

Application of Projective Techniques: A Current Status

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Abstract: Projective techniques are relied on heavily in the field of clinical psychology. They are known to permit respondents to express thoughts and feelings which can otherwise be difficult to access by direct and structured clinical interviews. Many revisions have been made in order to make them more 'scientific' at least with regards to how they are scored and interpreted. It is important to keep in mind that these techniques may be used more accurately under a given set of conditions to answer a given set of questions, than others. They are neither universally 'valid' nor 'invalid'. Hence, this paper is an attempt to review relevant literature to ascertain the current status of these psychological tools in their application in specific areas of clinical and non clinical settings. Major emphasis has been given to diagnostic areas of various psychopathologies one encounters in the clinical settings.

Keywords: Projective techniques; Validity; clinical psychology, clinical setting; application.

I. INTRODUCTION

The application of projective techniques in clinical psychology began in the early 20th century. Projective techniques are often relied on heavily, permitting respondents to express thoughts and feelings which can otherwise be difficult to access by direct and structured clinical interviews. Many revisions have been made in order to make them more 'scientific' at least with regards to how they are scored and interpreted. It is important to keep in mind that these techniques may be used more accurately under a given set of conditions to answer a given set of questions, than others. They are neither universally 'valid' nor 'invalid'. Hence, relevant literature has been reviewed to ascertain the current status of these psychological tools in their application in specific areas of clinical setting.

Psychosis

Projective techniques have been used variedly for help in differential diagnosis, and to identify psychotic features in clinical populations. Rorschach's PTI index has been found to have a high validity as a measure of disturbances in thought (Ilonen, 1999).

In a study differentiating psychotic patients from nonpsychotic patients, Dao et al. established that PTI was better at discriminating psychotic patients than MMPI 2 (84% Overall Correct Classification Rate, as compared to 70%). The incremental validity of PTI was found to be 14% over MMPI 2. A PTI score of 3 is usually considered indicative of psychosis, while a cut off of 4 is considered to reliably predict a Schizophrenia like illness (Exner, 2003).

In another study, the Rorschach variable X-% significantly correlated with the negative symptoms; the WSum6 with thought disorders; and the M- with delusions. PTI score, X-% and WSum6 predicted impaired judgment and insight. PTI was found to be valid in assessing impairment in reality testing, regardless of the patient's current psychiatric presentation (Mario et al., 2015).

The diagnosis of thought disorders in children and adolescents requires comprehensive data from a number of different sources. Psychological assessment can play an important role in the diagnostic decision-making process, especially among children and adolescents. The variable M- in particular was seen to differentiate children with and without thought disorder, and X- unlike the adult population, was not found to be that significant. PTI was suggested to be a more pure measure as compared to SCZI in the study (Smith et al., 2001).

Mood Disorders

The role of DEPI index of Rorschach and some other markers predicting depressive vulnerability has already been discussed in earlier sections. The results have been mixed at best. Many independent studies have found that the original and revised versions of the DEPI lack sensitivity and are unrelated to diagnoses of depression in either adolescents or adults.

In a recent study, Rorschach has been found to be effective in differentiating unipolar depression from bipolar depression (Kimura et al., 2013). The bipolar depression group showed significantly higher scores or positive findings in five variables of the Rorschach test, ie, WSum6, DR2>0, (CF + C) > FC + 2, Pure C > 1, and Populars > 7, as assessed using the Comprehensive System, than did the unipolar depression group.

In another 9 year follow up study culminating in 2013, Rorschach markers for depressive vulnerability were identified, and significant temporal stability for the variables was established. (Hartmann et al., 2013) The test was found to be effective in predicting Major Depressive Episodes over follow ups.

Shukla et al (2012) compared the performance of mania patients and normal controls on Human Figure Drawing test and concluded that this test can be a good adjunct to diagnostic testing of patients with mania. The main findings revealed that impairment score of mania patients was very high. The features that differentiated mania patients from normal controls were large size, addition of extraneous objects, unequal arms, teeth showing, nostrils showing, genitalia showing, disheveled hair, heavy lines and 'developmentally indistinguishable'.

Anxiety

Pencil pressure in projective drawing tasks has been associated with anxiety in some studies. For example, a study on children's anxiety measured the degree of pencil pressure during three drawing tasks: Draw-a-Person, Bender Visual-Motor Gestalt Test, and drawing an automobile. Results indicated that individuals with higher levels of Trait-anxiety used significantly less pencil pressure on all three drawing measures than individuals with lower levels of trait-anxiety. Furthermore, individuals with high levels of S-anxiety used significantly more pencil pressure on all three drawing measures than individuals with medium levels of S-anxiety (LaRoque and Obrzut, 2006).

Anxiety and aggressive tendencies in Schizophrenics have also been studied using Draw A Person Test and it was found that aggressive tendencies were more than anxious traits. Parts of the body drawn that revealed anxiety indices were placement of drawing (lower part), shaded faces, and messy hair. Parts of the body drawn that revealed aggression indices were heavy lines drawing, feet wide apart, claw like hands and fingers, large mouth detailing with teeth, omission of fingers and mouth, pockets and arms turned inwards, over emphasized chin and facial features (Evaretta, 2014).

There is no well-demonstrated relationship between Rorschach scores and anxiety disorders. Until such a connection is established by sound, replicated studies, there seems to be little basis for the belief that the Rorschach is related to clinically relevant anxiety (Wood et al., 2000).

Suicidality

Projective tests have been found to be helpful in identification of suicidal ideations because of their sensitivity to certain traits or states relating to suicidality. The individual may also use the testing situation to communicate suicidal intents (Sullivan and Bongar, 2009).

In a review by Kumar et al. in 2014, colour-shading responses, transparent responses, poor form level human movement responses, morbid responses were identified as important and reliable indicators of suicidal intent, as indicated by a large pool of researches. Following a more reliable constellation approach, the S-CON has also been documented as a very reliable indicator of suicidal intent, in many researches since its establishment. The review found that a cut off score of 8 on the S-CON was found to identify nearly 75% of suicidal patients. In a study by Fowler et al. in 2001, a score of 7 or more was found to be the sole predictor of near-lethal suicide attempts within 60 days. Silberg and Armstrong (1992) developed a new Rorschach Suicidal Index for Adolescents (RSIA) consisting of six variables, on which a score of 4 or more has been found to discriminate 69% of adolescents who had suicidal attempts in past 6 months. Other indicators were whirling responses, transparency responses, color-shading responses, responses with morbid contents (Kumar, et al., 2014).

Overall, it is important to note that these scores should not be used to rule out suicidality, instead presence of these scores should create awareness about self destructive or suicidal intent. A score of 6 or more should be taken seriously.

Thematic Apperception Test, Rosenzweig Picture Frustration Study, and Human Figure Drawing Tests also have the potential for identification of suicidal ideations. The literature in these areas is however, lacking to say the least. In the review by Kumar et al. 2014, some of the findings from previous studies were highlighted.

- Morbid themes, dichotomous thinking, shorter story length in Thematic Apperception Test;
- Low scores on extra-punitive scale on Rosenzweig Picture Frustration Study; and
- Shaky, unstable, feathery lines, shadowy, bearded lines, inconsistencies in body outlines, slash lines in the neck, slash lines on the forearms, in Human Figure Drawing Test were important indicators of suicidality.

Somatic Inkblot Series II has also been studied in this regard. Movement, Depression, and Hostility and Aggression Scales of SIS-II have emerged significant correlates of suicide ideation depicting SIS-II Suicide Ideation Constellation Index (Singh et al., 2014).

Abuse or trauma

West (1998) conducted a meta analysis and concluded that 'projective techniques have the ability to discriminate between children who have been sexually abused and those who were not'.

Allen and Tussey, 2012 reviewed the literature of controlled studies assessing abuse of trauma in children using figure drawing techniques. Results indicate that, although individual studies have found support for various indicators or scoring systems, these results are rarely replicated, many times studies finding significant results suffer from serious methodological flaws and alternative explanations for findings (e.g.,

mental illness) are often present. No graphic indicator or scoring system possessed sufficient empirical evidence to support its use for identifying sexual or physical abuse.

Yates, et al. (1985) examined the drawings of 18 sexually abused therapy clients and 17 non-abused therapy clients. Again, analyses did not detect any differences in the presentation of female and male sexual features. Sidun and Rosenthal (1987) examined a total of 74 indicators in their study of 30 psychiatric clients with CSA histories and 30 psychiatric control clients. The only indicator significantly different between the two groups was the presence of a trouser fly; however, the results ran opposite to the hypothesis with the control group drawing more pictures with a trouser fly than the CSA group. When combining circles (e.g., buttons on clothes, balls, suns), wedges, and phallic-like objects (e.g., canes, cigarettes) into one composite score, analyses were able to distinguish between the two groups, with the CSA group drawing significantly more of these objects than the control group. Such studies have also had a small sample size, and legal implications from inferences drawn about diagnoses, from such indicators should be considered.

Organicity

Piotrowski's sign have consistently demonstrated their usefulness in distinguishing brain damaged patients from control subjects, including neurotic personality disorders (Z. Piotrowski, 1940). However, like so many other organic signs, they have been found to not differentiate chronic schizophrenics from organic patients. Thus, psychotic populations are likely to produce many false positive protocols. On the other hand, absence of the requisite five signs should also not be taken to mean that the patient is free from brain damage.

Yet with all this problems Piotrowski's sign identify the diagnostic category of no fewer than 51% and as many as 97% of the patients (organic and mixed psychiatric) and control subjects in 11 reported studies testifies to its usefulness, particularly with populations in which the frequency of chronic schizophrenia tends to be low. Of the ten Piotrowski's signs, all but three – M, P%, and Cn – effectively separate brain injured from non-psychiatric groups (Golden & Vicente, 1983).

The TAT is not typically utilized in the measurement of brain damage although some researchers have tried to use it along with other test.

For Human Figure Drawing Test factors as size, expansiveness, distortion and general drawing difficulties, lack of control, poor planning, peculiar placement, and so forth, all indicate possible "organicity" (Golden & Vicente, 1983).

Alexithymia

The Rorschach Reality – Fantasy Scale (RFS) (Tibon et al., 2005) was designed to assess adaptive use, creation, and preservation of potential or transitional space. The scale was intended to differentiate between possible forms of psychopathology that may occur when one pole of the reality–fantasy continuum collapses into the other. With regard to this continuum, psychotic states are thought to be closer to the fantasy pole and alexithymic phenomena closer to the reality one.

The Rorschach Alexithymia Scale (RAS) was developed in 2010 to be used with protocols scored with the Comprehensive System.

The three CS variables included in the RAS are theoretically consistent with basic facets of the construct of alexithymia. The percentage of pure form (Form%), is related to the cognitive dimension of processing external and internal stimuli. High Pop is thought to relate to strong commitment to conventionality and to adhere to social norms in a conformist way, thus reducing the subjective dimension of personal involvement in the social adaptation. The RAS showed excellent diagnostic accuracy (hit rate of 92%, sensitivity of 88%, specificity of 94%) (Porcelli and Mihura, 2010).

Anorexia Nervosa

A study (Bachar et al) examined the expression of selflessness – the tendency to ignore one's own needs and serve others' needs – in Rorschach protocols of women suffering from anorexia nervosa. The protocols of 35 women suffering from anorexia nervosa were compared to 30 protocols of a psychiatric comparison group. A multivariate analysis of variance over five variables (AG, PER, PHR, COP, and GHR) was significant: Anorexic patients showed higher characteristics of selflessness compared to the psychiatric comparison group. These findings contribute to the validation of the Rorschach technique and to the clinical observation of selflessness in anorexic patients, and they emphasize specific characteristics in the treatment of anorexia nervosa patients.

Tourette's Syndrome

Rorschach may be a useful test in studying personality organization in TS. Compared with controls, young TS patients recorded significantly lower mean percentages of F and F+ responses, and significantly higher number of FM and FC responses, suggesting reduced control of emotions and difficulty in integrating aggressiveness. Associations were also found between severity of tics and emotional hyper-control and application of rigid defensive mechanisms (Balottin et al., 2010). More studies are warranted though.

Dissociative Identity Disorder

In a study replicating earlier similar findings, the Rorschach signs for DID, of the three different systems (Labott signs, Wagner signs and Barach signs) were significantly better than chance at classifying

patients as DID or as non-DID. The Labott system, which performed the best, was able to accurately classify 92% of the sample, with a specificity rate of 97% and sensitivity rate of 78% (Leavitt & Labott, 1997). Another later study (Armstrong, 2002) confirmed the utility of Rorschach indicators in the diagnosis as well as therapeutic intervention of Dissociative Identity Disorder.

II. PROJECTIVE TECHNIQUES AND THERAPEUTIC INTERVENTIONS

Projective tests are sensitive measures to detect progress in therapeutic interventions, while also lending insight into the areas to be targeted during the process. Saldanha et al. used SIS II and Rorschach to see the effect of medical intervention on a case of Schizophrenia. The study shows how clinicians can effectively supplement Rorschach data utilizing SIS - II images to monitor the progress of the treatment. In this case study, the chief symptoms of hyper sexuality were dramatically reduced. The addition of the SIS data facilitated the understanding the significance of hidden desires of the psychotic patient which otherwise would have not been revealed (Saldanha et al., 2013).

For the purpose of individual trauma treatment and outcome evaluation, the benefits of performance-based Rorschach test and the Thematic Apperception Test have been numerous stressed in the literature (Ephraim, 2002). Projective tests can be useful in understanding the process of recovery in cases not meeting the full diagnostic criteria of PTSD. A case study used the two projective tests to assess the changes after EMDR therapy with a female patient of PTSD and found she became much less avoidant of the emotionally laden interpersonal relationships and developed willingness for interpersonal connectedness, had a relatively higher self esteem (as evidenced from TAT) and there were changes seen in HVI (from positive to negative, suggesting a shift from threat perception and mistrust of others), increases in COP, GHR, EA, XA%, WDA% (improvement in reality testing), m and V (self inspection, painful feelings), etc. (Inoue, 2009).

III. SUMMARY OF FINDINGS FOR CLINICAL USE FROM RESEARCHES: AT A GLANCE

RORSCHACH	Psychosis	PTI : High demonstrated validity and reliability in adults as well as adolescents/children X- % associated with negative symptoms (less support in children population, stronger in adult) Wsum 6 associated with thought disorders M- associated with delusions
	Depression	DEPI –Moderately high validity in adult population, significant temporal stability, Lower in adolescents 5 variables: WSum6, DR2>0, (CF + C) > FC + 2, Pure C > 1, and Populars> 7 associated strongly with depression Mor, shading, MQ- strong association with Major Depression
	Suicidality	S CON: High demonstrated predictive validity: Cut off has been shifted from 8 to 6 in recent studies. S CON score of 6 or more: RED FLAG SIA score of 4 or more: RED FLAG Whirling responses, transparency responses, color-shading responses, responses with morbid contents: Potential indicators
	Coping Deficits	CDI: Moderate demonstrated validity, less studies done. Less reliable in adolescent population
	Hyper vigilance	HVI: Mixed results in few studies.
	Obsessive tendencies	OBS: Recent studies warranting revision of the index, especially for Indian population
	Organicity	Piotrowski's signs: cut off 5+, moderate validity Low accuracy in differentiating Chronic Schizophrenia from Organic cases M, P%, Cn: good predictors
	Alexithymia	Form %, High Populars, high CDI: good association.
	Anxiety	Not well demonstrated relationship.
	Ego Impairment Index	Strong association with psychiatric severity

Drawing Techniques		Mixed results of validity in adults and children population.
	Mania	Large size, unequal arms, teeth showing, disheveled hair, addition of extraneous objects: Good association found.
	Anxiety	Less pencil pressure associated with high trait anxiety
	Suicidality	Shaky, unstable, feathery, shadowy lines, inconsistencies in body outlines, slash lines in the neck, wrist: important indicators
	Organicity	Expansiveness, distortion, general drawing difficulties, lack of control, poor planning, peculiar placement
	Child Sexual Abuse	No reliable indicators, less research.
Thematic Apperception Test		Less studies; moderately high validities
	Suicidality	Morbid themes, Dichotomous thinking, very short stories: Good indicators
	Personality	High validity using SCORS : effective in differentiating Cluster B Personality Disorders Borderline PD: found to be low in dimensions of Complexity of Representations of People, Affect-Tone of Relationship Paradigms, Capacity for Emotional Investment in Relationships, and Understanding of Social Causality
Object Sorting Test		Use Gonsalvez Version for Indian population
	Thought deviance	Moderate validity found, less studies Schizophrenia: More impoverished responses Mania: More peculiar responses
Somatic Inkblot Series		High validity in Indian population established, mores studies for specific indicators
	Suicidality	Movement, Depression, and Hostility and Aggression Scales are positively associated.

IV. PROJECTIVE TECHNIQUES AND NEUROSCIENCE

There have been some studies connecting projective tests to brain functions or specific anatomical areas. In 2006, a study used two independent measures, 5-HIAA and the Rorschach Suicide Constellation (S-CON), both related to suicide, in an attempt to explore any relationship between the two. Lumbar puncture and the Rorschach were performed in standardized manner on 38 consecutive psychiatric inpatients, who had made a recent suicide attempt. Low CSF 5-HIAA was found to be significantly related to the S-CON ($R_s = -.517$, $p = .033$) and the Vista variable in the S-CON appeared to play an important role for the correlation. The results indicated that suicide attempters with low CSF 5-HIAA in this sample tended to experience more discomfort and pain during self-inspection (Eva et al., 2006).

In 2010, a study examined the linguistic content of TAT stories from 22 persons with isolated complete Agenesis of Corpus Callosum ACC compared to 30 IQ- and age-matched controls using the Linguistic Inquiry and Word Count (Pennebaker et al., 2001). Compared to controls, individuals with ACC used fewer words pertaining to emotionality, cognitive processes, and social processes. They also used relatively more present tense verbs and first person pronouns. These findings suggested that callosal agenesis results in deficiencies in imagining and inferring the mental, emotional, and social functioning of others as implied by TAT pictures, and in translating this content into a narrative. In addition, ACC affects the grammatical structure of verbally produced narratives, with greater emphasis on the present tense and the first person (Turk et al., 2010).

In a first of its kind study, Rorschach test was used to determine whether the mirror neuron system could be activated by not actual, but ‘feeling’ of movement. The Rorschach test cards were used to investigate evidence of EEG mu wave suppression at central areas, an index of MNS activity, since human movement responses (M) to the Rorschach elicit such feelings of movement. Significant mu suppression occurred when subjects perceived movement, regardless of the experimental condition. These results show that mirroring can be activated by static, ambiguous stimuli such as Rorschach cards, suggesting that internal representation of the “feeling of movement” may be sufficient to trigger MNS activity even when minimal external cues are present (Giromini et al., 2010). This also gives support to the interpretation of the Rorschach human movement responses as being related to cognitive functioning, empathy and social cognition.

Such evidences prove that projective techniques studies could be helpful with brain studies at anatomical and molecular level and have a potential to contribute to our ever growing knowledge of the human brain, and more research in this direction is warranted.

Application in other settings

Not only in the field of Mental health have these projective tests been useful, but in other fields as well including forensic, organizational and educational settings have they been used.

Organizational setting

In organizations the utility of projective tests have been seen in various areas. Form researches related to marketing of the products to the promotion of brands and from measuring the customer's motivation to measuring their satisfaction, projective tests have been effectively used. One more very important area under this field is personnel selection, differentiation between successful and unsuccessful workers, measurement of promotion potential, job satisfaction and adjustment, and identification of vocationally significant personality patterns. According to Green (1984), projective techniques are fundamental to consumer research in that they provide a greater depth of understanding of what people truly think and feel about a product. In organizations for understanding the needs of the customers projective tests like are story construction tests, sentence completion tests and word association tests have been seen affective. Similarly Donoghue (2000) successfully demonstrated that projective techniques may be used to reveal consumers' hidden attitudes, feelings, beliefs and motives that are intimately associated with the decision to buy or not to buy.

However use of projective tests in this field has been limited as projective tests are more time taking and require skilled people for correct interpretation of the test results which becomes a costly affair for organizations.

Worldwide, projective tests are being used in the selection of military personnel. Hartmann and Gronnerod (2009) conducted a study on the Naval Special Forces (NFS) of Norway using Rorschach and the Norwegian version of the Big Five personality under both calm and stressful conditions. Results of the study showed that Rorschach variables are valid predictors of military training performance in an already highly selected cohort. With respect to the different Rorschach variables successful candidates had significantly lower m, significantly lower X – %, significantly lower WSum6-Lv2 and significantly higher XA% etc.

Forensic setting

Traditional clinical tests are used widely in forensic psychological assessments despite concerns regarding their use. Meloy (1997) studied legal citations based on the Rorschach test during a period of fifty years and found that in almost in 90% of the cases the admissibility and weight of Rorschach data were not questioned and the test had been given legal weight by appellate courts. The RCS also facilitates decision-making in a forensic setting by identifying psychological characteristics commonly associated with various patterns of psychopathology relevant to psycholegal issues (Gacano, et al., 2002). The test is particularly well-suited for the assessment of forensic offenders because it allows for the appraisal of psychological variables outside the individual's awareness (Weiner, 2005). Empirical studies have demonstrated that it may be difficult to attempt to conceal psychological disturbances and psychopathology or to malingering psychosis on the RCS (Grossman et al, 2002).

Wagh, et al. (2012) did case study on a male working as domestic help who was convicted for murder of his landlady and five children. The study reveals that Human Figure Drawing Test (HFDT) is helpful in Forensic setting as projective assessment tool as it has the potential to elicit information regarding cognition, feelings and overall personality of an individual. Weizmann-Henelius, et al. (2010) tried to evaluate the use of the Rorschach Comprehensive System in forensic psychiatric settings. Psychological assessments (N 34) based solely on RCS information were compared with the responses made by a forensic psychiatrist who had evaluated one offender. Agreement was found in 14 of 19 statements, which were related to the capacities and personality characteristics underlying criminal responsibility and mental state at the time of offense. The findings support the use of the RCS in forensic psychiatric evaluations, although no explicit conclusion can be drawn from one case. Further studies with more cases are needed. Rorschach has also been used in child custody evaluations (Calloway, 2005), allowing measures of various personality traits of individuals.

Educational setting

Unlike other settings, in school settings use of projective tests has been a more debatable issue. Various school psychologists feel that projective tests are a very good method of assessing children in schools but others find behavioral assessment methods (e.g., interviews, observations, informant-report measures) as more useful for the children suspected to have emotional and/or behavioral problems.

According to Miller and Nickerson (2006), despite the wide use of projective techniques by school psychologists with children and adolescents, the continued use of these techniques would appear inconsistent with best practices in school psychology assessment. For children and adolescents they have not demonstrated a substantial degree of either incremental validity or treatment validity, and there appears to be substantial problems associated with clinical experience and professional judgment in their interpretation. Hojnosi et al (2006) conducted a survey to find the status of projective tests' use among school psychologists, with a specific

focus on their use in the social emotional assessment of children in schools. The results showed that tests with high utility were less in use and vice versa, for example Rorschach was rated as the third most useful instrument but was ranked in the lowest three instruments in terms of actual use and the House Tree Person test, the third most used instrument, was ranked eighth in terms of utility. The results from this survey further indicated that respondents were also using projective techniques for the purposes for which they had not been validated specifically.

V. CONCLUSION

Projective techniques are controversial, and it seems they will always remain controversial. Despite that, they are in high clinical demand. They are used and relied on heavily. With the use of standardized, well adapted techniques, by trained psychologists, important data can be gathered, which can supplement the data from the more 'objective' measures of assessment. One needs to remember that their usefulness increases considerably when used in conjunction with other tests, and not in isolation. Incremental validity studies done in recent times lend support for the clinical utility of projective tests. Their growing application to varied settings indicates that they are here to stay, and researchers seem to be actively trying to improve the validity of these measures by putting efforts to create more standardized approaches for coding, scoring and interpreting them.

VI. REFERENCES

- [1] Armstrong, J. G. (2002). *Deciphering the broken narrative of trauma: Signs of traumatic dissociation on the Rorschach*. *Rorschachiana*, 25(1), 11-27.
- [2] Bachar, E., et al. (2002). *Rejection of life in anorexic and bulimic patients*. *International Journal of Eating Disorders*, 31(1), 43-48.
- [3] Calloway, G. C. (2005). *The Rorschach: Its use in child custody evaluations*. *Journal of Child Custody*, 2(1-2), 143-157.
- [4] Donoghue (2000). *Projective techniques in consumer research*. *Journal of Family Ecology and Consumer Sciences*, 28.
- [5] Ephraim, D. (2002). *Rorschach trauma assessment of survivors of torture and state violence*. *Rorschachiana*, 25, 58-76.
- [6] Eva, et al. (2006). *CSF 5-HIAA and the Rorschach Test in Patients Who Have Attempted Suicide*. *Archives of Suicide Research*, 10 (4), 339-345.
- [7] Evareta, L. L. A. (2014). *Validity of Draw-A-Person Test as a measure of Anxiety and Aggression Indices among Schizophrenics of Hospicio de San Juan de Dios*. *Asia Pacific Journal of Multidisciplinary Research*, 2 (3).
- [8] Exner, J. E. (2003). *The Rorschach: A comprehensive system: Vol. 1: Basic foundations and principles of interpretation (4th ed.)*. Hoboken, NJ: Wiley.
- [9] Gacono, C. B., Evans III, F. B., & Viglione, D. J. (2002). *The Rorschach in forensic practice*. *Journal of Forensic Psychology Practice*, 2(3), 33-53.
- [10] Giromini, L et al. (2010). *The feeling of movement: EEG evidence for mirroring activity during the observations of static, ambiguous stimuli in the Rorschach cards*. *Biological psychology*, 85(2), 233-241.
- [11] Golden, C. J., & Vicente, P. J. (1983) *Foundations of Clinical Neuropsychology*.
- [12] Green, J. (1984). *Approaching the core of consumer behaviour*. *Marketing research*, 14, 649-656.
- [13] Grossman, L. S., et al. (1988). *The detection of malingering in criminal forensic groups: MMPI validity scales*. *Journal of personality assessment*, 52(2), 321-333.
- [14] Hartmann & Grønnerød (2009). *Rorschach variables and Big Five scales as predictors of military training completion: a replication study of the selection of candidates to the naval special forces in Norway*. *Journal of Personality Assessment*, 91(3):254-64.
- [15] Hartmann, E., et al. (2013). *Rorschach variables and dysfunctional attitudes as measures of depressive vulnerability: a 9-year follow-up study of individuals with different histories of major depressive episodes*. *Journal of personality assessment*, 95, 1, 26-37.
- [16] Hojnoski, et al. (2006). *Projective Test Use Among School Psychologists: A Survey and Critique*. *Journal of Psychoeducational Assessment*, 24, 145-159.
- [17] Ilonen, T., et al., (1999). *Diagnostic efficiency of the Rorschach schizophrenia and depression indices in identifying first-episode schizophrenia and severe depression*. *Psychiatry research*, 87(2), 183-192.
- [18] Inoue, N. (2009). *Evaluation of an EMDR treatment outcome using the Rorschach, the TAT, and the IES- R: A case study of a human-caused trauma survivor*. *Rorschachiana*, 30(2), 180.
- [19] Kimura, H., et al., (2013). *Differences between bipolar and unipolar depression on Rorschach testing*. *Neuropsychiatric disease and treatment*, 9, 619.
- [20] Kumar, D., et al. (2014). *Identification of suicidal ideations with the help of projective tests: A review*. *Asian journal of psychiatry*, 12, 36-42.
- [21] LaRoque, S. D., & Obrzut, J. E. (2006). *Pencil Pressure and Anxiety in Drawings A Techno-Projective Approach*. *Journal of psychoeducational assessment*, 24(4), 381-393.
- [22] Leavitt, F., & Labott, S. M. (1997). *Criterion-related validity of Rorschach analogues of dissociation*. *Psychological Assessment*, 9(3), 244.
- [23] Mario, B., et al. (2015). *Relationship between the Rorschach Perceptual Thinking Index (PTI) and the Positive and Negative Syndrome Scale (PANSS) in psychotic patients: A validity study*. *Psychiatry research*, 225(3), 315-321.
- [24] Meloy, R. J. (1997). *Violent attachments*. Jason Aronson, Incorporated.
- [25] Miller & Nickerson (2006). *Projective Assessment and School Psychology: Contemporary Validity Issues and Implications for Practice*. *The California School Psychologist*, 11, 73-84.
- [26] Pennebaker, J. W., & Seagal, J. D. (1999). *Forming a story: The health benefits of narrative*. *Journal of clinical psychology*, 55(10), 1243-1254.
- [27] Piotrowski, Z. (1940). *Positive and negative Rorschach organic reactions*. *Rorschach Research Exchange*, 4(4), 147-151.
- [28] Porcelli, P., & Mihura, J. L. (2010). *Assessment of alexithymia with the Rorschach comprehensive system: The Rorschach Alexithymia Scale (RAS)*. *Journal of personality assessment*, 92(2), 128-136.
- [29] Saldanha, D., et al., (2013). *Effect of Therapeutic Intervention in a Case of Schizophrenia through SIS-II and Rorschach*. *SIS Journal of Projective Psychology & Mental Health*, 20(1).

- [30] Shukla, P., et al. (2012). *Performance of mania and normal control on human figure drawing test: a comparative study.* Pravara Medical Review, 4(3), 4-8.
- [31] Sidun, N. M., & Rosenthal, R. H. (1987). *Graphic indicators of sexual abuse in draw-a-person tests of psychiatrically hospitalized adolescents.* The arts in psychotherapy, 14(1), 25-33.
- [32] Silberg, J. L., & Armstrong, J. G. (1992). *The Rorschach test for predicting suicide among depressed adolescent inpatients.* Journal of personality assessment, 59(2), 290-303.
- [33] Singh, U., & Rani, K. (2014). *SIS-II Correlates of Suicide Ideation among Adolescents.* SIS Journal of Projective Psychology & Mental Health, 21(1).
- [34] Smith, S. R., et al. (2001). *Assessment of disordered thinking in children and adolescents: The Rorschach Perceptual-Thinking Index.* Journal of Personality Assessment, 77(3), 447-463.
- [35] Sullivan, G. R., & Bongar, B. (2009). *Assessing suicide risk in the adult patient.*
- [36] Tibon, S., et al. (2005). *Construct validation of the Rorschach Reality-Fantasy Scale in alexithymia.* Psychoanalytic Psychology, 22(4), 508.
- [37] Turk, A. A., et al., (2010). *Social narratives in agenesis of the corpus callosum: linguistic analysis of the Thematic Apperception Test.* Neuropsychologia, 48(1), 43-50.
- [38] Wagh, et al. (2012). *Human Figure Drawing Test in Forensic Investigation: A Case Study.* SIS Journal of Projective Psychology & Mental Health. 19,107.
- [39] Weiner, I.B. (1989). *On competence and ethicality in psycho-diagnostic assessment.* Journal of Personality Assessment, 53, 827-831.
- [40] Weizmann-Henelius, et al. (2010). *The utility of Rorschach in forensic psychiatric evaluations— A case study.* Nordic Psychology, 62(3), 36.
- [41] West, M. M. (1998). *Meta-analysis of studies assessing the efficacy of projective techniques in discriminating child sexual abuse.* Child Abuse & Neglect, 22(11), 1151-1166.
- [42] Wood, J. M., et al. (2000). *The Rorschach test in clinical diagnosis: A critical review, with a backward look at Garfield (1947).* Journal of Clinical Psychology, 56(3), 395-430.
- [43] Yates, A., et al. (1985). *Drawings by child victims of incest.* Child Abuse & Neglect, 9, 183- 189.