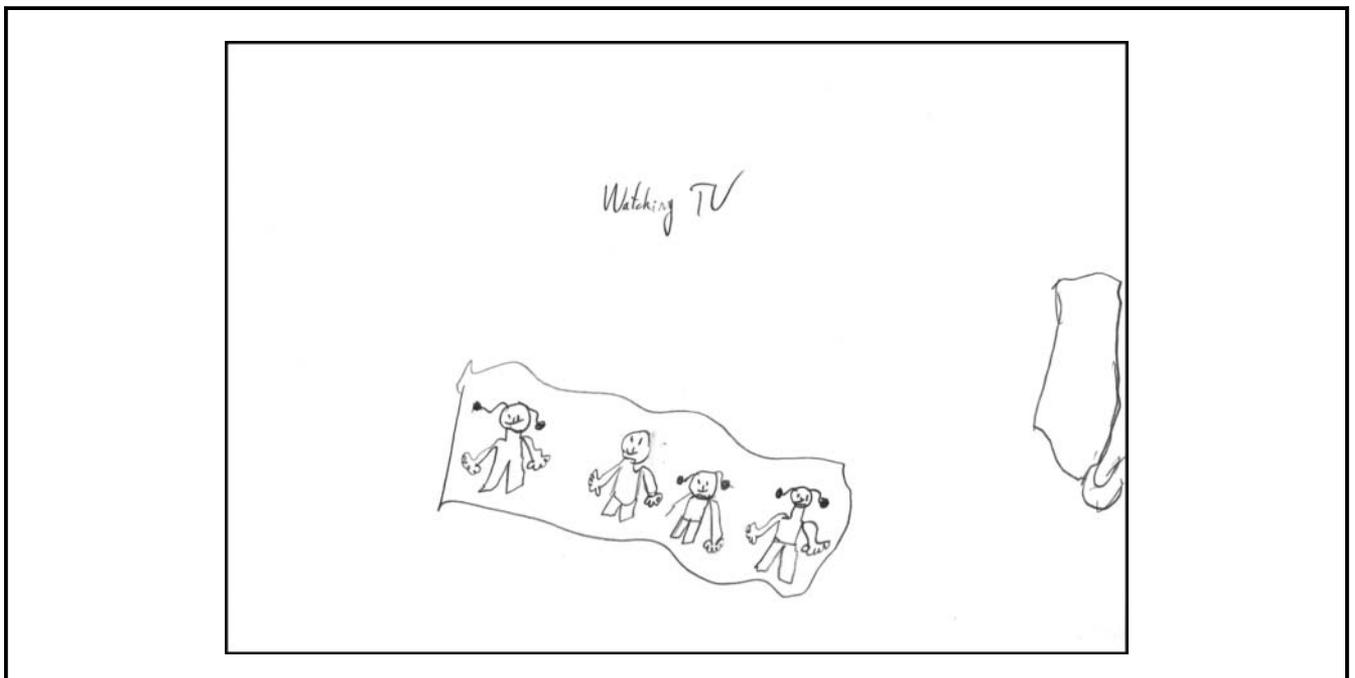
**Figure 3.** Kinetic Family Drawing by PTSD+ 16-Year-Old African American Girl

and a specific psychological diagnosis (Allen & Tussey, 2012; Naglieri & Pfeiffer, 1992; Oster & Gould, 1987).

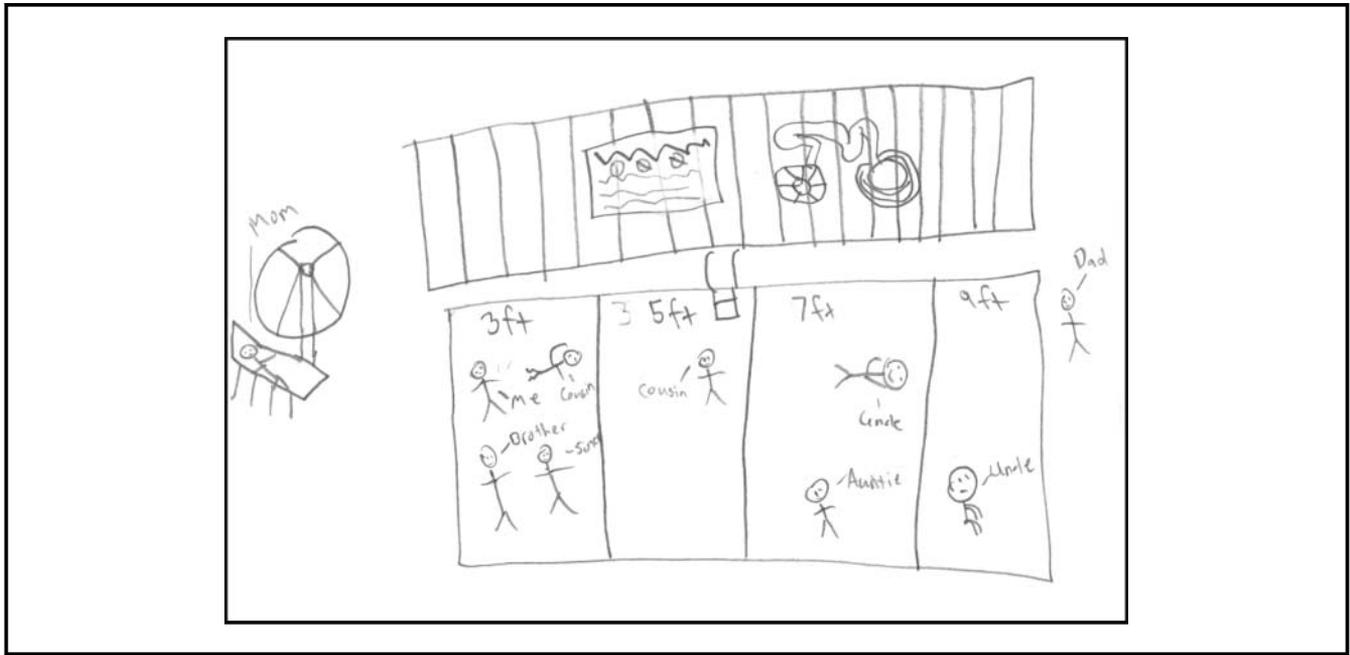
Conversely, the qualitative KFD results support previous literature that suggests a holistic and integrative analysis of projective drawings is preferred to analysis of individual features of the drawings (Goldner & Scharf, 2011; Harmon-Walker & Kaiser, 2015; Kaiser & Deaver, 2009). This approach yielded a more fruitful interpretation of the drawings; the grounded theory analysis was successful in capturing overarching and subtle differences in the

drawings. Using the themes identified in this research, art therapists have additional support for using the KFD to identify children who are at risk for dysfunction in family systems (Holt & Kaiser, 2001).

Qualitative analysis of drawings, recommended repeatedly in the literature, was indeed more successful in capturing themes to differentiate mothers and children with and without PTSD. Interestingly, raters documented large numbers of indicators of family disturbance in participants that were not captured by the Burns (1982) system. Both



**Figure 4.** Kinetic Family Drawing by PTSD+ 9-Year-Old African American Boy



**Figure 5.** Kinetic Family Drawing by PTSD– 12-Year-Old African American Boy

PTSD+ and PTSD– mothers showed separation, isolation, or estrangement in their drawings, which suggests that surviving the experience of IPV, regardless of any subsequent PTSD symptoms, could lead to feelings of isolation within one's family.

Drawings by PTSD+ mothers and children are consistent with PTSD symptoms of avoidance, anhedonia, and

disconnection in that the majority of mothers and children with PTSD drew family members separate from one another, with the most extreme example being a mother and child drawn on separate pieces of paper. The separation of family members might reflect actual family dynamics, or might reflect diminished interest in significant family activities and feelings of alienation. The PTSD– mothers showed



**Figure 6.** Kinetic Family Drawing by PTSD+ 47-Year-Old White Mother

a qualitatively less dramatic separation than the PTSD+ mothers. PTSD+ children depicted separation, isolation, or estrangement from the family, negative family interaction, and incomplete figures. PTSD- children also depicted incomplete figures, but their drawings showed the family members engaged in positive, shared interactions. It is important to note that the majority of the participants were African American women living in an urban environment and struggling financially. The depiction of mothers working and cooking separately from the rest of the family should not necessarily be interpreted as a pathological, but could be just a realistic depiction of mothers in the home. The following two case examples are presented to illustrate the themes found in the KFDs of each group.

### Case Examples

In the first case, a 28-year-old African American mother of three experienced abuse by her children's father for 7 years. Both she and her son were categorized as PTSD+ using the CAPS and the CAPS-CA. She drew the image in Figure 1 of a nonkinetic family portrait, and although she was divorced, she included her ex-husband in the picture. Body parts are missing, including the tops of the heads, or drawn in incorrect or impossible positions. The drawing displays themes of flat facial expression and separation of the mother from the rest of the family. Figure 4 was drawn by her 9-year-old son and it includes four tiny, smiling figures, less than an inch tall, encapsulated together inside a wavy rectangle. Although the child has continued contact with his father, he did not include the father in the picture. His picture includes incomplete figures, and shows a low level of family interaction.

In the second case, a 42-year-old African American mother of four, who experienced IPV by her ex-husband, drew Figure 2. Neither she nor her son was deemed to be PTSD+ by raters. She drew a nonkinetic family portrait and included herself and her children close together and smiling. Some hold hands and they appear to float on the page although there is an implied ground line. This picture reflects no family activity, family connection, and positive affect. Figure 5 was drawn by her 12-year-old son who witnessed the IPV. He drew his extended family as stick figures swimming, with groups of family members encapsulated in the pool. This picture includes themes of family engaged in a shared pleasurable activity and both positive and negative affective tones. The pool separates the parents and neither is engaged in the activity.

### Limitations

Limitations of this study include the lack of a non-trauma-exposed control group. Because all of the participants experienced significant interpersonal trauma, and because interpersonal trauma, regardless of PTSD status, is associated with signs of emotional disturbance in drawings, this might have contributed to the lack of significant differences found using the scoring procedures. Additionally, we used the DAP:SPED with adults although it has only been

normed with children. Another limitation is that the sample was of limited racial and ethnic diversity, comprised of predominantly low-income, African American, urban families with high rates of trauma and PTSD. This limits our ability to generalize the findings.

### Conclusion

The themes identified in the qualitative analysis are useful for supporting clinical inquiry by art therapists working with clients exposed to trauma and provide guidance for researchers. Therapists can look for the themes we identified in artwork and inquire about the features to elicit dialogue to promote development of a coherent trauma narrative. Future research should explore qualitative and holistic applications of using art with families who have experienced trauma, and specifically, examine how various elements in family drawings might be reflective of PTSD. Recent implementation of computer and tablet software for projective drawings should be explored, as it has the potential to provide standardized administration and scoring, which would increase rater reliability (Im et al., 2010; Kim, Han, Kim, & Oh, 2011). Projective drawing research would also benefit from further exploration of strength-based qualities in drawings (Ebersöhn et al., 2012; Goldner & Scharf, 2011), neurological changes reflected in the art (Gantt & Tinnin, 2009), and new or updated scoring procedures (Giasson, Daigneault, & Hébert, 2014). New or expanded categories for the KFD might include qualitative categories that reflect other features such as trauma or more affective qualities, which might not be fully captured in the current scoring systems.

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