

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

Nur Aidah Rashid¹, Rosmaria Omar^{2,*} Zolkepli Haron³

¹Education Policy & Leadership Department, Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Bangi, 43600, Selangor, Malaysia

²Faculty of Educational Foundation Studies, Universiti Putra Malaysia (UPM)Serdang, 43400, Selangor, Malaysia

³Education Policy & Leadership Department, Faculty of Education, Universiti Kebangsaan Malaysia (UKM), Bangi, 43600, Selangor, Malaysia

*Corresponding Author: rosemariaomar@gmail.com

ABSTRACT

Abstract Qualitative approach with a multiple case study design was put forward to explore the psychological problems experienced by postgraduate students and their children based on the children's drawings. The problems involve depression, stress and anxiety. Both adults and children face difficulty in expressing their feelings and problems. Thus, this study explores the problem through the Kinetic Family Drawing (KFD) approach based on children's drawings that depict their families being involved in some activities or events. A convenient sampling was used to collect data from three children from two Asian mothers pursuing postgraduate studies. An open-ended interview was conducted on the children and their mothers aimed at an in-depth understanding of the problem situation. Bracketing and member checking procedures were employed in order to produce more pronounced results. Bracketing requires the researcher to go back and forth from the transcripts to the drawings to seek related information referred to. Member checking that was only conducted on the mothers allows them to add, clarify and fill information gaps of what transpired during the interview. The NVivo software was used for collated documents. Meanwhile, KFD rubric was used to further analyse the data. The in-depth qualitative approach exposes children emotional problems, is more than just some internal problems, such as low self-motivation and sadness, but is also the external problems as associated with sexual abuse and occurrence of cursing. Results of the study showed that children understood their mother's emotional burden and stress. But conversely however, mothers were unable to reach into their children's voice. Under these circumstances, KFD has the capability to greatly assist children in voicing out such hidden feelings. It is recommended that further studies to be conducted should engage more samples for greater precision and output of more pronounced results.

Keywords: Kinetic Family Drawings (KFD), psychological problem and KFD rubric

Correspondence:

Rosmaria Omar²

²Faculty of Educational Foundation Studies, Universiti Putra Malaysia (UPM)Serdang, 43400, Selangor, Malaysia

*Corresponding author: Rosmaria Omar² email-address:

rosemariaomar@gmail.com

INTRODUCTION

Postgraduate students experienced psychological problems during their studies. Most of the problems encountered include depression, anxiety and stress [1, 2]. Interestingly, female postgraduate students recorded the highest rate for experiencing high stress and of this most of them were married [3].

This study explores the psychological problems that can be perceived through children's drawings. A drawing reveals behavior problems and children's feeling of what is really happening in their family as apparent to them. The drawing acts as a healing agent. This secret world of drawings underpins a healing process through art. The hidden interpretation of a drawings had been developed by Burns and Kaufman [4, 5] through Kinetic Family Drawing (KFD). Burns and Kaufman [4, 5, 6] had focused the attention of researchers to determine children's problems through their drawings. They proposed the idea that young children projected their feelings through drawings rather than through words. As such they have confidence in the analysis of figure drawings, which make more sense as an excellent method in venturing children's emotions. In relation to this, Furth [7] further explore the KFD elements into meaningful picture interpretation. The exploration was from an art therapy lens within a psychotherapeutic context and transformed into projective techniques. Projective drawing is becoming more popular because of

the child-friendly approach [8]. Accordingly, Burns and Kaufman [4] strongly believed that children's drawing provides a healing process to overcome limitations such as language barrier, cultural deprivation, and inherent inability to communicate.

Under normal circumstances a child's or parent's problem remained a secret. To unpack such secret information, a qualitative measure with an in-depth qualitative triangulation method was used to discern more meaningful material.

Besides, the practice of reflexivity benefits the qualitative methodology process [9]. In relation to this, the complexity of measurement in research had created a path that motivates the researcher into investigating projective testing through children's drawing. In consequence, the main objective of this study is to investigate and analyze children's drawings, through qualitative measurement, into revealing meaningful information.

RELATED LITERATURE REVIEW

Post graduate students have often experienced incidence of stress and depression. Such malaise may become real-life psychological burden to these students in completing their studies [1]. These researchers, who examined the influence of academic psychological stress on 93 postgraduate students found that the stress can trigger anxiety which is dependent on physiological conditions.

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

Similarly, in relation to stress, Madhan, Ojha, Gayathri, [10] examined 251 post-graduate orthodontic students for their perceived psychological stress and discovered five high stressful factors involved. These were; (1) dependencies on drug, alcohol, and others; (2) financial stress; (3) politics and psychological games played by faculty members; (4) effect of fully loaded day; and (5) forced postponement of engagement or marriage.

Zeng, Zhao, Zou, Yang, Zhang, Wang, Zhao and Chen [11] who examined suicide risk among 3257 graduate students, found that depressive and post-traumatic stress can increase its occurrence. However, they also discovered that variation in emotion regulatory self-efficacy may decrease the risk of suicide. They accordingly suggested that stress, whether beneficial or harmful, is in the final analysis dependent on the physiological conditions [1]. Divaris, Polychronopoulou, Taoufik, Katsaros, and Eliades.[12] studied 99 dental post graduate students for stress and burnout. They found that stress was correlated with burnout and was more pronounced among graduates in clinical residency compared to those following non-clinical or PhD programmes.

Visual art is generally regarded as beneficial for children. The literature has shown that art brings happiness and yield meaningful data. Information such as positive impact, internal and external children's behavioral problems can be revealed through their drawings. Additional information related to these drawings includes parent's role and the qualitative approach adopted in research.

Visual art generates happiness and benefits to children which they expressed themselves through drawings. For instance, projective tests such as the Kinetic Family Drawing (KFD) is a simple and fun drawing activity for children, which helped in assessing children's feeling [8]. This observation is consistent with Bland's [13] findings. With the use of children's drawings, he found the usefulness of the visual data thus generated which help to contribute to the objective of research.

In addition to art as a source of meaningful data, it also leads to positive impact such as open communication. Hartig's [14] study on children, revealed that by using art as therapy, they were more motivated to talk and were more open to communication. The study by Linesch, Ojeda, Fuster, Moreno, and Solis [15] on immigrant children, found that they felt more confident and comfortable to share their stories with other people. The literature generally recorded that art offers positive impact on children's behavior as offered by many studies including that by Wilkinson and Chilton [16].

Drawings often reveal children's problem which has bearing on the role parents played in their life. Sutton-Smith [17] who studied students' exploration of their identities, found that visual art involving family activities yielded more meaningful information related to their internal, external and family problems. For instance, Lee [18] in his study on immigrant children, found that art helped to reveal children's internal problems such as anxiety, fear, boredom, and social isolation. Bhattacharya [19] studied a similar situation on children with disciplinary problems raised by parents experiencing financial hardship. The children were rebellious in nature and those with Asian parents suffered from stress, low self-esteem, heavy burden, and sense of disappointment. Such behavioral problems were similar to the ones reported by Goldner

and Scharf [20] who investigated the internal and external problems related to children's drawing. They found that children with internal problems tend to be sad, less focused, and with low impulsivity [20]. Whereas children with external problems tend to be highly bad-tempered. According to Bohlin, Eninger, Brocki, and Thorell [21] the callous-unemotional traits (CU) are one of the major external problems, which harm affected children. Callender, Olson, Choe, and Sameroff [22] made the astonishing finding that parents are the main cause of external problems. They attributed this to the actions of parents who discipline their children frequently through physical punishment. Thus, ensuring parents as a good role model is vital for children's development [23].

Parents should also spend more time doing art together with their children. Quality time spent can be as minimal as just saying "I love you". Parents should bear in mind that such an apparently small action does make a big difference to their children [24]. Quality time, for example is simply having fun and engaging in relaxing activities with the family [25]. Such quality time, which may include shared time doing art together, is often neglected, resulting in children spending less time with their parents especially if they are continuously busy including commitment to pursuing their studies. According to art therapists, quality time in shared art activity can foster strong bonding or relationship with the children, and provide venue for them to express their feelings which can be discussed together. Art time spent together is therefore much more than just about drawing per se [26]. Furth [7], suggested that through art, children can reveal their inner secrets and have their voice heard. Parents therefore, need to acquire good parenting skills in order to hear out their children's voice through the medium of art [27].

Quality time with parents is important to children's development and at the same time it may provide a vital source of qualitative data. The quality of such data lies in the qualitative triangulation method that can draw out information from children's drawings. Roe, Bridges, Dunn and O'Connor [28] who investigated family drawings from a longitudinal study, found that qualitative triangulation generated rich information on children's feelings. Their finding was also consistent with those by Ebersöhn, Eloff, Finestone, Van Dullemen, Sikkema, and Forsyth [29], who discovered themes and rich information on possible causes of children's behaviors through employing the KFD approach. Yasui and Wakschlag [30] applied the qualitative approach to study children with disruptive behavior problems. They found that the emerged theme of parental awareness is important in raising children. Parenting skills in particular will be amplified through giving sufficient attention to expressing parental love and sharing special art time with the children [27]. Such skills are important according to Nazri Mahat and Suhat [31] who studied parents' perspective on information, and validated parenting skill readiness instrument in preventing adolescents' sexual health risk behavior. They established that parents' view is very important for assessment in order to improve on their parenting skills. It can thus be suggested that qualitative yield of in-depth result in drawing, together with KFD test help in understanding children's thoughts and feelings [31, 32].

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

MATERIALS AND METHODS

Design

The study employed a multiple case study design with each family participant treated as a case study. It incorporates a qualitative triangulation methodology approach, which involves interviewing, observation and document analysis. The researcher also practiced reflexivity throughout the study, particularly when they began to explore the topic. Reflexivity is thinking about your thinking or reflecting on what you are thinking. It is an imperative part of the qualitative method which also has a qualitative approach that was preferable in evaluating the KFD drawing [9].

Participants

The KFD drawings used in the test were collected from a convenient sampling of two female postgraduate Asian students and their children. The three children involved in the study ranged in age from 3 to 13 years old. A structured interview was used on the children for confirmation purposes of their family members shown in the picture. A semi-structured interview with the open-ended questions was used for the mothers and designed to elicit an in-depth understanding of the situation conveyed in the drawing.

Instrument Kinetic Family Drawing

The Kinetic Family Drawing (KFD) is one of the assessment tests called the projective test [33, 34]. All participants were assessed using the KFD test developed by Burns and Kaufman [4, 5]. Investigation on the drawings was conducted via document analysis using four key elements of the KFD to interpret children's drawings [4, 5]. These elements are (1) action, (2) physical characteristics of the figures, (3) distance, barriers, and position, (4) styles. Each key element has several sub-elements, namely; (1): (a) showing what the family is doing, (b) actions in different activities; (2): (a) represent formal aspects of the drawing: (i) inclusion of essential body parts, (ii) size of each figure, (iii) size of other parts of the body, and (iv) facial expressions; (3): (a) number of barriers between mother and father, mother and child, father and child, child and child, (b) the distances between each other, and (c) the direction faced by each figure; (4) : (a) refers to the organization of the figure, (b) variables that indicate emotional disturbance i.e. compartmentalization, edging, encapsulation, bottom lining, top lining, underlining individual figures, folding compartmentalization, and bird's eye.

KFD materials

Each participant was given an A4 white piece of drawing paper and other stationeries such as color pencils, color markers, pencils, a sharpener and an eraser.

KFD Procedures

Each participant was asked to draw his or her family including themselves, doing some activities. All drawings must avoid stick figures, and have to appear like human figures. There was no time limit set, but the participants were encouraged to draw within 2 hours or less. They were left alone to complete the drawing in a room that was provided with a comfortable table and chair. When the drawing was completed, the

researcher requested each child to identify the family members in the drawing and any odd or unidentifiable objects. The questions are based on a structured interview as mentioned earlier.

Data collection procedures

Prior to participation, informed consents were obtained from the parents and children in both families. The researcher provided verbal instructions in addition to the written instructions that accompanied the KFD test. In the first phase, the study started with a document analysis of the KFD and KFD rubric developed by Burns and Kaufman [4, 5] and the Furth [7] ideology. All written documents were compiled using NVivo software and the KFD drawings were compiled manually by sticking them in a sketchbook.

In the second phase, the KFD drawings were chosen by the researcher and collected in a private setting in Malaysia. The third phase involved observation during the drawing process. Following completion of the drawings in the fourth phase, the mothers were interviewed using open-ended questions designed to gauge in-depth understanding of the situation. In the meantime, children were queried in a structured interview to confirm the identity of family members as depicted in the pictures. All interview protocols were conducted based on adaptation from Burns [6]. All individual interviews were audiotaped and later transcribed using a word document. The study subsequently continued into the fifth phase for data analysis.

Qualitative data analysis

In the fifth phase, the researcher used five-sub phases to analyze the data. The sub-phases were as follows:

(a) Becoming familiar with the data: The researcher began by analyzing documents and drawings to familiarize herself with the data. At this juncture the NVivo, sketchbook, and KFD rubric were used for data analysis. All drawings were examined manually using traditional methods such as sticky notes and writing memos in a big sketchbook. By doing memoing, the researcher makes notation or field notes, which together constitute part of reflexivity.

(b) Focus on the analysis: The researcher subsequently focused on the analysis by doing bracketing and member checking in order to produce more meaningful results. Bracketing requires the researcher to check the transcripts and drawings to find related information that the researcher was referring to. In the meantime, member checking was only performed on the participating mothers who were allowed to comment, clarify and fill information gaps on their inputs through the interview. In this phase, the drawings were interpreted qualitatively and manually with the guidance of the KFD rubric. Research by Tharinger and Stark [36] has shown that the qualitative approach does produce sound data as apparent in their quote, "*the clearest sense of these characters can be gained through placing oneself in the drawing, preferably in place of the child*" (p.370-371). The drawings compiled in the study were similarly interpreted by a single rater using the Tharinger and Stark [36] approach while using the KFD rubric as a guide. With this approach, the researcher could extract more meaningful information from the results.

(c) Categorize the data and create a framework:

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

The researcher again practises reflexivity as mentioned earlier. This comprises paying attention to one's own thinking, recording what one is thinking by paying attention to what is going on and recording what is going on. In these circumstances, the researcher is trying to make sense of what was written down in the field notes and memos.

(d) Identify patterns and make connections: Based on the data collated, the researcher endeavours to identify patterns and make sense of these. For example, from elements in the KFD rubric, the researcher makes connections within elements to interpret and understand the drawing. These connections between elements can be visualized in the results in Table 1 and Table 2. In particular, the column under reflection helps one to identify patterns and connections involved. The column represents reflexivity during data analysis in the study.

(e) Interpret the data and explain the findings: Finally, the interpretation of the drawings was conducted using the KFD rubric to make sense of the collated data. The in-depth interviews conducted following the drawings greatly assist KFD interpretation and in producing more meaningful and rich information.

Findings and discussions

The in-depth interviews in the qualitative study reveal the children's emotional problems, not only the internal problems such as low self-motivation and sadness, but also the external problems which include sexual abuse and cursing. Interestingly, results show that children sufficiently understand their mother's burden and emotional stress. But conversely, mothers were unable to delve into their children's feelings. Results of the analysis are described in Table 1 and 2.

Table 1 shows the summary results of the drawings and interviews between children for family A. The summary provides information on KFD elements.

Family A Son 1

Interesting findings were conveyed from this particular study since the older brother of Family A, labelled here as 'Son 1' according to Table 1, had submitted two drawings instead of one. In the first drawing, the action, position, and interpersonal distance of the family members, which comprise the KFD elements, were too limited since they were isolated and everyone was standing behind their windows, which did not make much sense. A structured interview was conducted with Son 1 to find out more about the family members as depicted in the drawing. At the same time, an in-depth interview with the mother revealed what was behind the isolation and the feeling of being caged, as depicted from the standing positions behind the windows and experience by all family members except for the mother. The mother was 'freely' standing at the balcony watching the birds. Surprisingly though there were no birds, as described by Son 1, and no balcony as described by the mother. This curious situation begets more information from the mother. The KFD element of styles such as bird's eye and compartmentalization of pictures characterise the existence of disturbance behavior problem. From the interview, the mother observed that 'Son 1' always looked sad and worried

which thus led to further investigation. The picture does not depict the son as feeling sad over the mother's burden, but more the action of making the mother 'feel free'. The picture from the balcony showed that Son1 would want the mother to be free and not to be a burden in lieu of the study. The researcher explores the opposite meaning through reflexivity, bracketing, and member checking. Bracketing requires the researcher to refer back to the transcripts, and drawings to find related information to which he was referring to. Member checking was only done on the mother thus allowing her to comment, clarify and add to information gaps from what were said during the interview. Both approaches were employed to yield more meaningful results. At the same time, an in-depth interview produces a confirmative result. Other KFD elements such as size, barriers and styles were absent in the drawing. The in-depth interview therefore explores KFD with more meaningful details.

The second drawing depicted actions from family members that were rather limited since they were pictured as merely standing still. The drawing appears simple and meaningless. However, the drawing was further analyzed from aspects of several KFD elements, namely, size, facial expression, position and distance, barriers, and style. Interestingly, there was no indication of the style pictured in the second drawing. Further, there were no apparent distance and barrier issues. Only the facial expression was identified which pictured the younger brother, or 'Son 2' looking very angry relative to the others who appeared to be smiling. Another odd issue detected in the drawing were the captions on both brothers' shirts. The shirt on Son1 had the caption "*I only see green people*". Whereas, on Son 2 his caption was "*I'm mad*". This begged for more investigation from an in-depth interview with the older brother. Unfortunately, this was not done. The researcher found it difficult to interpret these captions since there was no guidance according to the KFD by Burns and Kaufman [4, 5], and also Furth [7]. Nevertheless, there was guidance for colors from Furth [7] where specific shades give meanings to children's drawing. But both drawings from Son 1 however showed no colors.

The result indicated that 'Son 1' purposely avoided using any colors in his drawings thus depicting a dull or sad environment. This absence of color may signify that 'Son 1' has low self-motivation and was feeling sad. An in-depth interview with the mother explained everything. According to her 'Son 1' likes to isolate himself, always full of self-pity and has no empathy for the mother. He also avoids having long conversation with her. The captions and as well as the use of colors confer meanings to the drawings, and this should necessitate further research in the future.

Son 2

The drawing from 'Son 2' depicted family members doing the house chores. The father was repairing the car, the mother was busy in the kitchen and the elder brother was in his own room. Son 2 drew himself driving a car. The elements of distance and positions of everyone yielded curious data, since he drew himself outside the house, at the right top corner of the paper. In comparison, other family members were drawn inside or close to the house. This clearly shows an edging of the

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

KFD style. Additionally, there were two more styles involved, i.e., top lining and compartmentalization. The latter style can be seen from the locations of the mother and 'Son 1' in the kitchen and room respectively. Interestingly, there were two top linings involved. One showed an unknown dialogue bubble above his head and the other a rainbow above the dialogue. Further information from an in-depth interview yielded more information on what had occurred. Both styles indicated the existence of disturbance behavior problems and occurrence of cursing in the family. Other KFD elements discerned included facial expressions and existence of barriers. Everyone's facial expressions were normal,

except for Son 2 who looked angry. One barrier element was depicted by the car positioned between Son 2 and the father. The other barrier is Son 1's room positioned between Son 2 and their mother. These elements thus indicate that disturbances occur in the family environment and that these are related to their interpersonal attachments [37].

In sum, family A's drawings depicted that Son1 showed indication of low self-motivation and feeling of sadness. From his drawing Son 2 indicated the occurrence of cursing in the family as well as his desire to seek for more attention from his parents.

TABLE 1. Summary Results of the Drawing and Interview between children for family A

Person	KFD elements	Descriptions	Interview from the mother	Reflections
Drawing 1	Action	Everyone is in their room. The mother is at the balcony, the father is in the living room, the younger brother is his room, and he himself is in his room.	<i>"it's strange that we don't have a balcony. My husband loves watching TV. My older son like drawing and keep himself in his room. My youngest son likes playing Lego. So, it's strange that he is in his room because he does not have his own room and he likes playing in front in the living room".</i> <i>"my oldest son worries about me a lot...my meal, which I must take it on-time, my work or assignments, and chores at home"</i>	Odd elements: the balcony, which does not exist. Seek more explanation from an in-depth interview. Color elements: No colors, everything is in black and white
Son 1 (older)	Size Facial expression	Normal Only the 'son2' looks angry	NA <i>"My youngest son is always spoilt and seek attention. However, he is always envy of his older brother"</i> <i>"My youngest son always wants what his older brother has"</i>	NA Wondering what is going on?

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

	Position/ distance	Equal distance because everyone is in their room. Except for the mom who is sitting outside window.	<i>"I often don't have time to play with my son, as I am tired after came back from school"</i> <i>"what time do you came back from school, can you play with me?"</i>	Odd elements: the position of the mother is outside. <u>Whereas</u> , others are sort of trapped in their room because of their window features. Thus, seek more explanation in the interview.
	Style: bird's eye (seeing from the top)	Everything is viewed like a bird's eye, which is looking <u>as a whole</u> for the picture.	<i>"My son often being blamed of anything that my youngest son did because he is the oldest. He might be so angry because he is being isolated and ignored by the father"</i>	Seek in-depth interview, as this element pictures the existence of disturbance behavior problem
	Style: compartmentalization	Everyone is in their room. Except for the mother who is outside the room at the balcony.	<i>"My oldest son likes to be alone. He does <u>drawing</u> most of the time in the room"</i>	Seek in-depth interview, as this element pictures the existence of disturbance behavior problem
Drawing 2	Action	<u>Sight seeing</u>	<i>"...we love to walk in a park during weekends. Otherwise, our backyard will be just fine"</i>	Odd elements: no one is holding hands Color elements: No colors, everything is in black and white
	Size	Normal	NA	<u>NA</u>
	Facial expression	Only 'son 2' looks angry	<i>"my youngest son is always envy of his older brother and he wants more attention. I think the brother knew and drew it in the drawing"</i>	Wondering what is going on?
	Position/ distance	Everyone is standing side by side, the father, mother, 'son 1', and 'son 2' respectively, but without holding hands. Everyone has equal distance, but not for 'son2'. 'Son 2' is a little bit far away from 'son 1'.	<i>"...to be honest everyone is not close to one another. I guess this is because of my time and busy as a student"</i>	Wondering why no one are holding hands?

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

Barriers	The mother and 'son 1' are in the middle. Both of them are the barriers among the father and 'son 2'. The brother is the barrier between mother and 'son2'	<i>"I wish my sons get along together. They both fight a lot, but the oldest who always concede and get the blame"</i> <i>"He preferred himself getting the blame because he does not want me to worry about my youngest son"</i> <i>"I truly believed that he wants me to be focused on my Ph.D. and not about family problems"</i>	Odd elements: (1) Usually the barrier is an object. In this case, the barrier involves people. (2) The caption on their shirts: son 1 and son 2.	
Son 2 (younger)	Style: NA Action Size Facial expression	NA Everyone is enjoying what they love to do. The father is repairing his car; Mother is cooking in the kitchen. 'Son 1' is in his room drawing. 'Son 2' is driving a car Normal 'Son 2' looks angry	NA <i>"my husband likes repairing cars. He works as a mechanics"</i> <i>"I love cooking and always prepare during every meal time"</i> <i>"my oldest son likes to draw"</i> NA <i>"I guess he wants more time to play and attention from me and my husband"</i> <i>"... and probably he is so angry at his brother"</i>	NA 'Son 2' is driving his car, but there is a rainbow on top of his head NA Wondering what is going on?

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

Position/ distance	Father, mother and 'son 1' are closer to each other, but 'son 2' is so far away from them. Everyone is in their room, except for 'son 2'.	"...my youngest son likes to crave for my attention. He loves to do something annoying just to get my attention"	The distance means something to relationship.
Barriers	The car is as the barrier between 'son2' and the father. 'son 1' room is the barrier between 'son 2' and the mother.	"...my husband spends most of his time repairing and upgrading the car's engine and body..." "...my youngest son always plays by his own..." "...it's weird, we don't have another room"	Attachment concern
Style: Edging	'Son 2' drew himself up right on top of the paper driving a car	"...he wants a toy car, but I could not afford to buy one at this moment" "my youngest son likes to be angry at me. I guess he wants attention. Sometimes he said bad things to me, but like as if I did not hear them"	Seek in-depth interview, as this element pictures the existence of disturbance behavior problem.
Style: compartmentalization	'son 1' and the mother are inside the house.	"He <u>sort</u> of hates his brother and envy at him" "He is picky in food and always get mad at me if I don't cook his favorite dish"	problem. Odd element: there is a dialogue with unknown words above 'son 2' head
Style: top lining	There is a rainbow on top of 'Son 2' head, above the dialogue		Besides the car is a small airplane Three styles: focus too much burden or want more attention

*NA-Not applicable

Family B Daughter

The child had submitted three drawings, instead of one. Table 2 shows the summary of KFD elements of these drawings in which all showed disturbance behavior problems.

The first and second drawing had style elements of edging and top lining respectively. The existence of edging in the first drawing shows the occurrence of disturbance related to family attachment [37]. There also exist two top lining styles. One was depicted by a big heart shape and the other, located above this, was in the shape of a rainbow, which indicated that the daughter understood the mother's burden. The big heart shape element also indicated that the burden

borne by the mother was too along thus displaying the feelings that the daughter loves her mother greatly. The two top lining elements were also positioned above the daughter's head which also suggested that they both love each other so much. Other KFD elements in the first drawing included size, facial expression, distance, and barriers. The second drawing included size, facial expression, distance, and barriers. Shockingly, the third drawing depicted occurrence of sexual abuse. This was apparent from the transparent element, but not from the KFD element in accordance to Furth [7]. The drawing showed the seat of a swing without its iron structure that is

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

transparent to the brother's genital part. Based on all the KFD elements depicted in the three drawings, the child's mother was interviewed for further information in order to make sense out of the elements found. The study firmly establishes that a drawing without an in-depth interview is therefore meaningless. From such interviews more information can be revealed and greater insights derived from the children's drawings.

In conclusion, all three drawings from Family B depicted disturbance behavior problems. The first drawing indicated internal behavior problem shown by her extremely sad and disappointed feelings of being neglected by the father. The second drawing also indicated deep sadness, but more to demonstrate the daughter's full understanding of the mother's burden and hardship. The third drawing however, indicated an external problem, namely that of sexual abuse. The transparent element was found parallel in accordance with that of Furth [7].

CONCLUSION

This in-depth qualitative study reveals children's emotional problems, which are decidedly not merely the internal problems such as low self-motivation and sadness, but also the external problems in the like of sexual abuse and occurrence of cursing. Interestingly, results show that children understand their mother's burden and stress as revealed in the in-depth semi-structured interviews duly conducted on participating mothers. Conversely however, mothers were unable to delve into their children's feelings. This study had achieved its objectives by analysing children's drawings to reveal their hidden meanings despite the norm of the busy mother engaged in numerous activities including pursuit of further education. Children's drawings of their families can suitably be used to assess disturbances related to relationship or attachment between family members experienced during their formative childhood days [37]. Findings from the study were consistent with those by Burns and Kaufman [5] in that the KFD functioned as a screening tool, which reflected primary disturbances more rapidly and readily than through

interviews. The study also firmly established that KFD tests conducted without an in-depth interview is basically meaningless. The use of KFD together with in-depth qualitative approach can therefore assist in effectively screen children's problems. Projective test can be used for children, adolescents, and adults [38]. However, more research methodology should be undertaken to confirm the data collated rather than to merely rely on the conclusion and recommendation of the respective studies

[38]. Future studies are thus recommended to have depth coverage on samples, raters, mixed-methods, and KFD psychometric properties with revised KFD rubric. KFD is popular among practitioners in the past and it is widely used until the present. However, most instruments have not been validated in the measurement setting. For example, Ban, Boon, and Kok [39] in their study on children's drawings, through examining the related family units from this perspective, had welcomed researchers to validate Kinetic Family Drawing Interview Questionnaire for future studies. These however are yet to be undertaken. Li, Chung, Hsiung, Chen, Liu, and Pan [40], in their study on patients with psychiatric disorder, through examining the Kinetic-House-Tree-Person Scoring System, discovered very little support was given to studies on psychometric properties used in projective testing. It is recommended that studies using KFD should require large samples to ensure high reliability [41] since big data produce higher precision [36]. With regards to projective testing, a study by Veltman and Browne [41], revealed that KFD does not produce perfect reliability if raters were few. Recent studies strongly suggest that more samples and raters are crucial in projective testing research. Furthermore, Furth [7] believed that a proper training is important for the raters since at present they tend to evaluate differently from each other. It can therefore be suggested that studies using projective testing can be improved on if more samples and raters are involved, and a mixed-method approach used and the KFD psychometric properties investigated in depth

TABLE 2. Results of the Drawing and Interview from a child for family B

Person	KFD elements	Descriptions	Interview from the mother	Reflections
Drawing 1	Action	Looks like the family is in a park		
Daughter	Size	The younger brother is smaller. The drawing of everyone is half of the body	<i>"My daughter does not like the brother because he's being spoilt by my husband. She purposely isolating the younger brother for satisfaction and to show that she is angry about him. She always ask me why does daddy don't love me and don't have time for me"</i>	Why half body?
	Facial expression	Father looks angry, daughter looks sad,	<i>"she always wondering that why daddy hates me and don't love me, which she asked me about does daddy have time to read books or play with me"</i> <i>"she does not need the brother, which she pledged for love and attention"</i>	Wondering what is going on?
	Position/distance	Father, mother and daughter are closer to each other, but the brother is so far away from them. The position is side by side between three of them. However, the brother is located in different place on the edge of the right side.	<i>"why must always my brother mummy"</i> <i>"what time does he gets back from school, can he play with me?"</i>	Odd elements: the position of the brother is so far away. Seek more information through an interview

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

	Barriers	There's a flower and a butterfly or a bug with small wings between the mother and flower. The mother, the bug and the flower is the barrier.	"mommy, I wish daddy spare sometimes with me, which I pity my daughter when she says that"	Odd elements: a bug on father's nose and all of the bugs including the flower is dark brown or dead, which means extremely sad. Thus, seek more explanation in the interview.
	Style: edging	Edging drawing exist	"My daughter always be blamed of anything that my son did because she is the oldest. I guess my daughter is so sad and angry because she's being isolated and ignored by the father"	Seek in-depth interview, as this element pictures the existence of disturbance behavior problem
Drawing 2	Action	Looks like the family is in a park		
	Size	The father is bigger compared to others	"My daughter does not like the father because he only cares of the older brother not my daughter. The father seems like a big boss, and could not talk in a humble manner to my daughter..."	If one of the family members is bigger than the rest of the family members in the picture, thus this sense a disruptive behavior
Facial expression		Father looks angry from the face and the hairdos is straight up Others looks happy and enjoying their time	"she always wondering daddy does not love me. which she asked me about why daddy never say I love you to me, but he says to my brother?" "I pity my daughter as my husband always spends time playing and reading books with my son more compare to my daughter"	problem. Seek in-depth interview. Wondering why the father looks angry compared to others? Seek in-depth interview
	Position/distance	Distance father and daughter so far away Distance father with the brother so close Position was side by side to each other.	"my husband always plays with my son and not with my daughter" "He always hugs and says I love you to the brother and never to the daughter" "...the dad spoilt the brother than the daughter"	What is really going on? Seek more information
Barriers	The older brother and the mom is the barrier as both of them are between the father and the daughter	"mommy, I wish daddy can play with me and draw with me"	Seek in-depth interview, as wondering why there are barriers element	
Style: Top lining	There is a top lining at mother's head, another is a big heart shape on mother's head. The top lining is above the big heart shape. The top lining is a rainbow.	"My daughter always been scolded and been blamed by my husband even for a small mistake" "I am so close to my daughter, as she often sleeps on my arms or armpit" "she never asked me how much I love her, instead she always asked me why daddy does not love me?"	Odd elements: the big heart shape was found on mother's head and only on the daughter's head. The mother's heart was triple size than the daughter's heart shape. Seek in-depth interview Interestingly, above that shape is a hard stroke rainbow, which show existence of disturbance behavior problem. Color elements: No colors, everything is in black and white	

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

Drawing 3	Action	Looks continues event from Drawing 1 Looks in a park, but only focusing on two people, the older brother and the mother	<i>"I am close to my daughter as she loves me hugging her"</i> <i>"both of them are close to each other and they love playing together"</i>	Seek in-depth interview because the picture only focuses on 2 people.
	Size	Normal	NA	NA
	Facial expression	The oldest brother looks angry	<i>"I never see my daughter so angry at her brother. All I noticed was they played together in the bathroom and I overheard she laughed."</i> <i>"both of them always play together... but they love playing in the bathroom during bathing"</i>	Wondering why the brother looks angry compared to others? Seek in-depth interview Odd elements: the swing is hanging without its iron structure as a swing. The drawing is like pointing out the seat, showing the body is transparent to the brother's body of his genital part. These two are serious and seek an in-depth interview.
	Position/distance	Position is the mom is standing behind the older brother. The older brother is sitting down on a swing.	<i>"...they were naked when they play in the bathroom"</i> <i>"...the brother likes taking pictures of my daughter and frequently taking pictures of her genital part"</i> <i>"the brother is eight years old and my daughter is six years old"</i>	
	Barriers	NA	NA	NA
Style	NA	NA	NA	

*NA-Not applicable

Acknowledgements

This research was partially funded by: Dana Penyelidikan FPEND GG-2019-035 MULTICENTER SURVEY," Journal of International Dental and Medical Research, vol. 4, no. 3, pp. 123-131, 2011.

REFERENCES

- [1] Ignacchiti, M., Sesti-Costa, R., Marchi, L., Chedraoui-Silva, S., Mantovani, B., "Effect of academic psychological stress in post-graduate students: The modulatory role of cortisol on superoxide release by neutrophils," *Stress*, vol. 14, no. 3, pp. 290-300, 2011.
- [2] Vasugi, S, Norlizah C. Hassan (2019). Depression, Anxiety and Stress among Postgraduate Students in Faculty of Education of a Public University in Malaysia. *Malaysian Journal of Medicine and Health Sciences*, 15, 90-95, (eISSN 2636-9346)
- [3] Mumtaz, Y., Jahangeer, A., Habib, A., Adnan, S., Mumtaz, Z., "Stress in postgraduate trainee doctors of public and private universities of Karachi," *Pakistan Journal of Medical Sciences*, vol. 26, no. 2, pp. 420-425, 2010.
- [4] Burns, R., & Kaufman, S., "Kinetic Family Drawings (K-F-D): An Introduction to understanding children through kinetic drawings," New York: Brunner/ Mazel, 1970.
- [5] Burns, R., & Kaufman, S., "Actions, styles and symbols in Kinetic Family Drawings (K-F-D): An interpretive manual," New York: Brunner/ Mazel, 1972.
- [6] Burns, R.C., "Self-growth in families: Kinetic family drawings (KFD) research and application," New York, NY: Brunner/Mazel, 1982.
- [7] Furth, G., "The secret world of drawings: Healing through art", Sigo Press, 1988.
- [8] Frick P.J., Barry C.T., Kamphaus R.W., "Projective Techniques. In: Clinical Assessment of Child and Adolescent Personality and Behavior," Springer, Boston, MA, 2009.
- [9] Sarah, J. T., "Qualitative Research Method 2nd Edition," Wiley-Blackwell, 2019. ISBN: 9781119390794
- [10] Madhan, B., Ojha, A., Gayathri, H., "PERCEIVED SOURCES OF PSYCHOLOGICAL STRESS IN POST- GRADUATE ORTHODONTIC STUDENTS IN INDIA: A
- [11] Zeng, Baoer, Zhao, Jiubo, Zou, Laiquan, Yang, Xueling, Zhang, Xiaoyuan, Wang, Wanjun, . . . Chen, Jie., "Depressive symptoms, post-traumatic stress symptoms and suicide risk among graduate students: The mediating influence of emotional regulatory self-efficacy," *Psychiatry Research*, vol. 264, pp. 224-230, 2018.
- [12] Divaris, Polychronopoulou, Taoufik, Katsaros, Eliades., "Stress and burnout in postgraduate dental education," *European Journal of Dental Education*, vol. 16, no. 1, pp. 35-42, 2012.
- [13] Bland, D., "Using drawing in research with children: Lessons from practice," *International Journal of Research & Method in Education*, vol. 41, no. 3, pp. 342-352, 2018.
- [14] Hartig, N., "Creative Family Therapy Techniques: Play, Art, and Expressive Activities to Engage Children in Family Sessions," *Journal of Family Psychotherapy*, vol. 22, no. 2, pp. 174-175, 2011. DOI: [10.1080/08975353.2011.578050](https://doi.org/10.1080/08975353.2011.578050)
- [15] Linesch, D., Ojeda, A., Fuster, M.E., Moreno, S., Solis, G., "Art Therapy and Experiences of Acculturation and Immigration," *Journal of the American Art Therapy Association*, vol. 31, no. 3, pp. 126-132, 2014. DOI: [10.1080/07421656.2014.935586](https://doi.org/10.1080/07421656.2014.935586)
- [16] Wilkinson, R. A., Chilton, G., "Positive Art Therapy: Linking Positive Psychology to Art Therapy Theory, Practice, and Research," *Journal of the American Art Therapy Association*, vol. 30, no. 1, pp. 4-11, 2013. DOI: [10.1080/0742656.2013.757513](https://doi.org/10.1080/0742656.2013.757513)

Qualitative Approach in Analyzing Children's Psychological Problems Through the Use of Kinetic Family Drawing (KFD)

- [17] Sutton-Smith, B., "The ambiguity of play," Cambridge, MA: Harvard University Press, 2009.
- [18] Lee, S. Y., "Flow in Art Therapy: Empowering Immigrant Children with Adjustment Difficulties," *Art Therapy*, vol. 30, no. 2, pp. 56-63, 2013. DOI: [10.1080/07421656.2013.786978](https://doi.org/10.1080/07421656.2013.786978)
- [19] Bhattacharya, G., "The School Adjustment of South Asian Immigrant Children in the United States," *Adolescence*, vol. 35, no. 137, pp. 77, 2000.
- [20] Goldner, L., Scharf, M., "Children's family drawings and internalizing problems," *The Arts in Psychotherapy*, vol. 39, pp. 262-271, 2012.
- [21] Bohlin, G., Eninger, L., Brocki, K., Thorell, C., "Disorganized Attachment and Inhibitory Capacity: Predicting Externalizing Problem Behaviors," *Journal of Abnormal Child Psychology*, vol. 40, no. 3, pp. 449-458, 2012.
- [22] Callender, K., Olson, S., Choe, D., Sameroff, A., "The effects of parental depressive symptoms, appraisals, and physical punishment on later child externalizing behavior," *Journal of Abnormal Child Psychology*, vol. 40, no. 3, pp. 471-83, 2012.
- [23] Muris, P., Maas, A., "Strengths and difficulties as correlates of attachment style in institutionalized and non-institutionalized children with below-average intellectual abilities," *Child Psychiatry and Human Development*, vol. 34, no. 4, pp. 317-328, 2004.
- [24] Souter, E., "Family Values," *Essence*, vol. 39, no. 11, 2009. Retrieved from <http://search.proquest.com.libproxy.library.wmich.edu/docview/223144067/fulltextPDF/6D55217306FF4BA2PQ/1?accountid=15099> (accessed 2019).
- [25] Snyder, K.A., "A vocabulary of motives: Understanding how parents define quality time," *Journal of Marriage and Family*, vol. 69, no. 2, pp. 320-340, 2007.
- [26] Gray C., "Art therapy: when pictures speak louder than words," *Canadian Medical Association Journal*, vol. 119, no. 5, pp. 488, 1978.
- [27] Sullivan, K., "Family Art Therapy: Foundations of Theory and Practice," *Art Therapy*, vol. 30, no. 4, pp. 181-182, 2013.
- [28] Roe, A., Bridges, L., Dunn, J., O'Connor, T., "Young children's representations of their families: A longitudinal follow-up study of family drawings by children living in different family settings," *International Journal of Behavioral Development*, vol. 30, no. 6, pp. 529-536, 2006.
- [29] Ebersöhn, L., Eloff, Finestone, Van Dulleman, Sikkema, Forsyth, "Drawing on Resilience: Piloting the Utility of the Kinetic Family Drawing to Measure Resilience in Children of HIV-Positive Mothers," *South African Journal of Education*, vol. 32, no. 4, pp.331-348, 2012.
- [30] Yasui, M., Wakschlag, L., "The Culturally-Enhanced Videofeedback Engagement (CEVE) Framework: Qualitative findings in families of children with disruptive behavior problems," *Transcultural Psychiatry*, vol. 52, no.3, pp. 417-443, 2015.
- [31] Nazri Mahat, A., Sutan., Rosnah, "Validation of the questionnaire on parenting skill readiness in preventing adolescents' sexual health risk behavior," *Journal of Education and Social Sciences*, vol. 5, no. 3, pp. 32-3, 2017. ISSN2289-1552
- [32] McLeod, J., "Qualitative research in counselling and psychotherapy," SAGE, 2001.
- [33] Kim, J., Suh, J., "Children's kinetic family drawings and their internalizing problem behaviors," *The Art of Psychotherapy*, vol. 40, pp. 206-215, 2013. DOI: [10.1016/j.aip.2012.12.009](https://doi.org/10.1016/j.aip.2012.12.009)
- [34] Hilsenroth, M. J., Segal, D. L. (Eds.), "Personality assessment" in *Comprehensive handbook of psychological assessment*, Vol. 2, Hoboken, NJ, US: John Wiley & Sons Inc, 2014.
- [35] Salkind, N. J., "Encyclopedia of measurement and statistics," Thousand Oaks, CA: Sage Publications, Inc., 2007. DOI: [10.4135/9781412952644](https://doi.org/10.4135/9781412952644)
- [36] Tharinger, D., Stark, K., "A qualitative versus quantitative approach to evaluating the Draw-A-Person and Kinetic Family Drawing: A study of mood-anxiety-disorder children," *Psychological Assessment: Journal of Consulting and Clinical Psychology*, vol. 2, pp. 365-375, 1990.
- [37] Howard, A. R. H., Razuri, E. B., Call, C. D., DeLuna, J. H., Purvis, K. B., Cross, D. R. "Family drawings as attachment representations in a sample of post- institutionalized adopted children," *The Arts in Psychotherapy*, vol. 52, pp. 63-71, 2017.
- [38] Jain, M., Singh, A., Kar, S.K., Weiner, I.B., Kuehnle, K., "Projective Assessment of Children and Adolescents," in *Reference Module in Neuroscience and Biobehavioral Psychology*, 2017.
- [39] Ban, M. L., Boon, H. L., Kok, H. C., "Kinetic Family Drawing Interview Questionnaire (KFD-IQ): A Tool to Learn About the Family Unit from a Drawer's Perspective," *European Journal of Special Education Research*, vol. 2, no. 5, pp. 102-118, 2017. DOI: [10.528/zenodo.838752](https://doi.org/10.528/zenodo.838752)
- [40] Li, C., Chung, L., Hsiung, P., Chen, T., Liu, S., Pan, A., "A Psychometric Study of the Kinetic-House-Tree-Person Scoring System for People with Psychiatric Disorders in Taiwan," *Hong Kong Journal of Occupational Therapy*, vol. 24, no. 1, pp. 20-27, 2014.
- [41] Veltman, Browne, "Trained raters' evaluation of Kinetic Family Drawings of physically abused children," *The Arts in Psychotherapy*, vol. 30, no. 1, pp. 3-12, 2003