

## CHAPTER 4

### THEORETICAL CONCEPTUALISATION OF TRICHOTILLOMANIA

#### 4.1 INTRODUCTION

Some authors describe trichotillomania as “a disorder of unknown aetiology” (Peterson, Campise, & Azrin, 1994, p.434). While there is no consensus about the cause of trichotillomania, several aetiological models have been proposed from differing theoretical perspectives. A review of the literature reveals three main theoretical models namely psychoanalytic, behavioural, and biological.

#### 4.2 PSYCHOANALYTIC MODEL

Aetiological theories of trichotillomania based on the psychoanalytic perspective explain the symptom of chronic hairpulling as a symbolic expression designed to relieve anxiety generated by some unresolved and/or unconscious conflict (Greenberg & Sarner, 1965; Tattersall, 1992).

The model assumes that the past leaves a living record within the personality that is dynamically related to the present. Bearing this in mind, the classic psychoanalytic literature ascribes multiple symbolic meanings to hair (Berg, 1936). It is considered a symbol of beauty, virility, and physical prowess (Kanner, 1959); a bisexual symbol (Sperling, 1954); and representing displaced sexual conflicts (Simmel, 1925; Zaidens, 1951; Andreasen, 1980). Hair cutting or plucking has also been associated with fears of castration (Barahal, 1940; Sperling, 1954).

Although childhood trauma, and specifically sexual abuse, has been said to play a role in the development of trichotillomania (Greenberg & Sarner, 1965; Singh & Maguire, 1989), more recent studies found the association between sexual abuse and trichotillomania to be unusual (Christenson, Mackenzie, & Mitchell, 1992).

Certain unconscious themes concerning the loss of hair appear repeatedly in the classical mythology and in anthropological studies. Hollander (in Stein & Christenson, 1999) refers to the Medusa myth, the goddess Athena, the Sirens, and other folklore to elucidate the sexual symbolism attributed to hair. The relation between hair plucking or hair cutting and the mourning process is also well documented. In the story of Rapunzel, the cutting of hair is symbolic of castration, loss of the mother, and separation. In various Hindu cultures, shaving of the scalp is associated with separation and the mourning process. In another culture the hair of the bereaved is laid beside the dead, and in others the widow's hair is thrown onto the funeral pyre of the dead husband. One community in India requires hair plucking before a person enters a life of penance. Similarly, Christian monastic life has traditionally been associated with shaving one's hair.

A number of psychodynamic case reports suggest that trichotillomania may be associated with poor object relations (Greenberg, 1969). Although the absence of a control group reduces the significance of this finding, Krishnan, Davidson, & Guajardo (1985) found a high frequency of actual or threatened object loss prior to the onset of hair-pulling symptoms. This fear is often associated with the absence of the mother. Krishnan and colleagues (1985) and Buxbaum (1960) concurred that hair pulling could be a means of working through real or perceived threats of object loss. Hollander (in Stein & Christenson, 1999) states that this fear of loss or abandonment may reflect unresolved dependency needs originating in earliest infancy, or represent feared punishment for forbidden sensual wishes or rebellious anger later in the child's development.

Many adult patients avoid heterosexual involvement as the loss of their feminine attractiveness signifies to them that they are not worth loving.

Greenberg and Sarner (1965) approached the problem as resulting from multiple fixation points at all levels of psychosexual development:

- At the oral level, pulling, saving, or eating hair could symbolise incorporation and identification with the mother, and reassurance against her loss.
- At the anal level, hair plucking could represent rage and frustration directed toward the object and the internalised superego, with the symptom becoming a depressive equivalent.
- At the genital stage, hair pulling in the female could demonstrate to her mother that the girl is willing to deny her femininity and give up the oedipal struggle. For both sexes, however, hairlessness symbolises a return to innocent childhood where the patient has renounced all claims to genital sexuality.

As the hair is pulled out by the individual personally, several authors have considered issues of autoaggression, autoeroticism, and masochism in relation to trichotillomania (Greenberg & Sarner, 1965; Mannino & Delgado, 1969).

Buxbaum (1960) considered the hair-pulling symptom as a fetish, multi-determined by a variety of unconscious conflicts. According to her formulation, hair pulling could represent transitional phenomena that are secondary to separation anxiety; autoaggression (anger turned inwards) that is secondary to feelings of ambivalence towards the parents; autoerotic activity designed to counter feelings of loneliness, insecurity, and anxiety; displacement of castration fears secondary to a wish to pull the parent's hair (especially the 'castrated' mother's for the girl); an amalgamation of painful and pleasurable sensations (early symptoms of masochism); signs of despair and mourning; and/or a means of reassuring the particular patient of his/her existence through the bodily sensations he/she experiences.

It is clear from the above why the psychodynamic model considers hair to be symbolic of an attempt to resolve conflict around a variety of sexual and aggressive issues, or as conflict in connection with dependency and the loss of loved ones.

Several case reports have been published of successful psychoanalysis or psychoanalytically oriented therapeutic interventions with adult patients (Monroe & Abse, 1963; Sorosky & Sticher, 1980), but few describe the specifics of the treatment model. Paul and Cunningham (2000) emphasised the need to explore the unique content and meaning of patients' hair-pulling behaviour to establish the connection between their life experiences and the symptom. In this case, treatment would involve the clarification and interpretation of transference and countertransference reactions that repeat early interaction patterns between the child and its primary caretaker(s). This process allows patients to work through early developmental conflicts until the function of the hair pulling has been resolved. Krishnan, Davidson, and Guajardo (1985) describe two cases in which the occurrence of trichotillomania was related to object loss. In these cases, the value of hair as transitional object was neutralised by working through fears of abandonment and associated rage.

The very nature of the psychoanalytic paradigm unfortunately precludes empirical evidence of the validity of its theoretical concepts and treatment strategies, and few modern clinicians acknowledge its potential contribution to the field of trichotillomania. Much of the recent discourse around trichotillomania consequently focused on what Tanquary (1994) refers to as "mechanistic and biologically reductionistic" (p.35) conceptualisations of the disorder.

#### 4.3 COGNITIVE-BEHAVIOURAL MODEL

Behavioural perspectives on trichotillomania have traditionally focused on factors that maintained the chronic hair-pulling symptom. Azrin and Nunn (1973) proposed that the process by way of which trichotillomania is learnt is similar to other habit-forming

processes. Hair pulling is believed to develop as a coping behaviour in response to stress, reinforced by tension-reduction experiences or negative reinforcement. These may be pleasurable sensations derived from the pulling, and securing of desired hair or roots, and/or achieving a desired outcome such as the removal of unwanted hair. Other desirable outcomes could be the reduction or elimination of aversive conditions including the alleviation of tension, boredom, or other negative affective states, or an escape from undesirable tasks or thoughts (O'Sullivan et al., 2000). Cravings for the physical sensations associated with pulling could become conditioned (Friman, Finney, & Christophersen, 1984). Pulling episodes are often only ended by aversive sensations and cognitions experienced as punishment. Ultimately, through both classical and operant conditioning processes, the behaviour becomes associated with an increasing number of internal and external cues until it eventually becomes habitual - often occurring without the person being consciously aware of it. As can be expected, the patient's subjective experience of continued control over the hair-pulling behaviour decreases significantly once he/she finds him/herself with hands full of pulled hair without clearly remembering doing it.

Another hypothesis, response covariation, has proven useful for describing the aetiology of early-onset trichotillomania. The successful treatment of thumb sucking has also eliminated covariant hair pulling (Friman & Hove, 1987; Knell & Moore, 1988; Watson & Allen, 1993).

Appreciation of the diagnostic complexities and the limits of categorical diagnoses have prompted behavioural therapists to develop behavioural treatment models to accommodate the diverse subjective and behavioural phenomenology of hair pulling.

Habit-reversal techniques acknowledged and addressed the impact of environmental variables, motor habits, and affective states in hair pulling. Other techniques

highlighted the role of cognitive features and added cognitive-based treatment strategies for trichotillomania. These techniques include self-monitoring by means of hair collection, improving coping strategies by identifying preventive strategies for high-risk situations, motivation enhancement, changing the internal monologue, awareness training, competing response training, and relaxation skills training (Koran, 1999).

More recent developments in the cognitive-behavioural field favour a comprehensive conceptual and behavioural model that incorporates the behavioural, affective, and cognitive variables into the diverse and idiosyncratic features characteristic of trichotillomania (O'Sullivan et al., 2000). The integrative model organised all these variables into a functional analytic framework that incorporates the different antecedents that stimulate the urge to pull or facilitate pulling, the wide range of behaviours involved in the actual pulling of hair, and the full range of consequences of hair pulling.

#### 4.4 BIOLOGICAL MODEL

A limited but growing body of literature hints at the structural and functional neurobiologic correlates of trichotillomania (Stein, 2000; Stein, O'Sullivan, & Van Heerden, 1998; Swedo & Rappoport, 1991), and differentiates subjects with trichotillomania from healthy controls and other groups with obsessive-compulsive spectrum disorders (O'Sullivan et al., 2000).

Somatosensory sensations, parasthesias, and prodromal urges (rather than obsessions) that precede hair-pulling episodes have become associated with the urge to pull (Diefenbach et al., 2000). Patients with trichotillomania sometimes describe a tingling or other sensation on the body area(s) from which they usually pull, and it is frequently these sensations that drive the pulling response. It is thought that this sensation approximates Tourette's syndrome, in which somatosensory urges also seem to drive

the motor tics. Certain neurological similarities have subsequently been noted between trichotillomania and Tourette's syndrome (O'Sullivan, Rauch et al., 1997; Stein & Hollander, 1992).

As for the possible neurobiological correlation of hair pulling (one of a number of unwanted repetitive motor behaviours), recently conducted controlled medication trials found that neurotransmitters such as serotonin and dopamine play an important role in mediating the neurons that affect trichotillomania and obsessive-compulsive spectrum disorders.

It is not yet clear to what extent the development of trichotillomania is influenced by genetic factors. Although some studies have found rates of between 4% and 8% of first-degree relatives who also pulled their hair (Christenson, Mackenzie, & Reeve, 1992; Lenane et al., 1992; Schlosser et al., 1994), it is difficult to generalise these findings.

Other biological theories ranged from dysregulated grooming (see par. 3.4) to complex autoimmune (Swedo, 1994) or neuroimmunocutaneous-endocrine interactions (O'Sullivan, Lipper, & Lerner, 1998).

Trichotillomania was initially treated with topical agents directed at the cutaneous sensations that might prompt hair pulling. The first drug treatment for trichotillomania was introduced in 1985, when Childers (cited in Paul & Cunningham, 2000) reported two long-standing cases that responded positively to chlorpromazine. Several studies were subsequently conducted to test the impact of clomipramine, desipramine, fluoxetine, and naltrexone. Trichotillomania has shown some responsiveness to serotonin re-uptake inhibitors, but not to noradrenergic re-uptake inhibitors (Stein et al, 1995).

However, the variety and inconsistency of the research findings and the inconsistent results produced by pharmacological treatments offer only tentative and incomplete biological explanations for phenomena associated with trichotillomania. Furthermore, these treatments do not address the many psychological, behavioural, and interpersonal sequelae of the disorder.

#### 4.5 COMMENT

Researchers are currently investigating the possibility that the heterogeneous nature of trichotillomania could reflect subtypes of the disorder with differing aetiologies (Minichiello, O'Sullivan, Osgood-Hynes, & Baer, 1994). Although Du Toit, Van Kradenburg, Niehaus, and Stein (2001) have found that differences in the population could rather reflect greater severity in hair-pulling symptomatology than distinct subtypes, the aetiology of hair pulling in every individual client could well denote a complex interaction of biological, psychological, and social factors.

Diefenbach and colleagues (2000) point out that the continued elaboration of integrative conceptualisations that draw from multiple perspectives therefore presents an important tool in advancing the scientific understanding of trichotillomania. Furthermore, as each level of analysis approaches the disorder from a different perspective, they emphasise that the trichotillomania population would benefit most when these paradigms are used to complement each other.



## CHAPTER 5

## OVERVIEW OF THE RORSCHACH COMPREHENSIVE SYSTEM

## 5.1 NATURE OF THE RORSCHACH

The ten inkblots that constitute the stimuli of Herman Rorschach's inkblot test were first presented to the professional public in 1921 (Exner, 1993). Since then, the instrument has generated much interest, extensive use, and considerable research.

As a cognitive structuring task that comprises uniform stimuli, standard administration, formal coding, and specific interpretative guidelines, the Rorschach is in many ways an objective assessment technique. Weiner (1998) describes the Rorschach as an instrument that constitutes in part a problem-solving task to provide an objective assessment of a subject's cognitive structuring style. However, it also presents a stimulus to fantasy that provides a subjective assessment of thematic imagery. Weiner (1998) points out that the production of Rorschach responses involves processes of association, attribution, and symbolisation, which lead to the assignment of characteristics that go beyond the actual stimulus features of the blots.

Two key considerations in elucidating the nature of the Rorschach instrument are then relevant. The first of these, the projection process, occurs when people attribute their own internal characteristics to external stimuli without justification - and without being consciously aware that they are doing so. The second consideration, the role of ambiguity, is closely linked to the extent of inherent structure in the stimuli and the nature of the subject's task.

According to Weiner (1998), Schachtel (1966) and Exner (1989), responding to Rorschach stimuli may and often does involve projection, but may also happen independently. As the instrument embraces both ambiguous and clearly defined

stimuli and task elements, Weiner (1998) regards it a relatively unstructured technique among personality assessment techniques, rather than a merely projective method.

## 5.2 BACKGROUND TO THE COMPREHENSIVE SYSTEM

The Rorschach Research Foundation was established in 1968. Its principal aim was to conduct a comparative analysis of the five major approaches to the Rorschach method. The Foundation originally sought to validate the Rorschach method empirically by excluding aspects of other applications that were found to be unreliable or invalid and hence not of clinical value, and to introduce empirically sound contributions to the administration, scoring, and interpretation of the instrument.

Due to the scope of the original study, however, the development of a Comprehensive System was suggested and has expanded considerably since its introduction by Exner in 1974. It was motivated primarily by the need for a consistently administered, adequately normed, reliably scorable, and psychometrically sound method of Rorschach assessment.

The Comprehensive System rests on three pillars namely standardised administration, objective and reliable coding, and a representative norm base. It has become a reliable way to assess a subject's personality structure and psychological functioning. It has been used as an aid in the diagnosis of various conditions that involve specific patterns of personality functioning. It furthermore offers well-validated contributions to identifying treatment targets and potential obstacles to progress in psychotherapy, selecting appropriate treatment modalities, and monitoring change and improvement over time (Weiner, 1998).

## 5.3 APPROACH TO ANALYSIS

The Comprehensive System enables thorough analysis of a wide range of Rorschach data, including the interpretation of structural variables, content themes, sequence

analyses, and test behaviours. For the purposes of the current study, however, only the structural variables have been considered.

### 5.3.1 Clusters of variables

Seven groups of intercorrelated variables were identified for structural analysis after a formal examination of all the Rorschach data. These groups were designated Rorschach 'clusters' or sections.

Each of these seven clusters of intercorrelated structural variables were found to be related to a distinct aspect of personality functioning.

5.3.1.1 The control and stress tolerance cluster provides information about subjects' innate and current psychological resources, their ability to manage stress, and their capacity to cope consistently and effectively with life events.

Sufficient resources are needed to minimise subjectively felt distress and maintain a consistent coping style, in order to promote psychological well-being and successful adaptation to life demands. Exner and Weiner (1999) purport that the combination of inadequate resources, excessive stress, and inconsistent coping efforts are typical of lives marked by distress, disappointment and limited accomplishment. The relevant Rorschach findings help to identify the extent of the adaptive capacity subjects can muster in planning and implementing ways of dealing with their everyday experiences; the extent and kinds of stressful demands in their lives; how well they can tolerate their level of stress without becoming unduly upset and losing self-control; and the adequacy with which they can bring a cohesive personality style to bear in managing their affairs.

Situation-related stress is explored by an array of variables that have broad significance for the manner in which subjects use ideation, modulate affect, view themselves, and relate to others. Exner and Weiner (1999) state that, when

considered in combination, the situational stress variables provide information concerning the nature and sources of situational stressors that impinge on any subject's psychological organisation and functioning.

5.3.1.2 The information-processing section provides information about the manner in which subjects focus their attention on events in their lives, and how they organise perceptions that enter their awareness.

Exner and Weiner (1999) suggest that successful adaptation is promoted by an openness to experience and the efficient organisation of the impressions a person forms, whereas viewing the world from a narrow or disorganised frame of reference makes a person susceptible to various types of adjustment difficulties.

5.3.1.3 The cognitive-mediation section provides information about the manner in which subjects perceive their environments, and especially whether they perceive people and events the way most other people do.

According to Exner and Weiner (1999), the ability to perceive one's experience realistically and with a modicum of conventionality constitutes a personality strength that typically contributes to good adjustment. Conversely, they emphasise that subjects' difficulties in seeing themselves and their world in a realistic light represent a personality limitation that may cause adjustment problems. The same is true of inclinations that are unusually conforming or highly idiosyncratic in forming impressions of experiences.

5.3.1.4 The ideation section provides information about the way subjects think about the experiences they have and the impressions they form of events in their lives.

People adapt best when they are able to think about their experiences and impressions in a logical, flexible, coherent, constructive, and only moderately preoccupied manner. Conversely, being inclined to illogical, inflexible, incoherent,

overly fanciful, or excessively preoccupying ways of thinking, constitute a personality liability that interferes with psychological adjustment (Exner & Weiner, 1999).

- 5.3.1.5 The affective features section provides information about the manner in and comfort with which subjects process their emotional experiences, but specifically with how they deal with their own feelings, and how they respond to the feelings of others and to emotionally charged situations in general.

According to Exner and Weiner (1999), the relevant Rorschach findings help to identify whether people can experience and express emotion sufficiently, pleasurably, and in moderation, or whether instead they are prone to process affect in a constricted, dysphoric, or overly intense manner that leads to adjustment difficulties.

- 5.3.1.6 The self-perception cluster provides information about how subjects view themselves, particularly with respect to their self-esteem, the extent of their self-awareness, and the nature of their self-image.

The relevant Rorschach findings help to identify whether people feel satisfied and comfortable with themselves or if they are burdened by negative self-attitudes. They also recognise whether the subjects are excessively preoccupied with or paying little attention to themselves, and whether they have a clear and stable sense of their identity rather than an uncertain and unrealistic grasp of the kind of persons they are (Exner & Weiner, 1999).

- 5.3.1.7 The interpersonal perception section provides information about how subjects relate interpersonally, particularly in their attitudes to others, the degree of interaction they have with others, and the manner in which they approach and manage interpersonal attachments.

Exner and Weiner (1999) contend that the relevant Rorschach findings help to identify whether people are able to sustain a reasonable level of interpersonal interest,

involvement, and comfort, or are instead inclined to be disinterested, disengaged, or ill at ease in social situations; whether they anticipate intimacy and security in their interpersonal interactions, or whether they tend instead to regard interpersonal closeness as threatening to their well-being and therefore keep their distance from others; whether they can strike an adaptive balance between collaboration and tolerance on the one hand, and competitiveness and assertiveness on the other hand, or whether they tend instead to become excessively subservient or domineering in their interpersonal relationships. These findings also reveal whether they perceive people and social situations accurately and with empathy, or are instead prone to misinterpret the motives of others and to misconstrue the implications of interpersonal events (Exner & Weiner, 1999).

### 5.3.2 Sequential search strategy

The Comprehensive System features a routine for the optimal review of each of the above clusters. Exner and his team (1991) uncovered 12 key variables that, when set in order of dominance or priority, appear to define the optimal order of cluster review.

Six special indices were developed to aid diagnostic considerations. These include the Suicide Constellation (SCON), the Depression Index (DEPI), the Coping Deficit Index (CDI), the Hypervigilance Index (HVI), the Obsessive Style Index (OBS), and the Perceptual Thinking Index (PTI) which replaces the earlier Schizophrenia Index (SCZI)<sup>1</sup>.

Most of these special indices form part of the 12 key variables. It is important to bear in mind that the presence of a key variable predicts which combination of clusters would yield the data sources that contributed to the most substantial information about a subject's core psychological features. In fact, the key variables are dominant elements in the personality structure and have a major impact on a person's psychological functioning.

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<sup>1</sup> For the purposes of this study, only the PTI was considered.

The first six key variables ( $PTI > 3$ ,  $DEPI > 5$  and  $CDI > 3$ ,  $DEPI > 5$ ,  $D\text{ Score} < Adj\ D$ ,  $CDI > 3$ , and  $Adj\ D < 0$ ) deal with personality structure. They focus on the presence of psychopathology or the potential for functional disorganisation. The remaining six variables ( $\Lambda > 0.99$ ,  $Reflection > 0$ ,  $EB = \text{Introversive}$ ,  $EB = \text{Extravertive}$ ,  $p > a + 1$ ,  $HVI = \text{Positive}$ ) define the more basic personality styles - any of which may form the cornerstone of the individual's future organisation and functioning (Exner, 1993).

The identification of any of these key variables suggests the presence of strong, relatively fixed character traits or pathology. It was therefore, for the purposes of this study, relevant to determine whether and/or which key variables introduce individual subjects' search strategies.

TABLE 1: RECRUITMENT OF RESPONDENTS

Source	Male	Female
1. Newspaper article	2	2
2. Professional seminars, Conferences and symposia	14	13
3. Research institutions	1	13
4. Word of mouth	3	11

## CHAPTER 6

### METHODOLOGY

#### 6.1 PARTICIPANTS

Fifteen people were selected for this project ( $N=15$ ). As the purpose of the study was exploratory and the identification of participants proved exceptionally exigent, sampling was purposive rather than representative.

The participants were enlisted from various sources, including referrals from local psychiatrists and dermatologists, the Obsessive-Compulsive Disorder Association of South Africa, the Trichotillomania Learning Centre of South Africa, and printed media advertisements.

As demonstrated in Table 1, 53% ( $N=8$ ) of the final sample were members of the Trichotillomania Learning Centre of South Africa who had indicated that they were willing to participate in research projects on the illness. A further 3 participants (20%) who were also involved with the Trichotillomania Learning Centre, were enlisted by word of mouth. Four participants (27%) responded to an article in the REKORD suburban newspaper. Participation in the study was voluntary and without remuneration.

TABLE 1: RECRUITMENT OF RESEARCH PARTICIPANTS

SOURCE	N	%
1. Newspaper article	4	27
2. Trichotillomania Learning Centre of South Africa	11	73
• Research volunteers	8	53
• Word of mouth	3	20



### 6.1.1 Selection criteria

In addition to having a DSM-IV diagnosis of trichotillomania, factors that determined the participants' inclusion in the study were i) gender; ii) age (18 to 65 years); iii) late onset of trichotillomania (after age eight); iv) the absence of organic impairment, mental retardation, or acute psychosis; and vi) the participants' outpatient status.

Although all the participants had a history of visible, self-induced hair loss, the actual hair-pulling sites were not physically examined to rule out differential diagnoses. However, the participants' condition was verified via a self-report version of the DSM-IV criteria for trichotillomania, and all the participants completed the Massachusetts General Hospital Hairpulling Scale (see par. 6.2.1).

Two participants (13%) did not experience the tension-release and/or gratification cycle required by the DSM-IV. As this criterion is still a matter of debate (see par. 3.2), however, their inclusion is consistent with the subject profile of other major studies (Christenson, Mackenzie, & Mitchell, 1991; Christenson, Chernoff-Clementz, & Clementz, 1992; Soriano et al., 1996; Ninan et al., 1999).

It was acknowledged that comorbid conditions would affect the results of this study. However, the scope of the project did not warrant a comprehensive, structured DSM-IV screening of all the participants. In order to limit the impact of unknown comorbid psychiatric diagnoses, it was decided to exclude those who had been admitted to a psychiatric hospital before. In other words, despite the possible presence of comorbid conditions, it was assumed that the participants' functioning would not be affected below a Global Assessment of Functioning (GAF) Scale of 51-60.

As personality structure is not a transient phenomenon that is significantly affected by the presence or absence of symptoms, the participants' current phase of acuity or

residual state was not considered for inclusion criteria. Also, although situational stress is an integral and probably unavoidable part of every person's psychological functioning, its potential for confounding effects on the participants' current level of functioning was nevertheless considered in the analysis of the Rorschach data.

### 6.1.2 Demographic variables

Table 2 reflects the demographic characteristics of the sample which consisted of adult Caucasian females only. All but one participant ( $N=14$ ) (93%) were in their early adulthood (18-45 years). The participants' ages ranged from 23 to 51 years, with a mean age for the sample of 34.5 years.

Only 3 of the participants (20%) were unmarried. Of these, 1 participant has been in a serious relationship for the past two and a half years, another has been in a lesbian relationship for the past four years, and the other one has been single since school and has never had a serious relationship.

All but 3 participants (80%) had completed Std. 10. The majority of the participants (53%) had furthered their secondary education by means of finishing or technical diploma courses. Two participants (13%) had obtained a professional qualification at university level. The participants averaged 12.9 years of education, with a range of 8 to 17 years.

Most of the participants resided in Gauteng ( $N=12$ ) (80%). Of these, 9 (60%) lived in metropolitan areas, 2 (13%) on smallholdings, and 1 (7%) in a rural town. Two of the participants (13%) were residents of rural towns in the North West Province and Mpumalanga, and another (7%) lived on a farm in Mpumalanga.

All the participants were fluent in either Afrikaans ( $N=9$ ) or English ( $N=6$ ). Both the structured interview and administration of the Rorschach were conducted in the participant's home language.

Written informed consent was obtained from all the participants. The participants' names were omitted from their records to ensure anonymity, and replaced with research codes. The usual ethical guidelines for the confidentiality of information applied.

TABLE 2: DEMOGRAPHIC VARIABLES OF SAMPLE

VARIABLE	N	%	VARIABLE	N	%	VARIABLE	N	%
RACE			MARITAL STATUS			AGE		
White	15	100	Married	12	80	18-25	3	20
			Single	3	20	26-35	5	33
						36-45	6	40
						46-55	1	7
EDUCATION			RESIDENCE			LANGUAGE		
Under 12 yrs	3	20	Urban	9	60	Afrikaans	9	60
12 yrs	1	7	Suburban	3	20	English	6	40
13-15 yrs	9	60	Rural	3	20			
16+ yrs	2	13						

## 6.2 DATA COLLECTION PROCEDURES

### 6.2.1 MGH Hairpulling Scale

The Massachusetts General Hospital (MGH) Hairpulling Scale was used to determine the participants' behaviours and/or feelings concerning their symptoms in the course of the week preceding assessment (attached as Appendix A).

The MGH Hairpulling Scale is one of the most well-known and accepted tests for the clinical assessment of trichotillomania. It has been shown to form a homogeneous scale for the measurement of severity (Keuthen, et al., 1995), and is used most often in view of empirical documentation on its acceptable reliability and validity (Keuthen, et al., 1995; O'Sullivan, Keuthen, et al., 1997).

The self-rated questionnaire consists of seven items that are rated on a 5-point scale (0=best; 4=worst). The items cover the frequency of urges, the intensity of urges,

the ability to control the urges, the frequency of hair pulling, attempts to resist hair pulling, control over hair pulling, and associated distress.

The participants' scores on the MGH scale ranged from 4 to 24, with the lowest score by a participant whose hair pulling is currently in remission. Figure 1 below displays the participants' actual scores as well the distribution of scores for the sample. The mean score for the sample was 13.

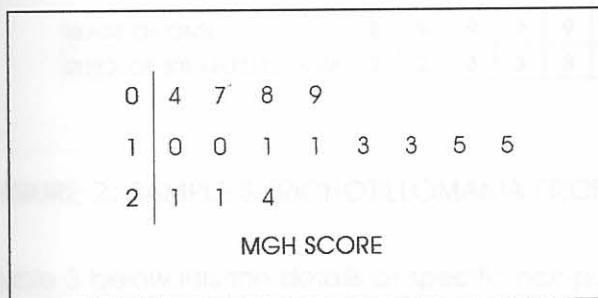


FIGURE 1: STEM-AND-LEAF DISTRIBUTION OF SCORES ON MGH HAIRPULLING SCALE

#### 6.2.2 Structured clinical interview

A structured clinical interview was conducted with each participant prior to administering the psychometric test in order to obtain relevant historical data and limit interviewer bias. The Maudsley case history format was adapted for this purpose (attached as Appendix B). The questions covered aspects of the presenting problem, natal history, early development and education, family history, interpersonal relationships, sexual inclination and practices, occupation, hobbies and habits, treatment history, and significant life events.

The sample's trichotillomania profile was generally consistent with the findings of Christenson, Mackenzie, and Mitchell (1991). The mean age of onset for the illness was 12 years, with a range of 8 to 18 years and a mode of 13 years. The majority of the participants ( $N=10$ ) (73%) pulled hair from more than one site. The number of sites ranged from 1 to 5, with 1 and 2 as modes. Figure 2 presents these particulars for each participant.

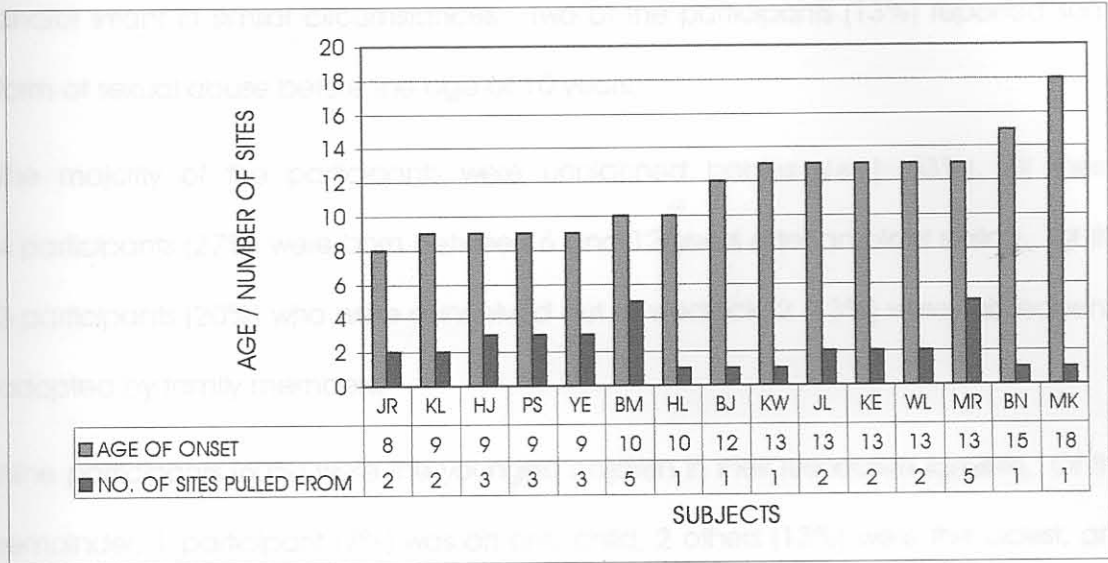


FIGURE 2: SAMPLE'S TRICHOTILLOMANIA PROFILE

Table 3 below lists the details of specific hair-pulling sites for each participant.

TABLE 3: PARTICIPANTS' HAIR-PULLING SITES

PARTICIPANT	SITES PULLED FROM
MK	Eyebrows
BJ	Scalp
BN	Scalp
HL	Scalp
KW	Scalp
JL	Scalp, pubic area
JR	Scalp, pubic area
KE	Scalp, pubic area
KL	Scalp, pubic area
WL	Scalp, pubic area
YE	Scalp, eyelashes, eyebrows
HJ	Scalp, pubic area, legs
PS	Eyebrows, eyelashes, legs
BM	Scalp, eyebrows, eyelashes, pubic area, upper lip
MR	Scalp, eyebrows, eyelashes, pubic area, legs

Four participants (27%) volunteered that they also suffered from trichophasia.

Furthermore, 87% ( $N=13$ ) of the participants reported clearly traumatic or at least significant life events before the age of three years. For 8 participants (53%), these events included pregnancy, birth, or medical complications. Seven participants (47%) reported social factors that would be markedly stressful to almost any mother

and/or infant in similar circumstances. Two of the participants (13%) reported some form of sexual abuse before the age of 10 years.

The majority of the participants were unplanned babies (N=8) (53%). Of these, 4 participants (27%) were born between 6 and 12 years after an older sibling. Of the 3 participants (20%) who were conceived out of wedlock, 2 (13%) were subsequently adopted by family members.

Nine participants (60%) were the youngest children in their respective families. Of the remainder, 1 participant (7%) was an only child, 2 others (13%) were the oldest, and 3 (20%) were middle children.

Only 1 participant (7%) reported an unequivocally good relationship with both her parents since childhood. Five other participants (33%) reported that they preferred to discuss matters close to their hearts with their fathers rather than their mothers, and another 5 participants (33%) reported the opposite preference. Four participants (27%) reported not being emotionally close to either parent.

With regard to comorbid conditions, 6 participants (40%) were on psychiatric medication for anxiety and/or depression. Of these, only 1 (7%) participant had been formally diagnosed with a mood disorder after a suicide attempt. She was admitted to a (general) hospital for the condition in 1986<sup>1</sup>, but her mood has been stable since. In 1987<sup>1</sup>, another participant (7%) was admitted to the Sterkfontein psychiatric hospital for alcohol abuse. She has reportedly been in remission for the past three years, although she admits to regularly smoking marijuana.

Although 9 of the participants (60%) reported having consulted a psychologist before, none of them had been in psychotherapy for more than eight sessions. These sessions

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<sup>1</sup> It was decided to include these participants as more than a decade had lapsed since hospitalisation.

included hypnotherapy, cognitive-behavioural therapy, and pastoral care. No one was in psychotherapy at the time of assessment.

Eleven participants (73%) had a history of nail biting to various degrees of severity, and 6 of them (40%) also reported skin-picking habits.

### 6.2.3 Rorschach Comprehensive System

All the participants' Rorschachs were administered directly on conclusion of the structured interviews. The basic instructions recommended by Rorschach and used in the Comprehensive System were followed. The participants were asked, 'What might this be?' upon presentation of each card, followed by 'Where do you see it?' and 'What made it look like that?' in the enquiry phase. All the responses were recorded verbatim.

As hypothesis testing did not form part of the research design, the principal researcher administered all the Rorschach tests.

All the research protocols contain a sufficient number of responses to provide reliable information and to support valid interpretations, with a range of 14 to 35 responses (mean=19.40; SD=6.26; median=16; mode=15).

The principal researcher followed the Comprehensive System's standard procedures to code all the responses, which were checked by the study leader. A blind, neutral third party proficient in the use of the Comprehensive System's rules and principles for coding, rescored the protocols to increase interscorer reliability and accuracy. The percentage of coding concurrence for the Location, Developmental Quality,  $\bar{z}$  score, Pair, and Popular categories was more than 95%, with agreement on Form Quality and Content scores slightly lower at 90%. Interscorer agreement on the Determinants and the Special Scores was lowest at 88%.

The data were subsequently tabulated by the Rorschach Interpretative Assistance Program-4 (RIAP-4) (Exner & Weiner, 1999). Although the RIAP-4 program is based on earlier versions of the Comprehensive System, interpretative inferences are based on the most recent primer for Rorschach interpretation (Exner, 2000).

Copies of the complete set of protocols of the sample, with their respective location sheets, structural summaries and constellation tables are included as Appendix C.

### 6.3 DATA ANALYSIS

Several factors were taken into account in the choice of data analysis. It was acknowledged that the small size of this purposive sample ( $N=15$ ) probably rendered the results of the study preliminary at most. The potential impact of the non-normal distribution of many of the Rorschach variables rendered the use of parametric methods of data analysis precarious, and the concurrent potential for Type I and Type II errors was also borne in mind. It was decided, however, that the scope and exploratory nature of this study probably allowed for less conservative methods of data analysis. Both descriptive and inferential methods of analysis were therefore used to examine all of the Rorschach variables.

All participants' Rorschach protocols were examined individually. As the effect of predominant personality styles is a widely recognised factor, the participants' Lambda and EB variables were taken into account where analysis of the data indicated it.

The subsequent collective analyses of the sample's Rorschach data were generally qualitative (Exner, 2000). Descriptive statistics concerning central tendencies and/or the dispersion of scores were calculated for some variables. Analysis of the non-parametric variables relied, as far as possible, on the descriptive value of the frequency, range, median, and mode of the data. Where relevant, these were tabulated or displayed graphically for the sake of clarity of the data.



Inferential statistics were subsequently used to differentiate the trichotillomania sample from general psychiatric outpatient and non-patient populations by comparing the collective performance of the sample to normative expectations.

The potential implications of the study's small sample size compared to the Comprehensive System's normative populations (Exner, 2001) were acknowledged, but disregarded as the samples were matched in terms of age, education, and number of Rorschach responses (R). The mean value for these factors is shown in Table 4 below.

TABLE 4: MATCHED FACTORS BETWEEN CURRENT SAMPLE AND NORMATIVE POPULATIONS

MATCHED FACTORS (MEAN)	NON-PATIENT ADULTS (N=700)	OUTPATIENT ADULTS (N=440)	RESEARCH SAMPLE (N=12)
Age	31.73	33.81	33.53
Years Education	13.43	13.46	12.9
Number of Responses	22.32	20.25	19.40

The study results were subsequently compared to the normative data for adult non-patient and psychiatric outpatient populations (Exner, 2001) with the aid of SPSS-generated parametric statistics that were calculated for all the relevant variables of all the participants. Standardised  $z$  scores with the kurtosis and skewness for each variable, are cited in the relevant sections of Chapter 7. However, these scores were only considered where the distribution of scores could be expected to reflect normal-shaped curves.

To enhance the objectives of the study, the resultant findings are reported per variable or per group of variables, rather than per participant.

As the main aim of the study was the identification of commonalities in the research sample, only data suggesting a significant coalescence of findings (i.e. where more than 70% of the sample shared similar characteristics for a specific factor) were considered conclusive for inferences based on the Rorschach results.