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Discuss the importance of the therapeutic relationship across the lifespan, but with particular reference to working with adults and older adults.

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Discuss the importance of the therapeutic relationship across the lifespan, but with particular reference to working with adults and older adults

In this essay I will provide information about the meaning of the concept of the therapeutic relationship as well as its historical development. This will be followed by an exploration of this relationship's connection with therapeutic outcome. While considering its components there will be a particular focus on the management of the relationship and its effects on the therapy process and therapeutic change. I will then continue with an examination of mediating factors that might underlie the association between the patient-therapist relationship and outcome before concluding, highlighting shortcomings, and making suggestions for future research that might deepen our understanding of the therapeutic relationship and associated factors and thus increase therapeutic efficacy.

What is the Therapeutic Relationship?

The first emotional relationship (attachment) is that between the infant and whoever shows him/her affection and meets their need for nourishment, safety and comfort (Bowlby, 1998). According to Bowlby (1987) attachment continues throughout life and remains a security base we seek out when faced with loss, distress, or illness and may thus have relevance for the conceptualisation of adult/adult interplay in the therapeutic relationship. As life cycles repeat themselves across the life-span with people of any ages continuously undergoing transitions involving potentially stressful losses and role changes I have decided not to distinguish between adults and older adults in relation to the therapeutic relationship. I am aware that with a certain age (usually over 65) there are inevitably increasingly more concerns about matters such as loss of occupation (and the associated loss of income, role and status), bereavement (e.g. death of partner, family and friends) as well as one's own health (including dealing with one's mortality) that might require to move around homes and hospitals. However, these concerns are not just reserved for the elderly but are just as likely to affect people at any age (e.g. being made redundant, having lost friends in fatal accidents, suffering from terminal illness, etc.).

The term therapeutic relationship has become a well-established concept in the psychotherapeutic vocabulary ever since Freud (1912) spoke of the relationship between patient and therapist as an essential part of the therapeutic process. But what exactly do we mean by therapeutic relationship?

Freud saw the patient as a co-worker of the therapist, who had to work with the patient's ego in order to give it back its mastery over lost provinces of his life (Freud, 1940). According to what Freud referred to as positive transference, the patient forms a positive attachment to the genuinely interested and sympathetically understanding therapist linking him/her with people in authority who used to treat the patient with affection. He thought that this process would put the therapist in the role of an authority figure strengthening the patient's beliefs in the therapist's interpretations and giving him strength and confidence to deal with the painful experience of facing traumatic material. The main task of therapy was regarded as interpreting the patient's projections on the qualities of his/her therapist based on the formers' past relationships (i.e. transference).

The idea of the patient being the therapist's co-worker was further elaborated by Greenson (1965) who first coined the term "working alliance" making it a widely used concept within psychotherapy. Proposing that there is more to the patient-therapist relationship apart from Freud's transference he introduced the terms of working alliance and the real relationship. Greenson (1965) argued that the working alliance relates to the patient's intact (non-neurotic) contact with the therapist that makes therapeutic work possible. It is the working alliance that reflects the patient's motivation and capacity to work with the therapist. The real relationship, on the other hand, was thought of as consisting of the genuine aspects of the non-professional relationship between patient and therapist.

Whether Freud's (1912) transference and Greenson's (1965) working alliance are truly independent phenomena has been one of the ongoing controversies in psychodynamic therapy. Proponents of the alliance-as-transference perspective such as Gelso & Carter (1985) argued that emotions and thoughts associated with unresolved relationships are bound to be transferred onto the patient-therapist relationship thus leading to a misperception/misinterpretation of the therapist. Others such as Hatcher (1990) stated that all relationships are necessarily influenced by past experiences and, that the working alliance is not a separate but alternative component of the same phenomenon as transference. There now appears to be some consensus within the psychodynamic field that an adequate definition of the therapeutic relationship needs to take into account both the influence of past relationships as well as specific aspects of the current relationship between patient and therapist.

Building on Greenson's (1965) work, Bordin (1979) introduced his generic model of the therapeutic alliance further clarifying the distinction between the unconscious projection of the patient (i.e. transference) and what he called working alliance. This models states that there are three features, namely [1] an agreement on goals, [2] an assignment of tasks, and [3] the development of a bond between patient and therapist that are central to all psychotherapies regardless of theoretical orientation. Bordin (1979) emphasised the importance of consensus between patient and therapist with regards to goals and tasks rather than patient or therapist contributions themselves. The agreement on goals relates to the patient and therapist mutually endorsing and valuing the outcomes (goals) that are the target of therapy. Therapeutic tasks refer to the behaviours that the patient and therapist both perceive as relevant and efficacious as well as taking responsibility to perform them in relation to achieving the desired outcome. Lastly, the bond relates to the positive attachment between patient and therapist and involves aspects such as mutual trust, acceptance and confidence.

The importance of this emotional bond between patient and therapist was stressed by Rogers (1957), a proponent of the client-centred approach to psychotherapy, who perceived the quality of the therapeutic relationship to be a sufficient condition to bring about therapeutic change by releasing the patient's native healing process. Rogers' (1957) view of the therapeutic process between patient and therapist differed from that of proponents of the psychodynamic approach in that he put the responsibility of establishing a relationship with the patient on to the therapist who was required to be congruent, empathetic and showing unconditional positive regard for the patient. In contrast to that, psychoanalysis has tended to look for the patient's alliance capabilities in relation to his/her past relationships. It is important to acknowledge that Roger's ideas do not account for a model of therapeutic alliance but

have come to be referred as facilitative conditions for establishing a therapeutic relationship.

The Association between Therapeutic Relationship and Outcome

There has been considerable research in relation to the measurement of different aspects of the therapeutic relationship which resulted in a number of alliance scales (e.g. Pennsylvania Scales, Therapeutic Alliance Rating Scale [TARS], California Psychotherapy Alliance Scale [CALPAS], Working Alliance Inventory [WAI], and Vanderbilt Scales). It is interesting that although these assessment tools were developed by researchers of various theoretical orientations using different methodologies for measuring therapeutic relationship they were still found to be highly correlated (Hatcher & Barends, 1996) suggesting that they are all measuring some underlying phenomenon. In a review of alliance scales by Horvath and Luborsky (1993) it was discovered that there are two core aspects of the alliance measured by most scales namely [a] the patient-therapist affective attachment and [b] the collaboration or willingness to invest in the therapy process. [1]Furthermore, in their recent meta-analysis on the relationship between alliance and outcome, Martin, Garske and Davis (2000) discovered that most of these scales, apart from the TARS, are related to outcome.

It has been demonstrated that the patient's view of the relationship are generally more consistent predictors of improvement compared with other evaluative perspectives (Horowitz et al., 1984; Marziali, 1984). Reasons for the poor predictive power of therapists' alliance scores, for example, might be caused by some therapists misjudging the relationship being biased by counter-transference (Horvath & Luborsky, 1993) and their own early relationships (Henry & Strupp, 1994). It has also been shown that the patients tend to rate the alliance as more consistently than did therapists or observers which explains some of the contradictory findings associated with stability of the alliance (Hartley & Strupp, 1983; Tunis et al., 1995). Thus, because patients tend to view the alliance as positive at termination if their initial assessment was positive, it is important to establish a positive relationship with the patient early on in therapy.

The mayor reason behind this revived interest in the therapeutic relationship over the last two decades was the discovery of its connection with subsequent therapeutic outcome (Martin et al., 2000; Horvath & Symonds, 1991) and the inability of researchers to find consistent differences in the effectiveness of psychotherapy across theoretical orientations (Lambert & Bergin, 1994). The failure to detect significant outcome differences between therapeutic models led investigators to focus on common (non-specific) therapeutic elements such as expectations of improvement, a convincing rationale, the skill of the therapist and the therapeutic relationship, the latter of which has come to be seen as driving therapeutic outcome (Luborsky, Singer & Luborsky, 1975). Some investigators have come to take a very Rogerian (1957) like stance regarding the therapeutic relationship as more important than the type of treatment in predicting positive therapeutic outcome (Safran & Muran, 1995) or even referring to it as the "quintessential integrative variable" of therapy (Wolfe &

[1] It is these core aspects that I refer to when using the terms "therapeutic relationship" or "alliance" for the remainder of this essay (unless stated otherwise).

Goldfried, 1988). This view clearly sees the therapist-offered relationship as therapeutic in and of itself. Other researchers, more closely affiliated with the psychoanalytic tradition, have argued that the relationship should be seen as creating a context wherein the techniques of various approaches can operate to induce a change in patients. One can see that the main difference between these viewpoints is that of whether the therapeutic relationship plays a sufficient versus an interactive role relative to technique.

It needs to be acknowledged, though, that there is some support for the notion that specific ingredients of a therapy (unique factors) are related (although inversely) to therapeutic outcome (Piper et al., 1991; Svartberg & Stiles, 1994). The latter researchers, for example, discovered that therapists' competence was negatively related to patients' outcome. It was argued that the reason for this finding might have been that the particular therapeutic approach (comprising techniques such as holding the patient responsible for his/her behaviour, and the therapist being active and directive at the oedipal focus) may have been to anxiety provoking, especially at the initial phase of therapy at the possible expense of building a strong alliance. Another possibility is that the so called therapists' competence was in fact reflecting rigid adherence to a particular technique, which has previously been shown to be related with poorer outcome (Henry, Strupp, & Binder, 1992). Nevertheless, the general finding is that there is a stronger relationship between common factors (i.e. alliance) and therapeutic outcome (Carroll, Nich & Rounsaville, 1997; Svartberg & Stiles, 1994), as well as a complex relationship between unique and common factors.

There is some support for the notion that the therapeutic relationship is in itself therapeutic. Svartberg & Stiles (1994) discovered that the alliance between patient and therapist as measured by the Facilitative Alliance Inventory (which assesses [a] therapist understanding and active participation, [b] therapist helpfulness and [c] therapist facilitation of an open, self-disclosing atmosphere) was sufficient in producing therapeutic outcome as assessed by the Symptom Checklist-90 (Derogatis, 1977), which is a multidimensional self-report measure of general distress. They also discovered that alliance and the therapist's competence (measured by the Therapist Rating Form that evaluates both quantity and quality of therapist intervention) operated independently of each other as two distinct psychotherapy factors and thus challenging the psychoanalytic position that alliance and technique interact. Other research that supports the hypothesis that the alliance is therapeutic (regardless of other factors that might mediate this relationship) in itself includes studies by Martin et al. (2000) and Henry et al. (1994). It is worth mentioning that critics of the therapeutic alliance have questioned its effectiveness to produce therapeutic outcome, regarding it more as a by-product of therapy. It has been argued, for example, that what one can assume to be good indicators of a good therapeutic relationship are in fact the first signs of therapeutic progress (e.g. I already feel better, thus I am willing to be collaborative, agree with the goals set for therapy, etc.). However, it has been shown that the quality of the alliance was a significant factor over and above early therapeutic gains (Gaston et al., 1991; Horvath, 2000).

Nevertheless, one needs to acknowledge that the identification of the alliance as a predictor of therapeutic outcome actually only refers to an association, which doesn't give an indication of cause and effect. Furthermore, the size of this relationship as revealed by meta-analytic reviews (Martin et al., 2000) appears to be only modest,

leaving room for the notion that there might be more to the whole story such as the alliance interacting with interventions or affecting outcome indirectly by being connected to a number of therapist, patient and process variables generally found to be related to outcome in psychotherapy (Hougaard, 1994). It is thus worth exploring mechanisms that might underlie this relationship.

Working and Bonding and their Relationship to Outcome

As noted earlier the alliance is not a unitary concept from a theoretical point view but it is more like an umbrella covering a broad set of therapeutic factors (e.g. tasks, goals, bonds), which are likely to be related to a variety of therapeutic outcomes in a complex network of relationships.

It has been suggested that psychodynamic therapy (PT), with its focus on the analysis of the emotional bond between patient and therapist, is characterised by more emotionally charged and somewhat more uncomfortable therapy sessions while cognitive behavioural therapy (CBT), with its focus on the mutual agreement of tasks and goals, is characterised by smoother and less strained sessions (Raue & Goldfried, 1994). Research has produced some mixed evidence in relation to this claim. Sloane et al. (1975), for example, showed that observers rated CBT therapists higher on levels of empathy, genuineness and interpersonal contact than PT therapists, but they were rated equally on warmth. Raue, Goldfried, and Barkham (1997) discovered that observers rated CBT patient-therapist relationships higher than PT patient-therapist relationships on the Working Alliance Scale. Taken together with research that found that mutual agreement on therapeutic tasks predicted therapeutic outcome, sometimes better than other alliance components (Horvath & Greenberg, 1989; Safran & Walner, 1991), does that mean that one therapy focusing on the collaboration between patient and therapist (to address the former one's difficulties) is characterised by a better relationship and better prognosis than one that concentrates on the analysis of the bond between patient and therapist.

One could argue that it does not actually matter whether there is a better relationship between patient and therapist in one therapy in contrast to another as long as it is adequate as suggested by Howgego et al. (2003). It is further questionable whether it makes sense at all to refer to one relationship as "better" than another, and whether it would not make more sense to refer to "differences" between therapeutic relationships across theoretical orientations and their relationships to various outcomes. It needs to be acknowledged, though, that while an "adequate" relationship might provide the conditions under which specific interventions can be implemented, a "good" relationship may further foster greater treatment retention and thus permit greater exposure to treatment.

One can assume that psychodynamic therapy sessions characterised by a challenged bond and other strains (likely to be produced by the therapist's focus on the interpretation of transference) might still have a positive impact on the patient. This is because the patient is provided with the opportunity to focus and resolve strains within the relationship with the therapist. At the beginning phase of most therapies patients form a caring and trusting relationship with their therapist. Researchers have found that failure to develop this initial level of the relationship has a negative effect

on outcome and is likely to disrupt therapy (Frank & Gunderson, 1990; Kokotovic & Tracey, 1990). Once the therapeutic relationship has been established it becomes both context as well as content of the therapeutic process. This does not mean that the relationship becomes the exclusive focus of therapy or that it relates to all the patient's (relational) difficulties (although they often interact with his/her other problems). Nevertheless, if a client is dealing with relationship issues, he/she is enabled to symbolically deal with them during the resolution of stresses or disruptions in the therapeutic alliance. In other words the therapeutic relationship provides patients with the opportunity to practise productive interpersonal behaviours with the assistance of the therapist. Evidence to support this line of reasoning has been provided by Raue et al. (1993) who showed that psychodynamic sessions characterised by lower alliance rating scores were regarded by therapists as significant in terms of facilitating therapeutic change. These sessions also revealed a striking focus on the patient's perception of the therapist and the relationship, something that was absent in high alliance sessions of psychodynamic therapy and high/low alliance sessions of cognitive-behavioural therapy. Similar discoveries were made by Reandeau and Wampold (1991). Another benefit that appears to result from therapists addressing the therapeutic relationship has been a direct improvement of the alliance (Coady, 1988; Kivlighan & Schmitz, 1992).

One could say that these disruptions/strains in the alliance, that are likely to occur when the therapist starts to challenge patients' beliefs and behaviours, are necessary as the failure to experience such interruptions may be a sign that the therapy is "coasting" (i.e. patients' dysfunctional behaviour patterns remain unchallenged) and not moving forward (Benecke, 2002). At the same time, however, failure to properly attend to ruptures to the alliance might result in its breakdown and thus impede successful outcome (Neale & Rosenbeck, 1995).

In relation to this issue I would like to give an account of a recent experience of a slight strain to the therapeutic relationship with a patient who presented with symptoms of obsessive-compulsive behaviour. After spending some time on establishing our relationship, which I perceived as characterised by a mutual liking and trust and a generally friendly and relaxed atmosphere the patient asked me to tell her to stop with her compulsions. I politely refused her request to assume the role of an authority figure and instead explored the patient's self-regulation of the conflict. The reason for doing so was because I have become aware that in doing so I would become enmeshed in the patient's interactional relationship offers and thus maintain some of her maladaptive behaviour patterns. I experienced a short de-stabilisation of the therapeutic relationship which, however, subsided and developed into what I perceived as quite a close bond on the one hand and a certain amount of conflictual tension (in which I can challenge the patient and the patient can tell me what she regards as helpful/unhelpful) on the other. There is evidence to support that this kind of "friendly" refusal to accept the offer to take on the role of an authority figure to reduce the patient's inner conflictive tension is linked with productive therapeutic processes (Baenninger-Huber, Peham, & Juen (2002).

Factors influencing Alliance Development and their Relationship to Outcome

a) Patient Factors

Several factors influencing the patient's ability to form a good therapeutic relationship with the therapist have been identified in the psychotherapy literature. The patient's early relationship experiences as well as the quality of present relationships have been shown to be associated with the capacity to develop a good alliance in the early phases of therapy (Gaston, 1991; Horvath, 2000; Kokotovic & Tracey, 1990) as well as therapy outcome (Horowitz, Rosenberg, Kalehzan, 1992). Horvath (2000) argued that because of the relatively small magnitude of these associations and because these moderating variables tend to diminish over time, these factors should be regarded as challenges rather than true impediments to alliance development in early phases of therapy. Support for this position has been provided by Piper, Azim, Joyce, & McCallum, (1991) who demonstrated an association between the patient's early relationships and the alliance, but that the alliance was a superior predictor of outcome compared with patients' quality of early relationships, suggesting that the alliance is influenced but not determined by early relationships.

Another pre-dispositional factor is the degree of the patient's impairment. Research suggests that patients' symptom severity does not have a strong impact on the formation of a therapeutic relationship. This finding is quite encouraging as it is generally the case that symptom severity is negatively related to outcome, while alliance is supposed to be positively associated with outcome. One should not forget, however, that patients in general psychotherapy are usually voluntarily seeking help and enter a relationship motivated to engage. It is apparent from the literature, however, that there is a relative lack of research on therapists' alliance with patients who have a psychotic illness, who may be under a court order for treatment (except Frank & Gunderson 1990; Svensson & Hansson, 1999). In relation to patients, who deny their illness, refuse treatment and might pose a danger to themselves and others, one may wonder how formal coercion might affect the development of an alliance. There is thus an increased need to focus on relational issues in this subgroup, who lack social skills and networks, to allow for the development and experience of stable and productive relationships (Gehrs & Goering, 1994).

Other patient factors facilitating the development of the alliance include motivation and positive expectations. The patient's motivation, regarded as his/her willingness to work in an active and purposeful way on the therapeutic tasks, has been shown to fuse with the concept of positive expectations, and both have been shown to be linked to outcome although only occasionally (Rosenbaum & Horowitz, 1983). The patient's working capacity, on the other hand, appears to be among the best predictors for therapeutic outcome. The patient's working capacity has been identified as another important element contributing to the collaborative relationship. This factor, taken from the California Psychotherapy Alliance Scale, refers to the patient's ability to perform required therapeutic tasks of the relevant therapy. Marmar, Weiss and Gaston (1989) discovered that the patient's working capacity was related to outcome in both cognitive and psychodynamic psychotherapy, but not in behaviour therapy which is consistent with findings by Hartley and Strupp (1983) and O'Malley.

b) Therapist Factors

Of course there are also factors that influence the therapist to form a successful alliance with the patient, some of which can be regarded as parallel to the patient's contributions (i.e. ability and motivation). The therapist's credibility as an expert (ability), which ties in with the Freudian idea of the patient clothing the therapist with a cloak of authority, and his willingness to work (motivation) with the patient's problems according to the given therapeutic method have been shown to be related to therapeutic outcome (Orlinsky & Howard, 1986).

Another factor is the therapist's training which, however, does not seem to have a strong impact on his/her ability to develop a therapeutic relationship (Henry et al, 1993; Horvath, 2004). There is some evidence, however, to suggest that although more and less trained therapists are equally liked and trusted (emotional bond), the better trained therapists are more adept at timing and pacing of their interventions, more able to engage clients as collaborators and chose appropriate goals. Furthermore, Horvath (2004) argued that less trained therapists are more likely to misjudge the alliance with the client than better trained clinicians, which allows the better trained therapists to manage the relationship more effectively in the long run. The above mentioned failure in training therapists to form better alliances might have something to do with their own early relationship experiences. Support for this notion has been provided by Horvath's (2004) review of therapist training programs that revealed that investigators were more consistent in identifying therapist attributes (e.g. flexibility, interest, and warmth) than specific therapist activities thought to be associated with positive or improving alliance.

Interactional Factors

In relation to the establishment of an emotional bond, mutual liking and understanding between patient and therapist develops out of the parties' personal contributions (e.g. therapist likes patient, patient like therapist). According to interpersonal theory (e.g. Wiggins, 1982) there are two other factors, namely affiliation and control, that are central dimensions of personal interaction. According to this theory it is the "match" between the people in a relationship that is important and not so much individual contributions to the relationship. Proponents of this theory argue that the interaction in a relationship tends toward "complementarity" which occurs on the basis of "reciprocity" in respect to control (dominance "pulls" for submission and vice versa), and on the basis of correspondence in respect to affiliation (friendliness pulls friendliness, hostility pulls hostility). There is some evidence to suggest that the patient-therapist "complementarity" early in psychotherapy is related to the quality of the therapeutic alliance Kiesler & Watkins, 1989) and to therapeutic outcome (Henry, Schacht, & Strupp, 1986).

Conclusion

It appears that theorists have been more concerned with what kind of phenomenon the therapeutic relationship is while empirical researchers have more focused on its relationship to outcome. The well documented link between therapeutic relationship and outcome has led many researchers to think of the relationship as a unitary concept, a common factor, which is curative in itself. It has been suggested that the impetus behind the mass of empirical alliance research was primarily caused by Roger's (1957) core conditions (congruence, empathy, and unconditional positive regard) of psychotherapy, which in fact are far from synonymous with the alliance concept (Orlinsky, Grawe, & Parks, 1994). This overly curative theoretical model of the therapeutic relationship is likely to have driven empirical research and influenced the interpretation of its findings. One could say that having been presented with a curative paradigm from the outset prevented the need to look for mediating variables that might underlie this relationship even when faced with a meta-analytic review that revealed that the alliance only accounted for 22% of the variation in outcome (see Martin et al, 2000). One could say that such a moderate relationship does not make the therapeutic relationship seem very important. However, it is very likely that the implicit assumption of a curative paradigm is reflected in the aggregation of subscales to provide a single summary score, thus blurring the distinction between different components of the alliance or various alliance concepts between different measures and their potentially closer relationships to distinct therapeutic outcomes that are relevant and important to the patient (e.g. target complaints rather than broad-range symptomatic change measures or policy driven service outcome measures such as hospital admission, bed days, and medication compliance). Another reasonable explanation for this rather moderate relationship is that current quantitative research tools might be too blunt to be able to detect subtle differences between components of the alliance or various alliance concepts between different measures.

However, as outlined in this essay a number of researchers have made the effort to investigate subcomponents of the alliance such as the patient's and therapist's emotional bond and their collaboration (e.g. mutual agreement on therapeutic tasks in relation to agreed goals), as well as the management of the personal relationship and established their associations with outcome. Furthermore, a number of mediating factors that have been shown to be related to outcome include the patient's working capacity (ability to perform required therapeutic tasks) and early relationship experiences, the therapist's credibility as an expert and his willingness to work (motivation) with the patient's problems, as well as the patient-therapist complementarity. There is a strong need for continuous research on these mediating variables to better our understanding of the interplay between them and how they affect the association between the therapeutic relationship and outcome.

Another line of enquiry that is worth focusing on relates to Bachelor's (1995) discovery of alliance elements (e.g. trust, insight) that have not yet received explicit conceptual or empirical focus. Because of that it is possible that current self-report measures might not adequately reflect the quality of the relationship. More specifically, patients who are satisfied with their alliance might give low alliance ratings simply because aspects of the relationship they value are not covered by present scales, and conversely scale items of an alliance measure could receive high

endorsement, which might not necessarily reflect a strong alliance if the scale items have little relevance to the patient.

Furthermore, it is worth focusing on is the patient's perception of the alliance. Assessment of the therapeutic relationship and process focused initially on observer's evaluation although investigators have came to acknowledge the importance of the patient's views given that the effects of therapeutic change are mediated through perceptions of the patient and given that is him/her who changes (Rice & Greenberg, 1984). However, although it is desirable to include patient ratings of perceived therapeutic relationship and therapeutic gains one needs to be careful not to fall into the trap of source bias. Investigations that utilise the same participant to evaluate both the process and the outcome of therapy are potentially suspicious, as it is likely that a strong "halo" effect might contaminate the finding. It is possible that the patient who forms a strong emotional bond and a good working alliance with the therapist might also optimistically report the outcome of the therapy as favourable. It would thus be reasonable to use a variety of assessment sources to counter this problem.

Finally, in relation to the unavoidable and somewhat desirable (to produce change) stresses and strains within the therapeutic relationship it appears desirable to further our understanding of how patients absorb, store and retrieve features of the relationship with their therapist, use it to re-imagine their situation and expand on their relational behaviour. At the same time there is a need to focus on identifying and managing therapists' potentially problematic reactions to patients in the face of strains to the relationship in order to improve therapists' relational effectiveness (Henry & Strupp, 1994; Safran & Muran, 2000) as well as how the therapist can create opportunities to help with this process. Ultimately, endeavours as these will hopefully enhance therapists' awareness and ability to modify his/her relationship behaviour according to disorder (e.g. psychosis), patient (nurturant-type, insight-oriented, collaboration-oriented), and process (e.g. therapy phase) specific demands.

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Written Exercise II

University of Hertfordshire
Doctorate in Clinical Psychology

Year 2

Discuss the use of systemic and psychodynamic approaches for people with learning disability. What are the potential dilemmas and challenges faced by a clinical psychologist when using these two approaches with learning disabled people, and how can they be addressed?

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Historical Development of Service Provision

The terminology in the area of "learning disability" is continuously changing, reflecting the beliefs and attitudes of the society at the time rather than as a result of new scientific discoveries (Oliver, 1989). Although considerable disagreement still exists in terms of precise definition and classification, it is generally agreed that the central features of the construct of learning disabilities are a deficit in the individual's intellectual capacity coupled with significant impairment of adaptive skills and thus social functioning. It is to be distinguished from specific learning difficulties (e.g. dyslexia, dyscalculia, illiteracy, educational under-achievement).

Historically, people with intellectual disabilities have had little access to individual therapeutic interventions for psychological problems (Lynch 2004). Instead there was an over-reliance on behaviour modification and use of medications (Hurley et al., 1998). It has been argued that these methods neglected the psychological well-being of the client (Stenfert Kroese, 1998) and that they were often designed to meet the needs of the service provider rather than those who are experiencing difficulties (Waitman & Reynolds, 1992). Furthermore, children with multiple disabilities such as intellectual impairment were often placed in state institutions (Ho & Keiley, 2003). Since the 1970s, however, a movement has existed to de-institutionalize people with disabilities and help support parents to keep their children at home (Lakin, Anderson, & Prouty, 1998).

A number of factors contributed to the inadequate service provision for people with LD and their families. One factor involves the commonly held belief that people with mental retardation are somehow immune to mental illness (Fletcher, 1988) Another factor involves the perception among many professionals that mental retardation diagnostically overshadows any coexisting emotional disturbance or psychiatric diagnosis. Research has shown that mental health professionals are more likely to attribute psychiatric symptoms to the mental retardation, rather than to a psychiatric disturbance (Reiss & Szyskzo, 1983). A third factor involves the view that clients with learning disabilities are inappropriate candidates for psychotherapy (Rogers & Dymond, 1954). This perception has endured because these clients were seen as lacking the necessary intelligence to verbally discuss their problems. Finally, the dichotomization between mental health and learning disability has also served to minimize professional interest in developing psychotherapy for people with developmental disabilities.

It is now accepted that adults with intellectual disabilities experience full emotional lives (Jones et al. 1997) and suffer from the same mental health difficulties as the general population and that prevalence is, if anything, slightly higher (Dosen & Day 2001). Combined with evidence suggesting that some adults with intellectual disabilities have the ability to self-report on their emotional states (Lindsay et al. 1994) individual therapeutic interventions have slowly become more available to this part of the population.

It has included adaptations to therapies established with other populations such as individual psychotherapy, cognitve-behavioural therapy and approaches that consider the wider family (e.g. Fidell, 2000; Sinason, 1992; Vetere, 1993). Willner (2005) showed that psychotherapy (e.g. cognitive behavioural, psychodynamic) with this client group resulted in moderate change and was moderately effective. Others such as Beail (2003) and Prout and Nowak-Drabik (2003) have, however, highlighted the lack of randomized control trials and lack of evidence regarding which specific components of interventions are effective.

People with LD and their Families

The stigma of learning disability often leads children to develop negative identities that incorporate their differences from societal norms, for example, not being fully competent or independent (Szivos & Griffiths, 1990). Stigmatization of people with disabilities often exists because they are being judged by the same criteria as individuals without disabilities.

It has been shown that parents of disabled children experience lower levels of coherence, more anxiety and satisfaction from their lives (Green, 1990). They also report more family conflict, more communication deviances and less encouragement of emotional expression. Often difficulties of diagnosis and treatment in early childhood has allowed parent and child to muddle along, until adolescence brings separation issues once again and with renewed urgency. Parents become concerned for their child's future as they begin to despair of any development towards independence. This is a time when they start to press health and social services again for help and guidance (Spensley, 1985).

Kubler-Ross's (1969) stages of acceptance of death and dying have been applied to the process in which parents of children with disabilities engage in response to the diagnosis of their children's disabilities. According to this theory parents mourn the loss of their idealized or perfect children (Ellis, 1989). Their hopes and dreams for their children are shattered when they receive the diagnosis of multiple disabilities and they usually experience shock and denial and grief, with an attempt to bargain and negotiate often leading to acceptance and change (Seligman & Darling, 1997).

Common dilemmas and challenges in therapeutic work in LD

Language

According to Prosser and Bromley (1998), mental health symptoms can be harder to detect in people with learning disabilities as they often experience difficulties in describing their subjective feelings and changes in mood, due to limited expressive language skills. These authors have provided general guidelines to maximise the client's ability to provide valid and reliable information in an interview such as avoiding jargon, double negatives, abstract questions about future behaviours or attitudes and checking the validity of a client's response by following a question with a reverse question. In addition, the need to develop a shared vocabulary regarding difficulties and experiences have been emphasised which may take some time and requires therapists to check the meaning of language used (Bates, 1992).

Therapeutic Relationship

A common problem is the previous experience of rejection in people with LD. This might make it harder to develop trust and it may thus take longer to develop a therapeutic relationship and engage clients (Bates, 1992). Hurley, Tomasulo and Pfadt (1998) therefore stress the importance of therapists taking an active role in facilitating the development of a supportive, trusting relationship where clients are free of fears of judgement or reprisal. This may include communicating concern, empathy, genuineness and warmth, which will need to be adapted to the client's cognitive abilities.

This can pose a particular challenge when clients have very limited or no verbal abilities and has led therapists to use non-verbal means, including touch (e.g. walking arm in arm to the therapy room), or going for car rides, which would normally be regarded as inappropriate (Berry, 2003). With more verbal clients trust may only be able to be established by meeting outside of the formal setting of the therapy room (at least initially). Each of these cases poses a dilemma in terms of setting appropriate boundaries, as there may be a risk of therapists being viewed as friends (Caine & Hatton, 1998). Thus the therapeutic relationship may need to be clarified, and reviewed at different stages of therapy, using clear and concrete language.

Family therapy – Specific dilemmas and challenges

According to family systems theory, the family is interactive, interdependent, and reactive to change (Hornby, 1994). If something affects one member of the family, all members are affected. As each family member changes over time, the family system is also altered and transformed. Because the family system is interdependent, intervention with the entire family system is more effective than treating one individual within the system (Coppersmith, 1984) making all family members agents of change.

Treatment Issues

Treatment is usually focused on gathering resources and tapping resilience to help parents meet the demands placed upon them rather than focusing on finding a cure. It thus helps families to build and maintain confidence, which has been broken by the birth of the disabled child. Balance in the family may be achieved by helping family members to develop capabilities, resources, and coping behaviours (Patterson & Garwick, 1994). These capabilities, resources, and coping behaviours may be used to meet the demands of daily life. These demands include the challenges specific to the disabilities (e.g. raising children with disabilities) and stressors such as discrete developmental events that cause stress (e.g. going to school). Research has shown that individuals with chronic illnesses or disabilities are healthier when family members have adequate resources to meet the demands of daily living (Patterson & Garwick, 1994).

"Your way or the highway?"

Families are often involved with a number of professionals, which can be very intrusive, particularly at times of transition from child to adult services when decisions may need to be made about the child leaving home, something which would normally be a private matter (Fidell, 2000). Extra care is thus needed in the development of a therapeutic relationship between the family and the therapist(s).

In family therapy parents are treated as experts about themselves and their children, and family professionals are seen as experts in finding resources. There is thus a strong emphasis on a collaborative stance (Sloper, 1989) as opposed to viewing the therapist at the expert who has all the knowledge and skills to deal with the problems families bring (Odell & Quinn, 1998). Family members are often very experienced in interpreting and explaining things for the LD individual who might have difficulties understanding what is being said.

There is a strong emphasis on working with the agenda of the family rather than on presenting problems identified by referring parties or the therapist. This is achieved by the family and therapist agreeing on an area of hopelessness in which nothing is expected to change. The family and therapist agree they need not put effort into this area but instead concentrate effort in another area where everybody agrees that change is possible. This strategy, which has been coined 'The uses of hopelessness' has been shown to be useful (Bennett and Bennett, 1984).

Family professionals are encouraged to offer parents new information in a way that fits their current belief system Davis (1993). By offering information that is congruent with their beliefs and knowledge, family professionals can support parents' sense of competence. Family professionals are encouraged to avoid using professional jargon and instead use lay language when speaking with parents.

It is also believed that families with a member with LD will benefit from practical help such as family management and behavioural support (Burbach & Stanbridge, 1998) alongside the family therapy. The important message is to stay flexible as different families come with different problems. Some come for advice, other are burdened with loss and grief, wile still others are looking for a mentor to help them work on their difficulties, and anything else apart from collaboration would be regarded as insulting.

The Same Old Story

When parents try to make sense of disabilities, they may construct stories to organize their experiences. Negative myths about the cause of the disabilities may include bad luck, blame, genetics, or negligence by parents. These destructive beliefs may be held secretly and lead to such intense shame that parents' suffering is almost unbearable. Beliefs based on blame and shame can be confronted and changed (Rolland, 1994). Family professionals can guide parents to take a positive perspective on the disabilities as an opportunity for them to rewrite old stories or scripts. Sturniolo (1996) encouraged family professionals to keep in mind that the goal is to help parents as they create new scripts, not impose their own. Imposing their own scripts may be, in fact, what is happening when family professionals try to convince the parents that their children are cognitively impaired.

Some parents become stuck in negative stories surrounding their children's disabilities. Reframing can be used to help them reinterpret the disabilities and develop new understandings (Satir & Bitter, 2000). According to Turnbull and Turnbull (1990) there are two ways to help parents consider their children's disabilities in a more positive way are to use positive comparisons (comparing one's family situation with another one) and selective attention (focusing on positive rather than negative aspects.

As parents come to terms with the disabilities they may be guided in replacing naive optimism with constructive optimism (Rolland, 1994). Naive optimism encourages parents to block out new information from health care professionals such as a young child's need for a wheelchair rather than crutches. On the other hand, "constructive optimism as a positive bias rather than an inhibitor of action may facilitate a family's thinking about a formidable challenge in a manageable way and promote its tackling a serious health problem".

At the same time Beckman (1996) has warned family professionals not to discredit parents' feelings of frustration or anger. One might too quickly move away from the problem and expressed pain towards positive exceptions. This "bury the suffering" message might convey the expectation that families dealing with illness should bounce back and present a positive and acceptable image.

Attention also needs to be directed at the meaning the families give to their situation and the way they construe the stressors, their own abilities and resources. An association has been demonstrated between mothers' wellbeing and particular ways of thinking about the child's disability. These include self-efficacy (Hastings & Brown, 2002), perceiving the child as a source of personal growth (Hasting & Taunt, 2002), positive perceptions (Hastings, Allen, McDermott, & Still, 2002), and addressing problems with an active problem-solving approach rather than 'wishful thinking' (Kim, Greenberg, Seltzer, & Kraus, 2003). Using systemic principles in clinical practice opens up the possibility of multiple explanations within the system or network and helps introduce new meanings for problematic situations (Lynggaard et al. 2001).

"He is not stupid!"

When working with parents, it is neither helpful nor respectful to use the label denial. Seligman and Darling (1997) suggested that when parents appear to deny disabilities, family professionals might accept parents' views and respectfully point out where children may need intervention. Beckman (1996) warned that labelling parents as being in denial may create a verbal barrier to effective communication and interfere with the creation of bonds between parents and family professionals. Parents may become defensive if professionals label their search for a second opinion or further assessment as denial. Family professionals may do damage by pushing parents to accept the stigma of intellectual disabilities when they have already overloaded their resources by attempting to deal with their children's physical and medical issues. Furthermore, labelling tends to stereotype parents and may cause other family professionals to limit their assessment of the family system and dynamics.

Parents' abilities to receive information regarding their children's diagnosis will be affected by their emotional states and how information is presented (Beckman, 1996; Satir & Bitter, 2000). As members of a multidisciplinary team, family professionals may encourage the use of respectful labels and appropriate information sharing modes. Beckman (1996) suggested presenting the same information in a variety of formats over time to help parents integrate the new and emotionally charged information. Parents may appear to understand at one session but not understand at a later session, particularly if they are making use of various coping strategies, such as denial, finding a purpose, or rehearsal of alternative outcomes (Sequeira et al., 1990).

"He is such a pain!"

Individuals with LD have been in the position of the scapegoats being blamed for when things go wrong (confirming and strengthening beliefs) with a subsequent failure to recognize how important the support system can be in exacerbating, maintaining or alleviating difficulties. One might either collude with the family and perpetuate the "scapegoating" or one might alienate the other family members by empowering the LD individual by inviting him/her in the first place, and giving him/her an equal voice (raising the question who brings whom to therapy).

Another question that arises here is that of who is perceived as powerful. Individuals with LD who display challenging behaviour might be regarded by their family members as quite powerful when they might actually feel quite powerless. Thus a "further" empowering of the client with LD is likely to be regarded by the rest of the family as inappropriate. This will also be difficult for the LD client since they are used to being told what to do and to be blamed for when things go wrong. It will take time to get used to the idea that their view is valued and that there is an atmosphere of positive connotation rather than blame.

The issue with violence is a tricky one and some believe that the people with LD need to lean to take responsibility (Goldner et al., 1990). The problem is that of whether the individual with LD really understands what they are doing and also that of taking on responsibility when at the same time not being granted many rights. It is believed that it is important to help LD individuals take responsibility as it might help them feel empowered by learning that they are in control of their violence rather than the other way around. The use of externalisation (the problem) has been shown to help clients feel more in control and less blamed (White & Epston, 1990).

Loss and the altered lifecycle

When a member of a family has a severe disability, the sequence of life-events tends to be different from families without such disabilities (Black, 1987; Vetere, 1993). The most striking difference is that families with a disabled member may experience lifecycle transitions in a different sequence from that of the previous generation and they may appear 'out of synchrony'. From the time of suspicion or diagnosis families are faced with how to grieve for what was hoped for and is now lost: often referred to as 'the perfect child' (Oswin, 1991). This pattern of response to the original loss of hopes and expectations may be recapitulated at the next loss commonly occurring at life-cycle transitions which involve change and thus some loss, as well as gain (Carter & McGoldrick, 1982). However, each succeeding grief response is constrained by previous responses. Each loss stimulates the disabled person and his or her parent(s) to return to their relationship at the time of the previous loss.

It is believed that when families enter therapy they are stuck at a life-cycle transition. To progress through this transition the family members may have to grieve their current losses which will inevitably evoke a series of losses, each constrained by patterns of grieving for the losses that preceded them. One of the reasons why families have difficulties progressing to the next life-cycle stage is that they want to protect the disabled person from the consequences of the disability (Andersen, 1987; Goldberg et al., 1995). This often revolves around issues common in the 'leaving home' stage: protection from sexual activity whether consensual or exploitative, violence, the loss of parental support or presence, and the direct effects of the disability (Sinason, 1992). Likewise, the disabled individual tries to protect his family, particularly his/her parents commonly from old age and death. Protection, which may have been helpful in the past, has become non-adaptive or disabling and delays resolution of their past and current grief.

Therapy would recapitulate past losses. Success would imply recapitulation and progression of past grieving. A change in the current relationship would allow change in the pattern of grieving, and change in the pattern of grieving would permit change in the relationship. Failure to resolve the grieving process results in a rigidity of relationships. Difficulty resolving the loss of the 'perfect child' may prompt difficulty negotiating change in the mother-child relationship. The therapist needs to be sensitive to the family's beliefs which have not been tested out in practice: such as, the disabled person would not survive moving to the next life stage. These ideas are based on views of past events which may be relatively immune from challenge and thus can be considered mythic (Pattison, 1976). Furthermore, feelings about short-term success may be dwarfed by an overwhelming feeling of long-term failure, e.g. the failure to protect the disabled person from all the consequences of the disability.

Psychoanalytic Psychotherapy – Specific dilemmas and challenges

According to psychoanalytic theory patients' difficulties are an expression of unconscious conflicts, which they cannot easily recognise or understand (Hodges, 2003).

Treatment Issues

The therapeutic relationship is used to understand the nature of current and past relationships as well as the nature of clients' difficulties. These difficulties are connected to defences that protect patients from unconscious thoughts and feelings that are very painful (Malan, 1979). To facilitate healing in the case of past trauma, it has been argued that it is necessary for the individual to re-experience the traumatic experiences, however in the presence of an object that protects and contains the helplessness and pain that this evokes (Sinason, 1986).

Accepting the unacceptable

The term “learning disability” obscures the distinction between constitutional (i.e. genetic, organic) low intelligence and difficulties in learning of a psychological origin. This distinction is important because these two entities so frequently overlap and they can also masquerade as each other. The overlap is seen in people with learning disabilities who show psychological difficulties in using the intelligence they have. This is sometimes referred to ‘Secondary Handicap’ (Sinason 1992) and involves using learning disability as a refuge from knowledge. To know the reality of organic deficit or psychological difficulties, both with implications of irreparable damage, would be too traumatic for all concerned. Similarly, Simpson (2002) stated that in situations when knowledge means knowing deficit – that is, what we do not have or cannot do, rather than what we do have or can do – learning presents a profound problem

However, people with learning disabilities can develop insight into their handicaps, possibly as a result of life events such as the acceptance of their diagnosis, dawning sexuality, and bereavement. Their reactions to these often-painful insights may bring about defence mechanisms which, if maladaptive, can result in challenging behaviour and mental illness. Bicknell (1983) argued that psychodynamic formulations of handicap can help workers to understand such a person's inner world and help link external symptoms to internal conflicts.

Mourning the loss of functioning permits a complete integration of the patient’s sense of self, with an improvement in his object relations. Goldschmidt (1966) argued that in order to facilitate the healing of a trauma "the patient must re-experience the traumatic situation bit by bit, but in the presence of an object which assumes the function of a shield against stimuli". He draws attention to the real need for a protector such a patient has. He quotes Hayman (1957) who wrote "Such patients have lost their protecting figure and are in a state of helplessness and this figure must be temporarily supplied to them”.

Hodges and Sheppard (2004) describe their dilemmas of using interpretations (used to make unconscious processes conscious, to facilitate self-awareness and integration of experiences) in a safe way or finding the best way to question clients’ defence mechanisms. They ask how appropriate it is to challenge defences, which typically have a protective function, sometimes hiding unbearable anxiety. They note that the reality of a client’s disability needs to be accommodated and therapists need to be more sensitive in their approach.

Knowing me, Knowing You

A common occurrence is the ambivalent relationship between the person with major disabilities and his/her parents. The former experiences feelings of blame towards the parents for having permitted his/her defectiveness and subsequently guilt that such blame generates. The latter often sustain a great deal of denial in their 'normalising' of the child's behaviour, not assessing or fully accepting the child's disability, and with lasting consequences for the child's emotional development. Hollins and Esterhuyzen (1997) for example, argued that disabled children are likely to develop insecure attachments. Furthermore, Spitz (1983) evidenced retardation in children in orphanages who had very little contact with caregivers and who appeared like brain-damaged individuals. One could say that one is dealing with infantile depression in some of these children who are mourning the loss of their attachment figures. In relation to this it is important to remember that the original meaning of "stupid" refers to being stunned with grief (Sinason, 1992).

The most important problem faced by a child in this situation parents who cannot bear to know reality particularly their child's reality. Parents might only be able to bear to see an infant. The cost, however, of time standing still is that development cannot occur. The child then fears that, if it shows curiosity towards its parents, instead of gaining self-affirming interest it will engender considerable discomfort by way of shame and guilt, hostility, or even catastrophe. The child becomes a burden to their parents and their parents a burden to them. This situation puts pressure on the child to fit in with the parents' defences so that its learning disability becomes a refuge from reality. This can sometimes be vividly observed in those individuals with LD who cannot look at you for fear of meeting your gaze.

Psychotherapy can offer the opportunity to re-experience some of their early ways of functioning in the context of a secure relationship with their therapist. They can then move on from a level of very primitive functioning to one in which they can experience whole-object relationships (Klein, 1989), that is tolerate the coexistence of 'good' and 'bad' simultaneously, both in themselves and others. The function of the relationship and the therapy in this context is to help them 'to connect' and by doing so, begin to allow themselves to learn.

Furthermore, the goal of intervention can sometimes be limited to supporting the parents in accepting that others (e.g. psychotherapists) take care of their child: attempting to share and understand the therapeutic process with them. This is regarded to significantly reduce the risks of failures or interruptions of the treatment that are so frequent and traumatic in childhood (J. Hobbs, 2007 Personal Communication). The purpose of this work is that of limiting the extent to which the parents inevitably attack or denigrate, when they are put outside the direct treatment of their child, activities which may reinforce their feelings of inadequacy or guilt.

Final Comments

There are a number of additional issues of concern for people with learning disabilities that have not been touched upon above as they do not pose specific challenges to any particular psychological approach but for psychotherapy in general. Specific issues include that of sexual maturation where individuals with LD might receive different messages about appropriateness of their behaviour and thus interfering with the development of sexual identity and transitions from childhood to adolescence and then adulthood (Sigman, 1985). This is further complicated by their sometimes limited verbal skills that make it more difficult to communicate the feelings of emerging sexuality. Then there is the issue of the universality, inevitability an irreversibility of death that develops later in individuals with LD (Harper & Wadsworth, 1993). These concepts are not made easier to acquire by exclusion from concrete aspects of death and death rituals, which is not uncommon in an attempt to protect the individual with LD from emotional upset.

The condition of individuals with LD is long-term and thus there might not be any formal good-byes as in the case of individuals without LD, where one would summarise the work being done, the changes that occurred, and the things that have been learned that can be used in the future (S. Fortuna, 2007, Personal Communication). The advantage is that follow-up and evaluation is possible. There is the danger that individuals with LD might become dependant on the therapists and thus it might be useful to have formal endings. Some have argued against this and suggested a service that would be very similar to that of a GP where people could turn to in crisis situations. However, others argued that relationships in individuals with LD are already diffuse and thus definite endings are useful also because they help the client realise what they have achieved (N. Viljoen, 2007, Personal Communication)

Working with individuals with LD and their families provokes feelings of loss and disablement in everybody involved in the therapeutic process including the therapist. These feelings are often heightened in the final sessions, when the family and therapist prepare to leave each other with the situation possibly changed but the disability remaining. It is important, however, not to lose sight of the fact that a disability does not necessarily mean that there will be just pain and suffering. Research has indicated that the majority of parents of children with intellectual disability view their children as a positive part of the family and an integral part of their quality of life (Behr & Murphy, 1993). Some parents experience joy with their children, despite and perhaps because of the children's disabilities. In this regard, the deficit-based perspective may be not only disrespectful to parents of children with disabilities, but it may be inaccurate, ignoring family resilience.

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Audit into the Effectiveness of an acute Psycho-geriatric Day Hospital Service

SMALL SCALE SERVICE-RELATED RESEARCH PROJECT

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Abstract:

This study examined patients' use of a day hospital service in the South West of England during a 5 month period (April to September 2006). Results showed that 65% of patients had a diagnosis which was primarily of a functional nature (e.g. depression, anxiety disorders), followed by 25 % of patients with mixed presentations (e.g. cognitive impairment with depression) and another 10% of patents who were having primarily organic problems (e.g. dementias). It was revealed that the day hospital service was only at about half capacity (57.0%) and that approximately 11% of daily activities offered by this service (e.g. anxiety management, advice to patients and carers) were missed. 22% of patients had been discharged during this study and their average length of treatment at the day hospital was 342 days. About a third of the day hospital patients did not seem to benefit from this service as they were either refusing to attend, not using it effectively (e.g. dropping out, irregular attendances) or having been in day hospital treatment for very lengthy periods (651 to 1137 days). The majority of day hospital patients (55%) received additional care from 1 or 2 mental health services, mostly from support workers and psychiatric nurses. This study shows that although seemingly effective for a considerable amount of patients there is also a large amount of patients who require additional help and support to make full use of day services. Methodological issues and limitations of the current study are discussed and implications for the service are outlined.

CONTENTS:

1.0 INTRODUCTION

1.1 What is a Psychiatric Day Hospital?

The acute psychiatric day hospital has been defined as a facility that provides "diagnostic and treatment services for acutely mentally ill patients who would otherwise be treated on traditional psychiatric inpatient units" (Lancet, 1987). In other words it is a service that is open during working hours on weekdays, be staffed as a minimum by psychiatrists and nurses, and which offers diagnostic, medical, psychiatric, psychosocial and occupational treatments that would normally be available to psychiatric inpatients. Chard (1995a) outlined the role of the multidisciplinary team in the day hospital environment and described the main elements of the team's role as assessment, treatment and evaluation

The acute psychiatric day hospital is to be distinguished from other types of "partial hospitalisation" or "day care" such as: more intensive alternatives to outpatient care (day treatment programmes; see Rosie, 1987), and support of long-term patients living in the community (day care centres; see Rosie, 1987), the latter of which offer continuing care to patients with severe mental disorders" (Schene & Gersons, 1986). The psychiatric day hospital is thus an alternative to inpatient care (Cameron, 1947) as well as outpatient care (Casarino, 1982).

1.2 Historical Development

Despite the growth of community care, many people with acute psychiatric disorders continue to be treated as inpatients. This is an expensive way of caring for such patients (Moscowitz, 1980) and surveys suggest that it is often unnecessary (Schene et al., 1988). It has been proposed that many of those currently treated as inpatients could instead be treated in day hospitals (Rosie, 1987).

The day hospital was originally developed as an alternative to in-patient care (Cameron 1947). In geriatric medicine they grew out of a profound conviction that, where possible, it was best practice to avoid hospital admission for older people (Broklehurst, 1978). Psychiatry of "Old Age" followed the development of geriatric medicine in the UK (Wattis, 1994) and adopted a similar model of day services. In the early 1970's (DHSS, 1979) the need for Day Hospital places for people with dementia was officially recognised with a recommended provision of 2-3 places per day per thousand over the age of 65 years for people with dementia. There was no separate recommendation for old people with 'functional' mental illness (mostly depression). Most authors assumed that the provision for adults of all ages should be applied pro-rata to the elderly population. This gave 0.65 places per day per thousand elderly for functional mental illness (Health Advisory Service, 1982).

However, in the 1980s research commissioned by the American Psychiatric Association showed widespread closure of partial hospitalisation programmes and a low rate of growth in the numbers of patients served by them (Tantam & McGrath, 1989). A number of factors appeared to have contributed to this decline. Day hospitals faced competition from more radical "non-institutional" alternatives such as assertive community treatment (Schene & Gersons, 1986). There had also been confusion over the role of day hospitals which led to some becoming expensive "day centres", as they became overwhelmed by inappropriately placed long-term patients (Cochrane Collaboration, 1999). Most importantly, however, was a growing awareness of the limited evidence for the effectiveness and cost-effectiveness of day hospitals (Clark & Oxman, 1999). The day hospital service has ever since been under increasing pressure to provide evidence of its effectiveness and its value as a service for patients. It is an expensive resource that provides a valuable service for older patients, yet the continuing need for objective evaluation of the service remains (Forster et al 1999).

A systematic review of randomised controlled trials of day hospitals concluded that day hospital treatment is generally cheaper and associated with greater treatment satisfaction than in-patient treatment (Marshall et al, 2001; Priebe et al., 2006). However, findings on improvements in psychopathology are inconsistent and reviews agree that more primary research on the efficacy of day hospital care is needed (Hortwitz-Lennon et al, 2001). There is some research to suggest that day hospital patients benefit from reduced rates of psychopathology (Bergener, et al., 1987; Creed, Black and Anthony, 1989) although these authors also admit that this is only of a temporary nature. On the other hand it has also been found that hospital day care does not reduce readmission rates or lead to improvements in social functioning (Marshall et al. 2001; Marshall et al., 2003) although other found an improvement in social functioning, (Guidry et al., 1979; Meltzoff & Blumenthal, 1966) and a reduction in relapse rates (Weldon et al., 1979).

In part, this lack of consensus reflects the fact that research on acute day hospitals is difficult to interpret because of the range and complexity of the possible outcome variables (Austin et al., 1976). There are, for example, limitations on the interpretation of cost data caused by the fact that evaluations are conducted at different times, in different countries, and using different costing methodologies and pricing. Furthermore, researchers have used different time-points for evaluations (e.g. various timeframes between discharge and reassessment) and various treatment outcome measures (e.g. patient satisfaction; readmission rates; psychopathology, social functioning, and affect measured with various instruments) which makes comparisons across different studies very difficult. Finally, another problem is the variable nature of the day hospital model used (whether it is providing acute day treatment care or whether it is functioing as a day care centre) as well as the individual needs of patients attending (Bentley, Meyer, & Kafetz, 2002) which complicates matters even further.

Despite these problems, remorseless pressure on inpatient facilities has led to continued interest in acute day hospitals and has inspired the development of new-style day hospitals augmented by outreach services, "crisis beds", and extended hours programmes (Dick, Sweeney, & Crombie, 1991; Egger et al. 1997; Linn et al. 1979)

1.3. Description of the team

This audit focuses on a day hospital service in the South West of England. This day hospital is a purpose-built service located on the premises of the local Specialist Mental Health Team for Older People (SMHTOP). The SMHTOP operates an outpatient clinic as well as a functional inpatient ward and an organic inpatient ward for people over the age of 65. It is the main referrer of suitable patients to the day hospital service. The day hospital can accommodate 15 day patients per day and its main function is multidisciplinary assessment and treatment, rehabilitation, and support. It offers an assessment and treatment program that is offered to all new referrals and lasts 12 weeks. It also has a rehabilitation program (4 weeks) as well as a support program (4 weeks) that is offered to patients at the end of the treatment and assessment program if deemed appropriate.

Its multidisciplinary team is primarily staffed with occupational therapists alongside mental health nurses and a psychiatrist. Specifically, it offers psychiatric, medical, and occupational therapeutic services. It also provides an outreach service to residential homes and to patients' own homes as well support for carers. Access to social work and other specialist services (e.g. psychology) within the trust is also available

The day hospital provides care for three groups of patients. The first group comprises those whose symptoms (e.g. depression, anxiety disorders, and personality disorders) have failed to respond to outpatient treatment. The second group are patients who have just been discharged from in-patient care (e.g. psychosis, major affective disorder) for whom day hospital treatment is provided in order to bridge the gap between hospital and out-patient care. The third group are patients who are inpatients (e.g. psychosis, suicidality, severe self neglect) who are offered day hospital care in order to speed up recovery from their mental health problems so that they can be discharged into the community for further treatment.

1.4 Objectives of the audit

The main objective of this study was to assess patents' use of a day hospital service. From a managerial and mental health point of view it would be desirable to run a day hospital service with a high patient turnover. That means that one would want to have the maximum amount of patients going through the day hospital treatment as fast as possible. This would guarantee lower costs as well as preventing patients from becoming "institutionalised" by encouraging them to attend for overlong periods of time (Schene & Gersons, 1986).

1.5 Audit Questions

The study aimed to answer the following main questions:

1) What are the basic demographics of the current sample?
2) How many patients have “organic”, “functional” or “mixed” (organic and functional) mental health problems?
3) What is the occupancy level of this day service?
4) What is the attendance rate at this day service?
5) How many patients are discharged during this study?
6) What is their average length of day hospital treatment?
7) How many patients do not use this service effectively?
8) How many patients currently receive care from other mental health services?
9) What are those other mental health services?

2.0 METHODS

2.1. Design

After consultation with the Trust's Research & Development department, this investigation was classed as a clinical audit for which ethical approval was not considered to be necessary. It was classed as an audit because it assesses whether some identified standard set within the team has been met (Firth-Cozens, 1993).

2.2. Data Source

The data source was composed of all patients that were either using or referred to the day hospital service between April and September 2006 (5 months). Information for each patient was collected from Carenotes entries and transferred into an SPSS database that was specifically set up for this audit.

2.3 Analysis

Descriptive statistics were used to examine the audit questions

3.0 RESULTS

To control for the "distorting" effects of outliers it was decided to use medians as a way of expressing central tendencies throughout the results section.

In the present sample, which consisted of a 69 patients, there were 17 men (24.6) and 52 women (75.4). Furthermore, the ages of the current patient sample ranged from 67 to 91 years with a mean of 77.8 years.

Table 1.1 shows the primary nature of patients' diagnoses (Organic, Functional, or Mixed)

Tab. 1.1 Primary nature of patients' diagnoses: Organic (e.g. dementia), Functional (e.g. Depression, Anxiety Disorders, Personality Disorders), Mixed presentation (e.g. Depression and Dementia)

Presentation	Patients	Percentage
Functional	45	65.2%
Organic	7	10.1%
Mixed	17	24.6%
All	69	100%

One can see that 45 patients of the present sample had a diagnosis which was primarily functional in nature. A further 7 patients had a primarily organic diagnosis while 17 diagnoses were of a mixed nature.

Table 2.1 shows the number of available and filled places per week, and daily activities (e.g. art/games/music group, anxiety management, advice to patients and carers) attended or missed

Tab. 2.1 Total number of available and filled places, and total number of daily activities attended or missed

Day Hospital	**Totals**	**Percentage**
Daily Places available	1500	100%
Daily Filled places	854.8	56.9%
Attendances	982	100%
Absences	108	11%

Table 2.1 reveals that the day hospital had a total of 1500 spaces available (15 patients per day) throughout this investigation. Of those available spaces a total of 876.1 spaces (56.9%) were filled. This table also shows that during the time of this study a total of 982 activities offered throughout the day were attended while a total of 108 (11 %) of these activities had been missed. This absence rate ranged from no missed activities to 5 times more activities missed than attended.

Table 2.2 shows the number of patents discharged from day hospital, discharged from inpatient services and patients not using the service effectively.

Table 2.2 Number of patents discharged from day hospital, discharged from inpatient services and patients not using the service effectively (Service Refusal, Insufficient Service Use and Long Stays)

Day Hospital	**Patients**	**Percentage**
Discharges	15	21.7%
Inpatient Admissions	5	7.3%
Inpatient Discharges	8	11.6%
Service Refusal	5	7.3%
Insufficient Service Use	7	10.1%
Long Stays	5	7.3%

Table 2.2 shows that 15 patients had been discharged during the present investigation. 5 patients of the present sample had to be admitted to inpatient services (2 of which occurred during this study) since they had started using the day hospital service. A further 5 patients refused to attend the day hospital while another 5 patients did not use the service effectively (e.g. 1 death, 2 irregular attendees, 3 drop-outs, 1 referral to other day care service). Finally, 5 patients (7.3%) of the present sample had exceptionally long stays which was determined by screening the data for outliers. The length of their stays ranged from 651 to 1137 days.

None of the 8 patients who where discharged from inpatient services were readmitted during the time of this audit.

Figure 1.1 shows the number of patients who were receiving additional mental health services (0, 1, 2, 3, 4 or 5 additional services)

Fig. 1.1 Number of patients receiving additional mental health services (0, 1, 2, 3, 4 or 5 additional services)

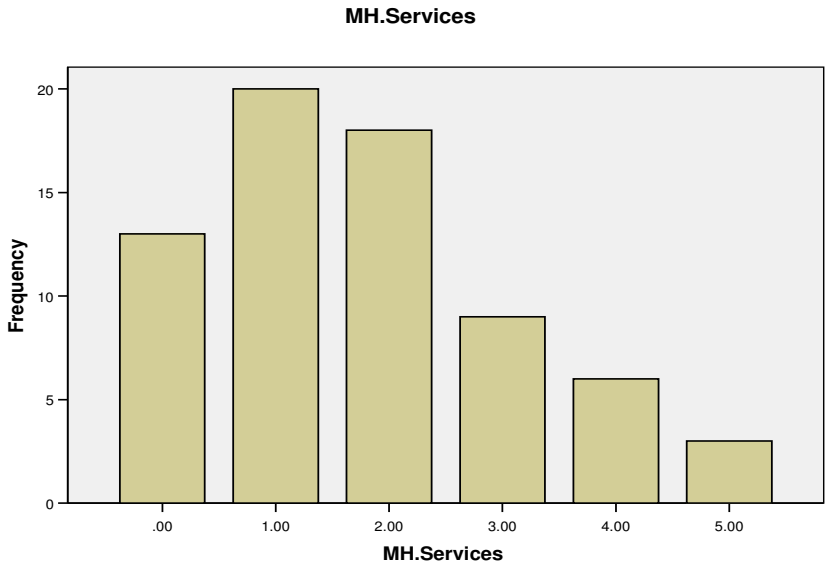

Figure 1.1 shows that 13 patients (18.8) did not receive any additional mental health services (MHS) during the time of this study. 20 patients (29%) received additional input from 1 MHS, 18 patients (26.1%) from 2 MHS, 9 patients (13%) from 3 MHS, 6 patients (8.7%) from 4 MHS and another 3 patients (4.3%) from 5 MHS.

Table 3.1 shows the number of patients who at anytime throughout this investigation were involved with a community psychiatric nurse (CPN), support worker, social worker, psychologist, inpatient service, other day service (e.g. lunch club, day centre) memory clinic, crisis and treatment team (CATT) community support team (CST), mental health liaison team (MHLT) and continuing care and placement team (CCPT).

Tab. 3.1 Number of patients receiving additional mental health services

Mental Health Services	No. of Patients	Percentage
CPN	24	34.8%
Support Worker	20	30.0%
Social Worker	14	20.3%
Psychologist	14	20.3%
Inpatient Service	17	24.6%
Other Day Service	12	17.4%
Memory Clinic	7	10.1%
CATT	6	8.7%
CST	4	5.8%
MHLT	3	4.3%
CCPT	2	2.9%

You can see in Table 3.1 that from the current sample of patients 24 had involvement with a CPN, 20 with a support worker 14 with a social worker, and 14 with a psychologist.

Another 17 patients were receiving inpatient services, 12 from another day service (e.g. day centre, lunch clubs), 7 from the memory clinic, 6 from CATT, 4 from CST, 3 from MHLT and another 2 from CCTP.

Discharged day hospital patients

As outlined above 15 patients had been discharged before the end of this study. 4 of these patients (26.7%) had a diagnosis that was primarily organic in nature while the other 11 patients (73.3%) had a diagnosis that was primarily functional in nature.

They had on average been using the day hospital service for 342 days, and attended a total of 134 daily services and missed a total of 9 (6.8%) during the time of this study.

4 (24.6%) of these patients did not receive additional input from mental health services (MHS), 4 patients (24.6%) from one other MHS, 6 patients (40%) from 2 other MHS, and 1 (6.7) from 3 other MHS.

6 (40%) of these patients had involvement with another day service, 5 (33.3%) with a support worker, 3 (20%) with a psychologist, another 3 (20%) with a CPN and 1 (6.7%) with an inpatient service.

DISCUSSION

4.1 Summary of results

4.1.1 Overall Day Hospital Sample

This study examined patients' use of a day hospital service in the South West of England. During the 5 month period (April to September 2006) of this investigation 69 patients came into contact with the day hospital service. 75% of those patients were women while 25% were men which equates to a gender ratio of 3:1. This gender difference has recently been noted in the MHSOP day hospital survey (PACE, 2006) This study, however, only found a gender ratio of 2:1. Furthermore, the average age of patients in this study was 77.8 years with ages ranging from 67 to 91 years. This age distribution was quite similar to that found in the SMHOP day hospital survey (PACE, 2006).

In the present sample 65% of patients had a diagnosis which was primarily of a functional nature (e.g. depression, anxiety disorders), followed by 25 % of patients with mixed presentations (e.g. cognitive impairment with depression) and finally 10% of patents who were having primarily organic problems (e.g. dementias). The 2006 day hospital survey was different in respect to the ratios of patients with organic and mixed presentations but quite similar in relation to the occurrence of functional presentations. In that survey organic presentations were 3 times more frequent than mixed presentations. In the present study this was almost reverse with mixed presentations 2.5 times more frequent than organic presentations. There is obviously the possibility of different diagnostic criteria used in different services which might account for this difference. It might also be that the MHTOP (which is the main referrer) perceives referrals for patients with purely organic problems to the day hospital as less beneficial (possibly because they might benefit more from outpatient clinics in the memory clinic). One also needs to bear in mind that the main staff providers in this day hospital are occupational therapists, and not nursing staff as in most day hospitals, which might have an effect on referrals and the willingness to take on patients with an organic problem.

During the time of this study 11% of the daily activities on offer at the day hospital (e.g. art/music/games groups, anxiety management, advice to patients and carers) were not attended. This absence rate ranged from no missed activities to 5 times more activities missed than attended. Although the day hospital had a total of 1500 spaces available (15 patients per day) throughout the duration of this investigation only about half of them (56.9%) had been filled. This means that another 52 patients could have used the current day hospital service to run at full capacity. This percentage of unfilled places appears to be substantially higher than that of other day services in the South West of England (PACE, 2006). In that survey this particular day service was already found to have the highest rate of unfilled places (45%).

21.7% of patients of the present sample had been discharged during the present investigation. 7.3% of patients had to be admitted to inpatient services since they had started using the day hospital service. A further 7.3% of patients refused to attend the day hospital while another 10.1% of patients did not use the service effectively (e.g. 1 death, 2 irregular attendees, 3 drop-outs, 1 referral to other day care service). Finally, 7.3% of patients of the present sample had exceptionally long stays that ranged from 651 to 1137 days. This means that although a 5th of patients of the present sample had been successfully discharged from the day hospital service a 3rd (32%) of patients did not seem to benefit from this service because they were either admitted to inpatient care, refused to attend, did not use it effectively, or had been attending excessively long.

For 20 % of patients of the current sample the hospital day was their only mental health care provider at the time of this study. The other 80% of the patients received additional mental health care with the majority (55%) of those receiving 1 or 2 services from different providers. The most common mental health providers were community psychiatric nurses and support workers (total: 65%), closely followed by inpatient services, psychologists and social workers (total: 65%), and then memory clinic and crisis and treatment teams (total: 20%).

4.1.2 Discharged Day Hospital Sample

20% of the patients of the current sample had been discharged by the end of this study. About 25% of these patients had a diagnosis that was primarily organic in nature while the other 75% of patients had a diagnosis that was primarily functional in nature. They had on average been using the day hospital service for 342 days, and missed about 7% of daily activities offered by the day hospital. The amount of time spent as a day hospital patient seems to be very long considering that patients in this service are initially informed that their day hospital stay would be for 12 weeks. Even if after this treatment and assessment period it was decided to continue with rehabilitation (4 weeks) and/or support (4 weeks) this should only take about 20 weeks (140 days). However, this lengthy stay is consistent with the SMHTOP Day Hospital Survey (PACE, 2006) which found that many day hospital patients in various services had on average been attending for about 1 year. However, there are also other studies that report significantly shorter durations between admission to discharge such as 67 days (Priebe et al. 2006), 77 days (Bramesfeld et al., 2001), and 88 days (Kallert et al. 2004).

For 25 % of the discharged patients, day hospital attendance was their only mental health care at the time of this investigation. The majority of the discharged patients (65%) received mental health care from one or two other providers. Most discharged patients (total: 73%) were cared for by another day service (e.g. lunch clubs, day centre) and/or support workers, while another substantial amount of patients (total: 40%) were cared for by community psychiatric nurses and/or psychologists. The additional use of other day services as well as ongoing support by a support worker thus seems to have a particular significance in the successful treatment of day hospital patients. Interestingly, of the 5 patients who have been attending the day hospital for an excessive amount of time 4 patients had contact with one additional mental health provider. The one who had a support worker happened to be the only one who was

discharged during this study (although only after a considerable amount of time). However, at the same time the question arises whether the day hospital itself provides additional benefits when other comprehensive elderly care services (e.g. lunch clubs, support workers) are already in place. One does know whether those discharged patients would have improved without the input of the day hospital. This audit does not directly address this question.

4.2 Methodological Issues and Limitations

Considering the considerable amount of unfilled spaces of this day hospital service, one needs to acknowledge the potential effect of seasonal variations. The majority of this audit was carried out throughout the summer and it is likely that this has a negative effect on individuals' willingness to become patients and spend time indoors in a hospital setting. It might also be that the summer season has a general positive effect on mental health with less people experiencing psychological problems. It has been argued that the darkness during the winter months causes some people to become depressed because of increased production of melatonin which affects mood

Furthermore, the current key outcome "use of day hospital care", has been operationalised and assessed in various terms in the present investigation, e.g. "duration of day hospital care", "total number of attendances/absences of day hospital activities" and "admissions to inpatient care". Because other investigations might operationalise "use of day hospital care" in different ways (e.g. "readmissions to day hospital care", "inpatient discharges") meaningful comparisons will be difficult. The picture is further complicated because many of the current outcome variables were skewed (as in many other studies) and were thus presented in forms (i.e. medians) that cannot be synthesised readily in a meta-analysis.

Not very much can be said about patient satisfaction, social functioning, and mental health as this was not assessed in this audit. From day hospital discharge reports it seemed that patients had improved since their admissions, which was generally judged from their demeanour, rate and quality of speech, and objective and subjective mood. The problem with this is obviously that of compliance such as presenting oneself in a way that improves one's chance to be discharged. One does not know how many patients of the present sample were opposed to being patients, attending a hospital setting on a regular basis (especially during the summer), spending time with other patients who might present much worse and/or with whom they might not get along with, and engaging in activities that might not be perceived as particularly meaningful or enjoyable (e.g. bingo, quizzes).

4.3 Implications for service and future research

Considering the lengthy stay of a large proportion of the present sample this day hospital would benefit from addressing this issue. In the past, critics have questioned whether day hospital treatment may actually "institutionalise" patients by encouraging them to attend for overlong periods of time (Schene & Gersons, 1986). Other services such as the Fraser Day Hospital have already made arrangements for further reducing their day service treatment from 12 weeks to 8 weeks following an internal audit (Tresise & Begley, 2006). In relation to this it is noteworthy to mention the apparent difference in practice between US and UK day hospitals. US acute day hospitals are geared towards intensive treatment and rapid discharge, whereas UK day hospitals allow a more gradual "tailing off" of day care. It is unclear how far this difference has implications for effectiveness or cost. Obviously different patients have different needs (e.g. serious mental illness, complex issues) and some might require longer treatments than others. After all it seems that the most important issue would be to discharge patients from day hospital care when they are well enough and "ready" to get back to normal community living and not continue coming back. Premature discharges are likely to create or at least to contribute to the "revolving door effect" with patients continuously returning to mental health care. Thus those apparently "quick and cheap fixes" might eventually turn out to be quite lengthy and costly.

From a financial point view day hospital care has been found to be generally cheaper than conventional ward treatment (Creed et al, 1997). However, day hospital care can only be cost efficient if it is running at an adequate capacity level. The MHSOP day hospitals survey found that on average day hospitals were running at 70 % occupancy (PACE, 2006). Because this service runs at only just over 50% occupancy it would be desirable to increase its capacity level by an enhanced focus on multidisciplinary work and public relations to heighten professionals' awareness of the potential benefits of the day hospital service. Equally there needs to be more focus on patients who refuse to attend or do not use this service effectively (e.g. absences; drop outs) and attempts need to me made to engage them and sustain them in therapeutic relationships. It needs to be acknowledged, though, that by increasing patient numbers there is no guarantee that this would also achieve the additional effectiveness. There is a potential trade off because as one increases the number of patients in a service one necessarily decreases the intensity of one-to-one contact between patients and staff.

In the case of day hospital treatment resistant patients (e.g. serious mental illness, complex needs) one would have to think about other day care services such as day treatment programmes or day centres. Obviously, a lack of these facilities (or a lack of connections, communication and relationships with these services) may contribute to difficulties in discharging people from day hospital care. This in turn will compound the perceived lack of day hospital places available. Policy makers might also need to consider if it would be more cost-effective to provide specific psychological therapies of proven effectiveness (e.g. cognitive behavioural therapy) on an outpatient basis.

In terms of patients who have been discharged from inpatient care the day hospital appears to provide them with the necessary care and support as none of those had been readmitted during the time of this investigation. Support for this notion has been provided by Glick et al. (1986) who suggested that transitional day hospital care was superior to out-patient care in keeping patients engaged in treatment. However, this effect was mainly due to better engagement of patients with affective disorders.

Overall, day hospital care has been as effective as in-patient treatment, but not more so (Dick et al, 1985; Creed et al, 1990; Schene et al, 1993; Sledge et al, 1996). It has been argued to be an important addition to the range of acute treatment options within a modern community mental healthcare system (Priebe et al., 2006).

However, because of the methodological problems associated with much research comparing day and in- patient care further work is needed. Day-hospital treatment is unlikely to be more widely used for acutely ill patients until: (a) there is clear evidence that certain patients are best treated in this way (e.g. engagement with care, admission rates, clinical outcome, costs or patient satisfaction, social functioning, survival rates, quality of life, and burden on relatives); (b) the social and clinical characteristics of such patients are defined; (c) adequate staffing is achieved (i.e. day care is not regarded as a cheap option); and (d) day centres are available for chronic patients (Creed et al., 1989).

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The Pain in Paintings

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The Pain in Paintings

Visual Markers of Suicide

"*Wheatfield with Crows*" (Vincent van Gogh, 1890)

This review of the literature is primarily concerned with the phenomena of suicide and creativity in the human species. In the beginning of this review there will be a detailed description of terminology and classification systems in the field of suicidal behaviour. This will be followed by psychological models of suicidal behaviour to explain underlying mechanisms as well as research evidence in support of these models. The two mayor models outlined in this review will be the Suicidal Process Model and the Diathesis Stress Model of Suicidal Behaviour. Then the review will turn to the area of creativity using psychoanalytic approaches to explain underlying mechanisms. The two major analytical models presented in this review will be those of Sigmund Freud and Melanie Klein. Finally, the review will then discuss research into the relationship between psychopathology and art before concluding with a summary and suggestions for future research.

Due to space limitations this review is limited in several ways. First of all it is limited to psychological models of suicidal behaviour despite substantial evidence of sociological (Schmidtke et al., 1996) as well as biological factors (Van Praag, 2001) involved in this behaviour. Furthermore, this review is virtually restricted to creative visual arts as opposed to other creative artistic fields such as poetry and music as well as creative non-artistic fields such as science and politics. Finally, the author acknowledges that the primary psychological approach to creativity in this review is of an analytical nature despite useful contributions from other areas such as attachment theory (Knight, 1998) and neurobiology (O'Brien, 2004).

WHY DOES MAN KILL HIMSELF?

According to van Amsel and Mann (2001) suicide is a major public health concern as there are more than 30 000 suicides per year in the United States of America. Risk-factor research within health care has taken on a new quantitative formalism and is emerging together with prevention science as an independent discipline (Kazdin et al., 1997; Kraemer et al., 1997). Its methodology is probabilistic and not deterministic and it seeks to operationalise its concepts and it concerned with modelling the intervening paths between a risk factor and its associated income.

The term suicidality has been described as cognitive and behavioural characteristics which may become manifest as suicidal ideation or suicidal behaviour (van Heeringen, 2001). Suicidal ideation refers to the occurrence of any thoughts about self-destructive behaviours, whether or not death is intended. These thoughts may range from vague ideas about the possibility of ending one's life at some point of time in the future to very concrete plans to commit suicide. Suicidal behaviour may cover a wide range of self-destructive behaviours with a non-fatal (i.e. attempted suicide) or fatal outcome (i.e. suicide). It is important to stress that this definition is purely descriptive and does not include the level of suicidal intent (i.e. the wish to die).

Intent is usually inferred from the lethality of the method used to attempt or commit suicide and the medical seriousness of the self-destructive act. Malone et al. (1995) and Hawton and Catalan (1987) argued that this difficulty of teasing out suicidal intent may lead to inconsistent use of the various concepts such as attempted suicide, and suicide. In many ways non-fatal suicidal behaviours differ enormously. Some attempts are aimed at dying, but the majority will have different aims, which may include mobilisation of help or temporary escape from stress, and other attempts may have ambiguous aims (Kreitman, 1977). Similarly, some attempts are well prepared, while others are carried out impulsively. Finally, attempts may result in different physical consequences depending upon intention, preparation, knowledge of the lethality of the chosen method as well as upon purely coincidental factors. Therefore Kreitman et al. (1969) stated that the term attempted suicide is "highly unsatisfactory".

Pattison and Kahan (1983) developed a classification system to distinguish clinically different self-destructive behaviours. This system includes three variables: a) direct/indirect variable in terms of time (e.g. direct self-destructive behaviour occurs in a short period of time with personal awareness of the effect of one's actions and thus implying conscious intent to harm oneself, b) lethality (on a continuum from high to low probability of death) and c) repetition (single event or multiple events of self destructive behaviour). Using this system deliberate self harm can be characterised as direct self-harming behaviour with low lethality and occurring in a repetitive pattern. Suicide attempts on the other hand can be characterised as direct self-destructive behaviours with high (single event) or low (multiple event) lethality.

A more recently developed classification system by O'Carroll et al. (1998) added a further distinction between risk tasking thoughts and behaviours and suicide related thoughts and behaviours. This classification system has relevance for the understanding of the suicidal process which will be discussed below. The early recognition of specific risk-taking behaviours related to suicide has been shown to substantially contribute to its prediction and prevention. Mann et al. (1999), for example, found a significant association between smoking and suicidal behaviours independent of any association between smoking and psychiatric illness. Other evidence suggest that lethality and suicidal intent increase in individuals who repeatedly attempt suicide (Pierce, 1981; Loennqvist & Ostamo, 1991). Furthermore, Leon et al (1991) demonstrated that there is a 32 percent increase in the relative risk of suicide with each prior attempt.

There is overwhelming evidence that shows that people who kill themselves have experienced a large number of social stresses in their recent or remote past (e.g. abuse, bullying, poverty and social isolation (Van Egmond et al., 1993; Williams, 1997). However, the fact that there many people with severe social problems who do not commit or attempt suicide one is encouraged to investigate psychological factors that may mediate the relationship between stressful events and suicidal responses.

There has been considerable progress in the identification of psychological risk factors for suicidal behaviour. According to Williams' (1997) "Cry of pain" hypothesis suicidal behaviour represents the response (the "cry") to a situation that has three components: defeat, no escape, and no rescue they are likely to be vulnerable to the triggering of primitive "helplessness" processes. It is believed that these processes are required to support the impulse to escape by self harming or by dying. At this point whether someone acts on the impulse may depend on the availability of models to be imitated (Hawton et al, 1999) and the availability of methods (Williams & Pollock, 2001). The effect of seeing no escape and especially whether or not rescue is perceived to be likely is moderated by social closeness (i.e. opportunities to both receive and give emotional and instrumental support). Furthermore, research suggests that individuals' cognitive styles affect their estimates of the aversiveness of the defeat, its escapability and how much rescue via social support is available (Pollock & Williams, 1998).

The Suicidal Process

The suicidal process approach describes the development and progression of suicidality as a process within the individual and in interaction with his surroundings (van Heeringen, 2001). This process may evolve through thoughts about taking one's life, which may grow often recurrent suicide attempts with increasing lethality and suicide intent and end with completed suicide. This model includes a threshold, determined by personality and social characteristics such as self-disclosure, below which the suicidal process (incl. suicidal thoughts, plans or impulses) is not observable to others or perhaps even to individuals themselves. Interestingly, Eskin (1999) discovered that culturally determined attitudes towards suicide disclosure may determine the extent to which suicidal intent is communicated to friends.

Furthermore, the lack of the ability to self-disclose has been found to be associated with feeling lonely and distressed (Jones et al., 1981), psychiatric illness (Chaikin & Darlega, 1971), neuroticism (Mayo, 1969), anxiety (Archer, 1979) and aggression (Archer et al., 1982). The conceptualisation of threshold in the suicidal process can thus be of major importance in the explanation of suicides that occur "out of the blue" (Apter et al., 1993).

The lifetime prevalence of suicidal ideation has been shown to be between 13 to 15 percent (Crosby et al., 1999; Kessler et al., 1999). Kessler et al. (1999) also found that in their sample of 15 to 54 year olds, 3.9 percent had a suicide plan and 4.6 had previously attempted suicide. The transition from suicidal ideation to suicide plan occurred in 34 percent, and from a plan to an attempt in 72 percent. Interestingly, 26 percent proceeded from suicidal ideation to an unplanned attempt highlighting the importance of impulsivity in attempted suicide. Similarly, Crosby et al. (1999) reported that one third of their adult sample who reported attempted suicide did not report a suicide plan. Furthermore, Maris (1992) found that between 10 and 15 percent of suicide attempters eventually die because of suicide. Similarly, Hawton & Catalan (1981) demonstrated that mortality as a result of suicide is higher among suicide attempters who have made previous attempts. At the same time one must not lose sight of the fact that three-quarters of all suicides do not make a previous suicide attempt (Amsel & Mann, 2001).

Relatively little is known about the duration of the suicidal process but Runeson et al. (1996) found that it generally starts at the age of 20, lasts on average 3 years, is shorter in males than females (because of lower levels of self-disclosure possibly due to greater introversion usually associated with men) and is influenced by the underlying psychiatric disorder (e.g. 22 months in major depression and 77 months in schizophrenia).

The Stress-Diathesis Model

Research evidence suggests that the majority of patients with a psychiatric disorder do not commit or even attempt suicide (Brent et al. 1993). Therefore psychiatric disorder may well be a necessary but not a sufficient condition for suicide. According to the stress-diathesis model stress-related psychopathological phenomena such as a psychiatric disorder are separated from those related to a trait-like predisposition (Mann et al., 1999). These researchers found that neither the nature nor the severity of state-dependent-illness characteristics distinguished patients with a history of suicide attempts from those without such a history. They did, however, find a clear association between the occurrence of non-fatal suicidal behaviour and a trait factor reflecting aggression and impulsivity indicating the importance of such a trait-like predisposition in predicting suicidal behaviour.

Interestingly, the association between suicide and aggression has long been recognised by psychoanalysts (Freud's concept of "Thanatos" or the death instinct). Meninger (1933), for example, proposed that a dynamic triad underlies all aggressive behaviour (inward and outward) consisting of the wish to die, the wish to kill and the wish to be killed. It has been shown that approximately every fourth patient with a history of violent behaviour also has a history of attempted suicide (Tardiff & Sweillam, 1980; Inmadar et al., 1982).

Nevertheless, the most important stressor-related psychopathological phenomenon associated with suicidal behaviour appears to be depression (Apter et al., 1991; Williams, 1997). Even in patients suffering from disorders with a well-documented increased risk of suicide such as schizophrenia or alcoholism, co-morbid depressive symptoms are commonly present at the moment of suicidal behaviour (van Heeringen, 2001).

Van-Praag (1997) proposed a constellation that is based on the stress-diathesis approach and termed it anxiety/aggression driven, stressor precipitated depression. Evidence for this constellation has bee provided by Apter et al. (1995) who found significant positive correlations between depression, suicidality and aggressive conduct as well as by Apter et al. (1993) who found significant positive correlations between suicidality, violence, impulsivity, depression and anxiety. Interestingly, in this study conduct symptoms and suicidality were highly correlated even when depression was controlled. Furthermore, Beautrais et al. (1996) found that the risk for suicide is substantially increased when psychiatric disorder and aggressive/impulsive personality traits co-occur. In relation to the association between anxiety and suicidal behaviour several studies have shown that anxiety disorders are associated with an increased risk of suicidal behaviour in adults (Massion et al., 1993; Allgulander, 2000).

Evidence has been accumulating that this psychobiological basis is not a static phenomenon, but rather should be regarded as a dynamic system, in which stress and diathesis influence each other and which can be influenced by other factors (van Heeringen, 2001). This justifies an integration of the stress-diathesis model and the suicidal process approach.

WHY DOES MAN PRODUCE ART?

Compared to other creatures that are born with fur or feathers, protective coloration, with teeth and claws adapted to survival, prehistoric man was born with nothing apart from creativity. This ability to create enabled him to devise covering for his body, to create shelter, and to make tools and weapons in order to provide himself with food and other necessities (Grossman, 1981). Among the most striking and at the same time puzzling creations that prehistoric man produced over twenty thousand years ago are cave paintings (Bronowski, 1973; McCulley, 1976). These paintings mostly depicted hunting scenes which dominated the mind of man at the time. Interestingly, the majority of these elaborate art works were found in remote and inaccessible recesses and not in the living quarters. This suggests that these artworks were not just a simple pastime or made for decorative purposes. Bronowski (1973) argued that prehistoric man believed that he had the magic power through his art to exorcise the fear and anxiety he felt in having to face wild animals in the hunt. According to Bronowski the hunter in objectifying through his art “the moment of fear” was not only anticipating fear but also re-experienced the emotions he felt during previous hunts. This magic that prehistoric man was executing, Freud (1895) later termed “catharsis” or “abreaction”.

Art and Psychoanalysis

Over the years many writers have explored the complex relationship between art and psychoanalysis (Gosso, 2004; Mann, 2006). Psychoanalytic writing gave support to the idea that art was an important means of communication, both conscious and unconscious. The following will therefore focus on psychoanalytic theory and how the art process can be understood. Art therapy which has grown out of these ideas will not be discussed in detail here as this is not the focus of this review.

Freudians

According to Freud (1923) the human mind is a primitive psychic apparatus which has the function of regulating states of tension by discharging instinctual impulses (e.g. sex; aggression). This can be achieved by two different processes. The primary process (id), which is mostly unconscious, is governed by the pleasure principle and reduces the discomfort of instinctual tensions by hallucinating wish-fulfilments (e.g. marrying mother; killing father). The secondary process (superego), which is conscious, is governed by the reality principle and reduces the tension of instinctual behaviours by adaptive behaviour. Freud believed that as an individual matures progression could only be made by the repression of early infantile ways of dealing with instinctual demands. As one is giving up these primitive instincts they continue to live on in the form of fantasies.

According to Freud (1916) the only path back from fantasy to reality is through art. He famously described the artist as someone who "*desires to win honour, power, wealth and fame and the love of women but he lacks the means of achieving these satisfactions*". In his view the artist gains pleasure from this representation of unconscious fantasy gaining relief of his repressed instincts. The artist thus turns away from reality and transfers all his interest to the wishful construction of his life of fantasy potentially paving the path towards neurosis.

Freud (1916) believed that creativity was similar to a neurosis, and that the dynamics were the same as in other neuroses, namely that creativity was a sublimation of repressed libidinal drives. In other words, what the artist creates provides an outlet for his sexual desire (Freud, 1910) with his unconscious thoughts and feelings oozing onto the canvass via his paintbrush.

Freud (1910), famously, described the art work of Leonardo da Vinci by relating Leonardo's life from his earliest years to later known characteristics of his personality. Knowing that Leonardo did not finish his paintings and worked very slowly Freud argued that Leonardo seemed to identify with his father (who abandoned him and his mother in his early years) and so he too "left" his paintings by not finishing them. He further argued that this rebellion against his father established his scientific researcher attitude. This keenness as a researcher and his lack of sexual interest Freud perceived to be connected as passions transformed (or sublimated) into a thirst for knowledge. Interestingly, Freud (1925) later admitted a major limitation of the psychoanalytic approach in relation to the artistic process in that "it can do nothing towards elucidating the nature of the artistic gift, nor can it explain the means by which the artist works."

According to Kris (1975) the artist has "the capacity of gaining easy access to id material without being overwhelmed by it, of retaining control over the primary process". In other words the artist has the ability to tap unconscious sources without losing control, which Freud referred to "flexibility of repression", and described by Kris as "regression in the service of the ego" (relaxation). Kris argued that regression in all artistic activity is purposive and controlled in continual interplay between creation and criticism. This idea that creativity not only controls regression but also the work of the primary process itself points to a more dynamic role of the ego which departs from Freud's pessimistic view of the involuntary unconscious.

Kleinians

In contrast to Freudian theory Klein (1940) regarded the growth of the ego as innate and not formed by the reality principle. This ego-growth is perceived as a product of a continual process of projection (the process by which specific impulses, wishes, or aspects of the self are imagined to be located in some object external to oneself) and introjection (the process by which the relationship with an object "out there" is replaced by one with an imagined object "inside"). Through these mechanisms a whole world of internal objects is formed with their own fantasised relationships. According to Segal (1975) it is this internal world, with its complex relationships that is the raw material on which the artist draws for creating a new word in his art.

According to Klein (1940) the infant oscillates between two positions in the first year of life. The first is the paranoid-schizoid position where the infant deals with his ambivalence towards his mother by splitting it into two separate part objects. He also splits the ego and projects the destructive feelings onto the bad object (breast) by which it then feels persecuted. This is seen to be a defence against realising that the "good" breast is not as idealised as the infant would like it to be in their fantasy. The second is the depressive position where the infant learns to accept ambivalence, that good and bad are aspects of the same whole object - mother – who has an independent life of her own. In this position the infant experiences total desolation and feels that his destructive hateful feelings have destroyed the good breast. He then feels loss and guilt which leads to the desire to restore and recreate the lost loved object both outside and within the ego.

Segal (1975) argued that these reparative impulses lead to growth and contribute to good relationships and are the fundamental drive in all artistic creativity. In her view artists work through the infantile depressive position every time a new piece of work is embarked on. She compared that process to Melanie Klein's (1940) work on the rebuilding of the inner world in mourning. Klein stated that every time we experience loss we are taken back to the depressive position and our original loss is relived. In mourning we have to build our inner world as well as our external world of relationships.

It is believed that we experience feelings as described by Klein (1940) when we see something ugly such as an incomplete image of an ancient broken statue. According to Rickman (1940) this arouses unconscious fantasies of "remutilation" from infancy which are more disturbing than the defects in the object itself. The effect of fear and horror then becomes attached to the image. Fuller (1980) used Kleinian thought to explain why the fragmented Venus in *Venus de Milo* can appear to us as more vivid

and authentic than the last whole. He argued that the Venus is a representation of the internal mother who has survived the ravages of fantasised attack. Despite fragmentation the reparative element remains dominant – she has endured throughout the centuries. According to Segal (1975) a certain incompleteness is essential in a work of art. She argued that "we must complete the work internally; our imagination must bridge the last gap". Similarly, Stokes (1978) argued that for a piece of art to "work" there must be an element of acting out of aggression and then reparative transformation.

Another important concept is that of projective identification with which Klein (1952, 1955) attempted to understand the complex non-verbal communication between a mother and a baby when a baby is in distress. Klein believed that a baby projects their emotional upset into their mother. It is the mother's job to understand and return it in a more palatable form. The mother thus provides what Bion (1959) described as containment (by identifying with the baby's disturbing experience such as fear and terror and taking it all in). Dalley (2000) and Case (2005) discussed this concept in terms of the containing image which takes on the role of a containing object that can hold distressing experiences and can survive "intrusive attacks" (Greenwood, 2000). In Milner's (1950) words "to receive the pain, when it becomes unbearable, and then give it back to her in a more bearable form – as the tragic work of art does, *Macbeth*, for instance".

THE PSYCHOPATHOLOGY OF ART

There is a long history of associating creativity and mental illness in western European cultures, starting with Aristotle, who equated insanity with genius, and culminating in the "mad genius" controversy of the last 2 centuries (Becker, 1978; Ludwig, 1995). Lombroso (1891), for example, argued toward the end of the 19th century that genius and madness were closely connected manifestations of an underlying degenerative neurological disorder.

A large amount of evidence to support the association between creativity and mental illness has been produced. For example, the rate and intensity of psychopathological symptoms has been found to be higher among eminent creators than in the general population (Andreasen & Canter, 1974; Jamison, 1989). Although the differential depends on the specific definition used, a reasonable estimate is that highly creative individuals are about twice as likely to experience some mental disorder as comparable non-creative individuals (Ludwig, 1995). Eysenck (1995), for example, evidenced creativity to be positively correlated with psychoticism scores on the EPQ. Furthermore, depression seems to be the most common symptom, along with the correlates of alcoholism and suicide (Goertzel, Goertzel, & Goertzel, 1978; Ludwig, 1990; Schildkraut et al., 1994; Post, 1996). The rate and intensity of symptoms has also been found to vary according to the specific domain of creativity (Ludwig, 1992; Post, 1994). For example, psychopathology was evidenced to be higher among artistic creators than among scientific creators (Simonton, 2004). Furthermore, those family lines that produce the most eminent creators also tend to be characterized by a higher rate and intensity of psychopathological symptoms (Andreasen, 1987; Jamison, 1993) Hence, even though there is some evidence that the life style of creative activity can have adverse consequences for mental health (Schaller, 1997), it remains the case that

there may be a common genetic component to both creativity and psychopathology (Ludwig, 1995).

It is important to bear in mind, however, that although highly creative individuals tend to exhibit elevated scores on certain psychopathological symptoms, their scores are seldom so high as to represent true psychopathology (Barron, 1963; Eysenck, 1995). At these moderate levels the individual will possess traits that can actually be considered adaptive from the standpoint of creative behaviour. For instance, higher than average scores on psychoticism are associated with independence and nonconformity, features that lend support to innovative activities (Eysenck, 1995). In addition, elevated scores on psychoticism are associated with the capacity for defocused attention (e.g., reduced negative priming and latent inhibition), thereby enabling ideas to enter the mind that would normally be filtered out during information processing (Eysenck, 1995). This less restrictive mode of information processing is also associated with openness to experience, a cognitive inclination that is positively associated with creativity (Peterson, Smith, & Carson, 2002). In fact, Jamison (1989) argued that creativity shares certain cognitive and dispositional traits with specific symptoms, and that the degree of that commonality is contingent on the level and type of creativity that an individual displays.

Creative individuals have been shown to score high on other characteristics that would seem to dampen the effects of any psychopathological symptoms. In particular, creators display high levels of ego-strength and self-sufficiency (Barron, 1963; Cattell & Butcher, 1968). Accordingly, they can exert meta-cognitive control over their symptoms, taking advantage of bizarre thoughts rather than having the bizarre thoughts take advantage of them. Clearly, some mental disorders, especially milder ones, may enhance creativity in some individuals; for instance, hypomania may be enjoyable and may enhance creativity more than depression or mania (Jamison et al. 1980). Similarly, Schildkraut et al. (1994) argued that affective disorders may under certain circumstances stimulate artistic creativity. Depression, for example, can bring the artist into direct and lonely confrontation with the existential question of whether life is worth living. The painter Edvard Munch noted about pain and his art "*I would not be without suffering. I owe so much of my art to suffering*" (Von Per Amann, 1990). Empirical support for this notion has been provided by Jamison (1989) who discovered that in 90 percent of her sample of artists that very intense moods and feelings were either necessary and integral or very important to the creation of art.

It is important to acknowledge that only a few creative individuals can be considered truly mentally ill. Indeed, outright psychopathology usually inhibits rather than helps creative expression. Ludwig (1990), for example, found that in a survey of the biographies of 34 American writers, artists, and musicians, alcohol abuse impaired creativity in 75%. At the very extreme end there are those artists who have committed suicide. According to Roman & Stastny (1987) the work of those artists is a response to loss and depression.

In relation to psychiatric populations clear broad differences between the art works of psychiatric patients and controls and discrete differences in patient type have been found in various studies employing various art assessment tools such as the Diagnostic Drawing Series (Cohen et al., 1988), the Formal Elements Art Therapy Scale (Gant, 2001) and the Descriptive Assessment of Psychiatric Art (Hackling et al., 1996). Early researchers such as Wadeson and Bunney (1970) found that formal characteristics such as colour and linear style distinguished manic from depressive episodes in schizophrenia. More recently, Ogdon (2001) found visual indicators of depression in self-drawings, which included lack of detail, smaller size and placement in corners, and faintness of drawings. This research provides support for the notion that the artist's internal psychological state is reflected in the qualities of the final image (Arnheim, 1974).

Summary and Future Research

This review has introduced and described the various concepts in relation to suicidal behaviour (e.g. suicidal ideation, attempted suicide). It also highlighted the inherent problems of terminology (e.g. attempted suicide) when dealing with behaviour that can be so very diverse in terms of methods, preparation, consequences as well as underlying motivational factors. It was shown that both social problems and psychiatric disorder may well be necessary but not sufficient conditions for suicide. The Suicidal Process Model highlighted the importance of a gradual progression from fleeting thoughts about ending one's life to completed suicide while at the same time acknowledging the impulsive nature of suicidal behaviour. The Diathesis-Stress Model stressed the importance of a trait-like predisposition (aggression/impulsivity) in predicting suicidal behaviour. In relation to the artistic process psychoanalytical approaches described it as an outlet for unconscious and disturbing impulses, desires, thoughts and feelings projected onto the emerging piece of art. It was further proposed that artists work through the infantile depressive position every time a new piece of work is embarked on. The process involves early memories of fantasised attacks on the internal mother and subsequent feelings of desolation and guilt and the desire to restore and recreate the lost loved object. In the final section research evidence was provided in support of a relationship between creativity and psychopathological symptomtology, while at the same acknowledging that the symptoms of most artists do not necessarily warrant a diagnosis of a true psychopathology. It was also stressed that creative individuals do have other characteristics such as ego-strength and self-sufficiency that diminishes the effect of any psychopathological symptom. Finally, in relation to psychiatric populations some research evidence was provided that showed differences between the art works of psychiatric patients and controls.

The research in suicidal behaviour such as outlined above has predominantly relied on verbal accounts of people of the general public, as well as psychiatric outpatients and inpatients (e.g. questionnaires, assessment tools, clinical interviews). I think that it would be worthwhile to include other assessment methods that rely on other forms of human expression. The general advantage of focusing on individuals' artistic expression to enquire about such a sensitive issue such as suicidal behaviour is that it does not rely on verbal output which is likely to be heavily censored, edited and controlled by the conscious mind. More specifically, asking people directly about suicidal behaviour might be complicated by unwillingness (e.g. fear of implications

such as being diagnosed with a psychiatric condition, sectioned and/or forced treatment, delay in discharge) or inability (e.g. severe affective disorder, dementia, learning disability, language disorder) to verbalise distress. Art provides individuals with the opportunity to express themselves without the immediate fear of being judged.

As outlined above there have been a number of studies investigating the differences between paintings across a range of psychiatric conditions (e.g. depression, schizophrenia). There seems to be, however, no published research on the paintings of artists who have committed suicide, employing a retrospective research design and using formal art assessment tools. A study like this could reveal potential visual markers of suicidal risk.

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The Art of Suicide

The Pain in Paintings

"The hands often know how to solve a riddle with which the intellect has wrestled in vain" (Carl Gustav Jung).

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Table of Contents:

The Art of Suicide

"The Black Monk" (Arshile Gorky, 1980)

This research projects deals with the question of whether the paintings of artists who have committed suicide is reflective of their mental states both in terms of content and form. It specifically attempts to answer whether the deterioration in mental state from a time of better mental health to the time of their suicide is expressed graphically in the paintings of those artists and whether this can be reliably observed. It was discovered that paintings in the absence of contact with or interpretation by the artists, provided enough information to enable non-expert judges to make reliable global content-related judgements (e.g. destructiveness and hopelessness) as well as form-specific ratings (e.g. lack of detail) that distinguished between paintings created near the time of artists' suicides and their paintings created at a time of better mental health as well as paintings from artists who were suffering from depression. It was also found that non-expert judges were able to correctly identify paintings that were created just before artists' suicides as reflecting serious mental health problems. Furthermore, it was discovered that there was a general preference for paintings from depressed artists over the last paintings by artists who have taken their own lives. The implications of these findings for clinical work both in terms of assessment and treatment were discussed. Furthermore, several limitations of this research project were noted and suggestions for future research were provided.

Introduction

In the beginning of this introduction there will be a description of the terminology used in the area of suicidal behaviour. This will be followed by psychological models of suicidal behaviour such as the "Cry of Pain Hypothesis" and the "Diathesis Stress Model" that explain underlying mechanisms as well as research evidence in support of these models. Focus will then turn to the area of creativity using psychoanalytic approaches to explain this form of human expression. The two major analytical models presented here will be those of Sigmund Freud and Melanie Klein. Finally, there will be a discussion of the research literature on the relationship between psychopathology and art in both famous artists and clinical populations.

A psychological approach to suicidal behaviour

According to official statistics, about a million people die by suicide annually, more than those murdered or killed in war (Mental Health. WHO, 2006). This equates to a "global" mortality rate of 16 per 100,000, or one death every 40 seconds. In the last 45 years suicide rates have increased by 60% worldwide, which makes suicide one of the three leading causes of death among those aged 15-44 years for both sexes (Mental Health. WHO, 2006).

The term suicidality denotes cognitive and behavioural characteristics which may become manifest as suicidal ideation or suicidal behaviour (van Heeringen, 2001). Suicidal ideation refers to the occurrence of any thoughts about self-destructive behaviours, whether or not death is intended. These thoughts may range from vague ideas about the possibility of ending one's life at some point of time in the future to very concrete plans to commit suicide. Suicidal behaviour may cover a wide range of self-destructive behaviours with a non-fatal (i.e. attempted suicide) or fatal outcome (i.e. suicide). It is important to stress that this definition is purely descriptive and does not include the level of suicidal intent (i.e. the wish to die). Intent is usually inferred from the lethality of the method used to attempt or commit suicide and the seriousness of the injuries of the self-destructive act. Malone et al. (1995) and Hawton and Catalan (1987) argued that this difficulty of teasing out suicidal intent from the circumstances of how the suicide was committed may lead to inconsistent use of the

various categories such as attempted suicide, and suicide. In many ways non-fatal suicidal behaviours differ enormously. Some attempts at ending one's life are indeed aimed at dying, but the majority will have different aims, which may include mobilisation of help or temporary escape from stress, and still other attempts may have ambiguous aims (Kreitman, 1977). Similarly, some attempts are well prepared, while others are carried out impulsively. Finally, attempts may differ considerably in the amount of harm depending upon intention, preparation and knowledge of the lethality of the chosen method as well as upon purely coincidental factors.

There is overwhelming evidence suggesting that people who kill themselves have experienced a large number of social stresses in their recent or remote past (e.g. abuse, bullying, poverty and social isolation) as evidenced by Van Egmond et al. (1993) and Williams (1997). However, the fact that there are many people with severe social problems who do not commit or attempt suicide highlights the need to investigate psychological factors that may mediate the relationship between stressful events and suicidal responses.

There has been considerable progress in the identification of psychological risk factors for suicidal behaviour. According to Williams' (1997) "Cry of pain" hypothesis, suicidal behaviour represents the response (the "cry") to a situation that has three components: defeat, no escape, and no rescue which can leave an individual vulnerable to the triggering of "helplessness" processes. It is believed that these processes can then lead to an impulse to escape from a situation by self harming or by dying. At this point whether someone acts on the impulse may depend on the availability of social models (e.g. people close to self or people in the media) to be imitated (Hawton et al, 1999) and the availability of methods (Williams & Pollock, 2001).

It has been suggested that suicidal behaviour can be described as a process within the individual and in interaction with his surroundings as in van Heeringen's (2001) "Suicidal Process Model". This process may evolve from thoughts about taking one's life, through to suicide plans, to recurrent suicide attempts with increasing lethality and suicide intent and then finally end with completed suicide.

Evidence for this kind of suicidal process has been provided by Kessler et al. (1999) who found that the transition from suicidal ideation to suicide plan occurred in 34 %, and from a plan to an attempt in 72 % of their sample. Interestingly, 26 % proceeded from suicidal ideation to an unplanned attempt highlighting the importance of impulsivity in attempted suicide. Furthermore, Maris (1992) found that between 10 and 15 % of suicide attempters eventually die because of suicide. At the same time one must not lose sight of the fact that three quarters of people who complete suicide do not make a previous suicide attempt (Amsel & Mann, 2001).

Research evidence suggests that the majority of patients with a psychiatric disorder do not commit or even attempt suicide (Brent et al. 1993). Therefore psychiatric disorder may be a necessary but not a sufficient condition for suicide. According to the stress-diathesis model stress-related psychopathological phenomena such as a psychiatric disorder are separated from those related to a trait-like predisposition (Mann et al., 1999). These researchers found that neither the nature nor the severity of state-dependent-illness characteristics (e.g. depression) distinguished patients with a history of suicide attempts from those without such a history. They did, however, find a clear association between the occurrence of non-fatal suicidal behaviour and a trait-like predisposition reflecting aggression and impulsivity indicating the importance of these features in predicting suicidal behaviour.

Interestingly, the association between suicide and aggression has long been recognised by psychoanalysts [Freud's (1920] concept of "Thanatos" (Greek God of Death) or the death instinct, "which seeks to lead what is living to death"). Meninger (1933), for example, proposed that a "dynamic" triad underlies all aggressive behaviour (inward and outward) consisting of the unconscious wish to die, the wish to kill and the wish to be killed. The link between wanting to kill and being killed was well described by Klein who described aggression as a projection of the individual's own innate self-destructive drive (e.g. you attack so that you will be attacked). Support for this notion comes from the observation that approximately every fourth patient with a history of violent behaviour also has a history of attempted suicide (Tardiff & Sweillam, 1980; Inmadar et al., 1982). Furthermore, Schaffer & Fisher (1981) found that a majority of 100 children who committed suicide in Great Britain

had manifested antisocial behaviour, indicating that suicide is related directly rather than indirectly to aggression.

Nevertheless, the most important stressor-related psychopathological condition associated with suicidal behaviour appears to be depression (Apter et al., 1991; Williams, 1997). Even in patients suffering from disorders with a well-documented increased risk of suicide such as schizophrenia or alcoholism, co-morbid depressive symptoms are common in suicidal behaviour (van Heeringen, 2001).

Van-Praag (1997) proposed a model that is based on the stress-diathesis approach and termed it aggression driven, stressor precipitated depression. Evidence for this model has been provided by Apter et al. (1995) who found significant positive correlations between depression, suicidality and aggressive conduct as well as by Apter et al. (1993) who found significant positive correlations between suicidality, violence, impulsivity, depression and anxiety. Interestingly, in this study conduct symptoms and suicidality were highly correlated even when depression was controlled. Furthermore, Beautrais et al. (1996) found that the risk for suicide is substantially increased when psychiatric disorder (e.g. depression) and aggressive/impulsive personality traits co-occur.

A psychological approach to artistic behaviour

According to Taylor (1988) creativity is a mental process involving the generation of new ideas or concepts or new associations between existing ideas or concepts, and is manifested in the production of a creative work (e.g. a new work of art or a scientific hypothesis) that is both *original* and *useful* (Taylor, 1988).

A correlation between artistic productions and psychotic symptoms was first described by Lombroso (1888). He perceived sense and meaning in the pictures drawn by individuals with psychosis and concluded that they were thus expressing ideas which they were incapable of expressing verbally. Similarly, Freud and Kris would later argue that rather than being random nonsense, the production of fantasy revealed information about the unique inner world of their maker (Rubin, 1999). The literature indicates that the interest in the relationship between artwork and underlying meaning remained focused on the art productions of individuals with psychosis. However, over the years there also developed an increasing interest in the art work of other psychiatric populations especially after Freud (1913) described the image-making capacity of the unconscious as revealed in dreams. Mosse (1940), for example, was among the first to describe the therapeutic use of analysis of paintings drawn by so called “neurotics”. He utilised the paintings as manifestations of the unconscious and had patients freely associate about their paintings in order to uncover basic themes. This author stated that when patients look at their pictures they see for the first time in their lives reflections of the distorted features of their own personalities.

Over the years many writers have explored the complex relationship between art and psychoanalysis (Gosso, 2004; Mann, 2006). Psychoanalytic writing in particular gave support to the idea that art was an important means of communication, both conscious and unconscious. The following will therefore focus on psychoanalytic theory and how the art process can be understood.

Freudians

Sigmund Freud's (1856 -1939) theory is an instinct theory in as much as it attaches central importance to an innate biologically determined drive to action. According to Freud (1923) the human mind is a primitive psychic apparatus which has the function of regulating states of tension by discharging instinctual impulses (e.g. sex; aggression). This can be achieved by two different processes. The primary process (id), which is mostly unconscious, is governed by the pleasure principle and reduces the discomfort of instinctual tensions by hallucinating wish-fulfilments (e.g. marrying mother; killing father). The secondary process (superego), which is mostly conscious, is governed by the reality principle and reduces the tension of instinctual behaviours by adaptive behaviour. Freud believed that as an individual matures progress could only be made by the repression of early infantile ways of dealing with instinctual demands. As one is giving up these primitive instincts they continue to live on in the form of fantasies. The origins of neurosis is thought to lie in the fixation at a variety of stages (fixation points) and thus failure to progress satisfactorily through the stages of libidinal development.

According to Freud (1916) the only path back from fantasy to reality is through art. He famously described the artist as someone who "*desires to win honour, power, wealth and fame and the love of women but he lacks the means of achieving these satisfactions*" (Freud, 1916: 375). In his view the artist gains pleasure from this representation of unconscious fantasy gaining relief of his repressed instincts. The artist thus turns away from reality and transfers all his interest to the wishful construction of his life of fantasy potentially paving the path towards neurosis.

Freud (1916) believed that creativity was similar to a neurosis, and that the dynamics were the same as in other neuroses, namely that creativity was a sublimation (or transformation) of repressed sexual impulses. This process involves (a) the displacement of energy from activities and objects of primary interest (e.g. sex with women) onto to those of lesser instinctual interest (e.g. painting on a canvass) and (b) the transformation of the quality of the emotion accompanying the activity such that it becomes "de-sexualised". In other words, what the artist creates provides an outlet for his sexual desire (Freud, 1910) with his unconscious thoughts and feelings oozing

onto the canvass via his paintbrush. The function of the symbol in art is equated with the role of symbols in dreams, which is to conceal the real meaning (e.g. sexual and aggressive impulses) from the artist or dreamer. This symbolic expression is gradual and reduces emotions and protects the artist or dreamer from arousing disturbance and stress (which would occur in direct non-symbolic expression).

Freud (1910), famously, described the art work of Leonardo da Vinci by relating Leonardo's life from his earliest years to later known characteristics of his personality. Knowing that Leonardo did not finish his paintings and worked very slowly Freud argued that Leonardo seemed to identify with his father (who abandoned him and his mother in his early years) and so he too "left" his paintings by not finishing them. He further argued that his rebellion against his father established his scientific researcher attitude. This keenness as a researcher and his lack of sexual interest Freud perceived to be connected as passions transformed (or sublimated) into a thirst for knowledge.

According to Kris (1975: 25) the artist has "*the capacity of gaining easy access to id material without being overwhelmed by it, of retaining control over the primary process*". In other words the artist has the ability to tap into unconscious sources without losing control, which Freud referred to as "flexibility of repression", and described by Kris as "regression in the service of the ego" (relaxation). Kris argued that regression in all artistic activity is purposive and controlled in continual interplay between creation and criticism. This idea that creativity not only controls regression but also the work of the primary process itself points to a more dynamic role of the ego which departs from Freud's pessimistic view of the involuntary unconscious.

Kleinians

Melanie Klein's (1882-1960) theory is an object theory in as much as it attaches central importance to the resolution of ambivalence towards the mother (the breast) and regards ego-development as being based primarily on introjection of the mother and/or breast. Klein (1940) described the ego-growth as a product of a continual process of projection (the process by which specific impulses, wishes, or aspects of the self are imagined to be located in some object external to oneself) and introjection

(the process by which the relationship with an object "out there" is replaced by one with an imagined object "inside"). Through these mechanisms a whole world of internal objects is formed with their own fantasised relationships. According to Segal (1975) it is this internal world, with its complex relationships that is the raw material on which the artist draws for creating a new word in his art.

According to Klein (1940) the infant oscillates between two positions in the first year of life. The first is the paranoid-schizoid position where the infant deals with his/her ambivalence towards his mother by splitting it into two separate part objects. He also splits the ego and projects the destructive feelings onto the bad object (breast) by which it then feels persecuted. This is seen to be a defence against realising that the "good" breast is not as idealised as the infant would like it to be in their fantasy. The second is the depressive position where the infant learns to accept ambivalence, that good and bad are aspects of the same whole object - mother – who has an independent life of her own.

In this position the infant experiences total desolation and feels that his/her destructive and hateful feelings have destroyed the good breast. He/she then feels loss and guilt which leads to the desire to restore and recreate the lost loved object both outside and within the ego. It is believed that the origins of neurosis lie in the first year of life and consist of the failure to pass through the depressive-position.

Segal (1975) argued that the above mentioned reparative impulses lead to growth and contribute to good relationships and are the fundamental drive in all artistic creativity. In her view artists work through the infantile depressive position every time a new piece of work is embarked on. She compared that process to Melanie Klein's (1940) work on the rebuilding of the inner world in mourning. Klein stated that every time we experience loss we are taken back to the depressive position and our original loss is relived. In mourning we have to build our inner world as well as our external world of relationships.

Furthermore, it is believed that we experience feelings as described by Klein (1940) when we see something ugly such as an incomplete image of an ancient broken statue. According to Rickman (1940) this arouses unconscious fantasies of "remutilation" from infancy which are more disturbing than the defects in the object itself. The effect of fear and horror then becomes attached to the image. Fuller (1980) used Kleinian thought to explain why the fragmented Venus in *Venus de Milo* can appear to us as more vivid and authentic than the whole statue. He argued that the Venus is a representation of the internal mother who has survived the ravages of fantasised attack during the paranoid-schizoid position. Despite fragmentation the reparative element remains dominant – she has endured throughout the centuries.

According to Segal (1975: 800) certain incompleteness is essential in a work of art. She argued that "*we must complete the work internally; our imagination must bridge the last gap*". Similarly, Stokes (1978) argued that for a piece of art to "work" there must be an element of acting out of aggression and then reparative transformation.

Another important concept developed by Klein (1942) is that of projective identification with which she attempted to understand the complex non-verbal communication between a mother and a baby when the baby is in distress. Klein believed that a baby projects their emotional upset into their mother. It is the mother's job to understand and return it in a more palatable form. The mother thus provides what Bion (1959) described as containment (by identifying with the baby's disturbing experience such as fear and terror and taking it all in). Dalley (2000) and Case (2005) discussed this concept in terms of the containing image which takes on the role of a containing object that can hold distressing experiences and can survive "intrusive attacks" (Greenwood, 2000).

Art therapy research

Psychopathology in artists

A large amount of evidence supports the notion of an association between creativity and mental illness. For example, the rate and intensity of psychopathological symptoms has been found to be higher among eminent creative people than in the general population (Andreasen & Canter, 1974; Jamison, 1989). Ludwig (1995) argued that highly creative individuals are about twice as likely to experience some mental disorder as comparable non-creative individuals. From the literature it appears that depression is the most common psychiatric disorder, along with the correlates of alcoholism and suicide (Goertzel, Goertzel, & Goertzel, 1978; Ludwig, 1990; Schildkraut et al., 1994; Post, 1996).

It is important to bear in mind, however, that although highly creative individuals tend to exhibit elevated scores on certain psychopathological symptoms (e.g. psychotic symptoms) their scores are seldom excessively high as to represent true psychopathology such as schizophrenia (Barron, 1963; Eysenck, 1995). At these moderate levels the individual will possess traits that can actually be considered adaptive from the standpoint of creative behaviour. For instance, higher than average scores on psychoticism are associated with independence and nonconformity, features that lend support to innovative activities (Eysenck, 1995). In addition, elevated scores on psychoticism are associated with the capacity for defocused attention (e.g. reduced negative priming and latent inhibition), thereby enabling ideas to enter the mind that would normally be filtered out during information processing (Eysenck, 1995). A less restrictive mode of information processing is also associated with openness to experience, a cognitive inclination that is positively associated with creativity (Peterson, Smith, & Carson, 2002).

Creative individuals have also been shown to score high on other characteristics that would seem to dampen the effects of any psychopathological symptoms. In particular, creative people display high levels of ego-strength and self-sufficiency (Barron, 1963; Cattell & Butcher, 1968). According to Freud (1923), ego strength is the ability of the ego to effectively deal with the demands of the id, the superego, and reality and helps

to maintain emotional stability and cope with internal and external stress. The term self-sufficiency refers to the state of not requiring any outside aid, support, or even interaction, for survival; it is therefore a type of extreme personal autonomy. Accordingly, both ego-strength and self-sufficiency helps creative people exert meta-cognitive control over their symptoms (e.g. psychotic), taking advantage of bizarre thoughts rather than having the bizarre thoughts take advantage of them.

Clearly some mental disorders, especially milder ones, may enhance creativity in some individuals; for instance, hypomania may be enjoyable and may enhance creativity more than depression or mania (Jamison et al. 1980). Similarly, Schildkraut et al. (1994) argued that affective disorders may under certain circumstances stimulate artistic creativity. Depression, for example, can bring the artist into direct and lonely confrontation with the existential question of whether life is worth living. The painter Edvard Munch noted about pain and his art "*I would not be without suffering. I owe so much of my art to suffering*" (Von Per Amann, 1990). Empirical support for this notion has been provided by Jamison (1989) who discovered that in 90 percent of her sample of artists very intense moods and feelings were either necessary and integral or very important to the creation of art.

As mentioned above only a few creative individuals can be considered truly mentally ill (e.g. major depressive disorder, schizophrenia). Indeed, outright psychopathology usually inhibits rather than helps creative expression. Ludwig (1990), for example, found that in a survey of the biographies of 34 American writers, artists, and musicians, alcohol abuse impaired creativity in 75% of this sample.

Psychopathology in psychiatric populations

The most extensively studied drawings and paintings come from patients with psychosis. Many of these studies focused on spontaneous art productions, and some tried to establish a link between artistic creativity and mental illness (Anastasi & Foley, 1940; Prinzhorn, 1972). Early art therapeutic research was heavily influenced by psychoanalytic thinking such as the notion of projection that is the "*placing of an inner experience, an inner image, into the outside world*" (Kris, 1952: 115). This early research, which was characterised by relatively unstructured methods of art assessment (Elkisch, 1948) and various ways of interpreting art productions (Machover, 1980), very much focused on the interpretation of individual details (e.g. emphasis of head and eyes in human figure drawings suggesting concerns about intelligence and watchfulness, respectively) and specific signs (e.g. scars, broken branches, knotholes, absence of leaves in tree drawings suggesting multiple traumas) to reveal patients' projected feelings and personality characteristics.

Over the years this early research became to be heavily criticized by various researchers. Miljkovitch and Irvine (1982), for example, argued that this research was often characterised by poor methodology such as non-representative samples, obtaining of drawings under uncontrolled conditions, subjectivity of judgement, mixture of observational data with interpretive opinions and absence of control data. The most serious flaw they pointed out, however, was the lack of an integrated theoretical framework which would explain the diversity of the various signs of psychopathology and permit one to understand them.

In relation to the latter point the work on the regression hypothesis of schizophrenia by Billig (1969) and Goldfried, Stricker and Weiner (1971) appeared to be an improvement in this respect. Regression is thought to be the returning to the simplistic pre-operational mechanism, normal to the organism during its earliest stages of emotional development and expression. Goldfried et al (1971, for example, evidenced the parallel deterioration of the personality along with the representation of space and movement in the art work of people with psychosis. Furthermore, Billig (1969) argued that the art specific features in the art work of schizophrenic patients were comparable to the art of early civilisations (e.g. perseveration of a particular design or

detail irrelevant to the total content of the art work). In a similar vein, Arieti (1974) regarded paintings by schizophrenic patients as an effort to adjust to a new vision of reality, to crystallise it, to arrest it, or to delay further changes and suggested a similarity between the psychological mechanisms at work in the expressions and thought processes of primitive people and schizophrenic patients.

Another controversial issue that emerged over the years was the meaning of colour. The study of the use of colour in artistic productions of psychiatric patients has a long clinical history. Rorschach (1921) initially posited a relationship between colour use and affective style based on empirical observations that people who gave few colour responses to the "Rorschach Ink Blots" were either depressed or seldom inclined to be emotionally expressive. On the other hand, people with many colour responses were generally more exuberant or capable of emotional discharge.

Since then there has been a lot of supportive evidence for the notion that colour reflects affect (D'Andrade & Egan, 1974; Wilson, 1966). However, the meaning of specific colours has always been a controversial issue in the research literature [e.g. Pasto's (1968) colour equation to interpret the use of specific colours in artistic productions]. Hesse (1981) introduced the conception of "passive" (violet-blue end of spectrum) and "active" colours (red-orange end of spectrum) to facilitate interpretation and avoid former pitfalls. He acknowledged, though, that these qualities may change according to specific qualities of the media (e.g. material of the canvass; painting/drawing tools) or to a particular constellation of lines and forms.

Hesse (1981) therefore proposed not to ascribe a definite function to any one colour but to investigate its role within the overall picture (also in conjunction with form and composition). This is consistent with earlier suggestions by Rapaport et al. (1946) that colour usage is related to the adequacy of individual resources for integrating affective experience. Amos (1982), for example, proposed that inappropriate and uncontrollable use of colour in a formless way in artistic productions might be reflective of schizophrenic processes indicating difficulty in integrating affective experience.

Furthermore, research that has focused on specific "pathogenic" signs (e.g. omissions, distortions, and transparencies in human figure drawings) seems to have come off most poorly (Groth-Marnat, 1997; Miljkovitch and Irvine, 1981; Smith & Dumont, 1995). Miljkovitch and Irvine (1981) for example, argued that unique characteristics that have been shown to distinguish psychotic drawings from others appear relatively infrequently and are for the most part not unique to schizophrenics but also occur in other patients and "normal" people. These authors noted, for example, that it had been suggested that the "schizophrenic" sign of "mixture of writing and drawing" might be due to the name as inseparable from the object it represents as an instance of nominal realism (Piaget, 1937). They argued that it was impossible to distinguish this phenomenon from the frequent rational behaviour of "normal" controls who add the name to the drawn object to increase intelligibility. Miljkovitch and Irvine (1981) also mentioned the "schizophrenic" sign of "enclosure", i.e. objects surrounded by lines, which could be interpreted as autistic behaviour in people with schizophrenia or excessive concern to maintain autonomy and body integrity in paranoid schizophrenics (e.g. Reznikoff & Nicholas, 1958). They argued that this could also be regarded, especially in controls, as a general need for protection or a compulsive need for definiteness.

It has been argued that the interpretation of detail and specific signs of art works which had been the focus of projective drawing research to reveal patients' projected feelings and personality characteristics required judgement of intent or meaning and are thus difficult to validate and difficult to define (Anastasi & Foley, 1941). There was also a concern that researchers of projective drawings might have often projected their own unconscious material onto the pictures being rated (Hammer & Piotrowski, 1953).

It has subsequently been proposed that formal characteristics (form rather than content) of drawings might be better in distinguishing diagnostic groups and have the advantage of being easier to define and measure. Rhinehart and Engelhorn (1982) have argued that each line, each colour and each form has a story to tell about the patient, and each medium (e.g. type of material of the canvass and drawing tools) the patient chooses adds another dimension. Furthermore, Rhyne (1973) argued that the

way we use lines, shapes and colours, in relationship to each other indicates something about how we pattern our lives. With an increasing focus on the structural aspects of art researchers also decided to keep the content of drawings constant in order to determine which formal elements would vary between psychiatric groups. This led researchers to request instructed drawings from their patients by asking them to draw specific subject matters (e.g. Trees, Persons).

There was, however, still no consensus within art therapy as to how diagnostic material (i.e. psychopathological symptoms) was manifested in art and many art therapist doubted that there was reliable diagnostic information aside from what the patient chose to say about the art (Wadeson, 1980). Ulman and Levy (1968) were insisting that the whole idea of relating elements within paintings or drawings to psychopathological diagnoses was an assumption open to serious debate unless it could be proven that even the crudest diagnosis (patient or normal) could be made with consistent precision on the basis of the art work. It was argued that this kind of proof cannot be established without empirical research techniques that render quantifiable data to support the claims.

This has led to the development of a variety of formal assessment tools [e.g. DDS = Diagnostic Drawing Series (Cohen et al., 1988); FEATS = Formal Elements of Art Therapy Scale (Gantt, 1990)] to determine meaning without relying on narrative content. The DDS involves amongst other things the instructed drawing of a tree and the rating of structural elements of the drawing such as object placement (i.e. where the tree is placed), the amount of drawing space being used, the number of different colours, and the balance between lines and shapes. The FEATS usually involves the instructed drawing of a person picking an apple from a tree and the rating of structural elements of the drawing such as the degree of integration, the level of detail, colour fit (i.e. idiosyncratic or non-idiosyncratic use of colour), and problem solving (i.e. depiction of solution to the task of picking an apple from a tree).

The basic assumptions behind these assessment tools is that art activity can be more or less exclusively viewed as samples of cognitive and behavioural functioning (Knoff, 1993) and that clinical conditions have their own distinct pattern of symptoms that are manifested through the cognitions and behaviours of the afflicted person (DSM IV). It is therefore argued that the art product provides information of the artist's mental condition (Gantt & Tabone, 1998; Wadeson 1980). According to Mills (2003), DDS research has revealed that a number of components of structure, such as placements of the image on the page or how much of the page is used, generate characteristic combinations which create a graphic profile of the artist/patient and, by extension, diagnostic categories. This research has not only demonstrated how pictures by patients with varying diagnoses typically look like but also how they differ from each other (Cohen et al., 1988; Morris, 1995; Neale, 1994). Morris (1995), for example, discovered that schizophrenia was associated with the depiction of disintegrated trees which were impoverished and had a chaotic branch system which were argued to be indicative of a fragmented or impoverished self-concept. Furthermore, major depression has been shown to be associated with less effort invested, less completion, unusual placement of objects (Cohen, Hammer and Singer, 1988) and little colour usage (Morris, 1995). These authors argued that these visual characteristics appeared to reflect the patients' lack of energy, poverty of ideas, and restricted affect. The reliability of the DDS has been demonstrated by several investigators such as Cohen, Hammer, and Singer (1988), Mills, Cohen and Meneses (1993) and Neale (1991). It is noteworthy how these findings seem to resemble those of earlier research by Wadeson (1975) that was arguably less systematic and empirical.

She identified, for example, colourlessness, paleness and emptiness as characteristic pictorial features of depression. She argued that this impoverishment in the art work of depressed individuals might reflect hopelessness, lack of motivation, and in some cases physical disability.

In relation to the FEATS, Gantt and Tabone (1998) have argued that the majority of its scales can be related to specific psychiatric symptoms, and that they therefore represent the graphic equivalent of symptoms. These authors evidenced that patients with major depression drew pictures that had less colour, had fewer details, and used less space than the pictures of the control group. They argued that this seemed to

correspond to patients' depressed affect and lack of energy. At the same time they found that those patients with major depression drew pictures that were logical and had adequate problem solving as is the case with the control group. They stated that since major depression does not affect thinking and problem solving unless it is quite severe it made sense that these two areas would not be disturbed in drawings. The reliability of the FEATS has been demonstrated by several investigators such as Gantt (1990) and Williams, Agell, Gantt, and Goodman (1996).

One can say that with the emergence of these new assessment tools there had been a clear shift away from sign-based interpretation of art to the scientific study of the correlation between graphic characteristics and psychopathology using global ratings. Smith and Dumont (1995) commented that of the various relationships between art work and diagnostic criteria that have been researched in both early as well as more recent studies, only the relationship between global measures (i.e. rating schemes that consider the art work as a whole or a set of specific features in the art work) and diagnoses of maladjustment has reached levels of statistical significance with some consistency.

Rationale and aims of this research project

As outlined above there have been numerous studies investigating the differences between paintings across a range of psychiatric conditions (e.g. depression, schizophrenia). There appears, however, to be a general dearth of empirical art therapeutic research in the area of suicidal behaviour apart from a few mostly dated studies indicating the presence of content-related features such as hopelessness and isolation (Tayal, 1969; Wadeson, 1975), self-hatred and anger (Wadeson, 1975) destruction (Honig, 1975) and violence (Phillips, 2003) as well as form-related features such as strong "shattering" and "slashing" lines (Virshup, 1976; Wadeson, 1975) drawn through objects in the images of suicidal patients.

Because of the apparent lack of research in this area it was decided to investigate both content-related as well as form-related features of the art work of people who have taken their own lives. A major aim of this research project will be to explore to what extent the deterioration in mental state in artists who have committed suicide (from a time of better mental health to the time of their suicide) will be reflected in their paintings and whether this can be reliably perceived by observers with no expert knowledge in mental health. In line with psychoanalytic as well as cognitive-behavioural thinking, respectively, it was expected that there would be a general deterioration both in content-related features (i.e. themes related to suicidal behaviour: more aggression and depression) as well as form-related features (e.g. fewer number of colours, less detail and integration) in those paintings. It is important to note that to the knowledge of the author there is no published research of an empirical investigation of the content and formal characteristics of the art works by artists who have committed suicide.

Nevertheless, this research project bears some resemblance to a recent study by Rao and Keshavan (2006) that investigated whether psychiatrists and lay people would be able to recognise mental illness in paintings by famous artists. They discovered that both psychiatrists as well as lay people were able to distinguish between paintings that were created before and after the onset of mental illness (e.g. bipolar disorder, depression, schizophrenia). This meant that when comparing two paintings from the same artist participants were able to identify the painting that seemed to reflect a

mental illness. At the same time participants in their study were unable to differentiate paintings by artists with and without mental illness (e.g. depression, schizophrenia). However, this study did not explore the visual features (e.g. content and form) that participants might have used in determining the period of creation (before or after the onset of mental illness). In that way the present investigation could be regarded as a further elaboration in terms of what visual features might signal mental health difficulties such as those present in suicidal behaviour. It is hoped that this would reveal important visual characteristics that could contribute to our existing knowledge of suicide risk factors (e.g. number of previous suicide attempts; psychiatric illness). This could help in the early detection of suicidal tendencies as well as the monitoring of suicidal behaviour in response to treatment.

The author of this thesis is aware of the dangers of interpreting content without taking patients' views about their paintings into account (Gantt, 1990; Wadeson, 1980). However, one needs to bear in mind that the opportunity to retrieve information about peoples' creative work might often not arise because they may be unwilling (e.g. not seeking support from mental health services, fear of implications such as being diagnosed with a psychiatric condition, sectioned and/or forced treatment, delay in discharge) or not able (e.g. advanced stage of dementia, severe learning disability, severe emotional disorder) to communicate their distress.

Furthermore, there is an abundance in the clinical psychology literature of patients' verbal descriptions of their experiences in relation to their mental health (e.g. questionnaires; structured and semi-structured interviews) at the expense of other forms of human expression such as the visual arts (with the exception of little but growing work with children, e.g. squiggle game/draw a person/draw your family, and the elderly (especially in dementia). It would thus be useful to incorporate the assessment of other forms of human expression (e.g. visual arts) into existing risk assessment protocols (e.g. Scale for Suicide Ideation – Worst = SSI-W, Beck et al. 1997; Positive and Negative Suicide Ideation Inventory = PANSI, Osman et al., 1998; Suicide Status Form = SSF, Jobes et al., 1997) in order to more fully understand individuals' expressions of their experiences that drive them to take their own lives.

The author of this thesis thinks that that this research investigation is justified in a clinical psychology setting as the use of non-verbal material such as art work offers the opportunity to work non-verbally through image making and is particularly indicated if there are speech and language difficulties (especially the communication of emotions) which can be found in various mental health problems such as learning disability, dementias, and emotional disorders such as severe depression. The art work by such patients can be understood as their way of attempting to express graphically their inaccessible inner world (e.g. hopelessness; hostility; destructiveness) and to create a preverbal communication with the world including the therapist.

While art therapeutic approaches are based on the use of imagery in treatment, other approaches commonly used by clinical psychologist such as Cognitive Behavioural Therapy, Narrative Therapy, Solution Focused Therapy and Humanistic Approaches are about language. However, there has been considerable progress in the use of art therapeutic techniques in these other approaches all of which are eclectically used by clinical psychologists.

In relation to Cognitive Behavioural Therapy, for example, which usually involves verbal and written exercises, there has also been the tradition to use mental imagery as a method of practising new emotional patterns. Clients are often asked to visually imagine and make images of themselves thinking, feeling and behaving the way they would like to think, feel and behave (Maultsby, 1984), and this has been shown to reduce negative self-talk (Ellis, 1993) and stress (Meichenbaum, 1985). It has been argued that image making can serve as a reinforcement of what is being learned, to help the person reframe or restructure experiences and behaviours and to visually develop strategies (e.g. “step by step management” of a problem; making imagery for stress reduction) for positive change (Malchiodi, 2003).

In relation to Solution Focused Therapy Selekman (1997) has argued that art activities support a solution-focused approach to treatment because they are less threatening and support the partnership between therapist and client as co-creators of solutions. A central solution-focused intervention in this approach is what deShazer (1991) calls the “exception-finding question, which helps to deconstruct a problem by focusing on exceptions to the structure. In this approach clients are often asked to visually imagine

and to make images of what it would be like if a problem was not present in their lives. It is thought that the physical action of the art activity also reinforces investment in the decision-making process and stimulates thinking through possible solutions (Malchiodi, 2003).

Art therapeutic techniques have also been used in Narrative Therapy, which aims to help clients understand and separate from the "problem-saturated story" about themselves. It is believed that by helping clients to express in tangible forms a "unique outcome" (e.g. exceptional events, actions, or thoughts that contradict the problem saturated story where the problem did not win out) it becomes possible to deconstruct fixed beliefs about the problem (Epston, White, & Murray, 1993) Through visually separating a problem from oneself one can learn to create a alternative stories about oneself and one's life choices.

Finally, art therapeutic methods have also been employed in the humanistic approach, which in itself is comprised of a number of different kinds of approaches, including the existential and person-centred approach.

The existential approach emphasises liberating the individual from fears and anxieties and helping the person to live life to the fullest. Creative work is believed to be part of this and offers the experience of free choice and the opportunity to make sense of what often seems senseless and meaningless. The process of art making within the therapeutic relationship serves as a metaphor for the existential dilemmas and art making may lead a person toward a state of mindfulness (Moon, 1995).

The person-centred approach aims to assist people in becoming more autonomous, spontaneous, and confident (Rogers, 1951) by providing a growth-promoting atmosphere in which the individual can reach full potential, and trusts that the person has an internal capacity to become well. The process involved is not so much about reparation but of becoming (Rogers, 1969). It is believed that the use of art work allows the therapist to see and understand what the person is feeling and thinking by expressing it visually. Rogers (1969) argued that when therapists can grasp the client's private world and understands it as the person sees it, constructive change is most likely to occur.

Methods

Study I

Content analysis of the paintings

Expression of the deterioration in mental state in content-related features of art

The main purpose behind this study was to assess participants' judgements of various "pre-morbid" (before suicide) and "morbid" (at time of suicide) paintings by artists who have taken their own lives and paintings by artists who have suffered from recurrent bouts of depression throughout their lives on a number of constructs related to suicidal behaviour (e.g. hopelessness, destructiveness). The author of this research project adopted a common definition of the word "judgement" as involving global responses that are relatively more subjective and less testable than rating which requires operational definitions of specific criteria (Ulman & Levy, 1975). Of particular interest was whether paintings completed just prior to suicide (morbid) would be judged as generally worse in relation to these constructs (e.g. more hopeless, more destructive) than paintings completed at a time of supposedly better mental health (pre-morbid). Furthermore, it is important to mention that this study was approved by the University's Research Ethics Committee.

Design

There were three groups of 8 paintings in the first part of this study (Pre-Suicide, Suicide and Depression Paintings). The Suicide Paintings were compared with the Pre-Suicide Paintings within the same group of artists (Suicide Group), and then with Depression Paintings of another group of artists (Depression Group). The eight artists in the Suicide Group successfully completed suicide while the eight artists in the Depression Group suffered from recurring depression but did not attempt suicide and died of natural causes. In the second part of this study three groups of paintings (Suicide, Depression, and Neutral) were compared with each other.

Participants

There were originally 36 participants who were all undergraduate psychology students. The data from two participants had to be removed as they did not seem to have understood the instructions and only returned partially completed response booklets. The remaining sample of 34 participants was comprised of 27 females and 7 males with a mean age of 23.44 years (min: 19 years, max: 44 years) and a standard deviation of 7.57. The mean age in the female sub-sample was 23.22 years (min: 19 years; max: 44 years) with a standard deviation of 7.66. The mean age in the male sub-sample was 24.29 years (min: 19 years; max: 41 years) with a standard deviation of 7.74. The rationale for the particular sample size in this first study was based on what could be achieved in the amount of research time that was allocated. Furthermore, it is worth mentioning that the number of participants and the nature of this within-group-design (i.e. assessing different paintings from the same group of artists) made this research project an adequately powerful study.

Material

The artists and their paintings

a) Suicide group

All group members of the "Suicide Group" were 20th century male artists from either the United States of America or Europe, who were known to have committed suicide (see tab. 1). The reason for these inclusion/exclusion criteria was to minimise the impact of confounding variables and to facilitate comparisons as well as to help generalise findings. Confounding variables were thought of in terms of significant differences in social, political, and religious time and space (e.g. Eastern vs. Western Cultures; Middle Ages vs. Modern Times) as well as more specific issues related to art production (e.g. many great artists until the 20th century often worked on commission basis and had their students work on their paintings, such as working on figurative outlines or the background).

Another reason for focusing on recent material was more pragmatic in nature as it was discovered in the author's search for suitable material that information about artists' lives and deaths (e.g. birth dates; cause of death) as well as their art works (e.g. completion dates; painted by unknown artist) from previous centuries was more unreliable and incomplete.

Furthermore, the reason for only including male artists stemmed from the fact that many more men than women complete suicide. The inclusion of female artists is likely to have led to a gender imbalance in the final sample that could have potentially had a confounding effect on the analysis as it is possible that women's art differs from that of men. Related to this was the assessment of the method chosen by the artists to end their lives. It was decided to include only those artists whose chosen methods to commit suicide would be effective and reliable in causing death and show a strong sense of the wish to die considering the methods and medical seriousness of their actions (e.g. guns, hanging).

This was thought to minimise the likelihood of including accidental deaths (e.g. falling from a building, road traffic accidents) of some artists whose deaths have been attributed to suicides in the literature. It also ruled out the inclusion of suicide by failure-prone methods (often used by women) such as overdosing on substances (e.g. medication; alcohol, drugs) which might indicate ambiguity about taking one's life and might be more approriaptely described as suicide attempts (caused by other motives than soley the wish to die) with an accidental fatal outcome.

Finally, it was decided that only the last known paintings completed in the same year of the suicide (Suicide Paintings) of artists would be used in this study in order to maximise chances that these paintings reflected the artists' inner states around the time of their suicides. Gantt (2000) advised researchers to pay strict attention to the time when they collect drawings highlighting the risk of not capturing evidence of acute symptoms. She had found that pictures from patients can change dramatically within a short period of time. This very stringent criterion set in the current study led to the exclusion of many more of the pre-selected artists and their art works because the last known painting was either not completed in the same year of the suicide, or because of disagreement in the literature or among professionals (e.g. art historians;

curators, librarians; archivists) with regard to the final painting or simply because of no knowledge of the final painting.

As a within-group comparison the Suicide Paintings were matched with paintings from the same artists from an earlier time when the artist seemed to be in better mental health (e.g. success in social life, private life or work) according to biographical accounts (see fig. 1). These "Pre-Suicide Paintings" were selected on the basis of a similar style and theme as far as that was possible. According to Gantt and Tabone (2003) when participants are given the same instructions (e.g. PPAT = Person Picking an Apple from a Tree) potential differences between groups will be due to the way group members draw and not due to what they draw. Thus is the very reason why in the current study great care was taken to select pictures of a similar theme and style to facilitate comparisons.

Tab. 1 Artists who committed suicide

	Nationality	Dates	Age at suicide
George Ault	American	1891-1948	57
Bernard Buffet	French	1928-1999	71
Jan Cox	Belgium/American	1919-1980	61
Gregory Gillespie*	American	1936-2000	64
Arshile Gorky	Armenian/American	1904-1980	76
Ernst Ludwig Kirchner	German	1880 - 1939	59
Wilhelm Lehmbruck	German	1881-1919	38
Alfred H. Maurer	American	1868-1932	64

* In relation to the set of Suicide Paintings used in the present study it was discovered that the apparent Suicide Painting of one of the artists (Gregory Gillespie) was not actually a final painting. It was in fact a painting that the artist had started working on a considerable time before his suicide. It has been reported that this artist generally left paintings unfinished for quite some time before continuing to work on them. It was thus decided to exclude ratings on his paintings (as well as Depression and Neutral Paintings that were made in comparison to his paintings) from data analysis as this artist did not meet the stringent inclusion criterion of having created a painting just prior to suicide (see Appendix for paintings that were excluded).

George Ault:

Pre-Suicide Painting

Suicide Painting

Jan Cox:

Pre-Suicide Painting

Suicide Painting

Fig. 1 Pre-Suicide Paintings & Suicide Paintings within the same artists*

*see Appendix for more paintings

b) Depression group

As a between-group comparison the “Suicide-Paintings” were also matched with paintings from 20th century male artists who were predominantly either from the United States of America or Europe, who according to biographical accounts had been suffering from recurring depression (see tab. 2). Paintings from this “Depression Group” were selected from a time when it was known that the artists were suffering from severe episodes of depression. These “Depression Paintings” were selected on the basis of a similar style and theme to the “Suicide Paintings” (as far as that was possible) to facilitate comparison (see fig. 2).

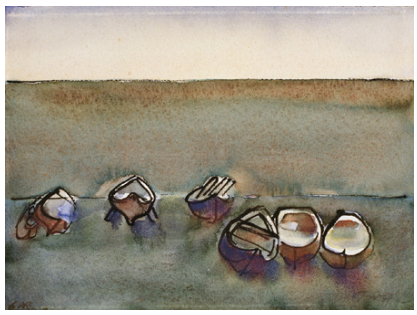
Tab. 2 Artists with depression

	Nationality	Dates	Age at death
Ralph A. Blakelock	American	1847-1919	72
David Bomberg	British	1890-1957	67
William Kurelek	Canadian	1927-1977	50
Laurence S. Lowry	British	1887-1976	89
Ewald Matare	German	1887-1965	78
Armando J. Reveron	Spanish	1889-1954	65
Mario Sironi	Italian	1885-1961	76
Marc Chagall	Russian	1887-1985	98

Depression Painting
(Mario Sironi)

Suicide Painting
(Arshile Gorky)

Suicide Painting
(Bernard Buffet)

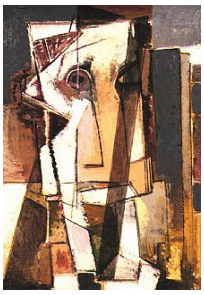


Depression Painting
(Ewald Matare)

Fig. 2 Suicide Paintings and Depression Paintings across different artists*

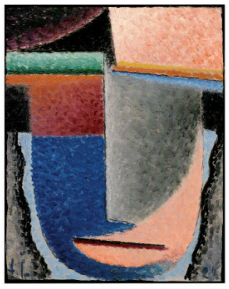
*see Appendix for more paintings

Furthermore, paintings from a group of 20th century male artists from either the United States of America or Europe, with no known mental health difficulties were selected. The "Neutral Paintings" from this group were compared to the "Suicide Paintings" and "Depression Paintings" in the 2nd part of the study. These "Neutral Paintings" were selected on the basis of a similar style and theme to the "Suicide Paintings" (as far as that was possible) to facilitate comparison (see fig. 3).



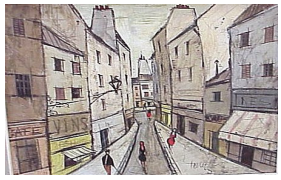
Suicide Painting
(Alfred H. Maurer)

Depression Painting
(William Kurelek)



Neutral Painting
(Alexei Von Jawlensky)

Suicide Painting
(George Ault)



Neutral Painting
(Charles Levier)

Depression Painting
(Laurence S. Lowry)

Fig. 3 Suicide Paintings, Depression Paintings, and Neutral Paintings across different artists*

*see Appendix for more paintings

The experiment

The experiment was carried out using a Macintosh computer with all instructions and stimulus material (e.g. digital images of paintings) displayed on the computer screen using PowerPoint slides. Participants were also provided with a response booklet and a pen for them to provide their judgements of the various paintings.

Response booklet

Prior to study 1 a pilot study (N = 5, clinical psychology doctoral students of both sexes) was carried out. This was done to explore how participants would find rating paintings on a number of bipolar scales (see appendix) which would represent the major part of the 1st study. Its specific aims were to determine whether participants would be able to understand the instructions, would be able to makes sense of what they were asked to do and provide meaningful answers, how difficult it would be, and how long it would take them to complete the experiment. Feedback from participants showed that in general participants found the task took to long which led to the decision to remove some of the bipolar scales that were regarded as redundant for the specific purpose of the study especially considering the theoretical underpinnings of suicidal behaviour as outlined in the introduction (i.e. depression, aggression, impulsivity). The scales that were removed included the following: Fearless-Fearful, Positive-Negative and Angry-Calm. The latter bipolar scale was replaced with Hostile-Friendly which will be elaborated on below.

Furthermore, some participants disagreed with the opposing constructs of the Depression-Happiness bipolar scale. This scale was revised and changed to the Hopeless-Hopeful bipolar scale. Finally, some of the wording in the instructions was also changed as some of the sentences were perceived as overlong and confusing.

The first part of the booklet in study 1 contained specific instructions, bipolar scales of various constructs (i.e. destructive-constructive; hopeless-hopeful; impulsive-thoughtful; hostile-friendly) for participants to rate the paintings (see fig. 4), as well as a question about which of a pair of paintings they prefer. The rationale for the use of the constructs of destruction, hostility, hopelessness, and impulsivity was Van Praag's (1997) diathesis stress model of suicidal behaviour (i.e. aggression driven stressor precipitated depression) as well as research linking suicidality, violence and impulsivity (Apter et al., 1993; Mann et al., 1999).

To cover the construct of aggression it was decided to use sub-components that would cover its physical (i.e. destructiveness) as well as the cognitive/emotional (i.e. hostility) aspects in line with definitions of aggression in the literature (Berkowitz, 1993). It was believed that these terms would be more suitable and more widely applicable when making visual judgements of art (e.g. destructive scene; hostile environment) than the term aggression (which might be regarded as only applicable in connection with images displaying antagonists).

0 = “not at all”

1 = “a little”

2 = “somewhat”

3 = “very much”

Destructive **Constructive**

---

3 2 1 0 1 2 3

Hopeless **Hopeful**

---

3 2 1 0 1 2 3

Impulsive **Thoughtful**

---

3 2 1 0 1 2 3

Hostile **Friendly**

---

3 2 1 0 1 2 3

Fig. 4 Bipolar rating scales with scoring system

To cover the construct of depression it was decided to use its most salient and most commonly agreed on aspect (i.e. hopelessness) which encompasses feelings about the future, loss of motivation, and expectations (Bamett & Gotlib, 1988; Beck, 1987; Peterson & Seligman, 1984). Another reason for using this particular term was because of its link to Williams' (1997) "Cry of pain" hypothesis underlying suicidal behaviour. As outlined in the introduction suicidal behaviour is regarded as the response (the "cry") to a situation that has three components: defeat, no escape, and no rescue which can leave an individual vulnerable to the triggering of primitive "helplessness" processes. It is believed that these processes are required to support the impulse to escape by self harming or by dying. A further reason for using the term "hopelessness" was because it was deemed to be more easily understandable and applicable among psychology undergraduates than the construct of depression which might be misconstrued and interpreted differently by participants.

Furthermore, the reason for using bipolar scales was to disguise the rationale behind the study that is to determine whether for example "Suicide Paintings" would be rated as more destructive, hopeless, impulsive, and hostile than "Depression Paintings".

Finally, the reason for asking participants to indicate which out of two paintings they prefer was to determine whether they would for example show a preference for "Pre-Suicide Paintings" over "Suicide Paintings". This links with research on approach/avoidance behaviour which has found that people approach what they like and avoid what they dislike (Elliot & Covington, 2001).

The second part of the response booklet (second part of the study) contained specific instructions about choosing a painting that was perceived as reflecting a serious mental health problem in the artist who created it from a selection of three choices There were eight blocks of three paintings each, some of which had already been displayed in the first part of this study. The rationale for this second part of the study was to determine how accurately participants would select the paintings by artists who committed suicide (Suicide Paintings) out of a pool of three choices (Suicide Painting, Depression Painting, and Neutral Painting).

Procedure

Participants acted as independent judges to first rate the various paintings on a number of bipolar scales covering various constructs and then to indicate which one out of two paintings they preferred.

They were informed on a computer screen that they would be presented with pairs of paintings (Painting A and Painting B) on each PowerPoint slide. Participants were then told that in the first part of this experiment they would have to rate these paintings on a number of 7-point Likert Scales provided in the response booklet. They were then given the chance to practise rating paintings by completing a practise trial.

Participants were instructed to look carefully at the pair of paintings (A and B) on the computer screen before rating each of them on the scales in the response booklet. They were then asked to indicate to what extent each painting conveyed to them a sense of the various constructs on the bipolar scales by circling the appropriate number and writing the appropriate letter below it (A or B). After completing 16 comparisons (8 Pre-Suicide Paintings vs. Suicide Paintings comparisons and 8 Depression Paintings vs. Suicide Paintings comparisons) participants were asked to take a short break and then fill out a questionnaire (See Appendix). The questionnaire was used primarily as a distraction task before participants continued with the second part of the study. It was also used to collect some more information about participants such as interest and experience in the area of art.

In the second part of the study participants were informed that they would again be presented with paintings, some of which they had already seen in the first part of this study. They were also told that the format of the presentation would change in that they would now be presented with blocks of three paintings (A, B, C), each of which would be displayed individually on each slide. Their task was now to indicate which painting (A, B or C) conveyed to them a serious mental health problem in the artist who created it. They were further informed that if they thought that more than one of the paintings conveyed a serious mental health problem they would have to choose

the one that conveyed to them the most serious mental health problem. Participants were instructed to provide their answers in the response booklet by circling the appropriate letter (A, B, or C). When participants had completed the second part of this study they were thanked for their participation. They were then also given an opportunity to ask questions and share their thoughts about the experiment with the experimenter.

Study II

Structural analysis of the paintings

Expression of the deterioration in mental state in the formal features of art

The main goal of this study was to assess independent judges' objective ratings of structural elements (e.g. number of colours, degree of integration, amount of detail) of the various groups of paintings from the first study (Pre-Suicide Paintings, Suicide Paintings, Depression Paintings). Of particular interest was whether the Suicide Paintings would be rated as generally lower than the Pre-Suicide Paintings on the structural elements of art (e.g. fewer colours and less detail).

Zeki (1999) has stated that when viewing an image we absorb an enormous amount of information about colour, shape, pressure, and placement instantaneously but without being consciously being aware of doing so. According to this author we slow down to note the faces, the story depicted and the style. This study would thus enable to explore in more detail the kind of information that would usually be processed without being noticed. Furthermore, it is important to mention that this study was approved by the University's Research Ethics Committee.

Design

The design used in this study was identical to the second part of Study 1 (i.e. three groups of paintings were compared with each other).

Participants

Two independent judges provided the ratings for this study. These judges were the research supervisors of the author of this thesis. It is important to mention that neither of the judges knew the paintings and who they were created by. Furthermore, it appears to be common practise in formal art assessment research to recruit members of the same research team (e.g. Couch, 1994; Mills, Cohen & Meneses, 1992; Neale, 1994) to provide the ratings for art works.

Material

The material used in this study was similar to the second part of the first study apart from using Pre-Suicide Paintings instead of Neutral Paintings to be compared with the Suicide Paintings and Depression Paintings. The other difference was the use of rating scales corresponding to formal elements for judges to rate the various paintings. Most of these ratings scales used in this study were adopted from the Diagnostic Drawing Series (Cohen et al., 1988) with the exception of one (which was taken from another art assessment tool, namely the Diagnostic Assessment of Psychiatric Art = DAPA) which is the most commonly used and validated art assessment tools in art therapy research. Its dichotomous and categorical variables were changed to continuous variables as this was thought to more adequately reflect the quantitative differences in psychopathological symptoms between psychiatric groups. Having interval scales was thought to increase the sensitivity of the assessment and limit the chances of missing subtle differences in the art works of different psychiatric groups. The figure below (fig. 5) shows the rating scales and scoring system used in this particular study.

INTENSITY OF COLOUR

Very low (faint) Very high (saturated)

---

1 2 3 4 5

AMOUNT OF COLOURS

Only one colour Five or more colours

---

1 2 3 4 5

LINE QUALITY/PRESSURE

Very light (fine) Very heavy (thick)

---

1 2 3 4 5

BALANCE BETWEEN LINES AND SHAPES

Only lines Only shapes

---

1 2 3 4 5

AMOUNT OF DETAIL

No detail A lot of detail

---

1 2 3 4 5

AMOUNT OF MOVEMENT

Very static Very dynamic

---

1 2 3 4 5

DEGREE OF INTEGRATION BETWEEN COLOURS, LINES AND SHAPES

Not at all integrated Fully integrated

---

1 2 3 4 5

Fig. 5 Rating scales with scoring system

Procedure

Independent judges were asked to rate the various paintings (which were mixed so that group identity could not be ascertained during the rating process) on a number of structural elements such as the number of colours, degree of integration, and amount of detail. Judges were informed on a computer screen that they would be presented with individual paintings. They were then told that they would have to rate these paintings on a number of formal elements provided in the response booklet. Judges were instructed to look carefully at each painting on the computer screen before rating them on a number of formal elements in the response booklet.

Results

This results section is divided into two major parts. The major aim of the 1st study was to explore to what extent naïve judges would rate paintings from a period of presumed better mental health as different from paintings created just prior to death in artists who have taken their own lives on a number of content related dimensions which have been shown to be associated with suicide. A further aim of the 1st study was to explore whether naïve judges would show a preference for paintings from a period of presumed better mental health or for paintings created just prior to death in artists who have taken their own lives. A final goal of the 1st study was to assess whether naïve judges would be able to pick out paintings created just prior to the death of artists who have committed suicide (as conveying serious mental health problems in the artists who created them) from an array of different paintings. In the 2nd study the major goal was to investigate to what extent naïve judges would rate paintings from a period of presumed better mental health as different from paintings created just prior to death in artists who have taken their own lives on a number of structural features which have been shown to be associated with suicide.

Reliability investigation

Reliability of the rating scales

It was first deemed necessary to investigate to what extent the ratings by the 34 raters for the Suicide Paintings when compared to Pre-Suicide Paintings and then again when compared to Depression Paintings remained similar. To explore the relationship between the ratings of the Suicide Paintings at these two occasions (S and S-R) scatter plots were created. It was hoped that the ratings at the two different times would not be very different and therefore reliable. The following scatter plots show the relationships between ratings from the two different times on each of the four rating scales.

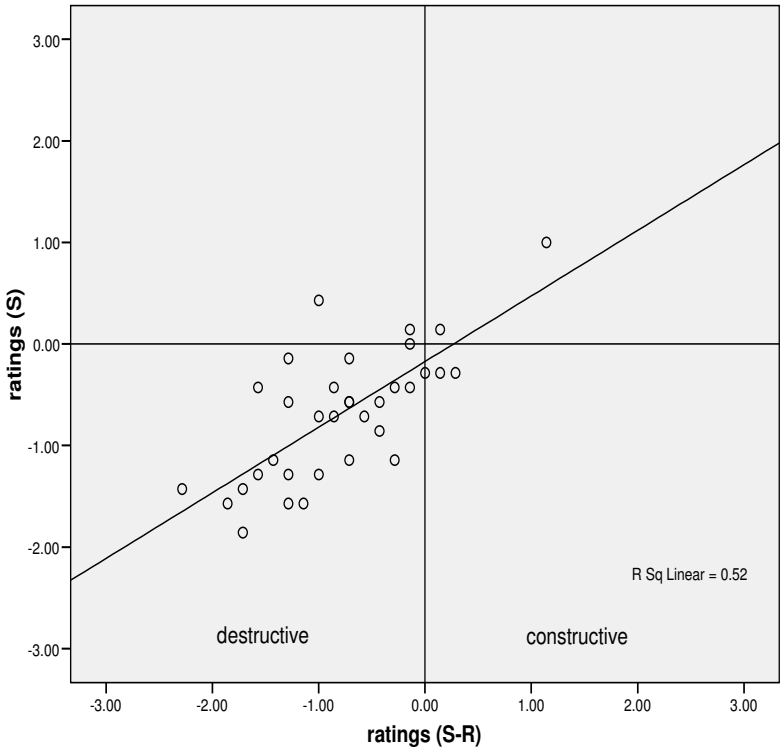


Fig. 6 Scatter Plot of "Destructive-Constructive" ratings for the Suicide Paintings

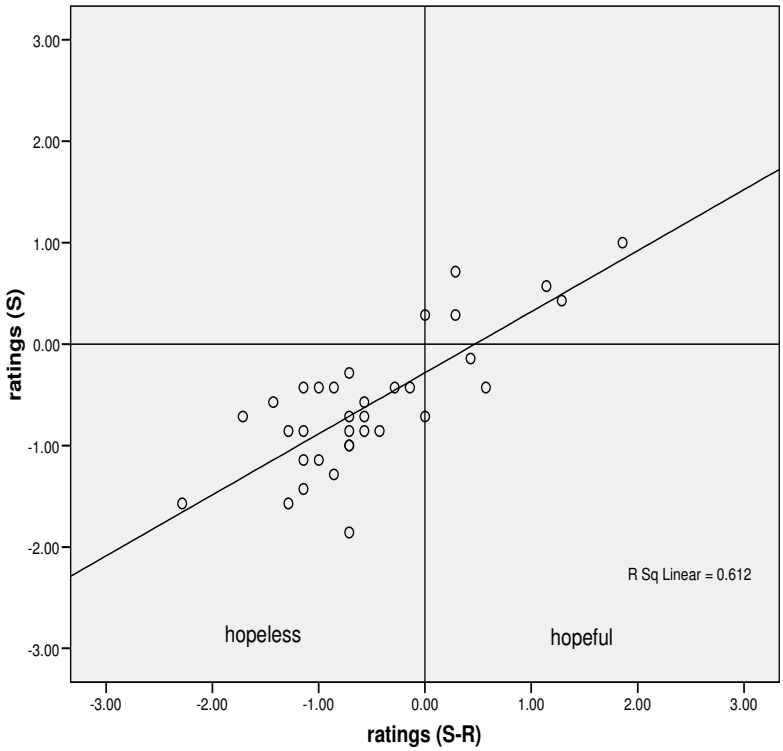


Fig. 7 Scatter Plot of "Hopeless-Hopeful" ratings for the Suicide Paintings

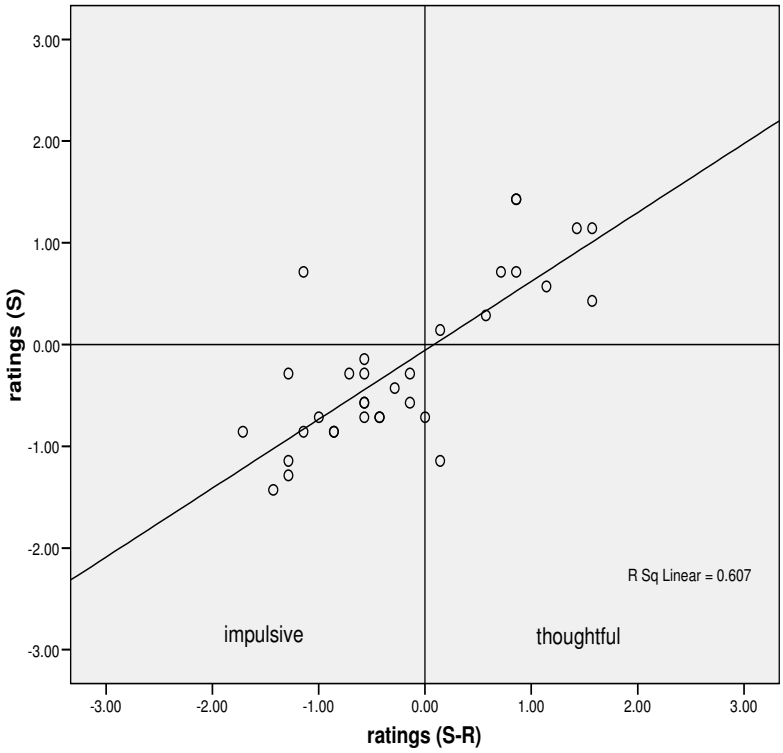


Fig. 8 Scatter Plot of "Impulsive-Thoughtful" ratings for the Suicide Paintings

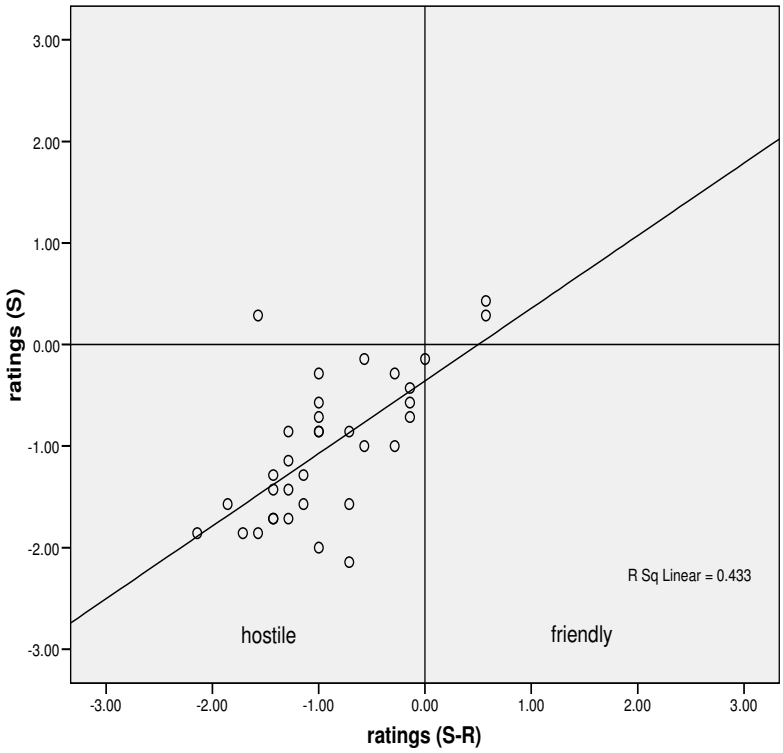


Fig. 9 Scatter Plot of "Hostile-Friendly" ratings for the Suicide Paintings

One can see from these scatter plots that the points in the graphs form a vague cigar shape with a definite "clumping" around the fitted line. This is a clear indication that there was a strong relationship between the ratings on the Suicide Paintings from when they were compared to Pre-Suicide Paintings to when they were compared to Depression Paintings. The scatter plots also revealed that there were no outliers suggesting good agreement between these two occasions.

Pearson's product-moment correlations confirmed that there were large and significant positive correlations between the two ratings on "Destructive-Constructive" ($r = .72$, $p < .001$), "Hopeless-Hopeful" ($r = .78$, $p < .001$), "Impulsive-Thoughtful" ($r = .78$, $p < .001$), and "Hostile-Friendly" ($r = .66$, $p < .001$). These results clearly show that ratings on these bi-polar scales across a number of different paintings can be made very reliably.

Analysis of the relationship between the rating scales

As outlined in the Methods Section the rating scales were composed of constructs that have been shown to be associated with suicidal behaviour. It was thus expected that when these ratings scales were used to rate Suicide Paintings they would show some degree of connectedness. To measure the strength of the associations between the rating scales Pearson's product-moment correlations were computed. Very low correlations between the rating scales would indicate that these rating scales were not very well connected and not really measure the same thing. On the other hand, very high correlations between the rating scales would bring into question the necessity of using many separate rating scales that could potentially be combined.

These correlations revealed that "Destructive-Constructive" was significantly positively correlated with both "Hopeful-Hopeless" ($r = .61$, $p < .001$) and "Hostile-Friendly" ($r = .75$, $p < .001$), and "Hopeless-Hopeful" was significantly positively correlated with "Hostile-Friendly" ($r = .74$, $p < .001$). At the same time "Impulsive-Thoughtful" was found to be not significantly correlated with either "Destructive-Constructive" ($r = .20$, $p > .05$) "Hopeful-Hopeless" ($r = .17$, $p > .05$) or "Hostile-Friendly" ($r = .13$, $p > .05$),

Overall these correlations revealed strong (but not excessively strong) associations between most of the rating scales ("Destructive-Constructive", "Hopeless-Hopeful", and "Hostile-Friendly". This seemed to suggest that those rating scales measure the same thing (i.e. graphic representation of a mental state close to suicide). As the rating scale of "Impulsive-Thoughtful" failed to have any significant association with any of the other scales it is fair to say that it did not seem to measure the same construct (i.e. (i.e. graphic representation of a mental state close to suicide) as the other rating scales did. This result is not particularly surprising considering that in comparison to the "Impulsive-Thoughtful" scale the other rating scales reflect mood states. One would therefore expect these scales to be highly correlated and much less so with the "Impulsive-Thoughtful" scale.

Study I

Content analysis of the paintings
Expression of the deterioration in mental state in content-related features of art

This first study deals primarily with the question to what extent Suicide Paintings would be rated as different from the Pre-Suicide Paintings in terms of a number of key features (i.e. destructive, hopeless, impulsive and hostile), which have been shown to be associated with suicidal behaviour as outlined in the Methods Section.

Deviations of Suicide Paintings and Pre-Suicide Paintings

A central objective was to determine whether participants' ratings for paintings from the pre-morbid phase (i.e. Pre-Suicide Paintings) and the suicidal phase (i.e. Suicide Paintings) by the same group of artists would significantly deviate from neutrality (i.e. the midpoint on the bipolar scale) in opposite directions. The explore this question an error bar (see fig. 10) was used which show the means and confidence intervals between Suicide Paintings (S) and Pre-Suicide Paintings (PS) on the four rating scales.

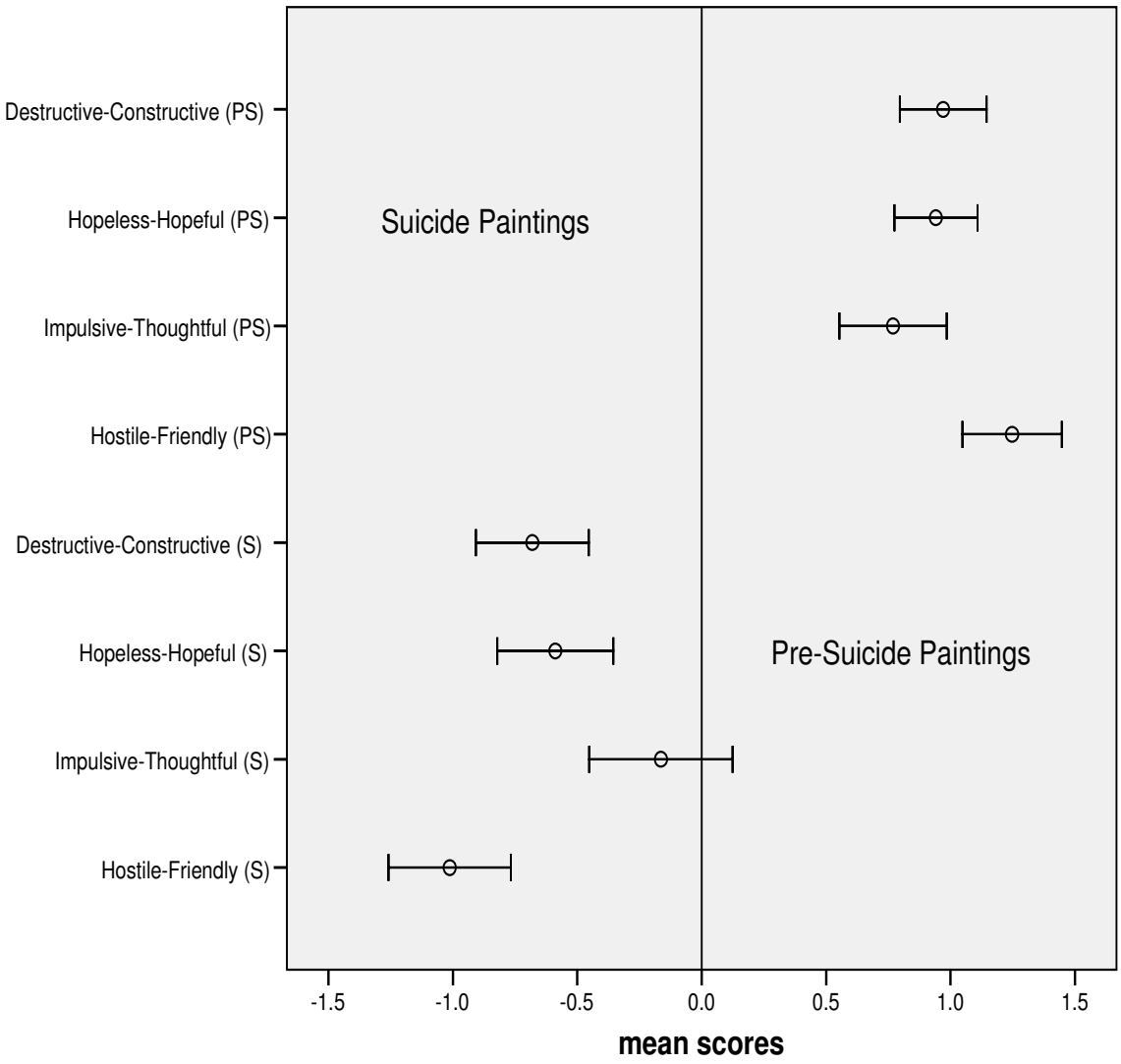


Fig. 10 Mean scores and 95% confidence intervals for the ratings of the Suicide Paintings and Pre-Suicide Paintings

The error bar shows that the various ratings on both the Suicide Paintings as well as the Pre-Suicide Paintings differed considerably from the mid-point "O", and that the Suicide Paintings were rated as generally more negative than the Pre-Suicide Paintings. The only exception to this occurred on the "impulsive-thoughtful" scale when rating Suicide Paintings. Here the confidence interval clearly included the value 0 indicating that ratings on this scale did not differ significantly from 0. In other words, the Suicide Paintings were not regarded as particularly conveying a sense of either impulsivity or thoughtfulness. In relation to the Suicide Paintings it is important

to note that the ratings' general deviation from the neutral mid-point is quite small as the mid-points centre around the value of -.5 on a scale that ranges from -3 to +3.

It is important to emphasise at this point that great care was undertaken when explaining to participants that the pairs of paintings they were comparing on the various dimensions could appear to them as quite similar on some of the dimensions while quite different on other dimensions. The reason for this was to make sure that participants would not try to maximise the difference between pairs of paintings which would have artificially inflated any findings.

In addition to the graphic illustration of these deviations a table was computed to show these in numerical form. Table 4 contains the means scores and standard deviations of the rating scales for the Suicide Paintings when compared to the Pre-Suicide Paintings as well as the Suicide Paintings (R) when compared to the Depression Paintings.

Tab. 4 Mean Scores and standard deviations of the rating scales for the Pre-Suicide Paintings, Suicide Paintings and Depression Paintings

N = 34	Destructive-Constructive	Hopeless-Hopeful	Impulsive-Thoughtful	Hostile-Friendly
Pre-Suicide Paintings	.97 (.50)	.94 (.48)	.77 (.62)	1.2 (.57)
Suicide Paintings	-.68 (.65)	-.58 (.66)	-.16 (.82)	-1.01 (.70)
Depression Paintings	.91 (.71)	.68 (.68)	1.2 (.89)	.52 (.82)
Suicide Paintings (R)	-.79 (.72)	-.51 (.87)	-.21 (.92)	-.91 (.65)

To determine whether the mean scores of the rating scales for the Pre-Suicide Paintings and Suicide Paintings differed significantly from “0”one sample t-tests were computed. These confirmed that all the mean scores of the rating scales for the Pre-Suicide Paintings and Suicide Paintings differed significantly from “O” apart from the mean score of the “Impulsive-Thoughtful” rating scale in relation to the Suicide Paintings. The detailed results from these t-tests can be seen in the table below (see tab. 5)

Tab. 5 Deviations from “0” on each of the rating scales for both Pre-Suicide Paintings and Suicide Paintings

	Mean difference	t-value	p-value	Effect size
Pre-Suicide Destructive-Constructive	.97	11.33	< .001	.80
Pre-Suicide Hopeless-Hopeful	.94	11.47	< .001	.80
Pre-Suicide Impulsive-Thoughtful	.77	7.28	< .001	.62
Pre-Suicide Hostile-Friendly	1.25	12.73	< .001	.83
Suicide Destructive-Constructive	-.68	-6.12	< .001	.53
Suicide Hopeless-Hopeful	-.59	-5.14	< .001	.44
Suicide Impulsive-Thoughtful	-.16	-1.16	= .26	.04
Suicide Hostile-Friendly	-1.01	-8.39	< .001	.68

Deviations of Suicide Paintings and Depression Paintings

Results from a comparison between the Suicide Paintings and Depression Paintings revealed very similar results showing that all the ratings differed significantly from "O" apart from the rating on the "Impulsive-Thoughtful" in relation to the Suicide Paintings, which can be seen from the below error plot (see fig. 11) and table (see tab. 6). It is noteworthy that the means in the above Table 4 seem to show that the ratings for the Pre-Suicide Paintings and the ratings for the Depression Paintings are quite similar. This seems to suggest that the Pre-Suicide Paintings reflect some kind of mental health problem. It was decided to not carry out statistical analyses on this issue as the Pre-Suicide Paintings and the Depression Paintings were never actually compared in a pair-wise manner.

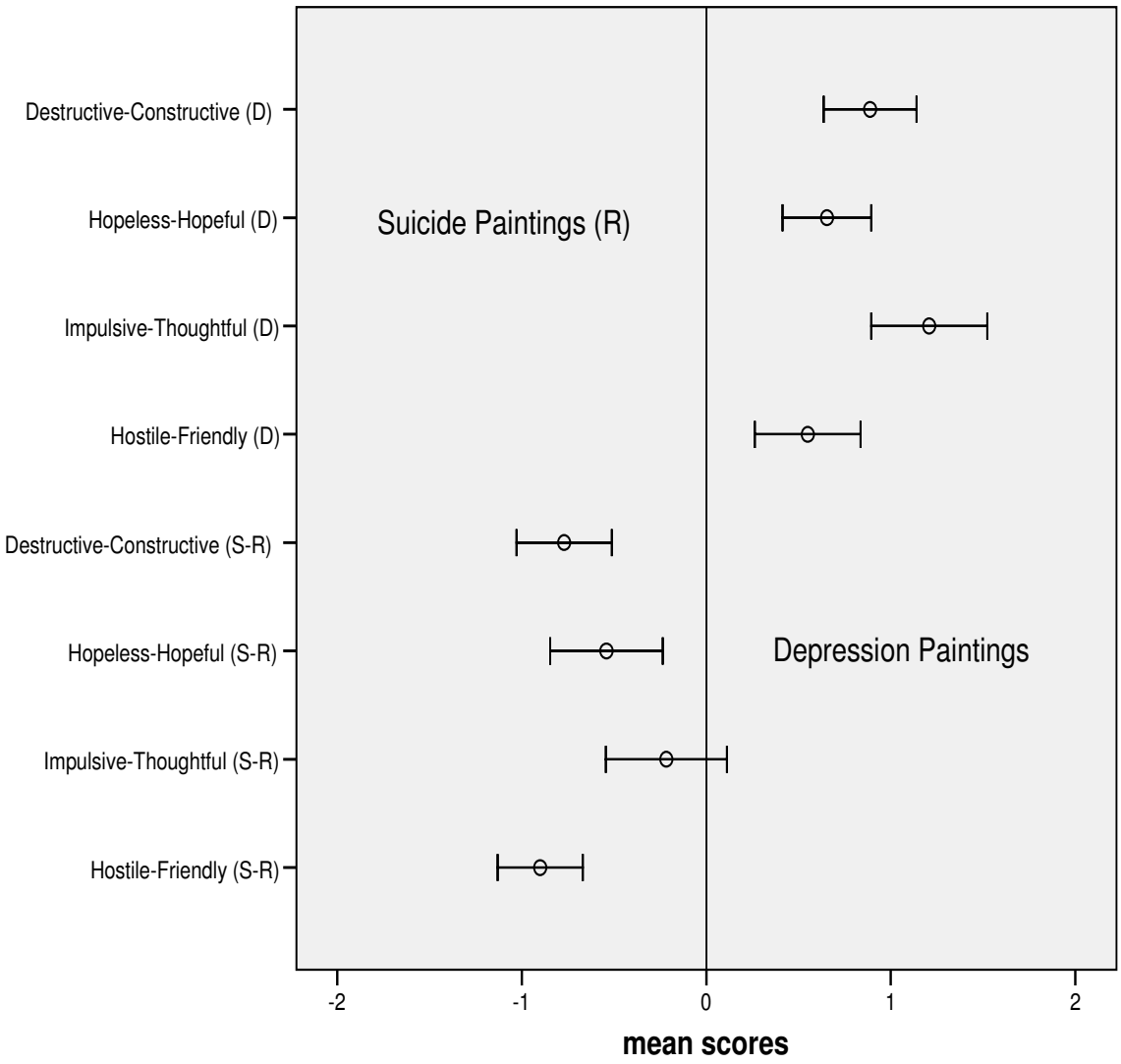


Fig. 11 Mean scores and 95% confidence intervals for the ratings of the Suicide Paintings and Depression Paintings

Tab. 6 Deviations from "0" on each of the rating scales for both Depression Paintings and Suicide Paintings

	Mean difference	t-value	p-value	Effect size
Depression Destructive-Constructive	.91	7.47	< .001	.63
Depression Hopeless-Hopeful	.68	5.79	< .001	.50
Depression Impulsive-Thoughtful	1.21	7.83	< .001	.65
Depression Hostile-Friendly	.51	3.68	< .01	.29
Suicide (R) Destructive-Constructive	-.79	-6.33	< .001	.55
Suicide (R) Hopeless-Hopeful	-.51	-3.42	< .01	.26
Suicide (R) Impulsive-Thoughtful	-.22	-1.34	= .19	.05
Suicide (R) Hostile-Friendly	-.92	-8.25	< .001	.67

A profile analysis of the differences between Suicide Paintings and Pre-Suicide Paintings

The previous analyses showed that the means on the rating scales for the Suicide Paintings and the Pre-Suicide Paintings deviated significantly from "0" in opposite directions. This section deals with mean differences within the 7 pairs of Pre- and Suicide Paintings on the 4 mood ratings, and thus the question whether the participants were able to discern a considerable change in mood expressed in the paintings by the time of the suicide.

A profile analysis was conducted using a factorial repeated-measures ANOVA with period (pre-suicide versus suicide) and profile (4 mood ratings) as the two factors. The cell means of this ANOVA are displayed in Table 7 and the results for the main effects and the interaction are presented in Table 7 using corrected degrees of freedom as the sphericity assumption was somewhat violated.

Tab. 7: Results of the profile analysis for the Pre- and Suicide Paintings (N = 34)

Source	SS	df	Mean Square	F	P	Partial Eta Squared
Profile	1208.660	1.000	1208.660	135.649	<.001	.804
Error(profile)	294.036	33.000	8.910			
Rating	9.531	2.231	4.273	1.954	.144	.056
Error(rating)	160.987	73.609	2.187			
Profile * rating	105.779	2.266	46.673	20.582	< .001	.384
Error(profile*rating)	169.596	74.791	2.268			

Note: Huynh-Feldt adjusted degrees of freedom were used.

As is evident from Table 7, there was a significant and large main effect for 'period' but no significant effect for the 'profile' factor. However, there was also a significant and considerable interaction (partial-eta^2 = .38) between the profile factor and the period factor suggesting that the profile of the means of the 4 mood ratings were different in shape for the Pre- compared to the Suicide Paintings. An interaction diagram was constructed to aid the interpretation of this interaction (see fig. 12).

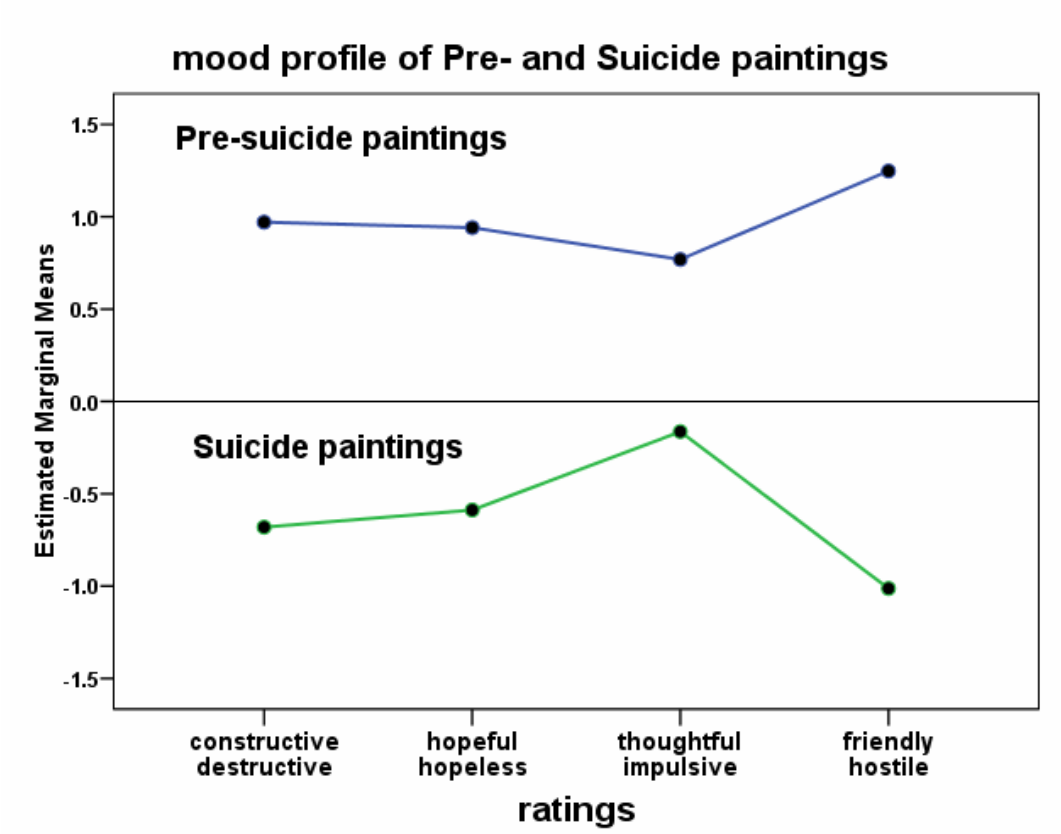


Fig. 12: Interaction diagram of the mood profile for the Pre-Suicide Paintings and Suicide Paintings

The profile of the means for the Pre-Suicide Paintings is above the reference line representing the mid point of the bipolar rating scales whereas the profile of means for the Suicide paintings lies below this line. This explains the strong main effect for factor 'period'; the means change on all 4 mood ratings from the positive side of the scale into the negative suggesting a noticeable darkening of the mood of the Suicide Paintings. However, the significant interaction also revealed that the extent of this change was different for the individual ratings, and most pronounced for the friendly-hostility rating whereas on the thoughtful-impulsive dimension this change was least pronounced.

Follow-up analyses confirmed that the amount of change was significant on each rating scale from pre-morbid state (Pre-Suicide Paintings) to suicidal state (Suicide Paintings). For this purpose paired sample t-tests were computed. These tests revealed that artists' "Suicide Paintings" were rated as significantly more destructive (Mean Difference = -1.65, SD = .92; $t(33) = -10.48$, $p < .001$), hopeless (Mean Difference = -1.53, SD = .90; $t(33) = -9.93$, $p < .001$), hostile (Mean Difference = -2.26, SD = .98; $t(33) = -13.46$, $p < .001$), as well as less thoughtful (Mean Difference = -.93, SD = 1.19; $t(33) = -4.59$, $p < .001$) than their "Pre-Suicide Paintings". Interestingly, the smallest mean difference between "Pre-Suicide Paintings" and "Suicide Paintings" was found on the "impulsive-thoughtful" scale, while the "hostile-friendly" scale produced the most significant mean difference between Pre-Suicide and Suicide Paintings.

A profile analysis between Suicide Paintings and Depression Paintings

The same profile analysis was repeated comparing Suicide Paintings with the Depression Paintings, and the results for this 2-factors repeated measures ANOVA are displayed in Table 8. The interaction was insignificant indicating that the mean ratings across the profile factor were parallel between the groups of Depression Paintings and Suicide Paintings, and the corresponding interaction diagram is shown in Figure 13. From this diagram it is obvious that both profiles are rather similar and the differences are therefore down to sampling error. There was a clear difference in level between the Depression Paintings and Suicide Paintings indicated by a significant 'illness' factors amounting to a large effect size (partial eta^2 = .75). Because the two profiles of means are parallel in the population, the difference between the Depression Paintings and Suicide Paintings is constant for each mood rating across the profile factor. The profile of means for the Suicide Paintings were all in the negative area of the mood scale, those for the Depression Paintings in the positive area. The profile factor was also significant suggesting differences between the mood ratings that applied to both groups of paintings equally; they received the lowest rating on the friendly-hostile dimension and the highest on the thoughtful-impulsive dimension.

Tab. 8: Results of the profile analysis for the Depression and Suicide paintings (N = 34)

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Illness	947.148	1.000	947.148	96.962	< .001	.752
Error(illness)	312.584	32.000	9.768			
Profile	108.889	2.000	54.436	12.491	< .001	.281
Error(profile)	278.950	64.010	4.358			
Illness * profile	12.443	2.170	5.733	2.473	.087	.072
Error(illness*profile	161.039	69.449	2.319			

Note: Huynh-Feldt adjusted degrees of freedom were used.

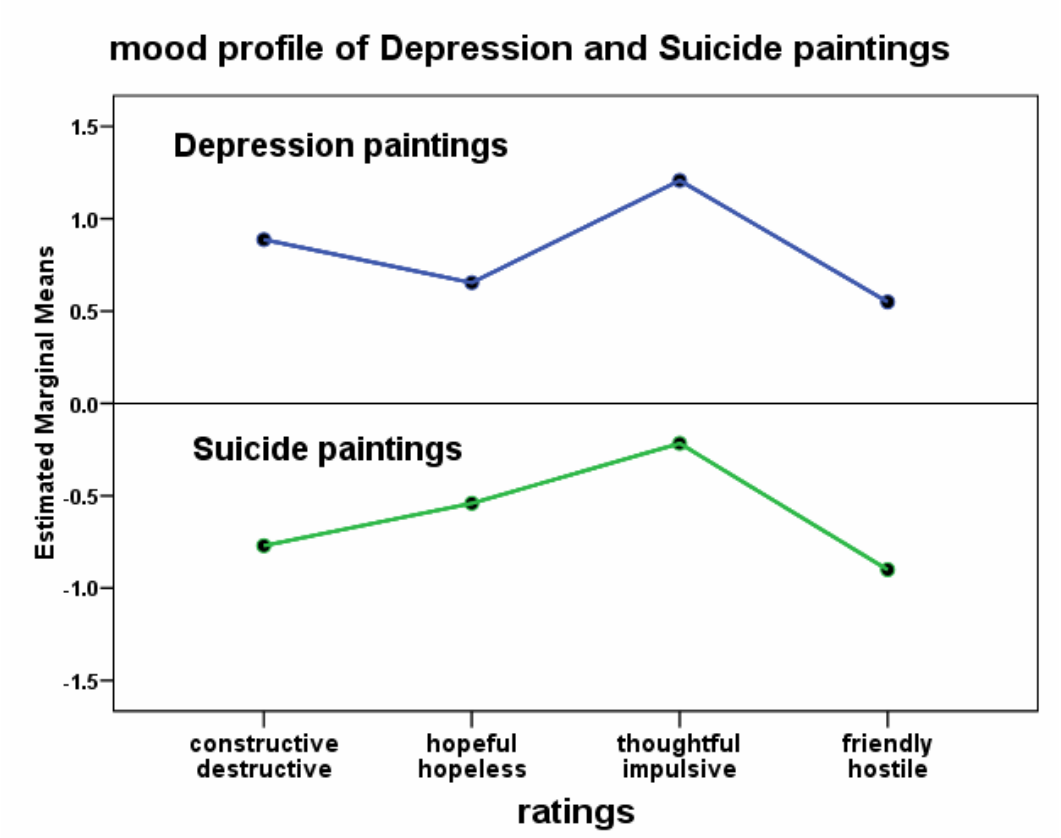


Fig.13: Interaction diagram of the mood profile for the Depression Paintings and Suicide Paintings

Follow-up analyses confirmed that "Suicide Paintings" were rated as significantly more destructive (Mean Difference = -1.69, SD = 1.01; t (33) = -9.74, $p < .001$), hopeless (Mean Difference = -1.18, SD = 1.02; t (33) = -6.80, $p < .001$), hostile (Mean Difference = -1.43, SD = .94; t (33) = -8.91, $p < .001$) as well as less thoughtful (Mean Difference = -1.42, SD = 1.12; t (33) = -7.30, $p < .001$) than "Depression Paintings". Interestingly, the differences between the "Suicide Paintings" and "Depression Paintings" were similar across the different ratings, although the "hopeless-hopeful" scale produced the smallest difference.

Naïve diagnostics (Correct identification of the Suicide Paintings)

In this part of the study the 34 participants were presented with eight blocks of three paintings each, the order of which was randomised. They were required to indicate which one of three paintings conveyed to them a serious mental health problem. This section deals therefore deals with the question of whether the participants who did not have any expertise in mental health were able to make naïve diagnoses based on the paintings alone. Specifically, it was investigated whether participants would be able to correctly identify the Suicide Paintings as reflecting serious mental health problems from a pool of Suicide Paintings, Depression Paintings, and Neutral Paintings.

The following bar chart (see fig. 14) gives an indication of how successful raters were in correctly identifying the Suicide Paintings (Hit Rates) out of a group of three paintings (i.e. Suicide Painting, Depression Painting, and Neutral Painting)

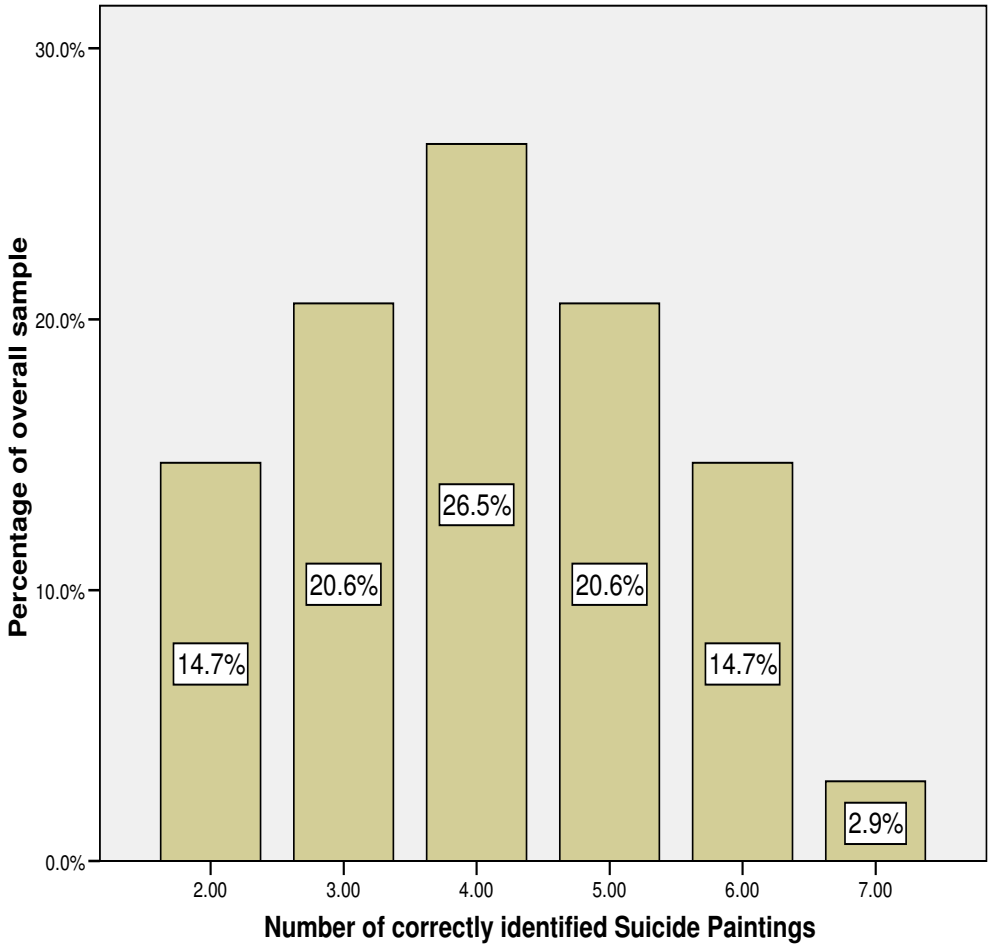


Fig. 14 Distribution of Hit Rates (Correct Identification of the "Suicide Painting" from a selection of three Paintings: "Suicide Painting", "Depression Painting" and "Neutral Painting") with percentages of the overall sample.

To determine whether participants correctly identified the Suicide Paintings significantly more often than could be explained by chance a one-sample t-test was computed. The chance to randomly and correctly identify a Suicide Painting in 7 groups of 3 paintings each is 7/3 or 2.33.

A one-sample t-test revealed that participants selected the Suicide Painting significantly more often ($M = 4.09$, $SD = 1.38$) than could be explained by chance [$M = 2.33$, $t(33) = 7.44$, $p < .001$]. The magnitude of this mean difference was large (eta squared = .45).

In addition to showing the number of correctly identified Suicide Paintings further tables have been added to also illustrate the distribution of the number of incorrectly identified Depression Paintings across participants (see tab. 9) as well as the total numbers of true positives (i.e. total number of correctly identified Suicide Paintings) and false positives (i.e. total number of incorrectly identified Depression Paintings and Neutral Paintings) as you can see in table 10.

Tab. 9: Numbers of incorrectly identified Depression Paintings per numbers of participants (N = 34)

Number of incorrectly identified Depression Paintings	Number of participants
0	5
1	7
2	13
3	8
4	1

Tab. 10: Total number of true positives (Correct identification of Suicide Paintings) and total number of false positives (Incorrect identification of Depression Paintings + Neutral Paintings)

Number of total true positives (Suicide Paintings)	**Number of total false positives (Suicide Paintings + Neutral Paintings)**	Number of false positives (Depression Paintings)	Number of false positives (Neutral Paintings)
139	**99**	61	38

Preferred choice

This section deals with the question whether or not participants preferred Suicide Paintings over Pre-Suicide Paintings and Depression. Using a forced-choice paradigm, participants had to indicate which one out of two paintings they preferred. Mean preference scores deviating significantly from the midpoint (0.5) would indicate a preference for the Suicide Paintings (1) if above that midpoint or a preference for the Pre-Suicide Paintings and Depression Paintings (0) if below that mid-point.

The mean preference score in relation to the pair-wise comparison of Pre-Suicide Paintings and Suicide Paintings was M = .54 (SD = .26), indicating no particular preference for either kind of paintings. The mean preference score in relation to the pair-wise comparison of Depression Paintings and Suicide Paintings was M = .40 (SD = .16), indicating a slight preference for the Depression Paintings over the Suicide Paintings.

To investigate whether this was statistically significant one-sample t-tests were computed. More specifically, these t-tests were used to compare the mean preference scores for each of the two pair-wise comparisons (i.e. Pre-Suicide Paintings & Suicide Paintings; Depression Paintings & Suicide Paintings) against the midpoint (0.5) which indicates no preference. These t-test revealed that while there was no overall preference for either the Suicide Paintings or Pre-Suicide Paintings (Mean difference: .04, $t(33) = .87$, $p > .05$), there was a clear preference for the Depression Paintings over the Suicide Paintings (Mean difference: -.10, $t(32) = -3.68$., $p < .01$).

Study II

Structural Analysis of the Paintings
Expression of the deterioration in mental state in the formal features of art

The main reason behind this follow-up study was to investigate potential differences in the structural qualities (e.g. number of colours, amount of detail, degree of integration) of paintings from a period of presumed better mental health compared to paintings created just prior to death in artists who have taken their own lives. This could potentially provide some important insights into the structural properties of the paintings that might clarify questions such as why the Suicide Paintings were subjectively judged to convey a greater sense of destructiveness, hostility and hopelessness than the Pre-Suicide Paintings, why the judges preferred Depression Paintings over Suicide Paintings, and why the Suicide Paintings were picked from an array of other paintings as representing serious mental health problems in the artists who created them.

Specifically, this study set out to explore to what extent two independent raters might rate Suicide Paintings lower than Pre-Suicide Paintings on rating scales corresponding to different structural elements (e.g. fewer colours, less detail). As outlined in the methods section these elements included colour intensity, number of colours, line quality, balance between lines and shapes, detail, movement, and integration.

Agreement between the two raters

In order to determine whether the 5-point Likert-style rating scales could be reliably used Spearman Rank correlations were computed which would assess the degree of agreement between two independent judges on the 7 structural elements when rating the different paintings (Pre-Suicide Paintings, Suicide Paintings, and Depression Paintings). It was discovered that there were significant moderate to high correlations between the ratings provided by the independent raters on some of the structural elements (Colour Intensity: r_s, = .76, $p < .001$; Number of Colours: r_s, = .84, $p < .001$; Line Quality: r_s, = .47, $p < .05$; Detail: r_s, = .41, $p < .1$). At the same time there were also quite small and insignificant correlations between the ratings provided by the two

raters on formal elements such as "Balance between Lines and Shapes" (r_s, = .23, p > .05), Movement: (r_s, = .30, p > .05), and Integration (r_s, = .17, p < .05).

This meant that while the agreement between the two independent raters on some of these formal elements was quite satisfactory, there also appeared to be considerable disagreement between the raters on some of the other elements. It was therefore decided to only use those elements that were found to be reliable for further statistical analysis.

Structural differences between the paintings

To show the ratings across the different groups of paintings a table was computed. Table 9 contains the means scores and standard deviations of the ratings for the Pre-Suicide Paintings, Suicide Paintings and Depression Paintings.

Tab. 11 Means and standard deviations of the ratings for the Pre-Suicide, Suicide and Depression Paintings

	Pre-Suicide Paintings	Suicide Paintings	Depression Paintings
Colour Intensity	3.36 (1.44)	3.00 (1.15)	2.57 (1.43)
Number of Colours	3.29 (1.44)	2.71 (0.95)	2.29 (0.64)
Line Quality	2.92 (0.67)	3.00 (0.96)	2.50 (0.96)
Detail	2.21 (0.76)	1.79 (0.39)	3.07 (1.27)

The above table seems to indicate that the Suicide Paintings seem to have been rated as showing fewer details than the Pre-Suicide and Depression Paintings. To test whether these differences were significant Mann-Whitney U-test were conducted. These revealed that that Suicide Paintings were rated as showing significantly fewer details than Depression Paintings (Z = -2.20, Mann-Whiney U = 8, p < .05). No other differences were found to be significant.

Discussion

Study I

Content analysis of the paintings

Expression of the deterioration in mental state in content-related features of art

The main purpose behind the first study was to investigate whether Suicide Paintings would be rated as more negatively than Pre-Suicide Paintings on a number of constructs, which have been shown to be associated with suicidal behaviour, and thus possibly reflecting a deterioration in mental state.

The rating of the paintings

The findings of this first study indicate that paintings completed just before artists' suicides conveyed a greater sense of hopelessness, destructiveness, hostility and lack of thoughtfulness than their paintings that were created at a time of better mental health. It was noted that both hopelessness and lack of thoughtfulness seemed to make the smallest but nevertheless significant difference. This very much seems to highlight the relative importance of aggression related concepts such as destructiveness and hostility in suicidal behaviour. A similar pattern emerged when comparing the Suicide Paintings with the Depression Paintings.

These results are consistent with other findings in the art therapeutic research literature which have indicated that the most frequent themes in the images of suicidal patients are hopelessness and isolation (Tayal, 1969; Wadeson, 1975) as well as violence (Haessler, 1987; Phillips, 2003). According to Kramer (1993), art can be a forum where one plans and/or rehearses violence, and the violent images might depict something that one is considering putting into action.

Furthermore, Wadeson (1975) stated that when depressed patients are more in touch with their aggressive urges they show an increased capability to vent their angry feelings and might enact their destructive urges. The possible connection between depressive states and destructiveness was elaborated on by Malmquist (1978) who argued that a large percentage of acting out behaviours is used to relieve depressive pain. According to this author these acts demonstrate the anger people feel, and the resulting negative consequences are preferable to the experience of depression.

The present results are also consistent with findings in the suicide research literature. They specifically support the notion that a psychiatric disorder may well be a necessary but not a sufficient condition for suicide (Mann et al., 1999). They also lend support for the concept of an aggression driven stressor precipitated depression (Van-Praag, 1997). This concept highlights the importance of the co-occurrence of a trait-like factor reflecting aggression and of a state dependent psychiatric illness such as depression in predicting suicidal behaviour. Support for this notion has been provided by studies that evidenced close associations between depression, aggressive behaviour and suicidal behaviour (Apter et al., 1995; Beautrais et al.1996). The association between suicide and aggression has long been proposed by psychoanalysts. Meninger (1933), for example, proposed that a dynamic triad underlies all aggressive behaviour (inward and outward) consisting of the wish to die, the wish to kill and the wish to be killed.

It is important to mention that the present results also differ in some respects from other findings in the suicide research literature. In this study, for example, it was found that the Suicide Paintings were perceived as conveying a greater sense of "hopelessness" than the Depression Paintings. Other researchers have found, however, that neither the nature nor the severity of state-dependent-illness characteristics such as depression distinguished patients with a history of suicide attempts from those without such a history (Mann et al., 1999).

It needs to be acknowledged, though, that in the present study participants were not asked about depression per se but only about one aspect of depression (i.e. "hopelessness"). It is possible that the assessment of other aspects of depression such as "low mood" or "loss of energy" (DSM IV, 1994) would produce different results

from the present ones (e.g. no difference between Suicide Paintings and Depression Paintings). Furthermore, this study focused on completed suicides while the study by Mann et al. (1999) concentrated on suicide attempts. This very fact might have contributed to what appears to be a discrepancy between the present study and that of Mann et al. (1999).

Nevertheless, what seems clear is that in the present study Suicide Paintings were rated as conveying a greater sense of one aspect of depression (i.e. hopelessness) than the Depression Paintings. At the same time it is important to bear in mind that this particular finding was overshadowed by the differences in destructiveness and hostility between the Suicide Paintings and Depression Paintings highlighting the very importance of aggressiveness in predicting suicidal behaviour.

Another area of discrepancy between the results of the present investigation and other studies in the suicide research literature involves the factor of impulsivity. In the present study it was discovered that the Suicide Paintings were not regarded as conveying a particular sense of impulsivity. This contradicts findings by Mann et al. (1999), Apter et al. (1993) and Beautrais et al. (1996) all of whom evidenced the importance of impulsivity in predicting suicidal behaviour. However, as discussed above some suicides follow a gradual path while others are much more impulsive in nature.

As mentioned earlier the Suicide Paintings were rated as less “thoughtful” than both Pre-Suicide Paintings and Depression Paintings. This is an important finding and it links with the research literature on cognition in suicidal behaviour. In relation to Williams (1997) “Cry of pain” hypothesis it has been argued that individuals’ cognitive styles affect their estimates of the aversiveness of a loss, rejection or defeat, its escapability and how much rescue via social support is available (Pollock & Williams, 1998). Williams and Broadbent (1986), for example, evidenced an attentional bias towards stimuli that signal loser status in suicide attempters. Furthermore, Sidley et al. (1997) and Goddard et al. (1996), respectively, evidenced difficulties with accessing past events in their lives in suicidal and depressed patients. These patients very much produced vague summary memories which were argued to limit their ability to solve interpersonal problems (because of inefficient use of one’s

databank). In other words, the capacity to generate multiple responses to stressors or to put stressful live events in context diminished. Williams et al. (1999) suggested that such a vague retrieval style might be rather adaptive perhaps as an affect regulation strategy. Finally, MacLeod (1993) discovered that suicidal patients were less fluent than a non-suicidal control group in coming up with positive events that might come up in the future. They also evidenced a negative correlation between generating positive events and hopelessness suggesting that hopelessness is the failure to generate things that might happen in the future to "rescue" the situation.

One could argue that in the present study the relative lack in thoughtfulness evidenced in the Suicide Paintings might be a reflection of the suicidal artists' cognitive styles near the end of their lives. The potential decline in these artists' cognitive capacity to generate responses to an unbearable situation of living or to put stressful live events in context might have left them feeling completely trapped with absolutely no way out. This might have pushed these artists over the edge and made them escape from their hopeless situation by killing themselves. This is consistent with Goldney's (1998) tipping point hypothesis according to which a threshold or tipping point may be breached following which a dramatic change in the process may take place.

Naïve diagnostics (Identification of the Suicide Paintings)

It was discovered that participants without any expert knowledge in mental health were able to correctly identify Suicide Paintings as conveying a serious mental health problem considerably more often than could be explained by chance alone. This is remarkable considering that participants were nt given any extra information about the artists. This result is somewhat consistent with findings of a study by Rao and Keshavan (2006). These authors discovered that both psychiatrists as well as lay people were able to distinguish between paintings that were created before and after the onset of mental illness (e.g. depression, schizophrenia). This meant that when comparing two paintings from the same artist participants were able to identify the painting that seemed to reflect a mental illness. At the same time participants in their study were unable to differentiate paintings by artists with and without mental illness (e.g. depression, schizophrenia). In that respect, however, it differs from the finding in the present study in which participants were able to differentiate between paintings by

artists without mental illness (Neutral Paintings) and different degrees of mental health problems (Depression Paintings, Suicide Paintings).

Furthermore, a methodological issue that requires mentioning is the order in which the two tasks (i.e. rating task and identification task) were presented. Since the identification task occurred after the rating task it is reasonable to assume that participants were primed by the various constructs related to suicidal behaviour. As this format was not counterbalanced one cannot be sure whether the hit rates (i.e. correct identification of the Suicide Paintings) would be the same if participants had complete the identification task before the rating task. The reason for not counterbalancing the order of the different tasks, however, was to keep the true purpose behind this study from participants until they would be informed about the issue of mental health in the identification task.

Preferred choice

It was found that there was a significant preference for the Depression Paintings over the Suicide Paintings. This result seems consistent with findings of a study by Ludwig (1990) who argued that severe mental health problems usually inhibits rather than helps creative expression. He discovered that in a survey of the biographies of 34 American writers, artists, and musicians, alcohol abuse impaired creativity in 75% of this sample. It is reasonable to assume that a potential lack of creativity might have made the Suicide Paintings as less preferable when compared to the Depression Paintings.

It is important to keep in mind though that many mental disorders, especially milder ones, may enhance creativity in some individuals. Hypomania, for example, may be enjoyable and may enhance creativity more than depression or mania (Jamison et al. 1980). Similarly, Schildkraut et al. (1994) argued that affective disorders may under certain circumstances stimulate artistic creativity. Empirical support for this notion has been provided by Jamison (1989) who discovered that in 90 percent of her sample of artists very intense moods and feelings were either necessary and integral or very important to the creation of art.

The present result is also consistent with research findings on approach/avoidance behaviour which have found that people approach what they like and avoid what they dislike (Elliot & Covington, 2001). It seemed that participants had a particular dislike for the Suicide Paintings compared to the Depression Paintings. What makes those Suicide Paintings so unappealing might be to do with the raw nature of these paintings in relation to the excessive amount of destruction and hostility and lack of thoughtfulness as outlined earlier.

According to Ehrenzweig (1967) one important part in creative work consists of unconscious projection of fragmented parts of the self into the work. The other important part is that of a revision of the image which involves the conscious but partial "reintrojection" of the work into the self. This process is thought to be frustrating when the artist's purely conscious intentions are faced with submerged parts of his personality appearing on the canvass. This, however, allows him to draw them up for conscious contemplation. A very important aspect here is that the artist has the ability to tap into his unconscious sources without losing control (Kris, 1975).

One could argue that the suicidal artists in the present study were overwhelmed by their unconscious material and unable to gain control over it in order for them to produce a creative piece of art. In Kleinian terms one could say that when these suicidal artists embarked on their final pieces of work they did not quite manage to successfully progress from the paranoid-schizoid position to the depressive position (Klein, 1940).

The paranoid-position involves dealing with ambivalence towards others by splitting them into good and bad part objects. It also involves the splitting of the self into good and bad parts and ridding oneself of those bad parts (e.g. destructive urges) by projecting them onto the bad objects by which one then feel persecuted. In the depressive position one comes to accept ambivalence and realises that "good "and "bad" things can be part of both the self and others. This realisation is thought to be followed by feelings of loss and guilt (about having destroyed good objects with one's own hateful and destructive feelings) which leads to the desire to restore and recreate the lost loved object both outside and within the self.

It is believed that we experience feelings as described by Klein (1940) when we see something like an ugly picture. Rickman (1940) argued that this arouses unconscious fantasies of "remutilation" from infancy which are more disturbing than the defects in the object itself, which is why we attribute the ensuing horror to the image. According to Segal (1975) certain incompleteness is essential in a work of art. She argued that "we must complete the work internally" and that "our imagination must bridge the last gap". Similarly, Stokes (1978) argued that for a piece of art to "work" there must be an element of acting out of aggression and then reparative transformation.

However, in the final works of art by the suicidal artists the amount of aggression (e.g. hostility) might have been too excessive combined with a relative lack of any kind of reflection and contemplation about restoration (e.g. lack of thoughtfulness and constructiveness). It is possible that the suicidal artists got stuck in the paranoid position feeling utterly overwhelmed by hateful and destructive internalised objects which they seemed to defend against by killing them off for good by committing suicide. Taking one's life seems to be the preferred option for the suicidal artist as the potential depressive pain from feelings of loss, desolation and guilt as part of the depressive position might be far more unbearable. This is consistent with Malmquist (1978) who argued that a large percentage of acting out behaviours is used to relieve depressive pain and self-deprecation. According to this author these acts demonstrate the anger people feel, and the resulting negative consequences are preferable to the experience of depression.

The resulting art works by the suicidal artists might thus have been perceived as images that are beyond repair, possibly representing an internal mother who has not survived the ravages of fantasised attack during the paranoid-schizoid position. This could explain why these paintings might "not work" and have thus been rejected by the viewer as not representing creative pieces of work.

It is important to acknowledge that this rather psychoanalytic interpretation of the current finding is only one way of makings sense of it and is in no way to be understood as scientific facts. At the same time it is worth mentioning that this psychoanalytic interpretation is still consistent and fits neatly with a more cognitive-behavioural interpretation of the present findings. The relative lack in detail in the Suicidal Paintings, for example, which in psychoanalytic terms could be regarded as a failure to self-reflect and to contemplate reparation could equally be understood in cognitive behavioural terms such as deficient information processing or a poverty of ideas as described by Cohen (1981). The general point here is that artistic processes can be understood in many different ways. It can be more or less exclusively viewed as samples of people's cognitive and behavioural functioning (Knoff, 1993) and can thus provide information about people's mental conditions (Gantt & Tabone, 1998; Wadeson 1980). At the same time the production of art can also be understood in more psychoanalytic terms such as such "*placing of an inner experience, an inner image, into the outside world*" (Kris, 1952: 115). Furthermore, the psychoanalytic interpretation offered here is based on item scores (e.g. hostility; destructiveness; hopelessness) that have been shown to be related to suicidal behaviour in non-psychoanalytical empirical research (Apter et al., 1995; Beautrais et al., 1996).

Lastly, it was rather surprising that there was no clear difference in preference in the present study between the Pre-Suicide Paintings and Suicide Paintings. This might have been produced by the differences in the lack of thoughtfulness between the different pairs of paintings. The difference in thoughtfulness between the Depression Paintings and the Suicide Paintings was much more pronounced than the difference in thoughtfulness between the Pre-Suicide Paintings and the Suicide Paintings. This considerable lack of thoughtfulness in Suicide Paintings compared to the Depression Paintings could have led participants to prefer the Depression Paintings over the Suicide Paintings, possibly because it reflected the absence of conscious thought processes such as reflection and contemplation about restoration in relation to the considerable degree of hostility and destruction conveyed in the paintings.

The reliability of the rating scales

It is important to note that the bipolar-rating scales used in this study were found to provide reliable measurements. This is primarily based on the observation that ratings on the same paintings (i.e. Suicide Paintings) remained very similar across two occasions (i.e. when compared to Pre-Suicide Paintings and when compared to Depression Paintings). Pearson's product moment correlations confirmed this observation by showing significant positive correlations between the ratings across the two conditions. Therefore one can be confident about the reliability of the current findings of this 1st study as it employed reliable measures.

In terms of the relatedness of the rating scales it was demonstrated that most of the scales (e.g. "Destructive-Constructive", "Hopeless-Hopeful", and "Hostile-Friendly") were significantly positively correlated with each other. This seemed to suggest that those rating scales measure the same construct (i.e. mental state at time of suicide). The "Impulsive-Thoughtful" scale, on the other hand, was found to not be significantly associated with any of the other scales. It is thus fair to say that it did not seem to measure the same construct (i.e. mental state at time of suicide) as the other rating scales did. This finding is not particularly surprising considering that in comparison to the "Impulsive-Thoughtful" scale that seems to reflect a cognitive style the other rating scales seem to more reflect mood states. One would therefore expect these scales to be highly correlated and much less so with the "Impulsive-Thoughtful" scale.

Furthermore, it is important to acknowledge that suicidal behaviour is a very complex phenomenon comprised of a myriad of different thoughts, emotions and behaviours as outlined in the introduction of this research project. It might not be that surprising that certain features, such as impulsivity, were not found to be as important in the overall sample of artists who committed suicide. In line with the Process Model of Suicidal Behaviour (van Heeringen, 2001) some suicides follow a gradual path from fleeting thoughts about taking one's life, to making suicide plans, to attempts at killing oneself and then to ultimately end one's life. Other suicides might be much more impulsive in nature (Amsel & Mann, 2001). As the current sample in this research project was composed of artists of various ages ranging from the 30's to the 70's, with the

majority of artists in their 50's and 60's, the relative lack of importance of impulsivity might be related to the age of the artists. Indeed there is evidence showing that suicide in younger people differs from suicide in adults with regard to certain aspects. A comparatively more prominent role of impulsivity, substance abuse, and antisocial and other personality characteristics has been discovered in younger completed suicides (Centers for Disease Control, 1998).

Study II

Structural Analysis of the paintings

Expression of the deterioration in mental state in the formal features of art

The main purpose behind this study was to investigate whether the Suicide Paintings would be scored as generally lower than the Pre-Suicide Paintings by two independent raters in terms of formal art elements which have been shown to differentiate between psychiatric populations (Cohen et al., 1988; Morris, 1995; Neale, 1994).

The rating of the paintings

Statistical analyses revealed that scores on one of the seven scales (i.e. Detail) significantly differentiated between the groups of paintings in that Suicide Paintings were rated as showing fewer details than Depression Paintings. The relative lack in detail in the Suicidal Paintings in the present research project could be attributed to major depression which has also been evidenced in studies by Hackling (1999) and Gantt and Tabone (1998). The latter researchers argued that this corresponded to patients' depressed affect and lack of energy. This lack of detail can also be understood in terms of the poverty of ideas as described by Cohen (1981). This seems to be connected to the relative lack of thoughtfulness discovered in the first study. It is possible that these "poorer" cognitive processes as reflected in the Suicide Paintings represent an attempt to regulate emotions. Sidley et al. (1997) and Goddard et al. (1996), respectively, evidenced difficulties with accessing past events in their lives in suicidal and depressed patients. They specifically discovered that these patients very much produced vague summary memories which were argued to limit their ability to solve interpersonal problems (because of inefficient use of one's databank). Williams et al. (1999) suggested that such a vague retrieval style might be rather adaptive perhaps as an affect regulation strategy.

One could say that this form-specific feature (i.e. lack of detail), in particular, might reflect a mental state or symptom (e.g. poverty of ideas, lack of motivation) of a psychiatric illness in the artists who created these paintings just prior to their suicides. This would be consistent with Gantt and Tabone (1998) who stated that it is possible to conceive of scores on formal elements in patients' art works that may be indicative of mental states in the same way that the DSM IV uses symptoms to support a particular diagnosis. Furthermore, this lack of detail (possibly reflecting a poverty of ideas and a lack of motivation) in Suicide Paintings compared to the Depression Paintings could have also led participants to prefer the Depression Paintings over the Suicide Paintings, which was discussed earlier.

Nevertheless, one needs to keep in mind that this difference in the amount of detail between the Suicide Paintings and Depression Paintings was quite small and should only be regarded as a preliminary finding that would have to be validated by further research. It is unclear why there had been no difference between the Pre-Suicide Paintings and the Suicide Paintings in relation to the amount of detail or in fact in relation to any other of the rating scales. This study therefore casts some doubt over whether formal elements can be reliably used to differentiate between different kinds of mental illness related symptoms which has been evidenced by several studies (Cohen et al., 1988; Morris, 1995; Neale, 1994). However, it needs to be acknowledged that this study used formal elements from formal assessment tools (e.g. DDS; FEATS) that were primarily developed to be used with instructed drawings, which is an issue that will be discussed in more detail further below. At the same time it appears that this relative lack of difference in relation to the formal elements between the different paintings lends support for how successfully the different groups of paintings were matched stylistically.

The reliability of the rating scales

It was discovered that there was good inter-rater reliability between the two raters on four of the seven rating scales (i.e. colour intensity, number of colours, line quality and detail) evidenced by their moderate to high correlations. There was, however, also considerable disagreement between the two raters on the remaining three rating scales (i.e. balance between lines and shapes, movement and integration) evidenced by their low correlations. This seemed to indicate that raters might have used rather different criteria in their ratings of these latter formal elements. This might to a large extent be due to using rating scales that were primarily developed to be used in conjunction with instructed drawings (rather than expressionist and abstract paintings) which will be discussed in more detail below.

Nevertheless, these results are similar to other inter-rater reliability findings in other studies that demonstrated a certain level of disagreement between raters. Neale (1994), for example, evidenced significant inter-rater reliability for only 12 out of 23 rating scales using the Diagnostic Drawing Series. Furthermore, Rockwell & Dunham (2006) who found significant inter-rater reliability for 10 out of 13 rating scales using the Formal Elements of Art Therapy Scale.

However, it needs to be acknowledged that the small number of independent judges in the present study, although apparently common practise in formal art assessment research, is not quite sufficient enough for clinical psychological research where a greater number of judges would be required. There is the possibility that one of the judges in the present study simply was not a very good judge in relation to assessing the structural qualities of the paintings which in turn might have led to some considerable disagreement between the judges. A larger number of judges would have been useful in eliminating potentially poor judges from further analysis. This in addition to the use of rating scales that were not specifically designed to be used with paintings leads one to conclude that this follow-up study was a considerable weaker study than the 1st investigation. At the same time it needs to be highlighted that this follow-up study was only intended as a pilot study with the principal aim to support the findings from the 1st study and to provide some tentative explanations for its results.

Clinical relevance

Suicide is a major public health concern with about a million people dying worldwide each year (Mental Health. WHO, 2006). In the last 45 years suicide rates have increased by 60% worldwide, which makes suicide now one of the three leading causes of death among those aged 15-44 years for both sexes (Mental Health. WHO, 2006). It thus seems imperative to further our understanding of the relationships between risk-factors (e.g. sexual abuse/abuse during childhood or adolescence; chronic psychiatric disorder in a parent), intervening paths (e.g. deficient interpersonal problem solving skills; low self-esteem) and associated outcomes (e.g. suicide attempts; completed suicides) to inform assessment, treatment and relapse prevention in order to reduce further loss of lives.

a) Assessment

Regardless of whether one is reviewing existing assessments or developing new ones the key question is whether one is assessing something that other fields cannot and whether it is a credible addition to the battery of existing psychological and psychiatric tests to assess suicidal risk for example. It is important to acknowledge that there are individuals (e.g. autistic savants) whose artistic talents are apparently divorced from any other aspect of functioning (Sacks, 1995). This seems to support Gardner's (1985) theory of multiple relatively autonomous human competencies and might warrant the further development of discrete assessments in the arts.

Furthermore, Naumburg (1966), who established the discipline of art therapy, argued that man's most fundamental thoughts and feelings derived from the unconscious reach expression in images rather than in words. According to this author there have been significant indications to substantiate the view that the first indication of death wishes often appears in drawings. Patients' spontaneous artistic productions are therefore believed to be their way of attempting to express graphically their inaccessible inner world and to create a preverbal communication with the world

(Cohen, 1981). It is thus reasonable to assume that the assessment of content-related judgements (e.g. destructiveness; hopelessness) and form-specific ratings (e.g. detail) of patients' art work may contribute in the early detection of suicidal tendencies that might still be relatively unobservable to the social environment of an individual at risk of suicide as well as the individual himself/herself.

Another very useful application would be to measure clinical change. Gantt (2000) argued that apart from using art therapeutic assessments tools such as the Formal Elements of Art Therapy Scale to help establish different clinical diagnoses (e.g. depression) they could also be used to monitor responses to treatment. It is reasonable to assume that visual characteristics related to content (e.g. destructiveness and hostility) and form (e.g. detail) in the art work by suicidal individuals will change depending on the strength of the impulse to commit suicide. A number of studies investigating changes in art work as reflective of changes in mental health problems in response to treatment have already provided some promising results (Smitheman-Brown & Church, 1996; Rockwell & Dunham, 2006).

Smitheman-Brown and Church (1996), for example, investigated the use of an active centering technique in the form of "mandala" drawings that was hoped to foster increased attentional capabilities and decrease impulsive tendencies in children with attention deficit and hyperactivity disorder (ADHD). The use of the "mandala" has been argued to be an experience that often creates a calming and relaxing effect on the artist (Jung, 1972; Kellogg, 1984). Using the Formal Elements of Art Therapy Scale and the "Person Picking an Apple from a Tree" instructed drawing format these authors found an increase in the formal elements of integration, problem-solving, detail, and developmental level. This visual improvement in creative developmental level was closely associated with an improvement in attention capability and decrease in impulsive behaviour as measured by teacher reports and direct observations.

b) Treatment

Art therapy offers the opportunity to work non-verbally through image making and might be particularly indicated if there are speech and language difficulties, for patients who are confused, withdrawn, psychotic or depressed, as well as children with emotional and behavioural difficulties who are possibly less articulate and sophisticated in speech and language skills but are more able to express their experience through art work (Case & Dalley, 1990).

The very nature of image making makes art therapy a powerful means of eliciting and dissociating painful and frightening images (e.g. destructive and hostile) from the self (Malchiodi, 1997). In other words, art aids in the uncovering of aspects of a patient's unconscious experience as they are projected (or externalised) into their art work and given some shape. Through this art process the individual can thus transform primitive, asocial impulses (e.g. aggression) into socially acceptable productive acts which bring about pleasure and replace the pleasure of primitive gratification (Naumburg, 1966). This release from tension by means of creativity is an application of Freud's (1916) concept of sublimation (i.e. the process of transforming instincutual impulses, e.g. aggression, into "socially useful" achievements, mainly art). The function of the symbol in art is equated with the role of symbols in dreams, which is to conceal the real meaning from the artist or dreamer. This symbolic expression is gradual and reduces emotions and protects the artist or dreamer from arousing disturbance and stress (which would occur in direct non-symbolic expression).

Furthermore, Phillips (2003) has argued that art therapy provides the opportunity to confront the art work rather than the patient, which is similar to the idea by Riley (2003) who stated that it allows one to avert the gaze from eye to eye to eye to art. It has been argued to be most beneficial to encourage patients to arrive at their own personal insights into the meaning of their images (Case & Dalley, 2006). This is thought to facilitate the process of patients re-connecting and taking ownership of the projected parts of their internal lives helping them to develop a deeper sense of empathy and compassion for themselves (Moon, 2002). One could say that this way

the artistic process is way of getting to know oneself as well as a way of transforming the self (Allen, 1995; Spaniol, 2003).

The art work by the suicidal and depressed artists in the current study can be understood as their way of attempting to express graphically their inaccessible inner world and to create a preverbal communication with the outside world. The author feels that the current findings do have important implications for clinical psychologists. It seems as already outlined in the introduction that art expression can be used within any kind of normal talking therapy (e.g. CBT) providing the added benefit of allowing clinical psychologists to "see" what the person feels and thinks, in addition to hearing a verbal account. Rogers (1951) has argued that when therapists can grasp the client's private world and understand it as the person sees it, constructive change is most likely to occur. One can conclude that art expression simply adds another useful dimension that enhances people's ability to communicate and provides clinical psychologists with an additional modality for understanding their clients.

Lastly, from the author's own professional as well as personal experience it appears that the very nature of image making can be a powerful means of externalising and relieving the self from very painful and frightening images that are so hard to bear. It is the author's belief that artistic activity is one way amongst many others through which patients can gradually learn to tolerate, reconnect and take ownership of the projected parts of their internal lives helping them to develop a deeper sense of empathy and compassion for themselves. In a similar vein other authors have shown how artistic expressions can help people to develop better coping mechanisms and more tolerance to stressful life events (e.g. Meichenbaum, 1985), as well as heightened awareness and greater understanding of themselves (e.g. Epston, White, & Murray, 1993; Zinker 1978).

Limitations of the research project

One major problem with this research project is the generalisability of its findings as it has focused on the study of paintings by famous artists. It might be questionable to what extent this group of highly creative individuals is representative of the general public. However, on the one hand, creative development has frequently been associated with traumatic experiences in childhood or adolescence, experiences that may also contribute to depression and suicidal tendencies (Eisenstadt, 1978; Goertzel & Goertzel, 1962). On the other hand, creative development is also linked to an enriched and diverse intellectual and cultural environment, an environment that is neutral with respect to mental health problems (Simonton, 2004). Yet growing up under such conditions fosters the emergence of many cognitive and dispositional traits that define creativity.

This seems to suggest that artists do come from all sorts of various backgrounds and differ enormously from each other and thus as a whole might not be that very different from the general population. In fact, Kris (1952: 115) has argued that both studio artists and mentally ill patients engage in the same psychic process of "*placing an inner experience, an inner image, into the outside world*".

Another shortcoming in relation to the sampling of the artists was that that they were all male. The reason for this was because this project aimed to study the phenomenon of completed suicides which are committed disproportionally more often by men as they use means that are more likely to be lethal. Because there is a possibility that the art work of suicidal women might differ from that of suicidal men it was decided to exclude female artists who committed suicide as the author was not interested in potential sex differences in this research project. In fact some studies have shown sex differences in art production both in terms of content (e.g. McNiff, 1982; Silver, 1993) and form (Suitner & Maass, 2007). This again raises the question of generalisability of the present findings in terms of whether they are applicable to the art of suicidal women. A further issue was that the sample of painters was comprised only of Caucasians. Again it is questionable to what extent the present findings can be generalised to the art works from artists from other ethnic backgrounds. A number of

studies have evidenced an ethnic influence on art production (e.g. Merry, Wei, & Rogers, 2006; Niu & Sternberg, 2001).

A further problematic issue was the assessment of formal elements taken from art assessment tools that were specifically designed to be used in connection with instructed drawings (e.g. “draw a person picking an apple from a tree”) and thus made several of these elements difficult to judge (e.g. integration and movement in abstract works of art). Furthermore, using paintings rather than drawings also led to the exclusion of various formal elements from the Formal Elements of Art Therapy Scale (FEATS) deemed unsuitable to employ when rating paintings. Referring to the FEATS, Gantt (2000) has noted that in paintings it is difficult to asses the “prominence of colour”, which refers to the way in which colour is applied to objects and other areas of the drawing (e.g. colour used only to outline a form or object; the entire surface is covered with colour). This is because in paintings there is the artistic convention to cover the entire canvass. It would also be difficult to assess “colour fit”, which measures the way in which conventional or realistic colour is used, in abstract or non-representational paintings as used in this study. The expressive use of colour in and of itself occurs in several different groups, as does the random use of colour (Lowenfield & Brittain, 1978) and thus lack of “colour fit” per se cannot be considered pathological. Furthermore, many examples of unusual colour fit are found in the work of the German expressionists (e.g. “Blue Rider School”). Furthermore, the “problem solving” feature of the FEATS would be inappropriate in using with “free drawings” as it measures the degree of problem solving ability in relation to a specific task (i.e. “person picking an apple from a tree”).

Although many art assessment tools involve instructed drawings (e.g. “draw a person picking an apple from a tree”) some also involve what is referred to as “free drawings”. In these “free drawings” patients are simply provided with a sheet of paper and various drawing tools and asked to draw a picture. One could say that the paintings used in this study could be regarded as “free paintings” leaving it up to the artist what they wanted to draw although the painters in this study were not instructed to create a painting by an art therapist. In conclusion, it would be useful to adapt some of the current scales as well as develop new scales to make them more suitable not

only for drawings but also for various types of paintings (e.g. abstract art, expressionism). It is hoped that this would increase inter-rater reliability which was generally found to be not very satisfactory. This is a very important issue because if different raters cannot consistently obtain the same results from the same data, then the reliability of the scoring system is lacking and the validity of the constructs they attempt to measure cannot be determined. At the same time it is fair to point out that some of the higher inter-rater reliabilities reported in several studies might in fact have been overrated. In fact Fowler and Ardon (2002) have criticised some studies (e.g. Mills, Cohen and Meneses, 1992) in relation to reports of high inter-rater reliability, arguing that these authors were heavily involved in working together on the development of the Diagnostic Drawing Series which could explain their exceptionally high agreement. A further problematic issue in some of these studies was that the same therapists acted as both administrators of the art assessment tools and raters and were not blind to patients' diagnoses (e.g. Couch, 1994; Neale, 1994).
Another problem in relation to the formal elements was that they were not further elaborated on or illustrated with the use of examples as is the case in the manuals of the DDS and FEATS. It was believed that for some of the elements used in this research project (e.g. number of colours, colour intensity, line quality) that would not be necessary as they are self-explanatory. For other formal elements (e.g. degree of integration, amount of movement, balance between lines and shapes), though, further elaboration and illustrations with the use of examples could potentially be quite useful.

The manuals of the DDS and FEATS do elaborate on and illustrate how the different formal elements are to be understood and how to score them. The problem with this, however, is that they do so by referring to the specific instructed drawings which creates difficulties when assessing free drawings such as in the present research project. In relation to the amount of detail in the FEATS manual, for example, raters need to give a score of 1 if a drawing depicts nothing but a person, a tree and/or an apple and if these items are drawn simply with little detail (e.g. single line for the tree trunk and a rounded form for the top). If a horizon line is added or there is some suggestion of grass, one needs to give the score of 2. If there is a horizon line and one or two additional details, one needs to give the score of 3. If there are many details

such as flowers, clouds, a sun, or other trees, one needs to give the score of 4. If there are abundant and inventive details such as fences, other trees, and special clothing details (e.g. pattern on a shirt) one needs to the score of 5. As suggested above it would thus be useful to further develop formal assessment tools that could equally be applied to free art work.

The sample in the 1st study consisted primarily of psychology undergraduate students which limits the generalisability of the research findings. Although it is common practise to use student samples in psychological research, especially in pilot studies, it is true that the exclusive use of psychology undergraduates poses the question of whether the inclusion of students of other disciplines or in fact people from various professional backgrounds would have resulted in different findings. At the same time it is important to mention that the reason for using psychology students in particular was the reasoning that one would use a sample of the population who would have a specific interest in human experience and behaviour.

Neither the sample of undergraduate students in the 1st study nor the independent judges in the 2nd study received any training in the scoring of art work, although participants in the 1st study were allowed to practise to familiarise themselves with the procedure. The 1st study involved a subjective judgement task so it was not deemed necessary to specifically train participants in the procedure. In the 2nd study it would have been useful to train the judges in the scoring procedure, which is done in most art therapeutic research (Couch, 1994; Mills, Cohen & Meneses, 1992; Neale, 1994). It is reasonable to assume that this would have potentially led to greater agreement between the judges when rating the paintings along the various structural components. At the same time it needs to be stressed that the 2nd study was regarded as an add-on pilot study to the results of the 1st study to provide some support and additional information.

The incentive for participants in the 1st study was course credit, which had to be collected by undergraduate students in partial fulfilment of the requirement for their degree course. Although, one cannot be sure of how motivated participants in the present study were, it seemed that the majority of participants very much enjoyed looking at and rating the pictures and expressed a great interest in the study and its rationale when asked about it in subsequent exit interviews.

A further problem with the current study was the use of a depressed group of artists as a comparison group for the group of artists who committed suicide. Although great care was taken to ascertain that artists in the depressed group had indeed been suffering from bouts of depression throughout their lives (e.g. consulting biographies and research articles) one cannot be absolutely certain that all these artists would nowadays be diagnosed as suffering from major depressive episodes according to DSM IV criteria. Many other studies have ascertained specific psychopathologies of their psychiatric groups by having psychiatrists provide diagnoses (e.g. Couch, 1994; Munley, 2006, Smitheman & Church, 1996) or using clinical assessment tools to arrive at a diagnosis (Fowler & Ardon, 2002; Gulbro-Leavitt & Schimmel, 1991).

A final issue of concern is to what extent internal states of people with certain diagnoses (e.g. Major Depressive Episode) are similar which would presumably make them produce similar works of art. It is highly questionable that any one person's experience is the same to another person's experience in relation to mental health problems. This issue of variability is highlighted in the DSM IV itself, which describes a psychiatric disorder as a constellation consisting of a number of various symptoms. According to the DSM IV people with different kinds of symptoms could still be classified as having the same psychiatric disorder. In the case of the diagnosis of a Major Depressive Episode, for example, 5 out of 9 symptoms (e.g. depressed mood, diminished interest or pleasure in activities, weight loss, fatigue or loss of energy) have to be present during the same 2 week period and represent a change from previous functioning. This would allow for a total of 151 combinations which would all be classified as representing a Major Depressive Episode. This could partially explain why studies such as this one do not generally find a lot of graphic

characteristics that distinguish the art works between different groups of patients simply because there is such a large variability within the groups that overshadow any kind of group differences. This means that we must expect a considerable degree of variability in the drawings and paintings of patients with various subtypes of psychiatric disorders.

Recommendations for future research

In relation to the rating of formal elements in the art work of patients (e.g. Diagnostic Drawing Series; Formal Elements of Art Therapy Scale) it seems more appropriate to use continuous scales than dichotomous scales in order to assess potentially very subtle differences. In fact, Neale (1994) criticised the categorical and primarily dichotomous nature of the Diagnostic Drawing Series (DDS) rating scales as it makes the statistical analysis of data extremely complicated. He proposed the use of a rating format that is comprised of variables rated on a continuous data scale. This way the distribution of errors would be normal and use of statistical analysis with more power would be possible.

Further research investigating content-related judgements (e.g. destructiveness, hopelessness) form-specific ratings (e.g. lack of detail) in patients' art work could produce supportive criteria for the presence of a graphic equivalent of suicidal behaviour if similar results are found. This would help to establish a reliable pattern of suicide related constructs (e.g. hopelessness and hostility) and formal elements (e.g. detail) that have a high predictive value for the presence of suicidal behaviour. Similarly, correlational research comparing both content and form in art work with standardised and validated suicide risk assessment tools (e.g. Scale for Suicide Ideation – Worst = SSI-W, Beck et al. 1997; Positive and Negative Suicide Ideation Inventory = PANSI, Osman et al., 1998; Suicide Status Form = SSF, Jobes et al., 1997) in suicidal populations would be helpful in determining if and how these different techniques are measuring the construct (i.e. suicidal behaviour).

Another area that would be worth exploring further is the distinction between state and trait characteristics reflected in the art of psychiatric patients. This research project and most of the more recent art therapy research has focused on the assessment of clinical diagnoses (Cohen et al., 1988) as well as the monitoring of responses to treatment (Gantt, 2000). It would be interesting to explore to what extent more stable personality traits or predispositions (e.g. aggression, impulsivity) are expressed in the art of psychiatric patients. This would bear some resemblance to early projective techniques to assess personality such as the Rorschach Inkblot Test, although assessment tools such as the Diagnostic Drawing Series and the Formal Elements of Art Therapy Scale would enable much more objective, easily quantifiable and thus more scientific assessments.

Conclusions

It seems that paintings in the absence of contact with or interpretation by the artists, provided enough information to enable non-expert judges to make reliable global content-related judgements (e.g. destructiveness and hopelessness) and form-specific ratings (e.g. lack of detail) that distinguished between paintings created near the time of artists' suicides and their paintings created at a time of better mental health as well as paintings from artists who were suffering from depression. In particular the deterioration in artists' mental states from a time of better mental health to the time of their suicide seems to have found expression in their art work by the emergence of themes (e.g. destructiveness and hopelessness) that have been shown to be associated with suicidal behaviour. It is reasonable to assume that participants in this research project made use of both content-related and form-related features in the paintings to help them to correctly identify the final paintings of artists who have committed suicide as reflecting serious mental health problems. At the same time these features are also likely to have contributed to their preference for paintings created by artists with depression over the final paintings by artists who have taken their own lives.

These finding have important implications for clinical work both in terms of assessment and treatment. It offers the opportunity to work non-verbally through image making and might be particularly indicated if there are speech and language difficulties (especially the communication of emotions) which can be found in various mental health problems such as learning disability, dementias, and emotional disorders such as depression and bi-polar disorder. The art work by such patients can be understood as their way of attempting to express graphically their inaccessible inner world and to create a preverbal communication with the world including the therapist. The very nature of image making is a powerful means of eliciting and at the same time externalising and thus relieving the self from very painful and frightening images that are so hard to bear. It is hoped that patients will gradually learn to tolerate, reconnect and take ownership of the projected parts of their internal lives helping them to develop a deeper sense of empathy and compassion for themselves.

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Appendices

- **Response Booklet (Pilot Study)**

- **Response Booklet - 1st Part (Study 1)**

- **Response Booklet - 2nd Part (Study 1)**

- **Art Questionnaire (Study 1)**

- **Response Booklet (Study II)**

- **The Paintings**

PILOT STUDY

Response Booklet

Please look carefully at the pair of paintings before making your judgements. Below you can see a number of mood scales and you are required to indicate to what extent each painting reflects the various moods by circling the appropriate number.

Please use this page for both practise items to familiarise yourself with the procedure!

Example: If you thought that painting B was reflecting a lot of happiness you would circle number 3 at the right end of the first scale and put the letter B below it.

0 = "cannot say"
1 = "a little"
2 = "a moderate degree"
3 = "a lot"

Depressiveness **Happiness**

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3 2 1 0 1 2 3

Impulsiveness **Cautiousness**

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3 2 1 0 1 2 3

Destructiveness **Constructiveness**

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3 2 1 0 1 2 3

Fearlessness **Fearfulness**

---

3 2 1 0 1 2 3

Angriness **Calmness**

---

3 2 1 0 1 2 3

Negativity **Positivity**

---

3 2 1 0 1 2 3

Which painting do you prefer? **A** or **B**

STUDY I (PART I)

Response Booklet

Please look carefully at the pair of paintings on the computer screen before rating each of them on the scales below. Please indicate to what extent each painting conveys to you a sense of the following themes by circling the appropriate number and writing the appropriate letter below it (A or B).

0 = "not at all"
1 = "a little"
2 = "somewhat"
3 = "very much"

Destructive **Constructive**

3 2 1 0 1 2 3

Hopeless **Hopeful**

3 2 1 0 1 2 3

Impulsive **Thoughtful**

3 2 1 0 1 2 3

Hostile **Friendly**

3 2 1 0 1 2 3

Which painting do you prefer? **A** or **B**

STUDY I (PART II)

Which painting conveys to you a serious mental health problem in the artist who created it? Please indicate by circling the appropriate letter (A, B, or C).

TRIAL I:

A B C

TRIAL 2:

A B C

TRIAL 3:

A B C

TRIAL 4:

A B C

TRIAL 5:

A B C

TRIAL 6:

A B C

TRIAL 7:

A B C

TRIAL 8:

A B C

STUDY I (Art Questionnaire)

1) Have you studied art before?

2) Do you make your own art (e.g. draw, paint, sculpt, etc.)?

2) What is your favourite colour?

3) How interested are you in art? (Please indicate on a scale from 1 -10 whereby 1 = not interested at all and 10 = very interested)

4) Who is your favourite artist?

5) How much do you enjoy looking at art? (Please indicate on a scale from 1 -10 whereby 1 = not at all and 10 = very much)

6) What is your favourite painting?

7) What is your favourite style of art (e.g. expressionism; realism; modernism; or any other)?

8) What kind of theme do you like most in art (e.g. portrait, landscape, still live, or any other)?

STUDY II

Response Booklet

Please rate each painting on the below Likert-Scales by circling the appropriate number!

INTENSITY OF COLOUR

Very low (faint) Very high (saturated)

---

1 2 3 4 5

AMOUNT OF COLOURS

Only one colour Five or more colours

---

1 2 3 4 5

LINE QUALITY/PRESSURE

Very light (fine) Very heavy (thick)

---

1 2 3 4 5

BALANCE BETWEEN LINES AND SHAPES

Only lines Only shapes

---

1 2 3 4 5

AMOUNT OF DETAIL

No detail A lot of detail

---

1 2 3 4 5

AMOUNT OF MOVEMENT

Very static Very dynamic

---

1 2 3 4 5

DEGREE OF INTEGRATION BETWEEN COLOURS, LINES AND SHAPES

Not at all integrated Fully integrated

---

1 2 3 4 5

THE PAINTINGS

Study I – Part I

Practise Trial

A

B

Trial 1

A

(Suicide Painting)

B

(Pre-Suicide Painting)

Trial 2

A

(Pre- Suicide Painting)

B

(Suicide Painting)

Trial 3

A

(Pre-Suicide Painting)

B

(Suicide Painting)

Trial 4

A

(Pre-Suicide Painting)

B

(Suicide Painting)

Trial 5

A

(Suicide Painting)

B

(Pre-Suicide Painting)

Trial 6

A

(Pre-Suicide Painting)

B

(Suicide Painting)

Trial 7

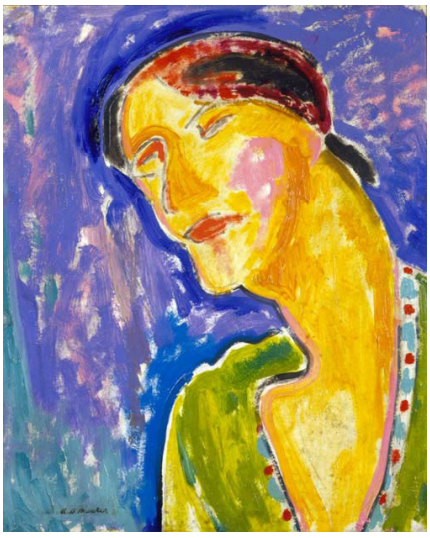
A

(Suicide Painting)

B

(Pre-Suicide Painting)

Trial 8



A

(Pre-Suicide Painting)

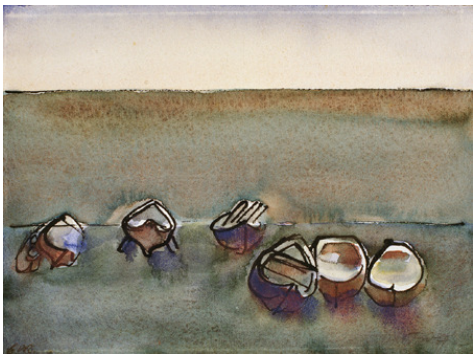
B

(Suicide Painting)

Trial 9

A

(Suicide Painting)



B

(Depression Painting)

Trial 10

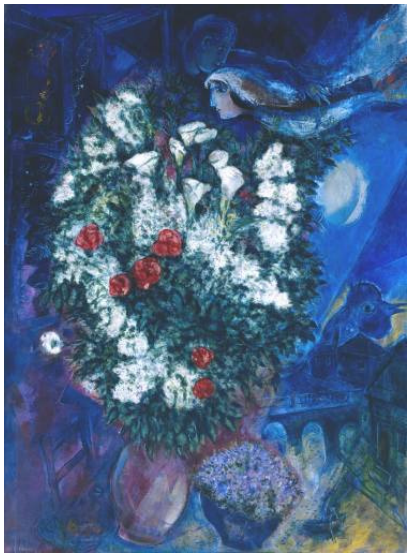
A

(Depression Painting)

B

(Suicide Painting)

Trial 11



A

(Depression Painting)

B

(Suicide Painting)

Trial 12

A

(Depression Painting)

B

(Suicide Painting)

Trial 13

A

(Suicide Painting)

B

(Depression Painting)

Trial 14

A

(Depression Painting)

B

(Suicide Painting)

Trial 15

A

(Suicide Painting)

B

(Depression Painting)

Trial 16

A

(Depression Painting)

B

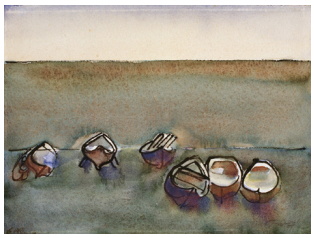
(Suicide Painting)

Study I – Part II

Trial 1

A

B

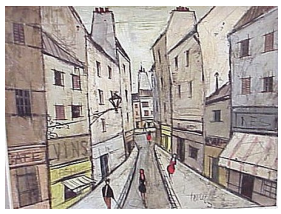


C

(Neutral Painting) **(Suicide Painting)** **(Depression Painting)**

Trial 2

A



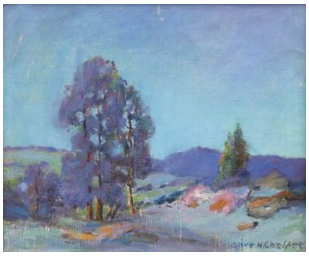
B

C

(Suicide Painting) **(Neutral Painting)** **(Depression Painting)**

Trial 3

A

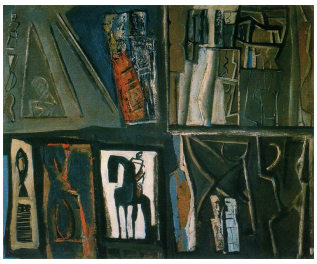


B

C

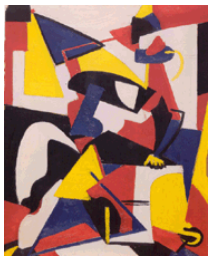
(Suicide Painting) (Neutral Painting) (Depression Painting)

Trial 4



A

B

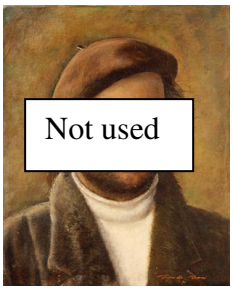


C

(Depression Painting) (Suicide Painting) (Neutral Painting)

Trial 5

A

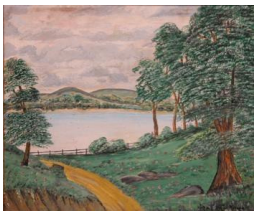


B

C

(Depression Painting) (Neutral Painting) (Suicide Painting)

Trial 6



A

B

C

(Neutral Painting) (Depression Painting) (Suicide Painting)

Trial 7

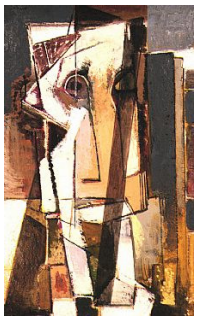
A

B

C

(Depression Painting) (Neutral Painting) (Suicide Painting)

Trial 8



A

B

C

(Suicide Painting) (Depression Painting) (Neutral Painting)

The Art of Suicide

The Pain in Paintings

"The hands often know how to solve a riddle with which the intellect has wrestled in vain" (Carl Gustav Jung).

Dominik Ritter

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10th July 2008

The Art of Suicide

The Pain in Paintings

This research projects deals with the question of whether the paintings of artists who have committed suicide is reflective of their mental states both in terms of content and form. It specifically attempts to answer whether the deterioration in mental state from a time of better mental health to the time of their suicide is expressed graphically in the paintings of those artists and whether this can be reliably observed. It was discovered that paintings in the absence of contact with or interpretation by the artists, provided enough information to enable non-expert judges to make reliable global content-related judgements (e.g. destructiveness and hopelessness) as well as form-specific ratings (e.g. lack of detail) that distinguished between paintings created near the time of artists' suicides and their paintings created at a time of better mental health as well as paintings from artists who were suffering from depression. It was also found that non-expert judges were able to correctly identify paintings that were created just before artists' suicides as reflecting serious mental health problems. The findings of the current study as well as its limitations are discussed.

Key Words: suicide, depression, art, content, form

INTRODUCTION

A psychological approach to suicidal behaviour

The term suicidality denotes cognitive and behavioural characteristics which may become manifest as suicidal ideation or suicidal behaviour (van Heeringen, 2001). Suicidal ideation refers to the occurrence of any thoughts about self-destructive behaviours, whether or not death is intended. These thoughts may range from vague ideas about the possibility of ending one's life at some point of time in the future to very concrete plans to commit suicide. Suicidal behaviour may cover a wide range of self-destructive behaviours with a non-fatal (i.e. attempted suicide) or fatal outcome (i.e. suicide).

Over the years there has been considerable progress in the identification of psychological risk factors for suicidal behaviour. According to Williams' (1997) "Cry of pain" hypothesis, suicidal behaviour represents the response (the "cry") to a situation that has three components: defeat, no escape, and no rescue which can leave an individual vulnerable to the triggering of "helplessness" processes. It is believed that these processes can then lead to an impulse to escape from a situation by self harming or by dying.

Research evidence suggests that the majority of patients with a psychiatric disorder do not commit or even attempt suicide (Brent et al. 1993). Therefore psychiatric disorder may a necessary but not a sufficient condition for suicide. In fact, Mann et al. (1999) found that neither the nature nor the severity of state-dependent-illness characteristics (e.g. depression) distinguished patients with a history of suicide attempts from those without such a history. They did, however, find a clear association between the occurrence of non-fatal suicidal behaviour and a trait-like predisposition reflecting aggression and impulsivity indicating the importance of these features in predicting suicidal behaviour.

Nevertheless, the most important stressor-related psychopathological condition associated with suicidal behaviour appears to be depression (Apter et al., 1991; Williams, 1997). Van-Praag (1997) proposed a model that is based on the stress-diathesis approach and termed it aggression driven, stressor precipitated depression. Evidence for this model has bee provided by Apter et al. (1995) who found significant positive correlations between depression, suicidality and aggressive conduct.

A psychological approach to artistic behaviour

A correlation between artistic productions and psychotic symptoms was first described by Lombroso (1888). He perceived sense and meaning in the pictures drawn by individuals with psychosis and concluded that they were thus expressing ideas which they were incapable of expressing verbally. Similarly, Freud and Kris would later argue that rather than being random nonsense, the production of fantasy revealed information about the unique inner world of their maker (Rubin, 1999). Freud (1916) believed that creativity was similar to a neurosis, and that the dynamics were the same as in other neuroses, namely that creativity was a sublimation (or transformation) of repressed sexual and aggressive impulses.

Early art therapeutic research was heavily influenced by psychoanalytic thinking and very much focused on the interpretation of individual details and specific signs to reveal patients' projected feelings and personality characteristics. Over the years this early research became to be heavily criticized. Anastasi and Foley (1941), for example, argued that the interpretation of detail and specific signs of art works required judgement of intent or meaning and are thus difficult to validate and difficult to define.

It has subsequently been proposed that formal characteristics (rather than content) of drawings might be better in distinguishing diagnostic groups and have the advantage of being easier to define and measure (Anastasi & Foley, 1944). This has led to the development of a variety of formal assessment tools [e.g. DDS = Diagnostic Drawing Series (Cohen et al., 1988); FEATS = Formal Elements of Art Therapy Scale (Gantt, 1990)] to determine meaning without relying on narrative content. The basic assumptions behind these assessment tools is that art activity can be more or less exclusively viewed as samples of cognitive and behavioural functioning (Knoff, 1993), and that clinical conditions have their own distinct pattern of symptoms that are manifested through the cognitions and behaviours of the afflicted person (DSM IV). It is therefore argued that the art product provides information of the artist's mental condition (Gantt & Tabone, 1998). Research using formal assessment tools as described above has not only demonstrated how pictures by patients with varying diagnoses typically look like but also how they differ from each other (Cohen et al., 1988; Neale, 1994).

Rationale and aims of this study

As outlined above there have been numerous studies investigating the differences between paintings across a range of psychiatric conditions (e.g. depression, schizophrenia). There appears, however, to be a general dearth of empirical art therapeutic research in the area of suicidal behaviour apart from a few mostly dated studies indicating the presence of content-related features such hopelessness and isolation (Tayal, 1969), self-hatred and anger (Wadeson, 1975), destruction (Honig, 1975) and violence (Phillips, 2003) as well as form-related features such as strong "shattering" and "slashing" lines (Virshup, 1976; Wadeson, 1975) drawn through objects in the images of suicidal patients.

Because of the apparent lack of research in this area it was decided to investigate both content-related as well as form-related features of paintings by artists who have taken their own lives. A major aim of this research project will be to explore to what extent the deterioration in mental state in artists who have committed suicide (from a time of better mental health to the time of their suicide) will be reflected in their paintings and whether this can be reliably perceived by observers with no expert knowledge in mental health. In line with psychoanalytic as well as cognitive-behavioural thinking, respectively, it was expected that there would be a general deterioration both in content-related features (i.e. themes related to suicidal behaviour: more aggression and depression) as well as form-related features (e.g. fewer number of colours, less detail and integration) in those paintings.

METHODS

Study I

Content analysis of the paintings

Expression of the deterioration in mental state in content-related features of art

The main purpose behind this study was to assess participants' judgements of various "pre-morbid" (before suicide) and "morbid" (at time of suicide) paintings by artists who have taken their own lives and paintings by artists who have suffered from recurrent bouts of depression throughout their lives on a number of constructs related to suicidal behaviour (e.g. hopelessness, destructiveness).

Design

There were three groups of 8 paintings in the first part of this study (Pre-Suicide, Suicide and Depression Paintings). The Suicide Paintings were compared with the Pre-Suicide Paintings within the same group of artists (Suicide Group), and then with Depression Paintings of another group of artists (Depression Group). The eight artists in the Suicide Group successfully completed suicide while the eight artists in the Depression Group suffered from recurring depression but did not attempt suicide and died of natural causes. In the second part of this study three groups of paintings (Suicide, Depression, and Neutral) were compared with each other.

Participants

There were originally 36 participants who were all undergraduate psychology students. The data from two participants had to be removed as they did not seem to have understood the instructions and only returned partially completed response booklets. The remaining sample of 34 participants was comprised of 27 females and 7 males with a mean age of 23.44 years (min: 19 years, max: 44 years) and a standard deviation of 7.57.

Material

The artists and their paintings

a) Suicide group

All group members of the "Suicide Group" were 20th century male artists from either the United States of America or Europe, who were known to have committed suicide (see tab. 1). It was decided that only the last known paintings completed in the same year of the suicide (Suicide Paintings) of artists would be used in this study in order to maximise chances that these paintings reflected the artists' inner states around the time of their suicides. Gantt (2000) advised researchers to pay strict attention to the time when they collect drawings highlighting the risk of not capturing evidence of acute symptoms. She had found that pictures from patients can change dramatically within a short period of time. As a within-group comparison the Suicide Paintings were matched with paintings from the same artists from an earlier time when the artist seemed to be in better mental health (e.g. success in social life, private life or work) according to biographical accounts. These "Pre-Suicide Paintings" were selected on the basis of a similar style and theme as far as that was possible.

Tab. 1 Artists who committed suicide

	Nationality	Dates	Age at death
George Ault	American	1891-1948	57
Bernard Buffet	French	1928-1999	71
Jan Cox	Belgium/American	1919-1980	61
Gregory Gillespie*	American	1936-2000	64
Arshile Gorky	Armenian/American	1904-1980	76
Ernst Ludwig Kirchner	German	1880 - 1939	59
Wilhelm Lehmbruck	German	1881-1919	38
Alfred H. Maurer	American	1868-1932	64

b) Depression group

As a between-group comparison the "Suicide-Paintings" were also matched with paintings from 20th century male artists from either the United States of America or Europe, who according to biographical accounts had been suffering from recurring depression (see tab. 2). Paintings from this "Depression Group" were selected from a time when it was known that the artists were suffering from severe episodes of depression. These "Depression Paintings" were selected on the basis of a similar style and theme to the "Suicide Paintings" (as far as that was possible) to facilitate comparison (see fig. 2).

Tab. 2 Artists with depression

	Nationality	Dates	Age at death
Ralph A. Blakelock	American	1847-1919	72
David Bomberg	British	1890-1957	67
William Kurelek	Canadian	1927-1977	50
Laurence S. Lowry	British	1887-1976	89
Ewald Matare	German	1887-1965	78
Armando J. Reveron	Spanish	1889-1954	65
Mario Sironi	Italian	1885-1961	76
Marc Chagall	Russian	1887-1985	98

Furthermore, paintings from an additional group of 20th century male artists from either the United States of America or Europe, with no known mental health difficulties were selected. The "Neutral Paintings" from this group were compared to the "Suicide Paintings" and "Depression Paintings" in the 2nd part of the study. These "Neutral Paintings" were selected on the basis of a similar style and theme to the "Suicide Paintings" (as far as that was possible) to facilitate comparison.

The experiment

The experiment was carried out using a Macintosh computer with all instructions and stimulus material (e.g. digital images of paintings) displayed on the computer screen using PowerPoint slides. Participants were also provided with a response booklet and a pen for them to provide their judgements of the various paintings.

Response booklet

The first part of the booklet in study 1 contained specific instructions, bipolar scales of various constructs (i.e. destructive-constructive; hopeless-hopeful; impulsive-thoughtful; hostile-friendly) for participants to rate the paintings. The rationale for the use of the constructs of destruction, hostility, hopelessness, and impulsivity was Van Praag's (1997) diathesis stress model of suicidal behaviour (i.e. aggression driven stressor precipitated depression) as well as research linking suicidality, violence and impulsivity (Apter et al., 1993; Mann et al., 1999).

The second part of the response booklet (second part of the study) contained specific instructions about choosing a painting that was perceived as reflecting a serious mental health problem in the artist who created it from a selection of three choices. The rationale for this second part of the study was to determine how accurately participants would select the paintings by artists who committed suicide (Suicide Paintings) out of a pool of three choices (Suicide, Depression and Neutral Painting).

* In relation to the set of Suicide Paintings used in the present study it was discovered that the apparent Suicide Painting of one of the artists (Gregory Gillespie) was not actually a final painting. It was in fact a painting that the artist had started working on a considerable time before his suicide. It has been reported that this artist generally left paintings unfinished for quite some time before continuing to work on them. It was thus decided to exclude ratings on his paintings (as well as Depression and Neutral Paintings that were made in comparison to his paintings) from data analysis as this artist did not meet the stringent inclusion criterion of having created a painting just prior to suicide.

Procedure

Participants acted as independent judges to rate 16 pairs of paintings on a number of bipolar rating scales covering various constructs. When participants had completed the comparisons they were asked to fill out a questionnaire. This questionnaire (about their interest in art) was used primarily as a distraction task before participants continued with the second part of the study.

In the second part of the study participants were presented with eight blocks of three paintings each, some of which they had already seen in the first part of this study. Their task was now to indicate which painting (A, B or C) conveyed to them a serious mental health problem in the artist who created it. They were instructed to provide their answers in the response booklet by circling the appropriate letter (A, B, or C).

Study II

Structural analysis of the paintings

Expression of the deterioration in mental state in the formal features of art

The main goal of this study was to assess independent judges' objective ratings of structural elements (e.g. number of colours, degree of integration, amount of detail) of the various groups of paintings from the first study (Pre-Suicide, Suicide and Depression Paintings).

Design

The design used in this study was identical to the second part of Study 1 (i.e. three groups of paintings were compared with each other).

Participants

Two independent judges

Material

A response booklet containing rating scales corresponding to formal elements of art was used for judges to rate the various paintings. Most of these ratings scales used in this study were adopted from the Diagnostic Drawing Series (Cohen et al., 1988) with the exception of one (which was taken from another art assessment tool, namely the Diagnostic Assessment of Psychiatric Art = DAPA, Hackling, 1999) which is the most commonly used and validated art assessment tools in art therapy research. The formal elements covered by these rating scales included colour intensity, number of colours, line quality, balance between lines and shapes, detail, movement, and integration.

Procedure

The independent judges were asked to rate the various paintings displayed on a computer screen on a number of structural elements and provide their answers in the response booklet.

RESULTS

This results section is divided into two main parts. The first part corresponds to the first study which focused on the comparison between Pre-Suicide Paintings and Suicide Paintings in terms of their content, while the second part corresponds to the 2nd study which focused on the differences in structural qualities between the Pre-Suicide Paintings and Suicide Paintings.

Reliability investigation

Reliability of the rating scales

It was first deemed necessary to investigate to what extent the ratings by the 34 raters for the Suicide Paintings when compared to Pre-Suicide Paintings and then again when compared to Depression Paintings remained similar. To explore the relationship between the ratings of the Suicide Paintings at these two occasions Pearson's product-moment correlations were computed. These revealed that there were large and significant positive correlations between the two ratings on "Destructive-Constructive" ($r = .72$, $p < .001$), "Hopeless-Hopeful" ($r = .78$, $p < .001$), "Impulsive-Thoughtful" ($r = .78$, $p < .001$), and "Hostile-Friendly" ($r = .66$, $p < .001$). These results clearly show that ratings on these bi-polar scales across a number of different paintings can be made very reliably.

Study I

Content analysis of the paintings
Expression of the deterioration in mental state in content-related features of art

This first study deals primarily with the question to what extent Suicide Paintings would be rated as different from the Pre-Suicide Paintings in terms of a number of key features (i.e. destructive, hopeless, impulsive and hostile), which have been shown to be associated with suicidal behaviour as outlined in the Methods Section.

A profile analysis of the differences between Suicide Paintings and Pre-Suicide Paintings

This section deals with mean differences within the 7 pairs of Pre- and Suicide paintings on the 4 mood ratings, and thus the question whether the participants were able to discern a considerable change in mood expressed in the paintings by the time of the suicide.

A profile analysis was conducted using a factorial repeated-measures ANOVA with period (pre-suicide versus suicide) and profile (4 mood ratings) as the two factors. The cell means of this ANOVA are displayed in Table 1 and the results for the main effects and the interaction are presented in Table 1 using corrected degrees of freedom as the sphericity assumption was somewhat violated.

Tab. 1: Results of the profile analysis for the Pre- and Suicide Paintings (N = 34)

Source	SS	df	Mean Square	F	P	Partial Eta Squared
Profile	1208.660	1.000	1208.660	135.649	<.001	.804
Error(profile)	294.036	33.000	8.910			
Rating	9.531	2.231	4.273	1.954	.144	.056
Error(rating)	160.987	73.609	2.187			
profile * rating	105.779	2.266	46.673	20.582	< .001	.384
Error(profile*rating)	169.596	74.791	2.268			

Note: Huynh-Feldt adjusted degrees of freedom were used.

As is evident from Table 1, there was a significant and large main effect for 'period' but no significant effect for the 'profile' factor. However, there was also a significant and considerable interaction (partial-eta^2 = .38) between the profile factor and the period factor suggesting that the profile of the means of the 4 mood ratings were different in shape for the pre- compared to the suicide paintings. An interaction diagram was constructed to aid the interpretation of this interaction (see fig. 1).

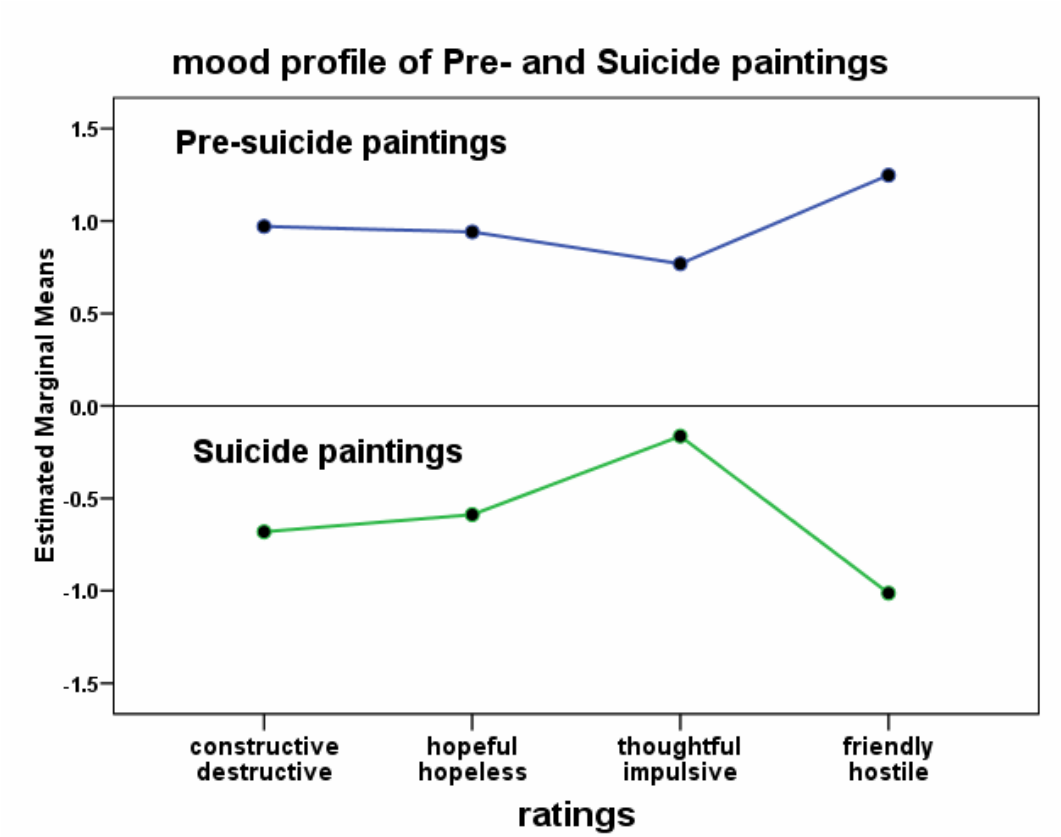

Fig. 1: Interaction diagram of the mood profile for the Pre-Suicide Paintings and Suicide Paintings

The profile of the means for the pre-suicide paintings is above the reference line representing the mid point of the bipolar rating scales whereas the profile of means for the suicide paintings lies below this line. This explains the strong main effect for factor 'period'; the means change on all 4 mood ratings from the positive side of the scale into the negative suggesting a noticeable darkening of the mood of the suicide paintings. However, the significant interaction also revealed that the extent of this change was different for the individual ratings, and most pronounced for the friendly-hostility rating whereas on the thoughtful-impulsive dimension this change was least pronounced.

Follow-up analyses confirmed that the amount of change was significant on each rating scale from pre-morbid state (Pre-Suicide Paintings) to suicidal state (Suicide Paintings). For this purpose paired sample t-tests were computed. These tests revealed that artists' "Suicide Paintings" were rated as significantly more destructive (Mean Difference = -1.65, SD = .92; t (33) = -10.48, $p < .001$), hopeless (Mean Difference = -1.53, SD = .90; t (33) = - 9.93, $p < .001$), hostile (Mean Difference = -2.26, SD = .98; t (33) = 13.46, $p < .001$), as well as less thoughtful (Mean Difference = -.93, SD = 1.19; t (33) = -4.59, $p < .001$) and than their "Pre-Suicide Paintings".

A profile analysis between Suicide Paintings and Depression Paintings

The same profile analysis was repeated comparing Suicide Paintings with the Depression Paintings, and the results for this 2-factors repeated measures ANOVA are displayed in Table 2. The interaction was insignificant indicating that the mean ratings across the profile factor were parallel between the groups of depression and suicide paintings, and the corresponding interaction diagram is shown in Figure 2. From this diagram it is obvious that both profiles are rather similar and the differences are therefore down to sampling error. There was a clear difference in level between the depression and suicide paintings indicated by a significant 'illness' factors amounting to a large effect size (partial $eta^2 = .75$). Because the two profiles of means are parallel in the population, the difference between the depression and suicide paintings is constant for each mood rating across the profile factor. The profile of means of the suicide paintings were all in the negative area of the mood scale, those for the depression paintings in the positive area. The profile factor was also significant suggesting differences between the mood ratings that applied to both groups of paintings equally; they received the lowest rating on the friendly-hostile dimension and the highest on the thoughtful-impulsive dimension.

Tab. 2: Results of the profile analysis for the Depression and Suicide paintings (N = 34)

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Illness	947.148	1.000	947.148	96.962	< .001	.752
Error(illness)	312.584	32.000	9.768			
Profile	108.889	2.000	54.436	12.491	< .001	.281
Error(profile)	278.950	64.010	4.358			
illness * profile	12.443	2.170	5.733	2.473	.087	.072
Error(illness*profile	161.039	69.449	2.319			

Note: Huynh-Feldt adjusted degrees of freedom were used.

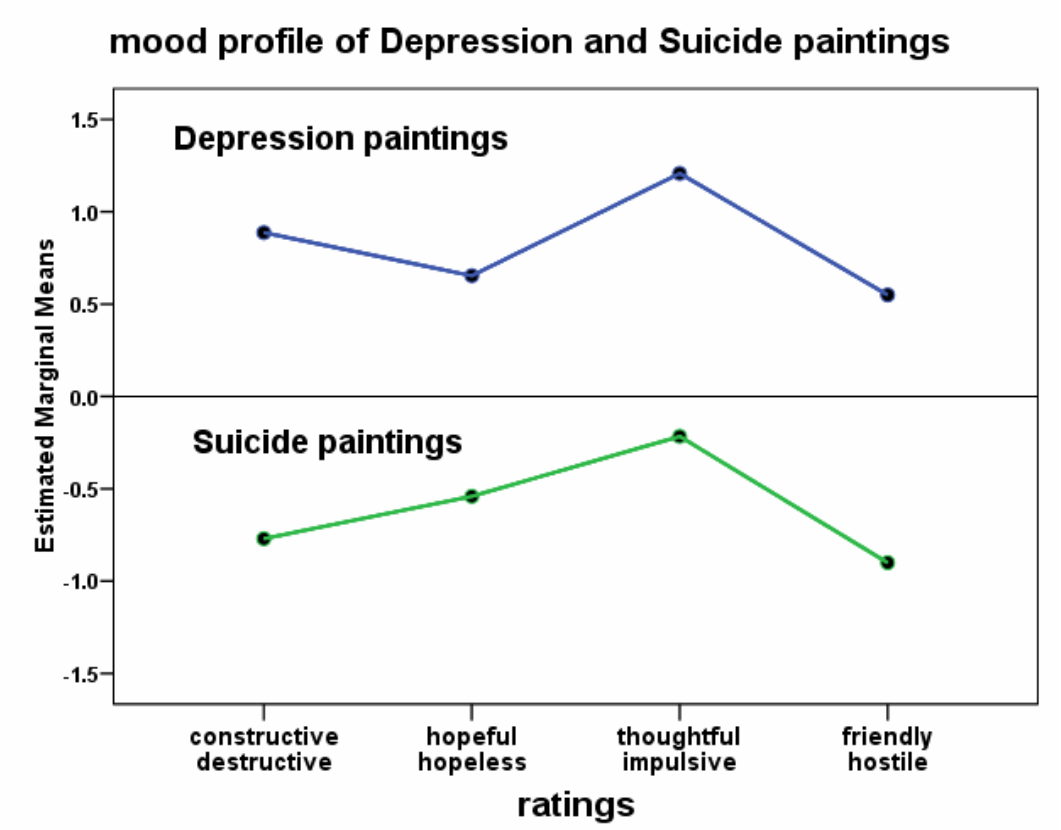

Fig. 2: Interaction diagram of the mood profile for the Depression Paintings and Suicide Paintings

Naïve diagnostics (Correct identification of the Suicide Paintings)

In this part of the study the 34 participants were presented with eight blocks of three paintings each, the order of which was randomised. They were required to indicate which one of three paintings conveyed to them a serious mental health problem. This section deals therefore deals with the question of whether the participants who did not have any expertise in mental health were able to make naïve diagnoses based on the paintings alone. Specifically, it was investigated whether participants would be able to correctly identify the Suicide Paintings as reflecting serious mental health problems from a pool of Suicide, Depression and Neutral Paintings.

The following bar chart (see fig. 3 gives an indication of how successful raters were in correctly identifying the Suicide Paintings (Hit Rates) out of a group of three paintings (i.e. Suicide, Depression and Neutral Painting)

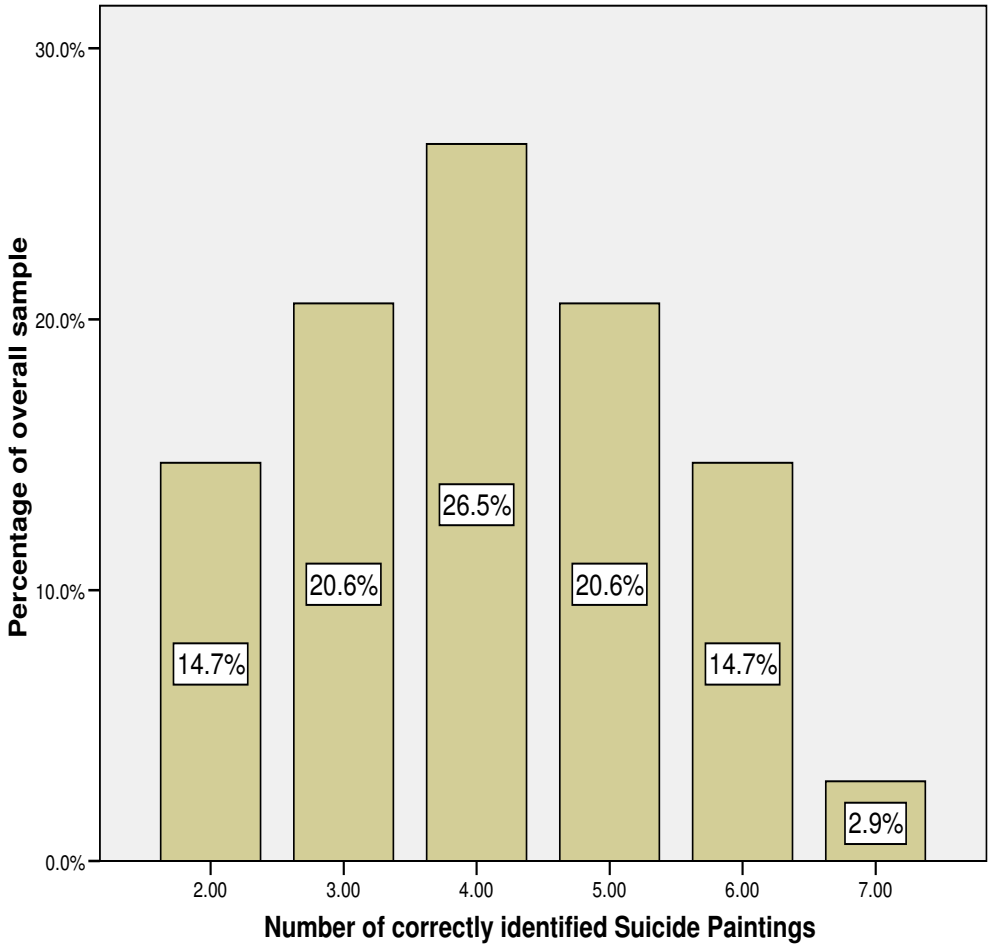

Fig. 3 Distribution of Hit Rates (Correct Identification of the "Suicide Painting" from a selection of three Paintings: "Suicide Painting", "Depression Painting" and "Neutral Painting") with percentages of the overall sample.

To determine whether participants correctly identified the Suicide Paintings significantly more often than could be explained by chance a one-sample t-test was computed. The chance to randomly and correctly identify a Suicide Painting in 7 groups of 3 paintings each is 7/3 or 2.33.

A one-sample t-test revealed that participants selected the Suicide Painting significantly more often ($M = 4.09$, $SD = 1.38$) than could be explained by chance [$M = 2.33$, $t(33) = 7.44$, $p < .001$]. The magnitude of this mean difference was large (eta squared = .45).

Study II

Structural Analysis of the Paintings
Expression of the deterioration in mental state in the formal features of art

This section primarily deals with the question to what extent the Suicide Paintings might be structurally (e.g. number of colours, amount of detail, degree of integration) different from the Pre-Suicide Paintings.

Agreement between the two raters

In order to determine whether the rating scales could be reliably used Spearman Rank correlations were computed which would assess the degree of agreement between two independent judges on the 7 structural elements when ratings the different paintings (Pre-Suicide, Suicide and Depression Paintings). It was discovered that there were significant moderate to high correlations between the ratings provided by the independent raters on some of the structural elements (Colour Intensity: r_s, = .76, p < .001; Number of Colours: r_s, = .84, p < .001; Line Quality: r_s, = .47, p < .05; Detail: r_s, = .41, p < .1). At the same time there were also quite small and insignificant correlations between the ratings provided by the two raters on formal elements such as "Balance between Lines and Shapes" (r_s, = .23, p > .05), Movement: (r_s, = .30, p > .05), and Integration (r_s, = .17, p < .05). This meant that while the agreement between the two independent raters on some of these formal elements was quite satisfactory, there also appeared to be considerable disagreement between the raters on some of the other elements.

Structural differences between the paintings

To show the ratings across the different groups of paintings a table was computed. Table 4 contains the means scores and standard deviations of the ratings for the Pre-Suicide, Suicide and Depression Paintings.

Tab. 4 Means and standard deviations of the ratings for the Pre-Suicide, Suicide and Depression Paintings

	Pre-Suicide Paintings	Suicide Paintings	Depression Paintings
Colour Intensity	3.36 (1.44)	3.00 (1.15)	2.57 (1.43)
Number of Colours	3.29 (1.44)	2.71 (0.95)	2.29 (0.64)
Line Quality	2.92 (0.67)	3.00 (0.96)	2.50 (0.96)
Balance between Lines and Shapes	3.29 (0.70)	3.07 (0.61)	2.86 (0.63)
Detail	2.21 (0.76)	1.79 (0.39)	3.07 (1.27)
Movement	2.71 (0.57)	3.21 (1.25)	2.79 (0.70)
Integration	2.93 (0.84)	2.21 (0.49)	2.79 (1.04)

The above table seems to indicate that the Suicide Paintings seem to have been rated as showing fewer details than the Pre-Suicide and Depression Paintings. To test whether these differences were significant Mann-Whitney U-test were conducted. These revealed that that Suicide Paintings were rated as showing significantly fewer details than Depression Paintings ($Z = -2.20$, Mann-Whiney $U = 8$, $p < .05$). No other differences were found to be significant.

DISCUSSION

Study I

Content analysis of the paintings

Expression of the deterioration in mental state in content-related features of art

The main purpose behind the first study was to investigate whether Suicide Paintings would be rated as more negatively than Pre-Suicide Paintings on a number of constructs, which have been shown to be associated with suicidal behaviour, and thus possibly reflecting deterioration in mental state.

The rating of the paintings

The findings of this first study indicate that paintings completed just before artists' suicides conveyed a greater sense of hopelessness, destructiveness, hostility and lack of thoughtfulness than their paintings that were created at a time of better mental health. It was noted that both hopelessness and lack of thoughtfulness seemed to make the smallest but nevertheless significant difference. This very much seems to highlight the relative importance of aggression related concepts such as destructiveness and hostility in suicidal behaviour. A similar pattern emerged when comparing the Suicide Paintings with the Depression Paintings. These results are consistent with other findings in the art therapeutic research literature which have indicated that the most frequent themes in the images of suicidal patients are hopelessness and isolation (Tayal, 1969) as well as violence (Phillips, 2003).

The present results are also consistent with findings in the suicide research literature. They specifically support the notion that a psychiatric disorder may well be a necessary but not a sufficient condition for suicide (Mann et al., 1999). They also lend support for the concept of an aggression driven stressor precipitated depression (Van-Praag, 1997). This concept highlights the importance of the co-occurrence of a trait-like factor reflecting aggression and of a state dependent psychiatric illness such as depression in predicting suicidal behaviour. Support for this notion has been provided

by studies that evidenced close associations between depression, aggressive behaviour and suicidal behaviour (Apter et al., 1995).

Furthermore, it was discovered that the Suicide Paintings were rated as less "thoughtful" than both Pre-Suicide Paintings and Depression Paintings. This is an important finding and it links with the research literature on cognition in suicidal behaviour. In relation to Williams (1997) "Cry of pain" hypothesis it has been argued that individuals' cognitive styles affect their estimates of the aversiveness of a loss, rejection or defeat, its escapability and how much rescue via social support is available (Pollock & Williams, 1998). Williams and Broadbent (1986), for example, evidenced an attentional bias towards stimuli that signal looser status in suicide attempters. Furthermore, Sidley et al. (1997) and Goddard et al. (1996), respectively, evidenced difficulties with accessing past events in their lives in suicidal and depressed patients. These patients very much produced vague summary memories which were argued to limit their ability to solve interpersonal problems. In other words, the capacity to generate multiple responses to stressors or to put stressful live events in context diminished. Williams et al. (1999) suggested that such a vague retrieval style might be rather adaptive perhaps as an affect regulation strategy.

Naïve diagnostics (Identification of the Suicide Paintings)

It was discovered that participants without any expert knowledge in mental health were able to correctly identify Suicide Paintings as conveying a serious mental health problem considerably more often than could be explained by chance alone. This result is somewhat consistent with findings of a study by Rao and Keshavan (2006). These authors discovered that both psychiatrists as well as lay people were able to distinguish between paintings that were created before and after the onset of mental illness (e.g. depression, schizophrenia). This meant that when comparing two paintings from the same artist participants were able to identify the painting that seemed to reflect a mental illness. At the same time participants in their study were unable to differentiate paintings by artists with and without mental illness (e.g. depression, schizophrenia). In that respect, however, it differs from the finding in the

present study in which participants were able to differentiate between paintings by artists without or without mental illness.

Study II

Structural Analysis of the paintings

Expression of the deterioration in mental state in the formal features of art

The main purpose behind the first study was to investigate whether the Suicide Paintings would be scored as generally lower than the Pre-Suicide Paintings by two independent raters in terms of formal art elements which have been shown to differentiate between psychiatric populations (Cohen et al., 1988; Morris, 1995; Neale, 1994).

The rating of the paintings

Statistical analyses revealed that scores on one of the seven scales (i.e. Detail) significantly differentiated between the groups of paintings in that Suicide Paintings were rated as showing fewer details than Depression Paintings. The relative lack in detail in the Suicidal Paintings in the present research project could be attributed to major depression which has also been evidenced in studies by Hackling (1999) and Gantt and Tabone (1998). The latter researchers argued that this corresponded to patients' depressed affect and lack of energy. This lack of detail can also be understood in terms of the poverty of ideas as described by Cohen (1981). This seems to be connected to the relative lack of thoughtfulness discovered in the first study.

Limitations of this study

One major problem with this research project is the generalisability of its findings as it has focused on the study of paintings by famous artists. It might questionable to what extent this group of highly creative individuals is representative of the general public. However, on the one hand, creative development has frequently been associated with traumatic experiences in childhood or adolescence, experiences that may also contribute to depression and suicidal tendencies (Goertzel & Goertzel, 1962). On the other hand, creative development is also linked to an enriched and diverse intellectual and cultural environment, an environment that is neutral with respect to psychopathology (Simonton, 2004). Yet growing up under such conditions fosters the emergence of many cognitive and dispositional traits that define creativity. This seems to suggest that artists do come from all sorts of various backgrounds and differ enormously from each other and thus as a whole might not be that very different from the general population.

A further problematic issue was the assessment of formal elements taken from art assessment tools that were specifically designed to be used in connection with instructed drawings (e.g. “draw a person picking an apple from a tree”) and thus made several of these elements difficult to judge (e.g. integration and movement in abstract works of art). It would be useful to adapt some of the current scales as well as develop new scales that to make them more suitable not only for drawings but also for various types of paintings (e.g. abstract art, expressionism). It is hoped that this would increase inter-rater reliability which was generally found to be not very satisfactory. This is a very important issue because if different raters cannot consistently obtain the same results from the same data, then the reliability of the scoring system is lacking and the validity of the constructs they attempt to measure cannot be determined.

Conclusions

The findings of the present study seem to suggest that the deterioration in artists' mental states from a time of supposedly better mental health to the time of their suicide has found graphic expression in their art work by conveying a greater sense of negative mood. This finding has important implications for clinical work both in terms of assessment and treatment. It offers the opportunity to work non-verbally through image making and might be particularly indicated if there are speech and language difficulties (especially the communication of emotions) which can be found in various mental health problems such as learning disability, dementias, and emotional disorders such as depression and bi-polar disorder. The art work by such patients can be understood as their way of attempting to express graphically their inaccessible inner world and to create a preverbal communication with the world including the therapist. The very nature of image making is a powerful means of eliciting and at the same externalising and thus relieving the self from very painful and frightening images that are so hard to bear.

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APPENDIX

George Ault:

Pre-Suicide Painting

Suicide Painting

Jan Cox:

Pre-Suicide Painting

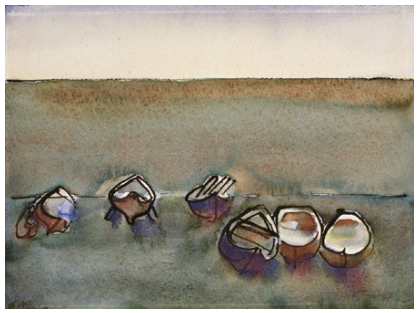
Suicide Painting

Fig. 1 Selection of Pre-Suicide Paintings & Suicide Paintings within the same artists

Depression Painting
(Mario Sironi)

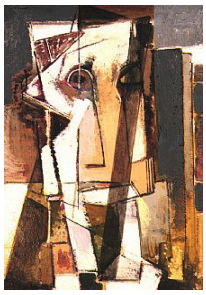
Suicide Painting
(Arshile Gorky)

Suicide Painting
(Bernard Buffet)



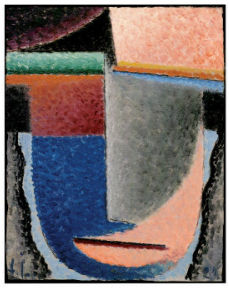
Depression Painting
(Ewald Matare)

Fig. 2 Selection of Suicide Paintings and Depression Paintings across different artists



Suicide Painting
(Alfred H. Maurer)

Depression Painting
(William Kurelek)



Neutral Painting
(Alexei Von Jawlensky)

Suicide Painting
(George Ault)

Neutral Painting
(Charles Levier)

Depression Painting
(Laurence S. Lowry)

Fig. 3 Selection of Suicide Paintings, Depression Paintings, and Neutral Paintings across different artists