

CREATING AN ART-BASED ASSESSMENT

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ABSTRACT

CREATING AN ART-BASED ASSESSMENT

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Many of the art-based assessments available to art therapists rely on subjective interpretation of “signs,” potentially leading to methodological, theoretical and philosophical problems (Betts, 2006). The present qualitative research explores which constructs could be used to design an art-based assessment for young children in a psychiatric day hospital. Through an integrative review of current and historical literature, an assessment template is developed that incorporates observation and assessment of the client-therapist, client-artwork, and client-art material interactions. Ideas are drawn from literature about the current state of art-based assessments, psychological assessments for children, and the importance of the therapeutic alliance in child psychotherapy. Gaps in the literature and existing assessments are identified and a pilot art-based assessment is proposed which serves to address those gaps. The application of the assessment tool, as well as the establishment of validity and reliability of the assessment is beyond the scope of this paper and could be undertaken in future studies.

Keywords: art therapy, assessment, art-based assessment, children, material interaction, therapeutic alliance, psychological assessment.

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Introduction

For children, as for adults, art can be used as a means of expression, enabling communication between the inner world and the outer world (French & Klein, 2012). Art-making can also be an instrument to aid in the assessment of that inner world (French & Klein, 2012). Art-based tasks can provide a uniquely non-threatening and engaging means of screening and assessment in children and adolescents (Conrad, Hunter, & Krieshok, 2011). The purpose of this qualitative research is to identify which constructs could be used to develop an art-based assessment for elementary school children in a psychiatric day hospital setting.

My interest in the process of developing an art-based assessment emerged from my experience as an art therapy intern working with children aged six to eight, in a day hospital program within the child psychiatry department of a hospital. As part of the program's mandate to provide children with holistic care, all those who attend the program are given the opportunity to participate in an expressive therapy. As the art therapy intern in the program, I was asked to do a preliminary screening of the children who had been recommended by staff members, to assess if they would be appropriate for art therapy. The information that I obtained from my meetings with the children would be shared with the multidisciplinary team with whom I worked, making the clarity and precision of my communication to the other professionals vital. I searched for the right art therapy assessment tool to use and I found that there was a relative lack of comprehensive art-based assessments or art therapy screening tools available for this age group. This led me to want to research what would be involved in the development of such an instrument and to create a pilot assessment tool.

Creating art within a therapeutic context can be a healing experience and the resulting artwork can be used by the therapist and client as a tool for verbal exploration and to enhance

self-understanding (Field & Kruger, 2008). When used as part of the assessment process, art-making can help researchers and clinicians establish treatment goals, measure progress, and compare outcomes.

Art-making in a therapeutic context can be particularly pertinent in clinical work with children, as it often comes naturally to them, and can provide important information to the treatment team (Malchiodi, 1999). A child's behaviour during art-making can reveal strengths and internal resources that may be drawn upon to manifest change in other areas that need development (Wall, 2011).

Assessment is a crucial component of clinical treatment planning, as it aids in the identification and organization of important information upon which decisions can be made (Miller, 2013). Art therapists can use art-based activities to collect information regarding their client's current state of interpersonal, intrapersonal, and psychomotor functioning during assessment and throughout the course of therapy (Miller, 2013). Once this information is gathered and structured into a clear format, it can be communicated with other care professionals and tracked over time (Miller, 2013). The choice of the type of assessment used can be influenced by the therapeutic approach or model, the training of the therapist, the agency within which the therapist is working, the client's goals, presenting problems or, particularly in the case of a child, by significant people in the client's life such as teachers or parents (Miller, 2017). It can be situational, problem focused, or diagnostic (Miller, 2017).

The function of any evaluation is to gather and organize data upon which decisions can be based. An art-based assessment tool can help the art therapist make decisions about what type of treatment, material and procedure will be most likely to help the client (Cruz & Feder, 2013). It is preferable for art therapists to conduct their own assessments, grounded in their field of

expertise, to determine the most appropriate therapeutic intervention for a client, matching treatment activities and materials with that particular person's needs, interests, attitudes and challenges (Cruz & Feder, 2013). It is for this reason that it would be advantageous for art therapists to assist in the development of assessments that are relevant to art therapy as well as for the particular population being treated (Cruz & Feder, 2013). Any assessment chosen should fit into the ongoing exchange of information which takes place within the therapeutic relationship (Wadeson, 2002). Art-based assessments may be particularly helpful in the treatment of children, as art-based tasks can often reveal capacities and characteristics in them that otherwise might go undiscovered (Wall, 2011).

History of art-based assessment

Drawing based assessments have been used by psychologists and art therapists since the beginning of the twentieth century (Handler, 2014). They have been used to assess personality (Machover, 1949; Buck, 1948), family dynamics (Burns & Kaufman, 1970) and intelligence (Goodenough, 1926). These tests were developed within the historical context of psychoanalysis, and were rooted in the idea that a drawing would reveal internal conflicts, anxieties and impulses that may be unconscious and remain unknown to the creator of the drawing (Handler, 2014). The therapist would then interpret what was being revealed in the artwork, based on elements or "signs" within the drawing. This ascription of specific meanings to individual signs is now considered to be problematic, as it is oversimplified and reductionist (Handler, 2014). It does not take into account the many variables that could affect the meaning of a drawn element such as culture, gender, economic status, developmental stage, and personal experience or the possibility of multiple meanings (Handler, 2014). Despite these shortcomings, many of the art-based assessments available to art therapists rely on subjective interpretation of

“signs,” leading to potential methodological, theoretical, and philosophical problems (Betts, 2006).

It is for this reason that it is important to continue to develop new assessments in the field of art therapy. If we move away from sign-based projective drawing tests, then what can be assessed through art making, and how can this be done?

This qualitative theoretical research aims to address these questions. Through an integrative review of the literature, the current state of art-based assessments and other psychological assessment methods used with this population was explored. The data was collected and analyzed to identify constructs which could be assessed through an art-making task. Methods of generating and selecting items for an assessment instrument were surveyed. Existing assessments which address the selected constructs were identified and items from the questionnaires were gathered along with items based upon my experience with the assessment and observation of this population. From the list, items which would be suitable for the proposed assessment instrument were identified, and through a process of categorization and subcategorization, a more concise list was created. The remaining items were compiled and organized into a pilot assessment. This assessment is designed to aid in the identification of child client’s strengths and deficits, to note their media preferences and aversions, the way in which they engage in the art-making process, their interpersonal relational styles, and their overall suitability to art therapy treatment (Thomas, 2003).

Methodology

A qualitative approach was seen as the most appropriate for this stage in the development of the conceptual framework for an assessment, after which a pilot project and experimental studies with quantitative measures could follow, to determine effectiveness (Fraser & Galinsky,

2010).

Integrative Literature Review

Through an integrative review of the literature, I sought to explore which constructs could be used to design an art-based assessment for primary school-aged children at a psychiatric day hospital. I followed the integrative review steps proposed by Whitemore and Knafl (2005) which are problem identification, literature search, data evaluation, data analysis and presentation.

The identification of the problem, or the development of the research question began with the assumption that there was, in fact, a lack of available art-based assessments that looked at the global psychological functioning of a child through art-making. After a period of preliminary research, it was determined that, although many art-based assessments have been developed to screen for a particular disorder, which look specifically at the formal elements or the symbolic content of the art piece, or which assess the way in which an individual interacts with art material, few art-based assessments look at multiple components at once.

Through a review of the literature, I surveyed the current state of art-based assessments for children. Common themes, areas of focus, and gaps in the literature were noted. The information was collected, organized and synthesized. This synthesis informed my choices regarding what to include and exclude in the proposed art-based assessment.

I began the literature review by searching for peer reviewed academic journal articles, books, and book chapters through the Concordia University Library website (<http://library.concordia.ca/>). I also included some theoretical literature, although priority was given to peer reviewed articles, as I was primarily interested in empirical research. The Concordia University library website gives students access to various online databases such as

Google Scholar, ERIC, PsycINFO, PubMed (Medline), and Web of Science, which can be searched by subject. The search was initially restricted to articles found under the subject of “Creative Arts Therapies” but was later expanded to “Psychology” to gain access to journals from various mental health fields such as nursing, social work and counselling. The date limits for the articles were set from the year 1990 to the present (2016), however the parameters had to be changed in order to include information about classic projective tests, many of which were developed much earlier. The majority of the articles selected during this initial phase of research came from the journals *The Arts in Psychotherapy*, *The Clinical Psychology Review*, and *The Journal of the American Art Therapy Association*.

Provisional coding is used to establish a predetermined "start list" of codes based on anticipated categories of data that researchers expect to collect, and is often set by the conceptual framework of the study and the research question (Saldaña, 2009). Provisional coding led to broad thematic codes such as “art-based assessment” and “art-based assessment for children,” which helped guide the literature search procedure. These initial provisional codes were reworked, modified, and expanded as the research process developed (Saldaña, 2009). Searches were conducted to explore these broad themes using keyword combinations such as “child art therapy,” “art-based assessment,” and “art therapy assessment.” From the resulting literature, more refined key phrases were found to be necessary to gather more information such as “therapeutic alliance + children,” “therapeutic outcomes + children,” “projective drawing tests,” “formal art therapy assessment,” “formal elements + assessments,” “children + mental status exam,” “behavioral assessments + art therapy,” “behavioral assessments + children,” and “ETC assessments.” Articles were excluded if they were single case studies, case reviews, or if they looked at an art-based assessment’s ability to detect a specific psychopathology, as the

objective of the literature search was to find information about the development of overall, global assessments of children. Diagnosis, or the placement of individuals into diagnostic categories was not the goal of the proposed assessment. Within the province that I work, the task of diagnosing is limited to specific professionals, not including art therapists. All articles were saved in Mendeley, a desktop and online reference manager that helps organize, search and share journal articles (<https://www.mendeley.com>). Figure 1 illustrates the process of data collection.

Data analysis. Following the process recommended by Whittemore and Knafl (2005), data found through the literature search was organized, categorized, summarized, and integrated to address the research question.

After the initial phase of gathering literature, the abstracts of each article were read to identify the main focus. I looked to the reference sections of the selected articles to find leads to other relevant articles and books. Articles that related to the research question were read more thoroughly and recurrent central themes were identified. Broad ideas were selected, simplified, paraphrased, and notes were taken using Mendeley. My previous experience in an undergraduate psychology program led to the hypothesis that the therapeutic alliance would be one of the most powerful predictors of positive therapeutic outcomes. Findings in the literature and my pre-existing assumption led to the inclusion of the sub-theme, “the therapeutic relationship.” The topic of ongoing assessment and data triangulation emerged frequently and were added as potentially relevant subcategories. The articles were then grouped into “projective tests,” “formal element assessments,” “ETC assessments,” “therapeutic alliance,” and “ongoing assessment/data triangulation”.

An overall outline was written to help structure the research topics (Fig. 2). The outline began with “history of art-based assessment” to establish an understanding of the context from

which art-based assessments emerged. From this, the subthemes of “art in art-based assessment” emerged, which was further divided into assessments which focused on “symbolic content,” “formal elements,” and “process.” The “therapeutic alliance” and “motor behavior/appearance” were added as important components of the assessment process as well. The articles were subdivided into folders and reread more thoroughly.

Data reduction. Guided by the framework set out by Whittemore and Knafl (2005), data was gathered into groups and subgroups, by topic. The information was then simplified, organized, and focused into a manageable structure. This facilitated comparison of data obtained from different information sources (Whittemore & Knafl, 2005).

Data display/data comparison. After simplification, an iterative process was undertaken to further find patterns or themes in the data, allowing information to be grouped into meaningful clusters (Whittemore & Knafl, 2005). Relevant information from each article was noted and highlighted, such as the aim of the assessment tool, what population they were used for, and whether or not the assessment had been tested for validity and reliability. This led to the refinement or expansion of categories, and to new searches. When new literature was found, the same process of reading, categorization, and data extraction through note taking was undertaken. The information that was extracted from the literature search was organized and displayed in a graph (Fig.2) to help visualize relationships between data (Whittemore & Knafl, 2005).

Conclusions. Overall patterns, similarities, and differences found in the data analysis process were then elaborated into more general concepts. This process was revised throughout in an attempt to avoid the exclusion of pertinent information (Whittemore & Knafl, 2005). A summation of the findings was made to address the original question of what constructs could be used to create an art-based assessment.

Literature Review

Art-based assessments

Kapitan (2010) outlines the main functions of art-based assessments: informal, on-going assessments can be used as part of the exchange of information between client and therapist throughout the course of art therapy; formal evaluation procedures can act as tools to aid systematic thinking, to organize information used for problem-solving, and for goal setting; and research-based, standardized assessments may be used as part of art therapy treatment evaluation, tracking changes over time, with the goal of improving outcomes. Evaluations may be formal or informal, based on statistics or intuition (Kapitan, 2010). Information may be gathered through the use of tests and measurement instruments, through the direct observation of clients, by self-report, or through collaborative interpretation of an individual's art. Regardless of the theoretical approach and the methods employed, all evaluations and assessments have the common goal of collecting and organizing data on which to base decisions (Cruz & Feder, 2013).

When assessing anyone, it is crucial to be as aware as possible of the factors that may influence that person's performance beyond those variables which you are trying to assess. When assessing children, additional factors are pertinent that may come into play less when assessing adults. Self-report measures, questionnaires and interviews, may be affected by a child's reading, verbal comprehension, and production skills. Art-based assessment may help mitigate some of those effects. Likewise, art-based assessments may be influenced by artistic aptitude, comfort with creative expression and developmental proficiency. Performance on both assessment types are likely to be influenced by the child's skills, confidence, and age-based level of cognitive development (Flowers, Carroll, Green & Larson, 2015). Although the use of art-

based assessments should not replace the more traditional techniques, if used in conjunction with them, they may capture deficiencies or aptitudes that would otherwise go unnoticed (Flowers, Carroll, Green & Larson, 2015). Formal instruments in the field of art-therapy make it possible to visually track changes in the therapeutic process, assess reactions to different materials and interventions, and examine the possible effects of different variables at distinctive stages in the therapeutic process (Sniv & Regev, 2013).

Many art-based assessments still in use today are projective drawing tests, which rely almost exclusively on the interpretations of the assessor and the validity and reliability of such assessments have come under much criticism (Kapitan, 2010). Betts (2006) suggests that the most effective approach to assessment in the field of art therapy incorporates objective measures such as formal assessments, behavioural checklists, and subjective approaches such as the client's experience and interpretation of his or her artwork.

Projective Drawing Assessment

A founding approach to art therapy assessment developed out of psychoanalytic art therapy, or art psychotherapy theory. Within this theoretical model, art therapy assessments emphasize the content and symbolic meaning of the produced artwork. It was believed that the content of the art represented material from the unconscious mind of the art-maker and that art pieces could be interpreted by the therapist, providing information about inner conflicts or desires that the client may not be aware of (Penzes, Van Hooren, Dokter, Smeijsters & Hutschemaekers, 2014). Several drawing tests were developed as assessments of symbolic content such as the House-Tree-Person Test (HTP) (Buck, 1948), the Human Figure Drawing Test (Goodenough, 1926), and the Thematic Apperception Test (TAT) (Murray, 1943). This category of assessments came to be collectively known as projective tests.

In the 1970s and 1980s, the use of projective drawing assessments declined due to a general decrease in the dominance of psychoanalytic theory, more focus on the environmental influence on behavior, and poor reviews of their reliability and validity (Betts, 2013). It was found that the interpretation of the symbolic content of the artwork was heavily influenced by the theoretical background, culture, personal beliefs, and expectations of the assessor. The interpretation of pictorial imagery is highly subjective (McNiff, 1998), affecting the reliability and validity of such assessments. Kaplan's (2000) review of "sign-based interpretation" concluded that projective drawing tests should be discarded or used very selectively, while others have maintained that they may be cautiously used as a jumping off point for discussion as part of the clinical interview (Gantt, 2004).

The American Psychological Association, Clinical Psychology Division (2000) recommended that time devoted to educating psychology students in the administration and scoring of projective tests be reduced or eliminated completely. Instead, they suggested exposing students to literature that looks at the empirical support for various tests and encouraging discussion of the clinical and ethical implications of relying on instruments that are not well validated (Wadson, 2002).

Formal Element Assessment

Soon after physicians shifted toward evidence-based medicine, the American Psychological Association (APA), and the Canadian Psychological Association, followed (Blease, Lilienfeld, & Kelley, 2016), (Slayton, D'Archer, & Kaplan, 2010). Not long after, art therapists began to abandoned orthodox psychoanalytic approaches in favor of methods that emphasized the expressive potential of the tasks and materials, and embraced more empirical approaches to research (Thomas, 2003).

With this change came the development of art-based assessments that sought to be more objective. Focus shifted to the formal elements of an artwork, such as line, colour, and space, and rating scales were created to help assessors note what they observed within clients' drawings, many of which are still used today (Betts, 2013). Gantt (2012) states that, unlike projective tests, comparisons of the formal aspects of the artwork can be done between groups, across cultures, or across time. Art-based assessments like the Diagnostic Drawing Series (DDS) (Cohen, 1985) and the Person Picking an Apple from a Tree (PPAT) with the Formal Elements Art Therapy Scale (FEATS) (Gantt & Tabone, 1998) focused on the production of a specific image using a defined set of materials. This move towards standardization, and away from the interpretive quality of earlier projective art-based assessments, aimed to help clinicians more accurately identify clients' levels of functioning, strengths and presenting problem, without relying as heavily on the interpretation of the therapist (Betts, 2013).

Kaplan (2000) states formal characteristics, as opposed to "signs" found in the art, are more universally identifiable and are therefore better suited for constructing meaningful rating scales. Although research on standardized assessments such as the Formal Elements Art Therapy Scale (FEATS) or the Silver Drawing Test of Cognition and Emotion (Silver, 1996) has been encouraging, confounding factors such as artistic training, cultural background and personal style must still be considered when assessments are used in treatment or research (Kapitan, 2010).

Art Process Assessment

The late 1940s and the 1950s saw the development of the "art as therapy" approach, which emphasized the inherent healing, therapeutic nature of the art-making process (Betts, 2006). Edith Kramer, one of the most influential pioneers of this branch of art therapy,

developed a theory and practice that has influenced generations of art therapists (Thompson, 2017). Kramer's "art as therapy" approach emphasized the intrinsic therapeutic nature of the art-making process, drawing on the Freudian concept of sublimation (Thomas, 2003). Through this lens, the focus of art therapy shifted towards the process of creating art and the use of different media, placing less emphasis on the symbolic content or the formal elements of the finished product, though they were still considered (Hinz, 2009). Kramer believed that different ways of using art material would not only affect the final product, but affect the creator of the art as well (Hinz, 2009).

This approach to art therapy acted as the theoretical underpinning for the development of the Expressive Therapies Continuum (ETC) by Kagin & Lusebrink (1978), which was later elaborated upon by Hinz (2009). The ETC describes diverse art media, which are placed on a continuum based on their physical properties, from resistive to fluid. According to this theory, engaging with the varied media activates different information processing areas of the brain (Hinz, 2009). Lusebrink (2010) proposed that the levels of the ETC parallel brain areas and functions involved in the creation and processing of visual expression. These information processing regions can be arranged developmentally from the kinesthetic/sensory, to the perceptual/affective, to the cognitive/symbolic level (Lusebrink, 2010). Each level has two opposing poles, implying that emphasis on one pole of a given level will decrease activity or emphasis on the opposite pole (Lusebrink, 2010). The framework proposes that, because every brain is biologically wired differently and shaped from personal experience, they develop unique preferences for, and aversions to ways of processing information. When applied to the art-making process, this means that the same art material or technique can over stimulate, or under stimulate clients differently (Riccardi, Nan, Gotshall, & Hinz, 2014). The theory also proposes

that because of neuroplasticity, changes to the brain can occur throughout the lifespan and these changes are influenced by experience. Art making can be a pleasurable way to engage distinct brain regions, potentially creating new, or strengthening existing pathways (Riccardi, Nan, Gotshall & Hinz, 2014).

From this perspective, a client's natural attraction or aversion to a particular material can provide valuable data to the assessor about their preferred levels of information processing in other areas of life (Hinz, 2009). This information can inform the art therapist's choice of art material when looking to encourage or evoke different art-making experiences for therapeutic purposes (Penzes, Van Hooren, Dokter, Smeijsters & Hutschemaekers, 2014). Using the ETC as a framework for art therapy can help identify components of a client's expression, both in the product and the process, that reflect strengths and challenges. It is hypothesized within the ETC framework that personal resources or struggles demonstrated during art-making mirror preferences in the reception, integration and expression of information, emotion and action in other aspects of life (Hinz, 2009).

Assessments that note the manner in which a client engages in the art-making process can help identify behavioural excesses and deficits, such as over-agitation observed during frenzied scribbling, or the avoidance of sensory experiences as observed in the rigidity of use or refusal of a particular sensory material (Hinz, 2009). Treatment can then be geared towards increasing or decreasing activity in those areas by using the client's current preferences and strengths as a comfortable starting point (Cruz & Feder, 2013).

Ongoing Assessments

Wadeson (2002) emphasizes the distinction between a formal, initial assessment and the ongoing assessment process. Assessment can be approached as a prescribed, single event, which

occurs exclusively at the beginning of therapy or on multiple occasions throughout the therapy (Wadeson, 2002). On-going assessment is the comparison between present behaviour and past observations to identify patterns, changes and breaks in patterns and can be viewed as an inherent part of therapy, present in every session, throughout all activity as therapists evaluate a client's progress (Wadeson, 2002). Wadeson (2002) states that art therapists must be able to determine what information they need to best assist their clients in moving towards their goals. Art therapists must identify the best way to find the needed information, whether through an established assessment or through their own flexibility and creativity when responding to the client during sessions (Wadeson, 2002).

Although assessment is part of the initial therapy process, on-going assessment provides the therapist with the feedback needed to keep the therapeutic process sensitive to the client's needs (Miller, 2013). At the end of therapy, assessment allows the client and the therapist to see the progress and changes that have occurred (Miller, 2013). It is likely that art therapists are already engaged in this process but that it is an informal and internal practice that can appear to lack a clear clinical direction, making it difficult to communicate with other professionals (Miller, 2013). Having a formal structure for this process can increase a therapist's confidence and make clinical conversations more directed.

Wadeson (2002) points out that in ongoing work, directives may not be necessary as spontaneous art can be full of meaningful information. If the therapeutic alliance is strong, a safe space is created within which the artwork can be explored by the client and the art therapist (Wadeson, 2002). Instead of administering invalidated projective drawing tests, art therapists could focus on building the therapeutic relationship with their clients so that they can be in tune and ready to recognize pertinent information when it arises spontaneously (Wadeson, 2002).

Through guidance in supervision and clinical experience, art therapists develop the sensitivity and the knowledge to be able to sustain ongoing assessment of their clients enabling them to identify the essential information that they need (Wadeson, 2002). Through thoughtful observation of the client as they create art, art therapists can take note of what materials, techniques and approaches were particularly useful and which were not, allowing appropriate adjustments to be made in the future (Cruz & Feder, 2013).

Therapeutic Alliance

Betts (2012) states that, Since the success of an intervention is largely dependent upon the quality of the client-therapist relationship, assessment techniques that will foster this relationship are advantageous. Bornstein (2009) points out that therapeutically oriented assessment positively influences the assessor, the assessed, and the outcome of the psychological test. The therapeutic alliance is one of the strongest predictors of treatment success that empirical research has been able to document (Horvath, Del Re, Fluckiger, & Symonds, 2011). The therapeutic alliance is generally described as being made up of several components: a bond or general sense of understanding, an agreement between client and therapist on the goals of therapy, and the provision of tasks or techniques by the therapist to the client that aid in the achievement of those goals (Ackerman & Hilsenroth, 2003). Horvath, et al. (2011) suggest that the therapeutic alliance is an important factor in predicting outcomes because it lowers the rate of client drop-out, helps establish therapy as a collaborative endeavor, and creates a space in which the client can try out new ways of being.

There is comparatively little research published about the influence of the therapeutic alliance in the realm of child psychotherapy. The research that has been done has found it to be an important factor which is associated with positive clinical outcomes (Zorzella, Muller &

Cribbie, 2015).

Several factors complicate the establishment of a strong therapeutic alliance with children when compared to the process with adults. Children and adolescents rarely initiate their own referral to therapy as it is often significant people in the lives of young people who make this decision for them (Zorzella, Muller, & Cribbie, 2015). This fact is likely to affect a child's motivation for treatment and their willingness to engage with the therapist (DiGiuseppe, Linscott, & Jilton, 1996). If the child has lived through difficult early experiences with adults, they may be particularly hesitant or unwilling to engage in a therapeutic relationship, influencing the likelihood of treatment success (Ormaugh, Jensen, Wentzel-Larsen, & Shirk, 2013). Given these specific challenges, it is crucial to identify potential factors associated with a stronger alliance in child psychotherapy.

Baylis, Collins and Coleman (2011) developed The Child Alliance Process Theory which synthesized results from a qualitative study exploring the child-client's experience of a therapeutic alliance with a counsellor. They found that, as it is rarely children's choice to come to therapy, it is particularly important that the alliance be built slowly over time (Baylis, Collins, & Coleman, 2011). The motivation for change, reason for referral and concerns about current behaviour are more often reflective of the interests of the people in the child's life than their own (Baylis, Collins, & Coleman, 2011). It is important to interact with the child in a way that is appropriate, non-threatening and engaging from the first session on, meeting the child at their level (Baylis, Collins, & Coleman, 2011). Observing the way in which a child explores a space, engages with art material and interacts with a new and unknown adult may provide just as much, if not more, information than a formal assessment could, while allowing a child to feel as though the therapeutic space and time is, at least partially, within their control. This could help set the

foundation for the therapeutic alliance.

In psychotherapy with adults, therapists' personal attributes such as being flexible, honest, respectful, trustworthy, confident, warm, interested, and open were found to contribute positively to the therapeutic alliance (Ackerman & Hilsenroth, 2003). Techniques such as exploration, reflection, noting past therapy success, accurate interpretation, facilitating the expression of affect, and attending to the patient's experience were also found to contribute positively to the alliance (Ackerman & Hilsenroth, 2003). According to the Child Alliance Process Theory, behaviours and attitudes such as "being nice," "doing activities," "listening," "less talk," and expressions of caring can help develop the alliance (Baylis, Collins & Coleman, 2011). Inviting a child to create artwork may be a suitable way to begin to forge the early alliance, allowing the child to move at their own pace, while providing them with low-pressure tasks while the assessment takes place.

Based on my findings in the literature review, and aligning with my own theoretical orientation, I identified overall categories of behaviours that I would design my assessment look at. This included behaviours associated with the interaction between the child and the therapist, the child and the art material, and the child and their art piece.

Assessment Construction

To explore different methods of constructing assessment tools I consulted the SAGE Encyclopedia of Qualitative Research Methods (Given, 2008). The assessment would be based on observation of the child in the hospital setting. Observation is defined by Carson, Gilmore, Perry & Gronhaug (2001) as the systematic watching people's behavioural patterns, as well as the surveillance of events and interactions. Observations are classified as unstructured when the observer has no specific focus and has no pre-formed ideas of what should be observed (Carson,

Gilmore, Perry & Gronhaug, 2001). In structured observation, the data is collected according to a predefined set of rules or procedures which are based on the purpose of the study (Given, 2008). Observations allow for the collection of data that is not readily captured by other methods such as surveys or interviews including that which is drawn from behaviour, affect, and other idiosyncratic nuances (Given, 2008). When combined with data gathered through means such as questionnaires, it can allow comparison between what a client reports and what they do, and be a useful tool for understanding behavioural processes (Given, 2008).

Instruments or tasks are presented to participants to generate measurable behavior (Drew, Hardman, & Hosp, 2008). There must be a logical relationship between the instrument and the construct being studied and the instrument or task must generate behavior that is presumed to be related to the topic under investigation (Drew, Hardman, & Hosp, 2008).

Based on my research and my experiences with the the population with whom I worked during my internship, I established that the assessment would be based on a semi-structured, art-based procedure. The assessor would follow the same protocol with each child, and on each assessment occasion. The assessment protocol would take place over a single session but could be repeated with the client at different points within the therapy for the purpose of comparison.

Construct Measurement

Many constructs cannot be measured directly, instead their existence must be inferred from the measurement of certain behaviours believed to indicate something about the more abstract construct (Drew, Hardman, & Hosp, 2008). The attributes of a construct which are more specific and observable, are measured and assumed to reflect something about the underlying construct, however, the association between an attribute and a construct cannot be guaranteed, and there are no preset rules to determine the relationship (Drew, Hardman, & Hosp, 2008).

Previous research about the construct in question, and the behaviour correlated with it could be referenced to guide the selection of which measures will be used to assess the construct (Drew, Hardman, & Hosp, 2008). The researcher's experience, judgment and intuition must also be used to assess the logical relationship between the two (Drew, Hardman, & Hosp, 2008).

Although the alliance is one of the most frequently studied topics in clinical psychology, the effects of the alliance are often very broad making it difficult to isolate and measure (Koole & Tschacher, 2016). In many studies that look at the therapeutic alliance, the data is correlational and based on ratings of the client and the therapist on a questionnaire (Koole & Tschacher, 2016) such as the Working Alliance Scale (Horvath & Greenberg, 1989). The majority of the research on the therapeutic alliance has been based on verbal expression and verbal therapy, using questionnaires or interviews of the clients and the therapist, although the body language and movements of the therapist and client could also provide important information regarding the felt therapeutic bond (Koole & Tschacher, 2016). Behaviours such as eye contact, physical proximity, verbalizations, smiling, or joint attention could be used to assess the therapeutic alliance, although this correlation would remain theoretical (Koole & Tschacher, 2016).

Observation Procedure

The observation procedure would begin with the therapist going into the classroom/hospital room to get the child, or welcoming the child as they arrive into the space. The assessor would then invite the child to explore the material and explain what would happen during the assessment process. On a table in the room, there would be several sheets of white paper of two sizes, 8 ½" x 11", and 12" x 19", which would be placed diagonally to avoid influencing the direction in which the child orients the paper as they use it. There would be a

container of markers, coloured pencils, oil pastels, watercolour pucks and paintbrushes, and a pack of modelling clay. The creative task would be open-ended, the child being told to create an image of whatever they wanted, using whichever materials they chose from the selection presented to them. The material selection options were based on the context in which the assessment would take place and time constraints. The assessor would freely observe the client during this period.

After the session, the art therapist would complete a checklist format assessment form, which will be explained in more detail later. This information could be shared with other members of the therapeutic team and could help inform the decision to continue art therapy or not. The protocol could be repeated at different points throughout course of therapy to compare observations, tracking changes. Though observations are susceptible to bias, as they are based on the observer's, the construction of an observation protocol or instrument can help offset, though not eliminate, these biases (Carson, Gilmore, Perry & Gronhaug (2001).

Each element in the art-assessment procedure was included to generate measurable behaviour, taking into consideration the importance of laying the foundation for the therapeutic alliance and fitting comfortably into my own instinctive way of working as an art therapist. As an example, when the art therapist invites a child to place a "Do Not Disturb" sign on the door of the art therapy room and to close the door themselves, the purpose is to note the child's ability (cognitive capacity and language reception) and willingness (trust, defiance, sense of agency) to follow instructions and their reactions to being in a closed room with an unknown adult. It also serves to inherently emphasize the confidentiality of the space, and the child's active role in maintaining the therapeutic frame. The relationship between the art-making protocol and the supposed associated thoughts or feelings of the clients are based on the beliefs of the researcher,

and would need to be investigated further before any claims of construct validity could be made. Despite the subjective nature of the protocol, the fact that it could be repeated over time could allow art therapists to note any changes in behavior in a structured and systematic fashion.

Art Material Interactions

A study conducted by Péntzes, van Hooren, Dokter, Smeijsters, and Hutschemaekers (2014) showed that material interaction is an important source of information in art therapy assessment. Material interaction refers to the manner in which a client uses the art material, specifically the way they react to the properties of art materials that provide either high or low structure. High structure art materials are easier to control and more resistive, such as pencils, whereas low-structure art materials are more fluid and difficult to control, such as watercolour paint (Péntzes, van Hooren, Dokter, Smeijsters, & Hutschemaekers, 2014). Working with materials that vary in this characteristic can evoke different art-making experiences (Péntzes, van Hooren, Dokter, Smeijsters, & Hutschemaekers, 2014). The Expressive Therapies Continuum ETC (Hinz, 2009) links information from neurological research about the way the brain processes visual and sensory-motor input to clients' preferences and aversions to different art material. According to the ETC framework, the way a client processes information during art making can provide insight into their overall psychological, emotional, and cognitive functioning (Péntzes, van Hooren, Dokter, Smeijsters, & Hutschemaekers, 2014). The materials proposed for the assessment protocol, though limited, were chosen to provide the opportunity for clients to use the material they are drawn to based on their preferred level of structure and control, providing valuable information to the assessor.

Material exclusion. The decision to exclude some material, such as acrylic paint, was based on the population for whom this pilot assessment was designed. For children with

behavioural problems, acrylic paint could be problematic as it is permanent and can be quite messy. The length of the assessment does not allow for extensive clean up time, and working within a hospital context necessitates limiting mess as much as possible. All material selected for the assessment was non-toxic, and sharp tools such as scissors were excluded for safety reasons.

Assessment Directive

Wadeson (2002) posits that in ongoing work, directives are rarely necessary and that spontaneous or self-directed art can be rich with personal meaning. The simplicity of the assessment directive is meant to create a balance between standardization and openness, aiming to capture significant information about the individual which can be used to identify patterns over time.

Questionnaire Construction

In preparation for the construction of the assessment checklist, I considered different response formats, weighing the benefits of each one. I looked to existing behavioural checklists, the Child Behaviour Checklist (CBCL) (Achenbach, & Rescorla, 2000; Achenbach, & Rescorla, 2001), the modified Mental Status Exam for children and adolescents (Faulkner, 2015), and considered the context within which the proposed assessments would take place. From this, I concluded that a combination of a structured checklist format with dichotomous responses (true/false) and an unstructured short answer format would be used. The information could be recorded quickly while still leaving space for elaboration on any individual point, if necessary.

Item Generation

To generate and select the items that would be included in the assessment checklist, I researched questionnaire construction. To create a questionnaire, an item pool is often produced,

which is then composed into a draft questionnaire or checklist which is administered to individuals from the target population or from a similar sample (Bernard & Gravlee, 2015). Responses are tallied and an individual's score, the sum of her/his response across all items, is obtained. Each item should be chosen based on previous research or on what is logically believed to correlate the construct in question (Bernard & Gravlee, 2015). The degree to which an item captures and expresses the desired characteristic determines the validity of the item (Bernard & Gravlee, 2015). Pile sorting can be done, in which informants are asked to categorize the items, which are written out onto cards, according to similarity, making as many or as few piles as they wish (Bernard & Gravlee, 2015). Judged-similarity can help generate information about the categories that the items fit into based on the opinions of individuals other than the researcher (Bernard & Gravlee, 2015). As a step towards reducing cultural bias in the assessment, informants of varying cultural backgrounds could be asked to partake in the pile sorting task. This was not undertaken for the purpose of this theoretical paper, but would be an area of future research.

To begin generating an item pool for the questionnaire and to survey potential checklist formats, I looked to existing assessments. I selected the Child Behaviour Checklist (CBCL) (Achenbach, & Rescorla, 2001), a modified Mental Status Exam for children and adolescents (Faulkner, 2015), an ETC assessment (Hinz & Riccardi, 2016) and a Creative Arts Initial Screening form (Goldman, 2014). These questionnaires were selected because of their relevance to the assessment scenario, the demographic of focus, their structure, or the way in which they correlated to the broad areas of interest identified in the literature review. The ETC assessment (Hinz & Riccardi, 2016) was selected because it is based on observation and focuses on the way in which a client interacts with the art materials and their created artwork. The modified Mental

Status exam for children and adolescents (Faulkner, 2015) is based on observation of the child and looks to identify any abnormalities or notable idiosyncrasies in the child's appearance, attitudes, motor behaviour, thought processes, thought content, perception, cognition, mood and affect, speech, insight, or judgement. The Child Behaviour Checklist (Achenbach & Rescorla, 2001) was chosen because it is extensive and covers many categories of behaviour, such as social behaviour, eating behaviour, and behaviour related to mood and affect. Because the CBCL is based on parent or caregiver report, it would not be applicable for the context that the present assessment tool would be used in, however, the questionnaire format was taken into account when structuring the items for the proposed assessment. The Creative Arts Initial Screening form (Goldman, 2014) was included because it is used for virtually the same purpose as the proposed assessment is intended, though it was designed for use with elderly individuals in an assisted living facility and not for children.

Broad categories of questions were identified such as those that relate to behaviour, thought content, motor activity, verbal communication, and nonverbal communication. Questions from the various assessments were listed and then divided into categories. Items from sample assessments that were not relevant to the population or the setting, such as questions relating to a child's ability to separate from the parent, or a client's interest in listening to or making music, were excluded. A document was created which included all questionnaire items from the various assessment tools and those proposed by the researcher. Items were colour-coded to identify from which assessment they came. This was done to make it possible to track if the items selected were drawn more heavily from one specific instrument. Duplicates of questions or those that were very similar to one another were removed. The resulting list contained 138 items (Fig.3).

From these main groupings, elements which could be assessed within the proposed setting and time frame, and which were appropriate for the age group were identified. They were amassed and put into clusters: social behavior (ex. client used art-making as a communicative/storytelling tool), art-making behavior (ex. client used material rigidly/cautiously, client used a limited amount of material), and other (ex. client's breathing seemed regular and relaxed). They included external, visual observations to be made by the assessor (ex. client was fidgeting), and client self-report (ex. client communicated verbally or nonverbally that they enjoyed creating/that the artwork was important to them). The selection of items was based on my knowledge, intuition, and past experience with the intended population, as well as my education (ADTA practical research handbook, 2015).

Another round of editing led to the questions being divided into broad categories, "client-therapist," "client-art material," "client artwork," "motor activity," and "other". A section was added to include information about the reason for referral and an "other" category was included to encompass elements that could affect the assessment findings such as developmental disabilities, diagnoses, significant life events, and cultural diversity. Diagnosis was included to qualify observations that may relate to behavioural symptoms such as inattentiveness due to Attention Deficit Hyperactivity Disorder (ADHD), sensory sensitivities or lack of eye contact due to Autism Spectrum Disorder (ASD), or differences in affect or motor activity that could be accounted for by a mood disorder. Items were removed if they were judged to be too vague or open to subjective interpretation. Subcategories were added to questions to clarify and elaborate ideas.

A third round of restructuring and re-categorizing led to further reduction in the number of items on the questionnaire. A section was included to record items related to physical

presentation and motor activity.

Limitations in questionnaire construction

As this was qualitative theoretical research, it did not include human participants, which would be a necessary step towards establishing validity. A pilot project involving focus groups of art therapists that work with this, or similar populations could help fine tune the assessment protocol, and aid in the item generation and selection process. After this step, empirical research could be done to begin to test the validity of the constructed assessment. For the purpose of this paper, the construction of the assessment protocol and checklist completed by one researcher, introducing a sizeable potential for bias. The above mentioned procedures could be the focus of future research aiming to establish the validity and reliability of the assessment.

With the decision to use a dichotomous response format comes a potential loss of accuracy, as many of the behaviours being assessed would likely fall between a clean true or false response. The loss of the intermediate response options produces more extreme responses. In an attempt to counteract this, the assessment includes a space for notes so that the assessor can qualify the answer with additional information they feel is important. Drawing on my experiences in a day hospital setting, I believe that the assessment checklist would need to be filled out quickly and that a dichotomous response format with a space for qualifying information would be the quickest way to configure this. The stages of item categorization and selection (Fig.3), and the resulting questionnaire (Fig.4) is included below.

If the checklist were to be used in another setting, or with another population, it could require adaptation, adding or removing items. In future research, the tool's effectiveness for assessing other populations could be examined, and modifications could be made.

Researchers should seek a scale that best fits their situation, strives for high reliability

and validity, is precise and is easy to apply (Miller & Salkind, 2002).

Results

Based on the integrative literature review, it was determined that considerable information can be gleaned from behavioural observations of a child as they create art and interact with an art therapist or assessor (Miller, 2013). Spontaneous or prompted art-making behaviour can provide significant information about a client (Penzes, Van Hooren, Dokter, Smeijsters & Hutschemaekers, 2014; Hinz, 2009) and a standardized protocol can help art therapists compare this behaviour over time (Carson, Gilmore, Perry & Gronhaug (2001). Art-based assessment may aid in laying the foundation of the therapeutic relationship, as less emphasis on verbal interactions and more hands-on activities have found to contribute positively to the therapeutic alliance with children (Baylis, Collins & Coleman, 2011)

A semi-structured format for the proposed art-making procedure to enable the art therapist to follow the client wherever they go within the session, allowing for important information to emerge naturally and to be noted (Wadeson, 2002). The data can be systematically recorded to be shared within a multidisciplinary therapeutic team to ensure clear communication and clinical understanding between professionals (Wadeson, 2002).

To determine which items would be included in the assessment instrument and how the questions would be structured, I looked to existing behavioural checklists, art-based assessments, and psychological assessments designed for children: the Child Behaviour Checklist (Achenbach, & Rescorla, 2001), a modified Mental Status Exam for children and adolescents (Faulkner, 2015), an ETC assessment (Hinz & Riccardi, 2016), and a Creative Arts Initial Screening form (Goldman, 2014).

The format of each assessment was noted, as were broad categories of questions. A list

of behaviours that could be observed within the context of the art-making task was compiled (ex. motor behaviour, verbal communication, nonverbal communication) and questions were developed based on the specifics of the context and goals of the proposed assessment (ex. child sustained attention for the duration of the assessment, child transitioned to and from the art room easily). Items were eliminated if they were overly similar to other questions, very subjective, or vague. The resulting list was had 138 items which was cut down to 100 questions and then further edited down to several checklists and 35 questions with designated areas for notes and other qualifying information (Fig. 4). The sensitivity and specificity of the questions were not tested. Sensitivity refers to the questions its ability to pick up on the underlying construct being examined, and the specificity refers the ability to exclude constructs that it is not meant to identify (Rossi, Lipsey, & Freeman, 2004). When constructing the assessment checklist, I aimed to strike a balance between a format that was open enough to catch the important information, sufficiently precise as to focus in on what was most important, not getting lost in descriptive details (Groth-Marnat, 2000), while remaining as simple and as convenient to use as possible (Drew, Hardman & Hosp, 2008).

Discussion

Many art therapists are now working in mental health and school settings, making structured assessment an important issue for any art therapist's practice (Cruz & Feder, 2013). Many of the art-based assessments still in use today are projective tests, which have been shown to have low validity and reliability (Kapitan, 2010) because of their emphasis on the interpretation of symbolic content. Betts (2006) suggests that the most effective approach to art therapy assessment incorporates more objective measures, such as behavioural checklists, and subjective components, such as client interpretations of their own artwork.

The aim of this qualitative theoretical intervention study was to identify what constructs could be used to develop an art-based assessment tool for use with elementary school-aged children in a day hospital setting. The purpose of the assessment tool would be to help art therapists identify a child's strengths and challenges, to assess their appropriateness for art therapy treatment, and to begin to develop possible therapeutic goals. It could also be used to help track changes in behaviour over time. The synthesis of gathered data into a clear and easily shared format could help facilitate communication when working as part of a multidisciplinary team. The research process began with an integrative review of the literature to gain an understanding of the theoretical and historical background of art-based assessments, as well as to identify existing gaps.

Through a review of the current literature, it was discovered that many of the art-based assessments that are currently available to art therapists focus on the symbolic content of the artwork, the formal elements of the artwork, or the manner in which the client interacts with the art material (Hinz & Riccardi, 2016). Few art-based assessments focused on more than one aspect at a time and the social behaviours of the client, and interaction between the client and the therapist was rarely mentioned. Other assessment tools such as the Child Behaviour Checklist (Achenbach, & Rescorla, 2001) and the modified Mental Status Exam for children and adolescents (Faulkner, 2015) focused on the behaviour, physical appearance, and demeanor of the child. Many of available tools were to be administered verbally or in written format to the caregiver so that they may report on the behaviour of the child, such as in the case of the Child Behaviour Checklist (Achenbach, & Rescorla, 2001). Others were based on informal observation and interview of the child as with the Mental Status Exam (Faulkner, 2015). It has been suggested that art-based assessment can help ease communication with children because of

their natural attraction to art-making, fostering a lower-stress, task-centered, and hands on atmosphere (Flowers, Carroll, Green & Larson, 2015). Based on the review of the literature, incorporating art-making into the evaluation process was justified as it aids in the assessment of a child's art-making behavior, as well as their social and psychomotor activity.

A strong therapeutic alliance was identified as an important factor in predicting positive therapeutic outcomes in child psychotherapy (Zorzella, Muller & Cribbie, 2015). Garcia and Weisz (2002) suggest that this is because it is crucial for the effective implementation of therapy techniques, and that the alliance itself may be a curative factor. The process of developing the therapeutic alliance with children may differ from that of adults given that children rarely self-refer to therapy, and that many who are referred have had difficult experiences with adults, causing them to be particularly resistant to engaging with therapists (DiGiuseppe, Linscott & Jilton, 1996; Ormaugh, Jensen, Wentzel-Larsen & Shirk, 2013). Baylis, et al. (2011) developed the Child Alliance Process Theory after looking at children's experience of a therapeutic alliance with a counselor. From this study, it was found that age-appropriate, non-threatening activities, combined with listening, expressions of kindness and caring, and less emphasis on verbal communication contributed positively to the alliance (Baylis, Collins & Coleman, 2011). Giving children the opportunity to create art in an assessment could be a way of creating a non-threatening environment, fostering the groundwork for a working alliance, something that would be necessary if the child is to continue to see the assessor as their art therapist.

The manner in which a child interacts with the provided art materials may provide important information about the way the child processes sensory input. According to the ETC (Kagin & Lusebrink, 1978; Hinz, 2009), engaging with various media activates different information processing areas in the brain. A client's natural attraction or aversion to a material

could provide the therapist or assessor with data about their preferred information processing pathways in other parts of their lives and any noticeable deficiencies could help identify sensory processing problems (Hinz, 2009). Treatment can then be geared towards increasing activity in areas of deficiency and decreasing activity in areas of over-activation (Cruz & Feder, 2013). In this way, information about the client's interactions with art materials can help to shape preliminary treatment goals.

It was decided that the assessment procedure would not include analysis of the symbolic content of the artwork. Although the content of an image is likely to be rich with information, any interpretation of the artwork, particularly in the earliest stages of therapy, would be based on the assumptions, thoughts, and beliefs of the assessor. Research suggests that sign-based interpretation should be used only very selectively or not at all (Kaplan, 2000; McNiff, 1998). The client's own interpretation of, or reaction to, the imagery they create could be noted, used as a valuable discussion point and can provide considerable data (Gantt, 2004).

Through the review of the literature regarding art-based assessments, a distinction became clear between single event assessments that often occur at the beginning of therapy and ongoing assessment which occurs throughout the therapeutic process. Wadeson (2002) suggests that instead of focusing on learning how to administer formal drawing assessments, art therapists should instead focus on developing the sensitivity to pick up on information that is communicated through more spontaneous art-making. Miller (2013) points out that many art therapists are naturally engaged in this process but that it is informal, automatic and internal, making it difficult to communicate with other professionals. The creation of this more formalized observation and assessment framework aims to aid in the structuring and communication of data, and the sharing of clinical information.

Cruz and Feder (2013) state that is preferable for art therapists to conduct their own assessments, based on their field of expertise. This assessment can assist in determining the most appropriate therapeutic intervention for a particular client, matching treatment activities and materials with that particular person's needs, interests, attitudes and challenges (Cruz & Feder, 2013). It is for this reason that it would be advantageous for art therapists to assist in the development of assessments that are relevant to the general field of art therapy as well as for the particular population being treated (Cruz & Feder, 2013). The proposed assessment is the conceptual first step towards this goal. To design an assessment template, I first had to gain an understanding of what constructs should be used, given the predominant art therapy theories and current empirical research.

From reviewing the literature, I identified several key constructs as central when developing an art-based assessment for use with school-aged children in a day hospital setting. The importance of the therapeutic alliance when conducting psychotherapy with children means that any assessment protocol should, if possible, begin to set the foundation for the development of the therapeutic relationship. According to the Child Alliance Process Theory, hands on activities, along with listening, kindness and expressions of caring help develop a strong alliance (Baylis, Collins & Coleman, 2011), indicating that engaging in art activities during the assessment process may be beneficial for the future therapeutic bond.

Multiple Sources

Many art therapists are now approaching assessment by gathering information from multiple sources, combining quantitative and qualitative data such as records, interviews, observations, and the results of psychological tests with art-based assessments (Betts, 2013). Schaverien (2000) describes a triangular relationship between the client, the art therapist, and the

art. Although differing art therapy theories emphasize one of the axes more than the others, all three sides of the triangle are always present. An assessment that attends to, or at least acknowledges, all three components could be of use when trying to identify the relevant information needed get to know a client, to assess the state of the therapeutic alliance, and to develop treatment objectives for the future. The proposed assessment tool aims to assess elements from multiple axes, including art-making activity, art material interactions, social behaviour, as well as physical presentation and motor activity.

Limitations, Bias

This theoretical intervention research paper is exploratory and further research would be needed to assess the validity, reliability and utility of the proposed assessment. Comparisons between conclusions drawn using this assessment framework could be compared with those drawn using other art-based assessments, or other psychological assessments for children.

General limitations of this qualitative studies include replication difficulty, lack of reliability due to personal subjectivity and the generalization of large amounts of data (Saldaña, 2009). Personal subjectivity cannot be escaped when constructing assessment or intervention tools as professional habits influence research style, observations and interpretation of data (Wall, 2011).

When designing an assessment tool, the researcher must take into account the instrument's characteristics and potential weaknesses (Drew, Hardman & Hosp, 2008) to try to identify areas of potential bias, as well as to provide direction for future improvement to the instrument.

Item Selection

Decisions regarding which items were included in the assessment instrument were made

by the sole researcher, inevitably introducing bias. Furthermore, many of the items in the assessment checklist were included based on intuitive correlational relationships, and not empirical research. Rossi, Lipsey, and Freeman (2004) state that questions should identify clear and observable dimensions of the construct being assessed.

The developer of the assessment should also interact with other professionals who will use the tool so that misinterpretations or misunderstandings of the questions can be reduced and so peers can help identify the most discerning questions to be included (Rossi, Lipsey, & Freeman, 2004). Though this process was not possible for the scope of this research, it could be undertaken in the future,

Material

Due to the time restrictions and the specifics of the environment, certain materials were not included in the art-based assessment procedure. Some materials that were not included, such as clay and acrylic paint, would provide the opportunity for the client to interact with the material in more varied ways. The exclusion of this material eliminates much of the more sensory and kinesthetic components of the Expressive Therapies Continuum (Kagin & Lusebrink, 1978). This restricts the evaluative power of offering multiple material to clients as a means of identifying preferences and aversion. Future research could focus on modifying the protocol to include more free choice of materials, making the assessment more sensitive to material aversions and preferences which are beyond those offered by this version of the protocol.

Researcher Bias

It is important to explicitly state that my opinions, as the sole writer and researcher, undoubtedly biased the literature review and assessment construction process. The deliberate

exclusion of questions related to the symbolic content of the work means that a large amount of information is not addressed by the assessment. My personal preferences influenced which search engines were used, the emphasis on peer reviewed journals, the keywords, the selection of articles, the inclusion and exclusion parameters, the information that was highlighted within the research, how the information was synthesized, and the selection of items for the assessment.

Assessor Bias

Bias will also be introduced in the utilization of the assessment, despite efforts at standardization or structuring observations. Even experienced professionals cannot be completely objective, dispassionate, or distanced (Wall, 2011). Beyond the inevitable subjectivity of observation, the question of selectivity also comes up in recording what is observed and what is recorded (Wall, 2011).

Assessor Influence

When conducting any type of assessment, and using the information discovered to plan treatment or form initial hypotheses about a client, it is crucial to remember that the mere process of being assessed influences what is observed (Feder & Feder, 1998). All assessments are based on samples of behaviour and no single sample or collection of samples fully captures the “true” behaviour of the subject (Feder & Feder, 1998).

All assessment procedures involve a complex interaction between the client, the setting, and the assessor (Feder & Feder, 1998). The results will be influenced by the assessment context, the patient’s reaction to the situation, the assessor’s observations, and their interpretation of what they observe. Feder & Feder (1998) suggest that when an art therapist is selecting an assessment to be used with a client, they should consider the reactivity of the assessment instrument which refers to the degree to which the procedure is likely influencing what is being

observed.

Future Research

In the future research, steps could be taken towards establishing validity and reliability for this assessment. The art-based assessment protocol could be carried out by a number of art therapists with their clients, and elements of the interaction they found to be significant during could be compared and compiled. This could begin to establish a consensus of the types of behaviours elicited by the assessment protocol that may provide clinically significant information which would be helpful for treatment planning. Questionnaire items for each behaviour identified would need to be developed. Focus groups of art therapists could be assembled and discussion amongst the professionals could be recorded and coded to identify important themes and issues in the assessment (Rossi, Lipsey, & Freeman, 2004).

I initially became interested in developing this assessment due to my previous experience with young school-aged children in a day hospital setting. A similar assessment could be developed for use with other populations and within different settings. This would require a broadening of the literature review, modifications of the procedure, and it would likely influence the interpretation of the behaviour observed.

This research is based on the idea that observing an individual's art-making behaviour can provide information about their overall psychological functioning. Future research into art-making and its connection to brain function could be used to more fully address the question of how art-making behaviour and the resulting art product is connected to an individual's psychological functioning (Pénzes, van Hooren, Dokter, Smeijsters, & Hutschemaekers, 2014).

Ethics in Research with Children

Any assessment that has an adult observer attempt to understand and interpret a child's behavior should acknowledge the influence the adult likely has on the recording of data and on the actual behavior of the child. It is erroneous to assume that adult ascriptions of social meaning to behaviour are the same as those of children, complicating the interpretation of this behaviour (Fine & Sandstrom, 1988). It is crucial that adults in the position of researcher, assessor, or therapist recognize that their presence and the inherent authority which adults typically hold in the lives of children will undoubtedly influence the child-client's behaviour.

Children's rights have begun to underpin the guidelines used by an increased number of professional bodies, as they work with those who conduct research with young children (Farrell, Kagan & Tisdall, 2016). Informed consent and confidentiality have become very important issues in the move towards evening out the power imbalance inherent in the adult-child working relationship. For a child to be in a position in which they are being assessed, consent would have to have already been obtained from a guardian. However, the act of including a child in the consent process, the provision of developmentally appropriate feedback about the assessment findings, and the collaborative setting of therapeutic goals would be taking significant steps towards a more equitable and ethically sound stance.

There is a growing body of literature addressing the competence and agency of children in managing their everyday lives (Farrell, Kagan & Tisdall, 2016), shifting focus away from research on or about children, to research with children. When participants have the opportunity to portray their experience through art, they often reveal insights that would not be articulated in words. For people or groups who are less verbal it can be a most useful means of engaging them in the evaluation process and offering them a voice (Simons & McCormack, 2007).

Conclusion

Art therapists can use art-based assessment to collect information regarding their client's interpersonal, intrapersonal, and psychomotor functioning at the beginning and throughout the course of therapy (Miller, 2013). When this information is gathered, structured, and organized, it can be better communicated to other professionals, with the goal of providing better care to patients (Miller, 2013). However, many of the art-based assessments available to art therapists rely on subjective interpretation of "signs," potentially leading to methodological, theoretical and philosophical problems (Betts, 2006). It would be advantageous for art therapists to assist in the development of art-based assessments that are relevant to the art therapy in general, as well as for the particular population being treated (Cruz & Feder, 2013).

This theoretical qualitative research aimed to identify what constructs could be used to develop an art-based assessment for use with children in a psychiatric day-hospital. An integrative review of the literature examined the history and current state of art-based assessments, other psychological assessments used with children, to identify gaps and areas of improvement. The research found that an art-based assessment should consider multiple axes including physical presentation, motor activity, thought content, affect, interpersonal behaviour and material interactions.

An art-based assessment protocol was developed based on the experience of the researcher and the needs of the population and context in question. The art-based assessment protocol (Fig.5) sought to strike a balance between standardization and flexibility, allowing for important information to be revealed while considering the development of the therapeutic alliance (Baylis, Collins, & Coleman, 2011).

To construct the checklist, existing art-based assessments and psychological assessments for children were surveyed. Four were chosen as guides for development of the assessment

checklist: the Child Behaviour Checklist (Achenbach, & Rescorla, 2001), a modified Mental Status Exam for children and adolescents (Faulkner, 2015), an ETC assessment (Hinz & Riccardi, 2016) and a Creative Arts Initial Screening form (Goldman, 2014). Items from relevant assessments were pooled and from this, the questionnaire was developed (Fig.4).

Though the proposed assessment is intended to be comprehensive, it would only be strengthened by being used in conjunction with other measures, be it caregiver checklists, self-report measures, or neuropsychological testing. The present theoretical research was an exploration of the constructs involved in the development of an art-based assessment for use with children in a psychiatric day-hospital. Future research could focus on the implementation of the assessment, and empirical research to take the first steps toward establishing validity.

Figures

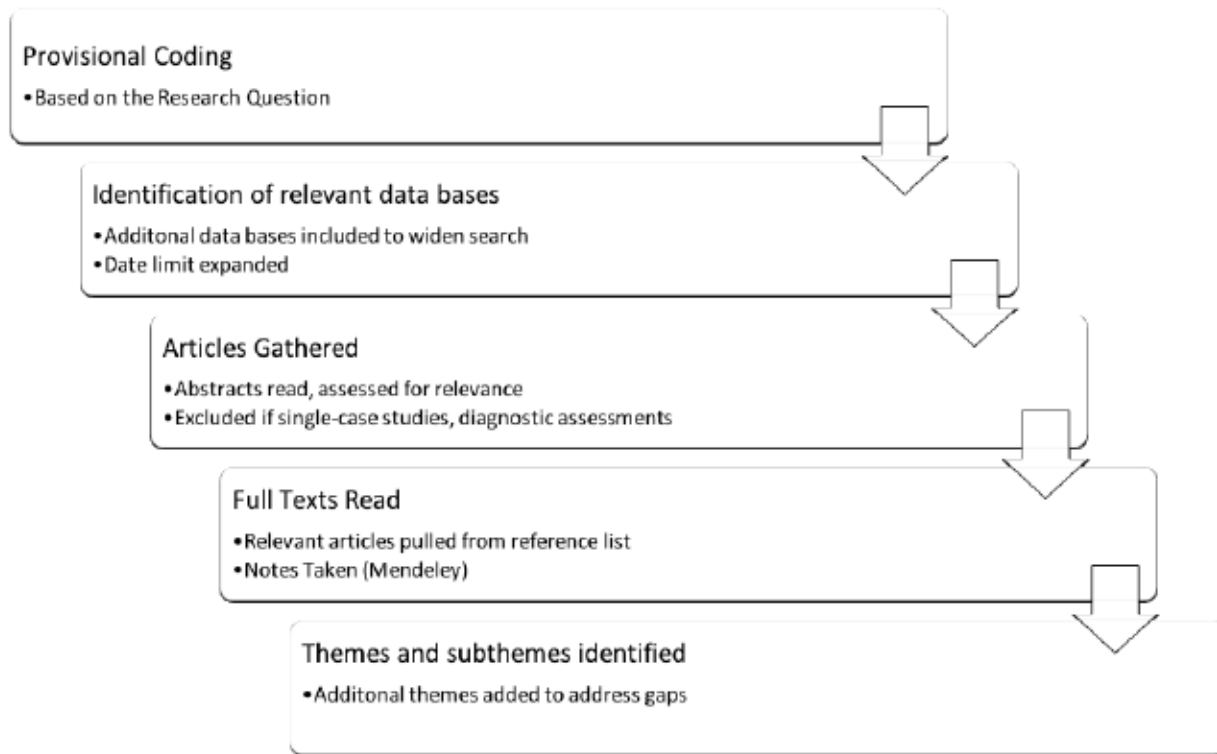


Figure 1. Data Collection. This figure illustrates the data collection process.

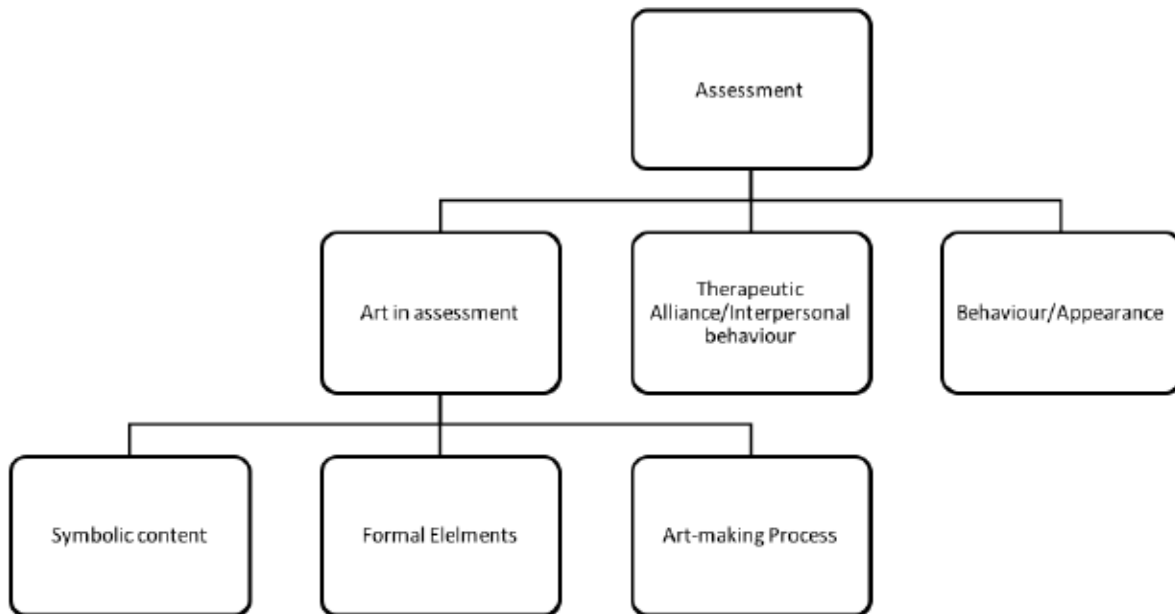


Figure 2. Assessment categories. This figure illustrates the identification of relevant categories

and subcategories of assessment.

| Item Generation |
|--|
| 1. Child Transitioned to/from art therapy room smoothly |
| 2. Child engaged in art making |
| 3. Child was able to manipulate art materials-sophisticated |
| 4. Child was able to manipulate art materials-basic |
| 5. Child created for the duration of the session |
| 6. Child used art therapy time/space well |
| 7. Child used the time to explore the art therapy room, showing interest |
| 8. Child expressed pleasure in creating art verbally |
| 9. Child silently created art, seeming absorbed |
| 10. Child connected with the art therapist verbally |
| 11. Child connected with the art therapist non-verbally |
| 12. Child made appropriate eye contact |
| 13. Child was able to sustain attention for the duration of the assessment period |
| 14. Child seemed relaxed during art making (body language, breathing rate, etc.) |
| 15. Child expressed a desire to continue making art in a future session |
| 16. Child's work seemed important to them |
| 17. Child seemed proud of the work they created |
| 18. Child used material safely |
| 19. Child cleaned up art materials fully or partially when finished |
| 20. Child expressed not wanting to leave the art therapy space when assessment was over |
| 21. Art therapist recommends that art therapy continues with the child |
| 22. Recommendation is that child be assessed for another expressive therapy |
| |
| Items taken from Mental Status exam for Children and Adolescents |
| Faulkner, M. J. UNM, Department of Psychiatry and Behavioural Sciences Division of Community Behavioural Health-9/28/2015. |
| Info is collected through unstructured observation |
| Descriptive phenomenology |
| Open ended questions |
| Allow client to explain in their own words, encourage elaboration |
| Avoid interrupting |
| Guide when necessary |
| More than just gathering info, it is also the first therapeutic first contact with the client, sets the stage for future relationship |
| Empathetic, warm yet neutral |
| 15-30 minutes |
| Purpose to obtain a comprehensive cross-sectional description of the patient's mental state which can be combined with the biographical and historical info and psychiatric history to help formulate an accurate diagnosis and plan future treatment coherently. |
| Combines direct and indirect data collection. Focused questions and unstructured observations. |
| No checklist format. Simply categories to write about, notes. |
| |
| Appearance, attitude, behaviour, social interaction: |
| <ul style="list-style-type: none"> ● Dress ● Ease in separation from parent ● Manner in relating-regressed? ● Attention span ● Speech and Language ● Well nourished, well-developed? Over or underweight? ● Well-groomed, well-dressed, hygiene ● Who accompanied the child? ● Sitting, standing, lying down? |
| Motor Activity |
| <ul style="list-style-type: none"> ● Still ● Hyperactive ● Fidget ● Looks at/touches everything in the room ● Gross motor coordination ● Fine Motor coordination |
| Mood |

| |
|--|
| • Subjective self-report of how the person feels |
| • Fantasies, feelings, inferred conflicts |
| • Nonverbal cues to feelings |
| • Cues to depression |
| • Cues to anxiety |
| |
| Affect |
| • Normal expected range of facial expressiveness |
| • Narrowing or Constriction |
| • Flattening |
| • Lability |
| o Rapidly changing mood |
| o Tearful |
| o Difficult to control |
| • Are affectual displays appropriate in relation to mood, ideational content |
| |
| Speech |
| • Rate |
| • Rhythm |
| • Loudness |
| • Tonality |
| • Unusual pauses, articulation problems, stuttering |
| |
| Thought Processes |
| flow and production |
| • paucity |
| • over-productive |
| • rapid |
| • coherent/incoherent |
| • understandable |
| Response to questions |
| • Logical |
| • Coherent |
| • Goal-directed |
| • Too much unimportant detail (circumstantial) |
| Skip from topic to topic-not elaborating fully |
| Perseverative- words, phrases, thoughts, difficulty switching topics |
| Idiosyncratic use of words |
| Non-social use of speech |
| Receptive/expressive difficulties |
| |
| Thought content |
| • Hallucinations |
| • Auditory |
| • visual |
| • Obsessions and compulsions |
| |
| Intellectual Functioning |
| Orientation |
| Time |
| Place |
| Person |
| Situation |
| |
| Attention |
| Working memory |
| Abstraction |
| |
| Judgment and Insight |
| Why they are here |
| |

| |
|---|
| Considerations |
| Developmental disabilities |
| Cultural diversity |
| |
| Self-soothing capacity |
| Sensory integration |
| Transitions |
| |
| Info from the Child Behaviour Checklist 6-18 years of age |
| Info from the Child Behaviour Checklist 1-5 years of age |
| |
| Age, ethnic, group, gender, current age and birthdate, grade at school, Parent job, gender, relation to the child, |
| |
| Worse, average, better, |
| Below average, average, above average, don't know. |
| |
| What activities the child likes to take part in, how much time they spend doing those things in comparison to other children |
| Chores the child has |
| Close friends other than siblings |
| How often they socialize outside of school |
| How well they get along with their siblings, other kids, their parents, play and work alone |
| School performance |
| Problems at school |
| Illness or disabilities |
| What concerns you most about your child? |
| What is the best thing about your child? |
| |
| Behaviours that are not true, somewhat or sometimes true, or very true, based on current behaviour or behaviour over the last 6 months. Some space is provided for some questions for notes. 113 items |
| |
| For 1-5 year olds 100 questions, and a section about language development for 18-35 month olds, including a list of words the child might say. |
| |
| ETC Assessment |
| 0-10, relates to the creation of specific art work, after being given choice of material |
| ETC rating scales |
| Kinesthetic little movement/no release of energy-lots of energy released |
| Sensory no involvement with sensation-lots of sensation experienced |
| Perceptual no involvement with formal elements-very involved formal elements |
| Affective not emotional-very emotional experience |
| Cognitive thought not important-lots of effortful thought involved |
| Symbolic no symbolism used-symbols very important |
| |
| Preference and Aversion Scale |
| Predominant properties of the media used-extremely fluid to extremely resistive |
| Preference for/aversion to the media-aversion to the media-preference for the media |
| Preference for/aversion to artistic process-aversion to process-preference for the process |
| Degree of satisfaction with final art product-very dissatisfied to very satisfied. |
| An area for notes about the preferred medium |
| Media properties |
| Strength of preference |
| Risk taking |
| |
| The manner of interaction with the medium |
| Response to boundaries |
| Frustration tolerance |
| Level of energy |
| Coping skills |
| |
| Stylistic/expressive elements of final art product |

| |
|---|
| Developmental level |
| Line quality |
| Form quality |
| Use of space |
| Use of colour |
| Integration |
| Organic indicators |
| Content and symbolism |
| Organizing function |
| |
| Verbal comments and behavioural observations |
| Quality of verbal comments |
| Rate and volume of speech |
| Logic displayed |
| |
| ETC Assessment, Hinz and Riccardi, 2016 |
| |
| AT initial screening form |
| 2014 Sondra Goldman Maimonides |
| |
| Reasons for referral |
| Referred by, date of referral |
| Checklist |
| Social isolation |
| Recent losses |
| Depression |
| Limited/exaggerated emotions |
| Difficulty coping |
| Anxiety |
| New admission |
| Love of art |
| Communication difficulties |
| Cognitive deficits |
| Other |
| Space for elaboration |
| |
| Any physical challenges and assistance required (devices, etc.) |
| |
| Significant interests/values/life events |
| Strengths |
| Other programs that the client is currently involved in |
| Client understanding of admission |
| |
| Likert scale of 0-5 not at all to a lot |
| History of art making, viewing |
| Willing to look at images |
| Able to describe formal elements in image |
| Can describe imaginatively |
| Willing to work with a variety of art media |
| Music related questions |
| Dramatic play |
| Work with props |
| Engages non verbally |
| Engages verbally |
| Able to focus attention for more than 10 minutes |
| Requires verbal directives |
| Requires physical cuing |
| Able to work spontaneously |
| Additional comments |
| Recommendations |

Figure 3. Item generation. This figure illustrates the first stage of generating and collecting items for the assessment checklist.

| | | |
|--|-------------------|--------------------------|
| Name of client: Date of Assessment: Name of Assessor: | | |
| Referred by: | | Date of referral: |
| Reasons for referral: | | |
| Social isolation | | |
| Recent loss | | |
| Depression | | |
| Emotional Dysregulation | | |
| Difficulty coping | | |
| Anxiety | | |
| Aggression | | |
| New admission | | |
| Love of art | | |
| Communication difficulties | | |
| Cognitive deficits | | |
| Other: | | |
| Appearance | <i>True/False</i> | |
| Dressed appropriately | | |
| Appears well nourished | | |
| Appears average sized for their age | | |
| Well-groomed/Appropriate hygiene | | |
| Notes: | | |
| Art-making | | |
| Child was willing to go with art therapist/assessor | | |
| Child showed interest in creating art | | |
| Child was able to understand/respond to directives | | |
| Child seemed distrustful, uneasy with the art therapist/assessor | | |
| o Wanted to leave the door open | | |
| o Sat/placed themselves far away from the therapist | | |
| Child seemed comfortable choosing art material | | |
| Child was resistant to creating art | | |

| | | |
|--|--|--|
| Preferred medium | | |
| Child showed an aversion to an art medium | | |
| Child used/chose a notable quantity of material | | |
| <input type="radio"/> Used very limited amount of material <input type="radio"/> Used a large amount of material | | |
| Notes: | | |
| Use of art material | | |
| Experimentally/loosely | | |
| Cautiously/rigidly | | |
| Child created in a manner that seemed predominantly | | |
| <input type="radio"/> Kinesthetic <input type="radio"/> Sensory <input type="radio"/> Cognitive <input type="radio"/> Affective <input type="radio"/> Symbolic <input type="radio"/> Perceptual | | |
| Child discussed the artwork during or after creation | | |
| Child communicated nonverbally that they enjoyed creating/that the artwork was important to them. | | |
| Artmaking was used as communicative/storytelling tool | | |
| Child had difficulty transitioning out of art-making/leaving room | | |
| The artwork reflected a developmental level that that matches their chronological age | | |
| Notes: | | |
| Motor Behaviour | | |
| Child seemed calm during art making | | |
| <input type="radio"/> relaxed body language-posture <input type="radio"/> regular breathing rate | | |
| Attention span | | |
| <input type="radio"/> Stayed on one task for the duration of the assessment <input type="radio"/> Switched tasks frequently <input type="radio"/> Could not sustain attention for any task | | |
| Placement in the room | | |
| <input type="radio"/> Sitting <input type="radio"/> Standing <input type="radio"/> Other | | |
| Specify: | | |
| Presence of gross motor coordination difficulties | | |
| Presence of fine motor coordination difficulties | | |
| Child appeared hyperactive | | |
| Child was fidgeting | | |
| Notes: | | |

| | | |
|---|--|--|
| Mood/Affect | | |
| Self-reported feelings/mood: | | |
| Nonverbal cues to feelings/mood: | | |
| <input type="radio"/> Normal range of facial expressions | | |
| <input type="radio"/> Narrowing or Constriction | | |
| <input type="radio"/> Flattening | | |
| Lability | | |
| Notes: | | |
| Language | | |
| Evidence of receptive difficulties | | |
| Evidence of expressive difficulties | | |
| Non-communicative use of speech | | |
| Developmental level of language appears typical for chronological age | | |
| Other | | |
| Presence of perseveration | | |
| Possible presence of Hallucinations | | |
| <input type="radio"/> Auditory | | |
| <input type="radio"/> Visual | | |
| Possible indications of memory difficulties | | |
| Interest in dramatic/imaginative play | | |
| Interest in toys/games | | |
| Notes: | | |
| Other considerations | | |
| Diagnosis | | |
| Developmental/physical disabilities | | |
| Ethno-Cultural background | | |
| Significant interests/values/life events | | |
| Notes/Impression: | | |

Figure 4. Assessment checklist. This figure illustrates the assessment checklist after the process of generation, categorization and reduction.

| | Directive | Rationale |
|---|--|---|
| Introduction, invitation of child into the art room | Assessor goes to child's classroom/receive in art therapy room, introduces themselves, asks the child if they might want to come and make art for a little while. | Assess ease with which child leaves class, eye contact, initial interest, willingness to go with me, comfort with/aversion to strangers, transition ease |
| Explanation/presentation of art materials | Room set up with table in centre, 3 small chairs, bucket of markers, coloured pencils, and oil pastels, several 8 1/2" x 11" and 12" x 19" sheet of white paper, dry watercolour paints, paintbrushes and a pack of modelling clay. Assessor invites child to take the "session in progress-please do not disturb" sign and put it on the door, explaining that the door is closed so that no one will enter, explain how long assessment will take and that the child will be taken back to class/room the assessment is done. Purpose of assessment is explained. The child is invited to use any material they wish and to create whatever they wish. | Assess interest in art making, choice of chair, comfort with closing of door, choice of material, of paper, engagement with material, ease of choice of material. |
| Art making procedure. | Art therapist/assessor explains to the child that they have 20 minutes, that they will be told when they are at the halfway point (when they have 10 minutes left) and when they have 2 minutes left, leaving time for them to finish up. Child makes art, assessor observes, follow child's lead regarding amount of talking during art making, exploration of other material. | Time frame to reduce anxiety, to set frame. Assessment of level of social interaction, of verbalizations, fine motor skills, developmental drawing level, use of materials, preferences/aversions, non-verbal during drawing task (posture, breathing, facial expression). Assessor follows lead of the child to assess interest in art making, to allow the child to guide the time. If child engages verbally, art therapist follows. |
| Time checks | Art therapist gives time checks. | Time checks/schedule are verbalized (but not written or demonstrated visually) to assess how child deals with time limits. |
| Wrap up | At the two-minute mark, the child is invited to make any last details they want. They are asked if the art piece has a title, if they want to say anything about the image. | To give the child the chance to finish the piece. Title is invited to gain additional information about artwork, to assess child's storytelling ability/interest. |
| Leaving the art therapy space-return to class | The child is invited to take the sign off the door and the assessor walks them back to class. | To invite the child to take part in the symbolic and literal process of closing of the assessment. To assess ease/resistance to leaving the space, feelings about going back to class/room. Assessment of ease with transitions. |

Figure 5. Art-based assessment protocol. This figure outlines the basic procedure for the art based assessment, including rationale.

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