Psychological Assessment in South Africa

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Interest in human figure drawings and their evaluation dates back to the 18th century. Drawings are considered to serve as projective techniques, as they present individuals with an unstructured and ambiguous situation, inviting them to make meaning of these tasks by drawing on their own life experiences. This allows for the exploration of a rich tapestry of material which depicts their inner world, emotions, perceptions, personality, needs and interpretation of reality (Zubin, Eron & Schumer, 1965) which may not be possible through direct communication (Machover, 1949/1980). The use of projective techniques is based on the assumption that the individual is driven by psychological forces blocked from consciousness. Unconscious conflicts are revealed by the projection of the individual’s characteristic modes of response, thought processes, impulses, needs and anxieties onto the unstructured projective task. Projection is commonly regarded as the general tendency to externalise aspects of the self (Rabin, 1981).

According to Machover (1949/1980), the human figure drawing can be understood to be the way the individual projects his inner reality of past experience and current moods, tensions and concerns by the symbolism of his body image. This inner reality is the self-concept. The psychoanalytic view holds that there are both conscious and unconscious aspects of the self, and it is the unconscious expression of conflicts, body image, self and the environment as well as sexual identity which is projected in drawings (Furth, 1988; Hammer, 1997; Koppitz, 1968). Kanchan, Khan, Singh, Jahan and Sengar (2010) point out that projection of the self should not be defined in narrow terms, as it includes not only the individual’s actual self but also the ideal self and the feared self. The theoretical concepts that underlie projective assessment are discussed more fully in chapter 24 of this volume.

Despite the ongoing controversy surrounding projective drawing tests (Matto & Naglieri, 2005; Roback, 1968; Swensen, 1968; Williams, Fall, Eaves & Woods-Groves, 2006), human figure drawings remain among the most widely used psychological tests by clinicians (Camara, Nathan & Puente, 2000). The Draw-A-Person (DAP) Test is rated among the top 10 to 15 most frequently used projective tests abroad (Hojnoski, Morrison, Brown & Matthews, 2006; Yama, 1990) and a similar rating is given for the popularity of the DAP and the Kinetic Family Drawing (KFD) amongst South African practitioners (Foxcroft, Paterson, Le Roux & Herbst, 2004).
In this chapter, an introductory overview of the DAP and the KFD will be given. Reference will be made to various texts and manuals which provide guidelines for the analysis and interpretation of these tests. Cross-cultural issues will be focused upon, using a few case examples. While projective drawing tests are extensively utilised by practitioners in South Africa, there is a paucity of locally published literature and research in this field. Some of the pioneering studies that have been conducted in this country will be discussed, and suggestions will be offered with regard to the future use of the DAP and KFD tests within our local context.

The DAP

The foundation of projective drawing tests lies in the work of Goodenough (1926), who developed the Draw-A-Man (DAM) Test and examined its relationship to the intellectual development of children aged 5–10 years. She foresaw further development and use of children’s drawing to study personality variables. Others such as Buck (1948; 1966), Machover (1949/1980), Hammer (1953), Harris (1963) and Koppitz (1968) expanded on the knowledge of projective drawing tests. The use of the DAP has been extended to work with adults. It can, for instance, be used for clinical diagnosis, to assess personality dynamics and emotional adjustment, for the study of self-perception and body image, and to assess change over a course of therapy (Hammer, 1981; 1997).

The DAM test was later refined by Harris (1963) to include the drawing of a woman and of the self. He developed the Goodenough Harris scoring system for the Draw-A-Human Test for the age range 3 to 15 years. This scoring system is widely used to assess cognitive maturity (Fabry & Bertinetti, 1990). According to Salvia and Ysseldyke (1985), the scores on human figure drawing tests tend to correlate positively with other intelligence measures, with correlations ranging from .05 to .92. However, studies conducted over the years have not been consistently able to support the utilisation of the human figure drawing as a measure of intelligence, as compared to other assessment instruments such as the Wechsler Intelligence Scales and Raven’s Progressive Matrices, although they do appear to have a relationship with Piagetian measures (Fernandes, 2000).

Machover’s (1949/1980) seminal work on the DAP served as the foundation for literature relating to the interpretation of the human figure drawing as a measure of the projected self. Her work, which emerged from psychoanalytical theory, outlined general guidelines for the identification of particular characteristics or signs that were associated with specific intrapersonal and interpersonal conflicts. For example, meaning was ascribed to shading or scribbling (suggestive of preoccupation and anxiety), size (diminished or exaggerated view of self) and pressure (suggestive of inward or outward direction of impulse). Over the past half-century an extensive body of work has been conducted to further explore and develop Machover’s original work. While many case studies have shown the clinical usefulness of Machover’s hypotheses (Maloney & Glasser, 1982), other studies have yielded negative or mixed results (Daoud & Breik, 2009; Kahill,
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1984; Roback, 1968; Swensen, 1968). Thomas and Jolley (1998) argue that there is a limitation in using Machover’s approach to interpretation with children, as her scheme was largely aimed at adolescents and adults.

With the emphasis placed by researchers on the need for objective methods in the interpretation of human figure drawings, Koppitz (1968) developed a standardised scoring system using 30 emotional indicators to detect the evidence of distress in the drawings of children aged 5 to 12 years. Koppitz (1968) controlled for developmental changes in children, and presented data which showed large differences between the total number of specific signs (emotional indicators) for disturbed and normal populations. The Koppitz approach reflected a shift from looking at individual specific characteristics in analysing drawings, as postulated by Machover (1949/1980), to the use of a global or holistic approach whereby a number of specific indicators are counted to assess psychological disturbance (Dans-Lopez & Terroja, 2010). The utility of the Koppitz scoring system has received support both overseas and in South Africa, particularly in studies describing emotional manifestations in children’s drawings (Daglioglu, Calisandemir, Alemdar & Bencik Kangal, 2010; Groves & Fried, 1991; Rudenberg, Jansen & Fridjhon, 1998; 2001; Williams, 2000). However, several research studies have challenged the diagnostic validity of Koppitz’s system of emotional indicators when subjected to empirical evaluation (Snyder & Gaston, 1970; Tharinger & Stark, 1990). A suggestion was made in a South African study (March, 2004) that there is a need for revision and refinement of some of the Koppitz indicators.

Two further quantitative scoring systems that use the sum of specific indicators on the DAP to obtain a profile of functioning are those developed by Naglieri, McNeish and Bardos (1991), who devised the Draw-A-Person Screening Procedure for Emotional Disturbance (DAP-SPED) for use with children, and the Human Figure Drawing Test (HFDT) designed for adults by Mitchell, Trent and McArthur (1993). The DAP-SPED is a screening instrument rather than a diagnostic tool, which assists in identifying children and adolescents between the ages of 6 and 17 years who may have emotional and behavioural problems that require further evaluation. Lev-Wiesel and Witztum (2006) consider the DAP-SPED as the most psychometrically advanced figure assessment measure, as its discriminant validity and reliability evidence were found to be strong. On the other hand, the HFDT scoring and interpretation system evaluates psychopathology and cognitive impairments in adults. A recent research study (Dans-Lopez & Tarroja, 2010) demonstrated the usefulness of both the DAP-SPED and the HFDT scoring systems, especially when using large sample sizes. High inter-rater reliability was shown in this study, which was conducted with Filipino adults. A further study conducted in India by Kanchan et al. (2010) found the HFDT to be a useful tool when used with other sources of collateral information to compare the cognitive and personality patterns of male and female schizophrenic patients.

The most recently developed scoring system, the Draw-A-Person Intellectual Ability Test for Children, Adolescents and Adults (DAP: IQ), has been developed by Reynolds and Hickman (2004). This requires the testee to draw a single human figure of him- or herself, which is analysed using a standardised and
objective scoring system consisting of 23 criteria. Reynolds and Hickman (2004) provide evidence for item consistency and inter-scorer reliability. In their study conducted with college students, Williams et al. (2006) reported similar reliability coefficients.

Reliability and validity
While many clinicians attest to the usefulness of projective drawing tests, their reliability, and particularly their validity, are extremely difficult to document. The popularity of human figure drawings ‘lies in how interpretation is validated by further tests, rather than how research confirms interpretations’ (Dans-Lopez & Tarroja, 2010, p.17). Test-retest reliability of the DAP ranges from fair to good (Handler, 1996), with only a few studies reporting test-retest reliabilities below .80 (Kahill, 1984). An earlier review of empirical studies reflected inter-rater reliability as being generally high, with $r > 0.80$ for both specific and global indicators (Kahill, 1984). On the other hand, there is limited validity evidence for human figure drawings (Ter Laak, De Goede & Van Rijswijk, 2005; Roback, 1968; Swensen, 1968; Thomas & Jolley, 1998; Yama, 1990). While some of Machover’s (1949/1980) hypotheses have not found empirical support, others have yielded inconsistent results (Kahill, 1984).

Administration, scoring and interpretation
The instruction given for the DAP is for the testee to ‘draw a picture of a person’ on an A4 drawing page. If a cartoon or stick figure is drawn, a request is made for the drawing of a complete person. The testee is then asked to draw a picture of the opposite sex (Machover, 1949/1980). However, Koppitz (1968) suggested that a child be asked to make only one drawing of a person, because she believed that the second drawing did not often provide additional information. A variation of the DAP test instruction, used by many clinicians to economise on time, is to instruct the testee to ‘draw a person, any person, but not a stick figure’.

Once the drawing is completed, many psychologists ask for details such as the age of the figure that is drawn and the activity that she or he is engaged in. Questions such as whom the person drawn likes the most and the least could also be asked, which could give an indication of attachment-related issues. The testee’s responses and verbalisations assist in obtaining a further understanding of the drawing. Particularly when assessing culturally diverse individuals, drawings should be used as stimuli for discussion which could allow them to elaborate on the meaning of their drawings.

The Goodenough Harris scoring system provides an indication of nonverbal cognitive ability. Guidelines for the interpretation of emotional functioning on the DAP are provided by Machover (1949/1980), Handler (1996) and Ogdon (2001). Quantitative scoring systems such as those developed by Koppitz (1968) for children or the HFDT for adults, more qualitative approaches such as Machover’s technique or Ogdon’s approach, or a combination of these systems could be used to analyse the DAP. The purpose of the assessment should determine the approach that is chosen. In the quantitative approach, individual emotional indicators are classified into categories of global functioning. For example, in
the Koppitz (1968) scoring system, two or more of the following indicators need to be present to categorise the drawing in the insecure/inadequate category: a slanting figure, a tiny head, hands that are cut off, a monster or grotesque figure, and an omission of the arms, legs and feet.

Within the qualitative approach, the overall quality of the drawing is analysed and hypotheses are formulated based on a configuration of signs. The interpreter could start by analysing the global feeling elicited by the drawing; for instance, does the figure appear sad, happy or tense? Cues are observed from the size, posture or facial expression of the figure. Graphomotor signs that are interpreted include erasing responses, placement of the drawing on the page, pressure factors and the size of the drawing. Hypotheses are based on the presence of other signs in the drawing, such as detailing of the figure and symmetry, as well as distortions and omission of body parts (Ogdon, 2001). The artistic quality of the drawing, such as the more-or-less accurate rendering of body parts and sufficiency of details, is considered to be an important factor in reflecting the degree of psychopathology (Handler, 1996). Drawing of the same gender as the client is considered normative (Daoud & Breik, 2009; Machover, 1949/1980). Guidelines on the characteristics of a ‘typical’ adult DAP drawing, which is about 15–17 cm in size on an A4 page, are given in Ogdon (2001). Discussion related to the drawing, once the testee has completed it, offers further insight into his or her functioning.

Some general considerations when interpreting human figure drawings are:

- Signs/indicators in drawings should not be interpreted in isolation but within a holistic context, taking into consideration and integrating all sources of data. This may include other formal and informal assessment procedures, clinical observations, behaviour rating scales, background history, clinical interview data and information from significant others such as parents and teachers.

- While human figure drawings are considered to represent the drawer’s self-perception and body image, situational and temporary changes in attitude and mood are also expressed. Clinical experience is needed to differentiate between ‘durable characteristics’ in drawings and ‘transient’ ones (Ogdon, 2001, p.72).

- The individual’s culture and social context need to be considered to better understand projective drawing test results and to make tentative inferences. For example, children’s drawings are influenced by the attitudes towards art in a particular social context. A reluctance to draw or shyness of drawing may be found in individuals for whom drawing is not a commonplace activity, or for whom pencil and paper are not readily available.

- Chronological age is an important factor to consider in drawing performance, and the clinician needs to be aware of the developmental stages of children when interpreting drawings. Except for severe handicapping conditions, children follow expected and progressive changes in their drawing (Malchiodi, 1998). Very young children produce scribbles, and as they mature and develop cognitively their drawings represent shapes and forms and then complex human figure drawings (Golomb, 2004). Kellogg (1969), •
Section Two: Personality and Projective Tests

Di Leo (1973) and Golomb (2004) provide an understanding of children’s drawings from a developmental perspective. Knowing what is expected for a particular age group helps the clinician to understand and interpret what may be unusual in a drawing.

- Gender differences are evident in drawings. The content and style of drawings by males and females would, in many instances, be influenced by societal, cultural and gender socialisation variables. Studies by Koppitz (1968), and more recently by others such as Cherney, Seiwert, Dickey and Flichtbeil (2006) and Oluremi (2010), showed that girls reflected more details such as body parts and clothing in their drawings than boys. This variation needs to be considered when scoring and interpreting drawings.
- Individual differences in fine motor skills can confound the outcome of drawing tests (Planta & McCoy, 1997).
- As drawing tests are screening devices to be used with other sources of information, hypotheses and interpretations made need to be tentative.

While the more quantitative scoring system could improve the reliability of the drawing test measure, it can be reductionist by not considering the drawing outcome holistically. On the other hand, qualitative approaches to analysis face the risk of subjectivity in interpretation. The clinician needs to be well skilled and self-aware, taking cognisance of the fact that personal emotions can impact upon the interpretations that are made.

Uses and limitations
The DAP is widely applicable, as it is a nonverbal assessment tool which is inexpensive and quick to administer. It provides an estimate of current nonverbal cognitive functioning on a screening level which is less influenced by cultural and language differences. Many case studies appear in the literature that attest to the usefulness of the projective drawing technique in a range of clinical situations.

Issues related to reliability and validity present as the major limitations of projective drawing tests. The compounding difficulty is that most of the evidence reported on projective drawings is in the form of clinical case studies and subjective data, rather than controlled experimental research. Projective drawing tests are not registered with the Health Professions Council of South Africa (HPCSA) as psychological tests, and local research is needed to support their widespread use in this country.

Research using projective drawings to make inferences about internal psychological states has been criticised in the literature. A further criticism is that when making interpretations the negative aspects of drawings which emphasise deficiency and pathology are mainly focused upon.

Test variations
A well-known projective drawing test that can be used for adults and children is Buck’s (1948; 1966) House-Tree-Person (HTP) Test. Quantitative and qualitative scoring criteria have been designed for this test, which provides a measure of
self-perception and conscious and unconscious associations regarding home and the environment. Some other DAP test variations that have been developed are the ‘Draw-A-Person in the rain’ modification, which attempts to assess self-concept in the face of environmental stress (Hammer, 1981), and more recently the ‘Draw a mother and child’ technique (Gilliespie, 1994; 1997). The latter test is thought to be a useful way to understand issues of early development from an object relations perspective.

The KFD

Burns and Kaufman (1970; 1972) published an introduction to the use of the KFD as a tool for assessing family dynamics and the development of the self within the family. Burns (1982) subsequently focused on the application and research related to the KFD, with some new guidelines for interpretation. The KFD involves a kinetic factor by asking the child to draw his or her family doing something. This allows one to gain a sense of the child’s perceptions of family interactions, subsystems within the family, and whether any conflict or difficulties exist in the family. The KFD is also useful in understanding changes in family dynamics over time, as well as the adjustment issues related to changes in the composition of the family. Some examples of these changes include loss and bereavement in a family, the addition of a new sibling, a reconstituted family, or where a child has been removed from parental care.

Reliability and validity

After a comprehensive review of literature and research, Handler and Habenicht (1994) concluded that the KFD scales can be scored with a high degree of inter-rater reliability. The median percentages of inter-rater agreement in the studies that they reviewed were between 87 per cent and 95 per cent. Test-retest reliability was variable, which Handler and Habenicht interpreted as being related to the day-to-day variability in children’s moods and feelings. Validity results were mixed, as Handler and Habenicht noted that researchers had in most cases modified the original scoring system devised by Burns and Kaufman (1970; 1972), making it difficult to draw comparisons between studies.

Administration, scoring and interpretation

The KFD is an individually administered test. The test instruction is ‘Draw a picture of everyone in your family, including you, doing something. Try to draw whole people, not cartoons or stick people. Remember to make everyone doing something – some kind of action’ (Burns & Kaufman, 1970, pp.19–20). If the testee asks whom to include in the picture, a non-directive answer is given indicating that it could be whomever his or her family is, so as not to impose any direction. Once the drawing is completed, it is discussed with the testee.

The general considerations for the interpretation of human figure drawings listed earlier in this chapter also apply to the KFD. Although some of the factors in the initial KFD scoring system proposed by Burns and Kaufman (1970; 1972)
were taken from work done mainly by Machover (1949/1980) on the DAP, they also added other unique variables. Burns’ (1982) scoring method uses a cluster of categories consisting of actions, styles and symbols to interpret family drawings. Distances, barriers and positions of family members are also analysed, as well as the physical characteristics of the figures that are drawn. Physical characteristics comprise the inclusion of essential body parts, the sizes of the figures and facial expression, among others. In the category of distances, barriers and positions, some of the factors that are analysed are the distances between family members, the direction faced by each figure, and the barriers placed between family members. Action, as defined by Burns and Kaufman (1970), refers to the content or theme of the drawing (for example, the type of activity depicted for each family member). Style refers to the manner of arranging the family figures on the page. Burns (1982) indicated several style variables that may suggest psychopathology or emotional disturbance, such as the underlining of the entire drawing (characteristic of family instability) and compartmentalisation (suggestive of an attempt to isolate the self).

In more recent years, some work on the interpretation of children’s family drawings from the perspective of attachment theory has been published (Fihrer & McMahon, 2009; Fury, Carlson & Stroufe, 1997; Grossman & Grossman, 1991; Kaplan & Main, 1986). Kaplan and Main classified children’s family drawings using four dimensions – secure, avoidant, ambivalent and disorganised/disorientated. Based on their research using Kaplan and Main’s classification system, and teacher ratings of classroom socio-emotional and behaviour functioning (controlling for the variables of age, ethnic status, intelligence and fine motor skills), Pianta, Longmaid and Ferguson (1999) concluded that this coding system may be more valuable than the informal and hypothesis-generating approaches that are used to interpret family drawings.

Studies reported by Fury et al. (1997) and Madigan, Ladd and Goldberg (2003) also support the Kaplan and Main (1986) scoring system for family drawings, although like Solomon and George (2008), they caution that further reliability and validity data are needed. In a recent South African exploratory study conducted by Douglas (2010), it was suggested that the Kaplan and Main scoring system provided insight into the attachment patterns of the sample used in her study. However, she suggested that this scoring system requires a conferencing workshop and/or modifications to improve inter-rater reliability and validity.

**Uses and limitations**
The KFD offers a tool to understand family dynamics, as well as a change in family dynamics, and like the DAP is simple to administer. It can be used where other techniques may be limited by factors such as language barriers, cultural issues and communication difficulties. Burns and Kaufman (1970) and Burns (1982) provide ample case examples which illustrate the potential use and value of the KFD projective technique.

Drawings can, in many instances, serve as a powerful medium of communication where an individual is not able to verbalise his or her thoughts and emotions. For example, in his KFD, a 13-year-old boy drew himself and his
mother pouring buckets of water over a hut that was aflame. His two siblings were walking away from this scene. When his history was probed, the social worker reported that this young boy was six years old when the informal settlement where he stayed with his mother and two brothers had burnt down. He was placed in a children’s home and was separated from his siblings. The boy had last seen his mother two years prior to the occasion when he drew the family picture. He reportedly had not ever spoken to anyone at the children’s home about his traumatic history. Not only was the boy able to represent his past experience in his KFD, but he was also able to express his unresolved feelings about not being able to ‘save’ his home and keep his family together.

In the studies reviewed by Handler and Habenicht (1994), cultural variations in family drawings were identified. In South Africa, grandparents and extended family members have a significant role to play in the day-to-day upbringing of children in many communities. In the writers’ clinical experience, this experience is often depicted in children’s family drawings. Research is needed to explore the KFD’s cross-cultural application and validity in South Africa.

Test variations
Prout and Phillips (1974) developed the Kinetic School Drawing (KSD) for school-going children and teenagers. This test requires the child to draw a picture of him- or herself, a teacher and one or more classmates. The KSD picture assesses the child’s attitude towards people at school and his or her functioning within the school environment. Knoff and Prout (1985) subsequently integrated the KFD and KSD into a system called the Kinetic Drawing System (KDS), which assesses socio-emotional differences across home and school. Their test manual summarises the relevant literature and research for the KFD and the KSD.

Cross-cultural issues with specific reference to the South African context

Chapter 24 of this volume presents a discussion of cultural and language bias issues in relation to projective testing. There has been an assumption that a human figure drawing test may serve as a useful trans-cultural measure, transcending language. However, the significant cross-cultural effects in terms of race, ethnicity, socio-economic status, societal values and norms, and religion have also been recognised in the literature (La Voy, Pedersen, Reitz, Brauch, Luxenberg & Nofsinger, 2001; Malchiodi, 1998; Rübeling, Schwarzer, Keller & Lenk, 2011).

In South Africa, there is an ongoing debate regarding the adaptation of existing international tests and the development of new culturally appropriate assessment tools (Foxcroft, 2002; Paterson & Uys, 2005). Helms (1992) and Nell (2000) have argued that tests are primarily Eurocentric in nature, developed by white psychologists who have been socialised both interpersonally and professionally in a Eurocentric environment. Foxcroft (2002) believes that the adaptation or development of culturally relevant tests and norms is paramount
to enhancing the practice of psychological testing in South Africa. On the other hand, Shuttleworth-Jordan (1996) believes that due to many different cultural groups being at different stages of Westernisation, internationally recognised and well-researched tests could be used in South Africa.

There are many instances where there would be a universal understanding in the interpretation of a human figure drawing. However, an overarching factor is that when using and interpreting projective drawing tests on samples other than those for whom they have been normed, extreme caution and sensitivity is needed. Inapplicable norms should not be used at all, in some instances. Members from all cultural groups should be involved in the development of appropriate assessment measures for the South African context.

Some case examples are presented below. Although caution needs to be applied in relation to overgeneralisation, the case examples A–G in Figures 26.1 and 26.2 reflect the likelihood that there would be a similar universal meaning for practitioners, without too much cross-cultural variation. On the other hand,

**Figure 26.1** Drawing test case examples
Projective assessment using the Draw-A-Person Test and Kinetic Family Drawing

Case example G in Figure 26.2 raises some cross-cultural issues. As drawing test findings are always interpreted in context to gain a holistic understanding of the testee, individual drawings are used here only for illustrative purposes.

The DAP picture A (7 cm in size) was drawn by a 9-year-old Down’s Syndrome boy. Developmental delay is indicated on the drawing (Stage 111 human form, ages 4 to 7 years: rudimentary, tadpole-like figure; see Harris, 1963; Malchiodi, 1998). An 8-year-old boy drew picture B (6 cm in size), which suggests emotional immaturity in terms of form and detail, and the figure drawn appears much younger than the subject (he said the boy in the picture was himself). His Wechsler Intelligence Scale for Children – Revised Fourth Edition (WISC-IV) Verbal and Performance Scale scores were average, except for a scaled score of 4 (significantly below average) on the Comprehension subtest, which was suggestive of a limitation with social reasoning. His Goodenough Harris score on the DAP placed him at a 6-year-old level. Reports by his teacher also confirmed emotional immaturity and a socialisation difficulty at school.

A 20-year-old male attending a drug outpatient clinic drew DAP picture C (6 cm in size), doing ‘nothing’. He had a history of separation anxiety as a child and was subsequently diagnosed with depression. The DAP suggests lowered self-esteem, inadequacy and possible depressive tendencies (unusually small drawing placed at the bottom of the page, lack of detail; see Ogdon, 2001).

DAP picture D (8 cm in size) was placed on the top left-hand corner of the page by a 21-year-old psychiatric patient. He had been diagnosed with autism as a child. The figure drawn suggests a distortion of body image, possible emotional instability and interpersonal awkwardness. The open mouth may indicate unmet emotional needs (see Ogdon, 2001). The testee did not make any eye contact during the assessment and appeared to be distant and detached, suggesting an interpersonal relationship difficulty.

In DAP picture E, a girl aged 13 years drew a picture of herself ‘posing for a photograph’. While her ethnic identity was reflected in her DAP, not all individuals necessarily show their cultural identity in their drawings. The testee’s attention to detail with hair, ears and dress could be reflective of a typical adolescent wish to appear physically attractive, and of a concern about how she is perceived by others. However, the attention to detail may indicate anxiety about her physical appearance (Machover, 1949/1980).

The KFD picture F (photo-reduced) in Figure 26.2 was drawn by a girl aged 8 years, whose parents had just separated. She drew herself as the last figure on the right-hand side, jumping up and down. Her mother was next to her, carrying her baby sibling, and next to the mother was her sister, playing with dolls. Her father was playing soccer (the ball could symbolise outwardly directed energy/conflict; see Burns and Kaufman, 1972). The child’s father had unexpectedly moved out of home and the KFD reflects her perceptions of the family dynamics in a potent way. Two dolls (a barrier (Burns and Kaufman, 1972)) separate the child, her mother and siblings on the one side of the drawing and her father on the other side. Insecurity (ground line, no feet except for father (Burns & Kaufman, 1972)) and anxiety (shading of figures (Machover, 1949/1980; Burns & Kaufman, 1972)) are also suggested and the mother appears to be anxious (shaded eyes (Machover, 1949/1980)).
DAP figure G was drawn by a 14-year-old Muslim girl. Muslim children are not encouraged to draw human figures, particularly the pupils of the eyes, for religious reasons. After drawing the picture, the girl commented that she was not comfortable about drawing the eyes. Had a clinician not been aware of this, empty eyes would have been interpreted to indicate intrusive, self-absorbed tendencies, or a communication difficulty (Ogdon, 2001). There may also be occasions where Muslim children might refuse to comply when asked to draw a person, which, if not understood, could be interpreted as a lack of cooperation or negativity. The form and content of their drawings may also be underdeveloped, although this aspect needs to be researched.

In many South African communities, children are raised within extended families and also by substitute caregivers. This may result in cultural variation in relation to the KFD. For example, many clinicians have experienced the situation where children are not sure whom they need to include in their KFD. Some children find it difficult to complete the KFD as there are too many people to draw, or they would say that there is limited space available on the page.
A sample of South African research

In this section a sample of some of the research conducted in relation to projective drawing tests in South Africa is presented. These studies will be discussed in terms of their implications for further research.

Richter, Griesel and Wortley (1989) compared human figure drawings of 415 black children with figures of people drawn by children in 1938 and 1950. While children from 5 to 8 years of age showed no change in performance over the 50-year time span, there was a significant improvement in the Goodenough (1926) scores obtained by the older children tested in 1988, in comparison with the historical samples. According to the researchers, whilst the improvement of the social milieu of black people in South African could have been associated with these changes, no significant relationships between DAM scores and socio-economic status could be demonstrated for the older children in the 1988 sample. Richter et al. (1989) concluded that the DAM test appears to have some validity as a general cognitive measure amongst local black children between the ages of five and eight years, but that it seems to be unsuitable for children over eight years of age, because from this age onwards it underestimates abilities considerably. Since this study is dated, these assertions should be explored in relation to more recent research.

More recently, Piek (2007) conducted a study that compared the DAP using the Goodenough Harris scoring system with the Junior South African Individual Scales (JSAIS). A non-probability sample consisting of 66 white, black and coloured preschool children was used in this study. While the results cannot be generalised to the broader population, the significant correlation between the DAP and the Performance IQ on the JSAIS seemed to confirm Richter et al.’s (1989) findings, suggesting that the DAP could be used effectively within a South African context.

Rudenberg et al. (1998) used the DAP test and drawings of the street or area that children live in, as well as a behaviour checklist completed by teachers, to study the effect of violence on a sample of black and white children, aged 8–12 years. A rating and scoring system was used based on Koppitz’s (1968) emotional indicators, although some additional items were added based on research conducted by others, such as Buck (1948). Two trained independent raters analysed the drawings, and Cohen’s kappa was used to select only drawings with significant inter-rater agreement. Rudenberg et al. concluded that the use of the DAP together with a drawing of the street or area where a child lives correlated significantly with teacher ratings, although use of the DAP alone did not show this correlation. Their results also suggested that the DAP tapped the child’s inner world rather than overt behaviour, indicating the need to obtain multiple sources of information before making definite predictions based on the DAP.

In a related study, Rudenberg et al. (2001) compared the drawings of the subjects in their South African study to drawings of subjects in West Belfast (Northern Ireland). Their findings showed cross-national differences in levels of stress and emotional indicators using the Koppitz (1968) scoring system. The researchers concluded that the analysis of children’s drawings is an appropriate method of evaluating children’s levels of stress and emotional adjustment.
Davidow (1999) conducted a qualitative exploratory study using two groups consisting of 30 children each, with black and white latency-phase children. A comparison was made between the two groups in their projective drawing styles using Buck’s (1948; 1966) HTP test. Three independent, qualified raters were used and no substantial differences were found in the two groups’ drawing styles. Davidow tentatively concluded that drawing styles are not culture-bound and that drawing tests can be usefully applied in the South African setting, although further research is needed in this area.

A pilot study conducted by Suttner (2000) examined the inter- and intra-rater reliability of scores and diagnoses by two clinicians from a clinical sample of 104 Bender Visual Motor Gestalt Test and DAP test protocols. The age range of the subjects was 8–12 years. The Koppitz (1968) scoring system was successfully used in this study, showing no significant inter-rater or intra-rater differences in the scoring of the DAP. These findings need to be validated in South Africa by further large-scale studies.

Williams (2000) explored the level and types of distress found in the drawings of female latency-age children exposed to different forms of violence within a township setting. The Koppitz (1968) scoring system was also used in this study, which supported the use of the DAP as a screening device when assessing distress as a result of trauma in children.

Emotional indicators using the Koppitz (1968) scoring system of the DAP were analysed by March (2004) in a study of children who were victims of or witnesses to crime and violence. No statistically significant differences were found in the presence of individual emotional indicators between the two experimental groups (children who were victims of crime and violence and those who were witnesses to crime and violence) and the control group (children who had never been exposed to crime and violence). All the drawings included more emotional indicators than a normal population predicted by Koppitz. In this study, stress signs, based on the research of Buck (1948) and Machover (1949/1980), were also used and no significant difference was established between the experimental and control groups. The researcher suggested that, as South Africa is a violent society, one could expect that most children would include emotional indicators in their drawings. The lack of a statistically significant difference between the groups could thus reflect this, as well as cross-cultural differences or issues related to sampling.

Makunga and Shange (2009) used four projective drawings which included the DAP and the KFD to study bereavement in young children. A statistically significant difference was found between the experimental group (recently bereaved children) and the control group (children who had never suffered any bereavement) in relation to drawn features which reflected emotional distress (such as teeth, monster/grotesque figures and hands cut off). The KFDs did not differentiate between the two groups, although the researchers stated that they added insight regarding the family dynamics of the children.

In summary, there is evidently a dearth of published research in relation to projective drawing tests in South Africa. The studies that have been conducted at tertiary training institutions tend to be limited in scope in terms of sample
size and representativeness. Most of the studies described used Koppitz’s (1968) quantitative scoring system, which appears to lend itself to research application. More recently developed scoring systems such as the DAP: IQ (Reynolds & Hickman, 2004) have not been explored in South African research, and data on the KFD are almost nonexistent. The documentation of well-designed studies that explore the cultural appropriateness of projective drawing tests will contribute to the optimal use and application of these tests within the multicultural South African context.

Conclusion

According to Thomas and Jolley (1998, p.135), ‘[t]here continues to be a gulf between clinical practice and the requirements of psychological science’, and there is therefore an urgent need in South Africa to integrate the available rich clinical material with research, in order to develop an indigenous body of knowledge on projective drawing tests. This is crucial to justify the ongoing local use of these tests, to ensure that a high level of professional and ethical responsibility is maintained, to enhance initial and ongoing professional training, and also to contribute to international developments in the field of projective testing.

References


