# Rorschach and the WAIS-III after One and Two Years of Psychotherapy

O Teste de Rorschach e a Escala WAIS-III após Um e Dois Anos de Psicoterapia

Latife Yazigi\*, Norma Lottenberg Semer, Terezinha de Carvalho Amaro, Maria Luiza de Mattos Fiore, Julieta Freitas Ramalho da Silva, & Nara Lucia Poli Botelho Universidade Federal de São Paulo, São Paulo, Brasil

## Abstract

This study aimed at identifying what aspects of personality are modified after one and two years of psychoanalytic psychotherapy in adults attending a free university healthcare service in São Paulo, Brazil. The instruments were the Rorschach and the WAIS-III tests which were administered before and after one and two years of treatment. The participants were 34 adult individuals, both genders. After one year of psychotherapy in the Rorschach method there was an increase in effective and adaptive interpersonal relationship, an enhancement in sensitiveness related to the capacity of modulating affect, the need for close contact as well as the arousal of feelings of discomfort associated with intensification of self-regard, and a decrease in narcissistic tendencies. As well as in WAIS-III, there was an increase in motivation, attention and speed processing.

Keywords: Psychotherapy; Rorschach Test; Intelligence Test.

#### Resumo

O estudo teve por objetivo identificar quais aspectos da personalidade são modificados após um e dois anos de psicoterapia psicanalítica em adultos atendidos em um serviço público de saúde mental de uma universidade em São Paulo, no Brasil. Os instrumentos utilizados foram o Rorschach e a Escala de Inteligência Wechsler para adultos (WAIS-III), os quais foram administrados antes e após um e dois anos de tratamento. Os participantes foram 34 indivíduos adultos, de ambos os sexos. No Rorschach, após um ano de psicoterapia, ocorreu melhora da relação interpessoal adaptada e efetiva, melhora na sensibilidade relacionada à capacidade de modular afeto e da necessidade de contato mais próximo, e surgimento de sentimentos de desconforto associados à intensificação de auto-observação e diminuição de tendências narcisistas. No WAIS-III houve aumento de motivação, melhora atencional e de velocidade de processamento.

Palavras-chave: Psicoterapia; Teste de Rorschach; Teste de Inteligência.

There has been a great deal of controversy concerning psychoanalytical assistance in a public health institution. There is a belief about the need for payment in order to make the patient responsible for his/her therapy and to not develop a dependent bond with the institution. Freud (1913/1958b) emphasized this aspect when he said:

It is a familiar fact that the value of the treatment is not enhanced in the patient's eyes if a very low fee is asked . . . (the analyst) should also refrain from giving treatment free, and make no exceptions to this in favor of his colleagues or their families . . . For ten years or

so, I set aside one hour a day, and sometimes two, for gratuitous treatments, because I wanted, in order to find my way about it in the neurosis, to work in the face of as little resistance as possible. The advantages I sought by this means were not forthcoming. Free treatment enormously increases some of a neurotic's resistances. (p. 133-134).

Later on, Etchegoyen (1989) stated that patients must pay for sessions even when they do not come. He quoted Menninger (1958) who considered that a psychoanalytical contract did not differ substantially from any other kind of professional contract.

More recently, Person, Cooper and Gabbard (2007) remarked that the popularity of psychoanalysis in Germany and Scandinavia is due to the fact that psychoanalytic treatment is covered by the National Health Program in these countries. Meanwhile Tucket (2007) pointed out that in Great Britain and Italy, psychoana-

<sup>\*</sup> Endereço para correspondência: Universidade Federal de São Paulo, Departamento de Psiquiatria, Rua Botucatu, 740, 3° andar, Vila Clementino, São Paulo, SP, Brasil, CEP 04023-900. E-mail: lyazigi@aclnet.com.b. Agradecimentos: Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) e Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).

lysis is a private business and even when psychoanalysts do work in public health care they do not practice psychoanalysis there.

In Brazil, psychoanalytic psychotherapy does not occur in a systematic way and it is limited to private practices. Therefore, the present study aimed to fill this gap and find out whether it is worthwhile to apply psychoanalysis or psychoanalytic psychotherapy in an institutional context of free treatment for welfare and/or low-income individuals, and to observe any changes in personality as a consequence of the psychoanalytic psychotherapy.

Weiner and Exner (1988) pointed out the following personality characteristics identified in the Rorschach Comprehensive System associated with achieving the goals of long-term dynamic psychotherapy: (a) to manage stress, (b) consistent coping style, (c) openness to experiences, (d) perform constructive self-examination, and (e) feel comfortable in interpersonal relationships.

Later on, Weiner and Exner (1991) tested 27 Rorschach Comprehensive System variables related to adjustment difficulty as potential clues to insufficient treatment progress in long-term dynamic psychotherapy. The Rorschach protocols were obtained at four stages during or following the treatment, one at the beginning and three on subsequent occasions. The authors found a significant decrease in the frequency of 24 indices, and conceptually clustered them in six dimensions of personality functioning:

(a) managing stress adequately (less D < 0, less AdjD < 0, less EA < 7, less CDI > 3); (b) dealing with experience attentively, openly, consistently, and conventionally (less Ambitence, less Zd < -3.0, less Lambda > .99, less X + % < 70, less X - % > 20); (c) modulating and enjoying emotional experience (less SumSh > FM + m, less DEPI = 5, less Afr < .50, less CF + C > FC + 1); (d) using ideation effectively (less Sum6 > 6, less M - > 0, less Mp > Ma, less Intellect > 5); (e) examining oneself (less Ego > .43, less Ego < .33); (f) feeling comfortable in interpersonal relationships (less p > a + 1, less T = 0, less T > 1, less Pure H < 2, less H < [(H) + Hd + (Hd)]. (p. 462).

These findings corroborated the conceptually elaborated dimensions of personality functioning. Weiner and Exner (1991) stressed the accuracy with which the Rorschach monitored expected change over time in the psychotherapy patients of their study.

Consistently with expectation based on the psychotherapy research literature, Rorschach indices of adjustment difficulty became less frequent in the course of the patients' participation in psychotherapy . . . The successful measurement of these expected changes by Rorschach variables lends construct validity to their use for this and related purposes. (p. 463-464).

In a cohort study on effectiveness of long-term psychoanalytic treatment, Berghout and Zevalkink (2008) used among other instruments the Rorschach Comprehensive System. However, it is a study in process; the authors commented that the Rorschach provided interesting results with respect to treatment assignment which underlines its role in diagnostic procedures.

As to the WAIS, although early psychological theories treated cognitive functioning as a unique phenomenon, called intelligence, some enhanced acknowledgement covered the multidimensionality of mental ability as a wide range of skills and capacities. The concept of intelligence was described by Wechsler (1944) as a multidimensional construct that manifests in different forms such as the way a person behaves, thinks and interacts with their surroundings. Later on, the same author (Wechsler, 1950) incorporated attributes such as basic personality traits. motivations, attitudes (persistence, consciousness of objective), and other dispositions not directly assessed but which contribute to the comprehension of the variations found in the intellectual performance – these aspects also play a role in the person's daily life and interaction with the demands of the external world. Wechsler (1950) and Matarazzo (1990) stressed that the clinician should always take into consideration, besides the cognitive aspects, the conative aspects (anxiety, depression) and the social and medical histories and educational and cultural information.

The Wechsler Intelligence Scales are the best-known formalized batteries for general clinical use and are widely used for neuropsychological assessment. This battery can be used in full or in part, when the tests are chosen based on their sensitivity and specificity to a particular condition or disease state (Taylor & Heaton, 2001). "David Wechsler followed both traditions: he maintained the notion of intelligence as a global-unitary-entity (thus the IQ score), but based on an aggregate of specific abilities that are more or less complex and qualitatively distinct" (Boake, 2002; Tulsky, Saklofske, & Ricker, 2003; Wechsler, 1939).

According to Lezak, Howieson, and Loring (2004), the WAIS could provide assessments in specific aspects of cognition and often contribute to reach neuropsychological findings, which provide significant insight into how patients behave. However, IQ scores, neither the Full Scale IQ, nor the IQ scores calculated on the basis of verbal and performance tests, are not useful for neuropsychological analyses, since they can obscure important ability details.

The Wechsler Adult Intelligence Scale, Third Edition – WAIS-III – (Wechsler, 1997) was adapted and validated for the Brazilian population (E. Nascimento, 2004) with 788 subjects, both genders, older than 16 years of age and the sample was stratified in five educational levels and divided into eight age groups. The results found in the Brazilian validation between the IQ correlation and years of education are in agreement with the literature findings (Kaufman, 1990; E. Nascimento, 2004).

The WAIS had been most employed in neuropsychological assessment contexts such as studies of psychiatric patients in order to evaluate cognitive functioning in psychiatric illness (Christensen, Girad, & Bagby, 2007; Gorlyn et al., 2006), and the relation of cognitive functioning with the psychopathology symptoms and intellectual impairment (Hawkins, 1998; Morasco, Gfeller, & Chibnall, 2006; Rohling, Green, Allen, & Iverson, 2002). However, in the literature, no studies are found using the WAIS in the context of psychodynamic psychotherapy follow-up.

Accordingly, individuals with different psychiatric diagnoses were referred by a school hospital for individual psychoanalytic psychotherapy with sessions once or twice a week and seen by faculty members or residents in Psychiatry and psychologist trainees in Mental Health for a period of two years at a public university health-care service in Brazil. A bus pass was provided to all the patients to allow them to attend the appointments regularly, and they were offered a light meal before the sessions to avoid the discomfort of hunger.

In this particular paper the authors aimed to identify what aspects of personality are modified after one and two years of psychoanalytic psychotherapy in adults attending a free university healthcare service in São Paulo, Brazil. It was a prospective study in which the participant is his own control of a convenience sample.

# Method

# **Participants**

The sample consisted of 34 adult individuals, 21 women (62%) and 13 men (38%), average age of 33.68 years, minimum age of 18 and maximum age of 52 years, average of 12 years of education, minimum of 3 and maximum of 17 years, 21 (62%) from the lower and lower-middle economic class, 16 (47.05%) were employed, 11 (32.35%) were unemployed, 6 (17.64%) were students and 1 (2.94%) was retired. Of these 34 individuals assessed before and after one year of psychotherapy, 14 were re-assessed by the WAIS-III and 13 by the Rorschach after two years.

# Instruments

The Rorschach Comprehensive System and the Wechsler Adult Intelligence Scale—Third Edition (WAIS-III) were selected for personality assessment and the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (American Psychiatric Association [APA], 1994), DSM-IV SCID-I and SCID-II for the psychiatric diagnoses of all participants, and also to exclude subjects with mental deficiency, dementia problems and antisocial disturbances.

The Rorschach Inkblot Method is considered a measure of personality functioning that provides valuable information about how the person makes decision, solves problems, acts in various situations, perceives and thinks about events in life, manages stress, and views himself and others. It is one of the most employed methods for examining personality. There is abundant evidence that Rorschach assessment is a reliable procedure yielding valid conclusions about personality characteristics (Weiner, 2003). The Rorschach Comprehensive System was administrated according to the requirements demanded by Exner (2003).

There is a normative study on the Rorschach Comprehensive System with 400 Brazilian adult non-patients (R. S. G. F. Nascimento, 2007), which followed all the requirements and procedures proposed by Exner (2003). The adaptation of the indices of the six personality dimensions according to the Brazilian study was also conducted (R. S. G. F. Nascimento, 2006).

The Wechsler Adult Intelligence Scale, Third Edition (WAIS-III) was administered in full (14 subtests) and the option for the WAIS-III was based on its specific abilities concerning the intelligence construct. In the context of psychotherapy follow-up, a decrease was expected in the variety of clinical symptoms of the participants, and as a consequence, an improvement in cognitive functioning which will reverberate mainly on attention, perception, and motivation.

The Structured Clinical Interview for Diagnostic, SCID-I, is a structured interview that was created to increase the reliability in psychiatric diagnostics, to standardize the process of evaluation and to facilitate the administration of the DSM-IV criteria. The Structured Clinical Interview for DSM-III Axis II, SCID-II, is a structured diagnostic interview created for the personality disorders (APA, 1994). Both interviews were translated and validated to Brazilian psychiatric outpatients (Del-Ben, Rodrigues, & Zuardi, 1996; Del-Ben et al., 2001; Del-Ben, Zuardi, & Rodrigues, 1998).

# Procedures

In Brazil, there is a requirement for all research with human participants – they have to be aware and agree with the proposal of the study. All the participants signed a 'Letter of Commitment'. All participants agreed to this request.

Trained psychiatrists administered the Structured Clinical Interview for the DSM-IV, SCID-I and SCID-II (Del-Ben et al., 1996; Del-Ben et al., 2001; Del-Ben et al., 1998). Trained psychologists in the Comprehensive System administered the Rorschach; therefore, all the requirements proposed by Exner (2003) as to the Rorschach were performed. An interrater reliability for all the Rorschach variables was conducted and the Kappa coefficient was calculated and ranged between good and excellent. A psychologist trained in neuropsychological assessment administered the WAIS-III.

Yazigi, L., Botelho, N., Semer, N. L., Amaro, T. C., Fiore, M. L. M., & Silva, J. F. R. (2011). Rorschach and the WAIS-III after One and Two Years of Psychotherapy.

The Rorschach Comprehensive System and the WAIS-III were administered before starting psychoanalytic psychotherapy [Time 1 or T1] and were re-assessed one and two years later [Time 2 or T2 and Time 3 or T3].

The statistical analysis of the Rorschach's variables was carried out in two steps. First, a test to verify the normality of the distribution of each variable was conducted. Then, those variables with normal distribution were compared using the paired Student's *t* test – a parametric test, and for those variables that could not be assumed to be *normally distributed*, the Wilcoxon signed-rank test – non-parametric test – was employed.

For the WAIS-III analysis the Wilcoxon and Friedman's non-parametric tests were used due to the fact that the scaled scores (a qualitative variable) were used instead of the raw scores (a quantitative variable) and the comparison was between two and three related variables in/at different times.

The prospective data from the Rorschach were analyzed comparing the three occasions as follows T1 x T2, and

T1 x T3. The WAIS-III data were analyzed comparing T1 x T2, and T1 x T2 x T3. Cohen's *d* size effect was as also calculated to verify how far apart the two means are in a pooled standard deviation.

#### Results

Structured Clinical Interview

As to the Structured Clinical Interview for the DSM (see Table 1), on the SCDI-Axis-I, out of 34 individuals, 26 (76.5%) had the primary diagnosis of Depressive Disorders (Major Depressive, Dysthymic, Bipolar), and 5 had it as comorbidity, thus, 31 (91.18%) showed depressive symptoms or behaviors. On the SCDI-Axis-II, 10 (29.41%) did not fulfill the criteria for any diagnosis, 11 individuals (32.4%) had the primary diagnosis of Cluster C (Avoidant Personality Disorder), and nine (26.47%) of Cluster B (Borderline Personality Disorder).

Table 1
Diagnostics and Symptoms or Behaviors of 34 Participants

COID I	1st Diagnosis		As Comorbidity		Without Comorbidity	
SCID-I	n	%	n	%	n	%
No criteria fulfilled	4	11.76	-	-	-	-
Major Depressive Disorder	19	55.88	2	5.88	12	35.29
Bipolar	4	11.76	1	2.94	1	2.94
Mood	1	2.94	_	-	-	=
Dysthymic	2	5.88	2	5.88	-	=
Total Depressive	26	76.47	5	14.70	-	-
SCID-II						
No criteria fulfilled	10	29.41	-	-	-	-
Cluster A	3	8.82	17	50.00	-	=
Cluster B	9	26.47	12	35.29	3	8.82
Cluster C	11	32.35	8	23.52	3	8.82
Cluster D	1	2.94	-	-	-	-
Total PD	24	70.58	=	-	_	=

*Note.* Caption: n = number of participants; %= percentage; PD= Personality Disorder.

Rorschach Comprehensive System: T1 x T2

As to the Rorschach Comprehensive System, significant differences were found on the 33 protocols on T1 versus T2 analysis (see Table 2) showing an increase in the following variables: (a) Common Details [D] meaning an elevation in the capacity to recognize and respond to specific and ordinary details of everyday life; (b) Shading-Texture Responses [SumT] meaning an elevation in the ability to form close relationships; (c) Shading-Dimension Responses [FV, SumV] meaning an elevation in negative self-regard; (d) Shading-Diffuse Responses [SumY] mea-

ning an elevation in situational stress related to feelings of emotional discomfort or hopelessness; (e) Sum of all Shading Responses [SumShd= SumC'+SumT+SumY+SumV] meaning an elevation in an unusual amount of emotional stress; (f) Experienced Stimulation [es = FM+m+SumC'+SumT+SumY+ SumV] meaning an elevation in current stimulus demands and subjectively felt distress; (g) Clothing Responses [Cg] meaning an elevation in external appearances or façades; (h) Deviant Verbalizations [DV] meaning an elevation of inappropriate word selection.

Table 2
Statistics of the Rorschach Significant Variables on T1versus T2 of 33 Patients

Variables	Mean	SD	p	Cohen's d	test
D.1	12.09	7.30	0.042	-0.254	NP
D.2	14.18	9.04			
FT.1	0.15	0.44	0.029	-0.591	NP
FT.2	0.70	1.24			
FV.1	0.15	0.36	0.048	-0.489	NP
FV.2	0.64	1.37			
SumV.1	0.15	0.36	0.048	-0.489	NP
SumV.2	0.64	1.37			
SumY.1	1.39	1.54	0.036	-0.540	NP
SumY.2	2.48	2.40			
SumShd.1	3.12	2.20	0.005	-0.705	P
SumShd.2	5.42	4.05			
es.1	7.27	4.56	0.043	-0.506	P
es.2	9.97	6.01			
D Score.1	-1.03	5.61	0.036	0.411	NP
D Score.2	-3.30	5.42			
Fr.1	0.36	0.74	0.023	0.418	NP
Fr.2	0.12	0.33			
FrrF.1	0.39	0.79	0.038	0.375	NP
FrrF.2	0.15	0.44			
Cg.1	1.18	1.72	0.036	-0.277	NP
Cg.2	1.76	2.40			
DV1.1	0.70	1.07	0.048	-0.481	NP
DV1.2	1.24	1.17			
Lvl2SS.1	1.30	2.01	0.050	0.311	NP
Lvl2SS.2	0.73	1.63			

*Note.* Caption: T1=time 1, T2= time 2, P=Parametric NP=Non-parametric.

A decrease was found in the following variables after one year of psychotherapy: (i) Stress Control [D Score] meaning a lessening in the tolerance to stress situations; (j) Reflections Responses [Fr, rF] meaning a reduction in mirror images or narcissistic aspects; (k) Special Scores of Level 2 Responses [Lvl2SS] meaning a decrease of responses that present more serious forms of cognitive disarray.

Therefore, after one year of psychotherapy, the capacity of the participants to form attachments, to establish close, intimate, and mutually supportive relationships with other people [Sum T] improved as well as their capacity to perceive and interpret events in more common and conventional ways [D]. They became more open to experiencing emotional feelings [es] due to the elevation in the level of emotional demands imposed by internal and external events in their lives and due to the elevation in experiencing unusual amounts of emotional stress [SumShd]. They also displayed an increase in situational stress-related feelings of paralysis or hopelessness [SumY] and a deeper self-examination in which negative affective experience is associated with self-critical attitu-des and feelings of

regret and remorse [SumV]. All these emotional demands were responsible for the reduction of their capacity to control and tolerate stress [D Score] and for the presence of feelings of anxiety, nervousness and irritability. The decrease of Reflection Responses [Fr+rF] implied a reduction in overvaluing one's personal worth and on narcissistic aspects.

There were changes in the ideational activity of the participants, an elevation in Deviant Responses Level 1 [DV1] meaning an enhancement in spontaneity and in feeling more at ease, and a reduction of answers with more severe instances of dissociated, illogical, fluid, or circumstantial thinking. These aspects were confirmed by the marked improvement in attention and speed of processing observed by some subtests from the WAIS-III.

# Rorschach Comprehensive System: T1 x T3

As to the comparison between T1 versus T3 of 13 Rorschach protocols (see Table 3) an increase of the following variables was found: (a) Passive Animal Movement Responses [FMp] meaning an elevation in intrusive ideational thoughts; (b) Popular Responses [P] meaning an elevation in more conventional modes of response and social behaviors; (c) Human Responses [HR Setp5] meaning an elevation in Good Human Responses [GHR] to cards III, IV, VII, and IX that are coded Popular.

Table 3
Statistics of the Rorschach Significant Variables on T1
versus T3 of 13 Patients

Variables	Mean	SD	p	Cohen's d	test
FMp.1	1.08	1.55	0.018	-0.645	NP
FMp.3	2.08	1.55			
D Score.1	0.42	7.11	0.050	0.848	P
D Score.3	-4.96	5.46			
Hx.1	0.77	0.93	0.028	0.742	P
Hx.3	0.23	0.44			
An.1	2.15	1.91	0.017	0.530	NP
An.3	1.23	1.54			
AnXy.1	2.46	2.37	0.020	0.538	P
AnXy.3	1.38	1.56			
Popular. 1	3.69	1.25	0.020	-1.121	P
Popular. 3	5.00	1.08			
HRStep5.1	0.38	0.65	0.027	-0.701	P
HRStep5.3	0.85	0.69			

*Note*. Caption: T1=time 1, T2= time 2, P=Parametric NP=Non-parametric.

There was a decrease in the following variables after two years of psychotherapy: (d) Stress Control [D Score] meaning a reduction in the control of stress; (e) Human Experience [Hx] meaning a lessening of answers that involve the attribution of a human emotion or sensory experience; (f) Anatomy [An] and X-ray [Xy] Responses meaning a reduction of issues of body concern.

After two years of psychotherapy there was an increase in the perception of the popular [P] good human representation [GHR] and consequently an improvement in the identification process and in more adaptive interpersonal relationships. There was also a reduction both on the projection of human emotional or sensory experience [Hx] and on the perception of anatomy and X-ray contents showing a change in the participants' self-image, with a decrease in more primitive preoccupations and worries with their body integrity [An, Xy].

The persistence of the difficulty in managing and controlling stress [D Score] after two years of therapy can be related to the intensification of peripheral ideation activity [FMp] and the presence of excessive or diverse thoughts in the mind that can alter the focus of attention and interfere with stress tolerance.

Wechsler Adult Intelligence Scale-Third Edition: T1 x T2 As to the WAIS-III, significant differences were found for five variables after one year of psychotherapy [T1 x T2] (see Table 4) showing an increase of the following subtests: (a) Vocabulary meaning motivation rather than an increase in verbal repertoire; (b) Picture Complexion meaning an elevation in the perception of details that contribute to the perception of everyday and conventional situations; (c) Picture Arrangement meaning an elevation in the capacity of maintaining attention and improvement in performing conventional and sequential thinking; (d) Symbol Search meaning an increase in the speed of processing of the information; (e) Object Assembly meaning an increase in the speed of processing rather than an improvement in visual organization due to the use of the trial and error approach.

Table 4 Wilcoxon's Statistics of the WAIS-III Significant Scores on T1 versus T2 of 34 Participants

Subtests	Mean	SD	P	Cohen's d
Vocabulary T1	9.41	2.61	0.016	-0.418
Vocabulary T2	10.47	2.46		
Picture Complexion <i>T1</i>	9.71	2.91	0.017	-0.410
Picture Complexion <i>T2</i>	10.88	2.80		
Picture Arrangement <i>T1</i>	10.12	2.35	0.003	-0.544
Picture Arrangement <i>T2</i>	11.38	2.28		
Symbol Search T1	10.21	3.12	0.003	-0.338
Symbol Search T2	11.21	2.78		
Object Assembly <i>T1</i>	9.03	3.05	0.003	-0.523
Object Assembly T2	10.56	2.79		

Note. Caption: T1=time 1, T2= time 2.

Although the IQ scores were also calculated in order to be compared on two different times [T1 x T2], and the results were significant, the IQ scores were not taken into consideration because it could be a consequence of a distortion – for example, a Verbal IQ could increase

significantly on the second assessment due only to an increase in Vocabulary subtest.

Wechsler Adult Intelligence Scale-Third Edition: T1 x T2 x T3

As to the evaluation after two years of psychotherapy [T1 x T2 x T3], four variables showed a significant increase in the statistical analysis (see Table 5): (a) Comprehension meaning an improvement in the ability to give reasonable responses to structured questions related to handling conventional life situations; (b) Picture Arrangement meaning an elevation in appropriate social thinking, in order to discriminate between relevant and non-relevant perceptions that provide the best social responses; (c) Symbol Search meaning an increase in speed processing; (d) Object Assembly meaning an improvement in the speed processing in order to construct the puzzles by trial and error strategy rather than an improvement in the visual organization capacity.

Table 5 Friedman's Statistics of the WAIS-III Significant Scores on T1 x T2 x T3 of the 14 Participants

Subtests	Mean	SD	P	Cohen's d
Comprehension T1	9.43	3.16	0.020	-0.701
Comprehension T2	10.29	2.79		
Comprehension <i>T3</i>	11.36	2.27		
Picture Arrangement <i>T1</i>	9.64	2.24	< 0.001	-0.702
Picture Arrangement <i>T2</i>	11.43	1.87		
Picture Arrangement <i>T3</i>	11.43	2.82		
Symbol Search T1	9.71	3.34	< 0.001	-0.907
Symbol Search T2	10.71	3.38		
Symbol Search <i>T3</i>	12.71	3.27		
Object Assembly T1	9.14	3.48	< 0.001	-0.761
Object Assembly T2	10.57	3.23		
Object Assembly T3	11.71	3.27		

*Note*. Caption: T1=time 1. T2= time 2. T3=time.

IQ scores had also been calculated at three different times. Performance IQ and Full Scale IQ were significant, but they were not considered as a good result since they can obscure other important observed details assessed by each subtest.

# Discussion

As expected, the psychoanalytic psychotherapy instilled in the participants the experience of (a) trustful relationship of confidence and security, which made it possible for them to develop interpersonal intimacy with other people. The psychoanalytic psychotherapy also promoted a deeper contact with the participants' own feelings and emotions, both positive and negative, due to the lowering of their psychological defenses with a broader perception of their inner world, mainly their

emotional aspects. The negative self-perception elevation seemed to be related to the lowering of narcissistic tendencies since the psychotherapeutic process makes the individual pay more attention to his inner world so he starts to see himself as someone with faults, limits, difficulties, and which makes him feel sad, anguished, anxious, thereby generating a self identity crises and a need to find new values to think about himself.

On the other hand, the elevation in the preoccupation with self-image and external facade in the participants can be considered as a concern with the self-image even by means of external appearances. It is also possible that the clothing responses involved in these concerns fulfill the function of protection, of positive experiences of being empathically understood, in the sense that it is a surface that establishes the limits between the subject with himself and the way he presents himself to the others, to the external world.

After two years of psychotherapy there was an improvement in the perception of the complexity of the human relationship with the participants showing more effective and adaptive interpersonal relationships and engaged in successful and rewarding interpersonal behavior. The lessening of the external projection of human emotional or sensory experience is an improvement in such a way that the participants could keep those experiences to themselves, in their inner world. The decrease of anatomy and X-ray contents showed a change in the participants' self-image, and a lessening of more primitive preoccupation and worries with their body integrity. These findings coincided with a rise in their capacity to recognize more conventional modes of response and an improvement in social behaviors.

The persistence of the difficulty in coping with stress situations after two years of therapy proved to be a consequence of the intensification of ideational activity, of excessive or varied thoughts that interfere with the focus of attention and with stress tolerance. The ideational activity is considered to be "provoked by unmet need states and related to a process that is not deliberately initiated and less well controlled and was found to be related to the level of productivity in creative artists" (Exner, 2003, p. 247-249).

Therefore, the closer contact with a psychotherapist promoted a broader perception of the participants' inner world, mainly with their ideational activities. It is expected in a therapy process to raise the presence of ideational activities generated by unmet need states that will be worked through during the sessions.

As to the WAIS-III, in a prospective study of the benefits of psychotherapy the focal point is the subtest's performance and not the IQ score (Tables 4 and 5). Rapaport and collegues (1946) had stressed this understanding in their clinical work when they stated that "I.Q. level proved to be of almost no diagnostic significance" (p. 51, described in Wiggins, Behrends, & Trobst, 2003).

Although Vocabulary is associated with a more crystallized construct of verbal intelligence because it represents information acquired during life experiences (Lezak et al., 2004), an elevation in this subtest would not be expected by the participants since their time in psychotherapy would not be long enough to raise the verbal intelligence aspect. These findings showed that the psychotherapy stimulated the participants to perform the task with a higher emotional effort than in the first assessment [T1]. The psychotherapy contributed to increase the processing speed, detected by the Symbol Search subtest, which enhanced spontaneous access to verbal repertoire. Allison, Blatt and Zimet (1988) considered Vocabulary as vulnerable to defensive processes, thus more susceptible to psychotherapy. Therefore, we can say that the participants were more involved with the treatment process.

Another significant aspect was the increase in both Picture Arrangement and Picture Complexion subtests related to an improvement in attention and perception. This increase contributes to enlarge the visual perception ability to discriminate details and to grasp easily the information of daily events. It also improves conventional thinking and allows the participants to be more conscious of what is going on around them, being more capable to organize and to plan events in a good way to interact with the external world.

Another significant result was found in Object Assembly, which requires ability to form visual concepts and little abstract thinking in order to reach an adequate performance (Lezak et al., 2004). The accurate responses given by the participants were a consequence of speed rather than visual organization. It was noted that they carry out the task by using an empirical strategy, trial and error, which made them earn more points as a consequence. Likewise, the elevation in Symbol Search confirms the increase in the information processing speed among the participants and shows that they are more aware of the outer and/or inner world.

After one year of psychotherapy participants processed information from the inner and outside world faster, which contributed to more adequate social responses, since they became more aware of what was happening around them. Psychotherapy helped also them to understand emotional and social situations more clearly and also enable them to interact with the world properly in a verbal or rational way.

After two years of psychotherapy, the increase in the Comprehension subtest showed an improvement in the capacity of the participants to give reasonable responses to structured questions dealing with delimited issues (social conventionality) and a sense of good judgment to handle multidimensional real life situations. These results show that the participants became able to articulate various socially relevant topics and improved their awareness to behave socially in a more appropriate way. These aspects

are also confirmed by those in the Rorschach related to the improvement in the perception of the complexity of human behavior and of more adaptive interpersonal relationships.

The significant result in Picture Arrangement also pointed to an appropriate social thinking and best social responses through the ability to establish associations between events and choose priorities. These data confirm those found in the Rorschach regarding conventional response and a better understanding of logic processes within social rules and common sense. In the same way, the better performance in the Object Assembly and Symbol Search subtests corroborate the good impact that the fast processing speed of the information has on the participants' performance.

The majority (almost 80%) of our participants presented some form of depression symptom in their psychiatric evaluation (SCID-I), therefore it is interesting to see that there was an improvement in the speed of cognitive processing and motivation. It can therefore be interpreted that the psychotherapy helped in the speed and promptness of responding properly to life events.

As a result, it was possible to treat people with serious personality disorders with psychoanalytic psychotherapy in a free of charge health institution. It will be interesting to recall Freud's (1918/1958a) address at the Fifth International Psycho-Analytical Congress, shortly before the end of the First World War, when he discussed the advance of psychoanalytic therapy:

Now let us assume that by some kind of organization we succeeded in increasing our numbers to an extent sufficient for treating a considerable mass of the population. On the other hand, it is possible to foresee that at some time or other the conscience of society will awake and remind it that the poor man should have just as much right to assistance for his mind as he now has to the life-saving help offered by surgery; and that the neuroses threaten public health no less than tuberculosis, and can be left as little as the latter to the impotent care of individual members of the community. When this happens, institutions or out patient clinics will be started, to which analyticallytrained physicians will be appointed, so that men who would otherwise give way to drink, women who have nearly succumbed under their burden of privations, children for whom there is no choice but between running wild or neurosis, may be made capable, by analysis, of resistance and of efficient work. Such treatments will be free. It may be a long time before the State comes to see these duties as urgent. Present conditions may delay its arrival even longer. Probably these institutions will first be started by private charity. Some time or other, however, it must come to this. (p. 167).

The Rorschach's results of this present study were very different from the dimensions proposed by Weiner and Exner (1991) but were close to those presented by Beghout and Zevalkink (2008), and this difference could be the type of psychotherapy.

Weiner and Exner (1991), in contrast, explained that "Treatment methodology appears to have varied considerably across therapists, almost most described their own orientations as eclectic and their methods as directive or supportive" (p. 61). Consequently, the therapists were more oriented toward ego strength and their focus could be reality testing and adaptation and adjustment.

Beghout and Zevalkink (2008) had conducted their study with long-term psychoanalytic treatment at the Netherlands Psychoanalytic Institute. In our study, the staff members of the psychotherapeutic team followed the psychoanalytical approach and the faculty members as well as the supervisors are trained analysts by the Psychoanalytic Institute of São Paulo, and they adopted the mentalization-based-treatment as proposed by Bateman and Fonagy (2004). In both studies the focus of the treatment was on the manifestation and consequent expansion of the inner personality aspects, with the emergence of emotions that were repressed or dissociated, as well as an improvement in the interpersonal relationship and decrease in narcissism tendencies.

The analysands of the present study proved to benefit from their treatment, showing improvement in some of their personality aspects, mainly those related to dealing with emotions and to interpersonal relationships, as well as to cognitive functioning.

In conclusion, some changes occurred in the short term and others needed a longer period to emerge. It is important to maintain the therapeutic process in order to observe whether these achievements will be sustained.

## References

Allison, J., Blatt, S. J., & Zimet, C. N. (1988). The Wechsler Adult Intelligence Scale. In J. Allison, S. J. Blatt, & C. N. Zimet, *The interpretation of psychological tests* (2<sup>nd</sup> ed., pp. 20-36). New York: Harper & Row.

American Psychiatric Association. (1994). *DSM-IV-R: Diagnostic and statistical manual of mental disorders* (4<sup>th</sup> Rev. Ed.). Washington, DC: Author.

Bateman, A., & Fonagy, P. (2004). *Psychotherapy for borderline* personality disorder-mentalization-based treatment. Oxford, UK: Oxford University.

Beghout, C. C., & Zevalkink, J. (2008). Effectiveness of longterm psychoanalytic treatment. The use of the Rorschach in a cohort study. Paper presented at the meeting of the XIX International Congress of Rorschach and Projective Techniques, Leuven, Belgium.

Boake, C. (2002). From the Binet-Simon to the Wechsler-Bellevue: Tracing the history of intelligence testing. *Journal of Clinical and Experimental Neuropsychology*, 24, 383-405.

Christensen, B. K., Girard, T. A., & Bagby, R. M. (2007). Wechsler Adult Intelligence Scale-third edition short form for index and IQ score in a psychiatric population. *Psychological Assessment*, 19(2), 236-240.

- Del-Ben, C. M., Rodrigues, C. R. C., & Zuardi, A. W. (1996). Reliability of the Portuguese version of the structured clinical interview for DSM-III-R (SCDI) in a Brazilian sample of psychiatric outpatients. *Brazilian Journal of Medical Research*, 29(12),1675-1682.
- Del-Bem, C. M., Vilela, J. A. A., Crippa, J. A. S., Hallak, J. E. C., Labate, C. M., & Zuardi, A. W. (2001). Confiabilidade teste-reteste da Entrevista Clínica Estruturada para o DSM-IV Versão clínica (SCID-CV) traduzida para o português. Revista da Associação Brasileira de Psiquiatria, 23, 156-159.
- Del-Ben, C. M., Zuardi, A. W., & Rodrigues, C. R. C. (1998). Confiabilidade do diagnóstico psiquiátrico levantado sob supervisão e do diagnóstico obtido através da entrevista clínica estruturada para o DSM-III-R (SCID). Revista da Associação Brasileira de Psiquiatria, 20, 140-145.
- Etchegoyen, H. (1989). Fundamentos da técnica psicanalítica. Porto Alegre, RS: Artes Médicas.
- Exner, J. E., Jr. (2003). The Rorschach: A comprehensive system: Vol. 1. Basic foundations and principles of interpretation (4th ed.). New York: Wiley.
- Freud, S. (1958a). Lines of advances in Psycho-analytic Therapy. In J. Strachey (Ed.), Standard edition of the complete psychological works of Sigmund Freud (Vol. XVII, pp. 159-168). London: Hogarth Press. (Original work published 1918)
- Freud, S. (1958b). On beginning the treatment. In J. Strachey (Ed.), *Standard edition of the complete psychological works of Sigmund Freud* (Vol. XII, pp. 123-144) London: Hogarth Press. (Original work published 1913)
- Gorlyn, M., Keilp, J.G., Oquendo, M. A., Burke, A. K., Sackeim, H. A., & Mann, J. J. (2006). The WAIS-III and major depression: Absence of VIQ/PIQ differences. *Journal of Clinical and Experimental Neuropsychology*, 28, 1145-1157.
- Hawkins, K. A. (1998). Indicators of brain dysfunction derived from graphic representation of the WAIS-III/WMS-III technical manual clinical samples data: A preliminary approach to clinical utility. *The Clinical Neuropsychologist*, 12, 535-551.
- Kaufman, A. S. (1990). Assessing adolescent ad adult intelligence. Boston: Allyn & Bacon.
- Lezak, M. D., Howieson, D. B., & Loring, D. W. (2004). Neuropsychological assessment (4<sup>th</sup> ed.). Oxford, UK: University Press.
- Matarazzo, J. D. (1990). Psyvhological assessment versus psychological testing: Validation from Binet to the school, clinic, and courteoom. *American Psychologist*, 45(9), 999-1017.
- Menninger, K. (1958). *Theory of psychoanalytic technique*. New York: Basic Books.
- Morasco, B. J., Gfeller, J. D., & Chibnall, J. T. (2006). The relationship between measures of psychopathology, intelligence, and memory among adults seen for psychoeducational assessment. Archives of Clinical Neuropsychology, 21, 297-301.
- Nascimento, E. (2004). WAIS-III: Escala de Inteligência Wechsler para adultos: Manual/ David Wechsler; Adaptação e padronização de uma amostra brasileira (M. C. V. M. Silva, Trad.). São Paulo, SP: Casa do Psicólogo.
- Nascimento, R. S. G. F. (2006). Estudo Normativo do Sistema Compreensivo do Rorschach para São Paulo: Resultados dos Índices PTI, SCZI, DEPI, CDI, HVI, OBS e S-CON. *Avaliação Psicológica* (São Paulo), *5*(1), 87-97.

- Nascimento, R. S. G. F. (2007). Research note. Rorschach Comprehensive System for a Sample of 409 Adult Nonpatients from Brazil. *Journal of Personality Assessment*, 89(Suppl. 1), S35-S41.
- Person, E. S., Cooper, A. M., & Gabbard, G. (2007). A Psicanálise na América do Norte até o presente. In S. Guifford, *Compendio de Psicanálise* (cap. 25). Porto Alegre, RS: Artes Médicas.
- Rohling, M. L., Green, P., Allen, L. M., & Iverson, G. L. (2002). Depressive symptons and neurocognitive test scores in patients passing sympton validity tests. *Archives of Clinical Neuropsychology*, 17, 205-222.
- Taylor, M. J., & Heaton, R. K. (2001). Sensitivity and specificity of WAIS-III/WMS-III demographically corrected factor scores in neuropsychological assessment. *Journal of the International Neuropsychological Society*, 7, 867-874.
- Tucket, D. (2007). Psicanálise na Grã- Bretanha e na Europa Continental. In S. Guifford, *Compendio de Psicanálise* (cap. 26). Porto Alegre, RS: Artes Médicas.
- Tulsky, D. S., Saklofske, D. H., & Ricker, J. H. (2003). Historical overview of the Wechesler scales. In D. S. Tulsky, D. Saklofske, G. Chelune, R. Heaton, R. Ivnik, R. Bornstein, et al. (Eds.), Clinical interpretation of the WAIS-III and WMS-III. San Diego, CA: Academic Press.
- Wechsler, D. (1939). *The measurement of adult intelligence*. Baltimore, MD: Williams & Wilkins.
- Wechsler, D. (1944). *The measurement of adult intelligence* (3<sup>rd</sup> ed.). Baltimore, MD: Williams & Wilkins.
- Wechsler, D. (1950). Cognitive, conative, and non-intellective intelligence. *American Psychologist*, *5*, 78-83.
- Wechsler, D. (1997). WAIS-III: Wechsler Adult Intelligence Scale – Third edition administration and scoring manual. San Antonio, TX: Psychological Corporation.
- Weiner, I. B. (2003). Principles of Rorschach Interpretation. Mahwah, NJ: Lawrence Erlbaum.
- Weiner, I. B., & Exner, J. E., Jr. (1988). Assessing readiness for termination with the Rorschach. Paper presented at the Austen Riggs Conference on Psychological Testing and the Psychotherapeutic Process, Stockbridge, MA.
- Weiner, I. B., & Exner, J. E., Jr. (1991). Rorschach changes in long-term and short-term psychotherapy. *Journal of Personality Assessment*, 56(3), 453-465.
- Wiggins, J. S., Behrends, R. S., & Trobst, K. K. (2003). The psychodynamic paradigm. In J. S. Wiggins (Ed.), *Paradigms* of personality assessment (pp. 25-62). New York: Guilford Press.

Recebido: 16/02/2009 1ª revisão: 23/06/2009 2ª revisão: 23/11/2009 Aceite final: 26/11/2009