ISSN 0971-6610

SIS

Journal of Projective Psychology & Mental Health

Volume: 33 Number: 01 Jan 2026

Editorial:
Implications of 'Ergonomics' Research for the Practice of Projective Assessment 01- 03
Chris Piotrowski

Projective Methods: Applications in Contemporary Marketing and Consumerism Research 04 - 07
Chris Piotrowski

Self-insight, Self-concept Clarity, Gullibility, Celebrity Admiration & Compulsive Buying 08 -15
Hyeyeon Hwang, Bethany Jurs, Lynn E. McCutcheon & Edsen Donato

A Novel Approach to Sentence Completions: Associations between Language and Object Relations in an Inpatient Psychiatric Sample 16 -22
Alex M. Ray & John T. Rucker

Behaviour Addiction in Young Adults: Blind Analysis through Somatic Inkblot Test 23 - 29
Bhavya Mishra, Anand Dubey & Satyadhar Dwivedi

Treatment Resistant Anxiety Disorder (TR-AD): Gestalt Views and SIS Projection 30 - 37
L. S. S. Manickam, P. Vani, R. Parvathy & B.L. Dubey

Perceptual Accuracy on Rorschach in Patients with Schizophrenia and Obsessive-Compulsive Disorder 38 - 43
Varun Kumar, Ashok Parasar, N.K Nidhi & Ashok Kumar Patel

Intervention using Somatic Inkblot Test in Dissociative Disorder - A Case Study 44 - 49
Divyanshi Thakwani & Satyadhar Dwivedi

A Systematic Review on Maternal Mental Health Scales for Pregnant Women 50 - 59
Shraddhesh K. Tiwari & Aparna Sharma

Official Publication of the Somatic Inkblot Society
www.somaticinkblots.com

The Somatic Inkblot Society's JOURNAL OF PROJECTIVE PSYCHOLOGY AND MENTAL HEALTH is a refereed journal and published twice a year (January & July) by the SOMATIC INKBLOT SOCIETY and is devoted to the advancement of research in the areas of projective psychology, personality assessment, psychotherapy, and mental health. The journal is broadly concerned with the development of inkblot tests and personality assessment in clinical, counseling, cross cultural, organizational and health psychology settings. It aims to reach clinical psychologists, psychotherapists, psychiatrists, social workers, medical professionals, and professional managers interested in the understanding and modification of human behavior. The journal includes (a) research articles (b) book reviews (c) brief reports (d) news about conferences and letters to the editor.

MANUSCRIPTS PREPARATION: Manuscripts should be prepared in accordance with the format of APA. The manuscript should be prepared only in MS Word. No other formats are acceptable. An MS Word Template for preparing manuscript can be downloaded from the SIS Website.

MANUSCRIPTS SUBMISSION: The typewritten manuscript in MS Word should be submitted only through email to anyone on the following Email IDs.

(1) Dr. Bankey L. Dubey, Ph. D. Editor Emeritus, SIS Journal, Email: bldubey@gmail.com

(2) Dr. Naveen Gupta, Ph.D. Editor-in-Chief, SIS Journal, Email: dr_naveengupta@yahoo.com

Note: The Editorial Board of Journal of Projective Psychology and Mental Health have full rights to accept/reject or require a re-submission of submitted manuscripts. Minor additions/ deletions/ changes can also be made in the manuscript at the level of Editors.

JOURNAL SUBSCRIPTION: The soft copy of the Journal is delivered to the members of the Somatic Inkblot Society. We encourage individuals and Institutions to become members of the Somatic Inkblot Society on the prescribed Membership Application Form available in this issue of the Journal to receive a copy of the journal.

Non-members may purchase any single issue on the prevailing rates which are quoted in the journal. Current Rates: *Foreign: $45 and Indian Rs. 600/- per issue.*

(1) Online payments (**NEFT**) for the journal should be made to following bank account:

Name of Account:	SIS Journal of Projective Psychology and Mental Health
Bank Name:	State Bank of India
Branch Address:	Property No.4, Block-A, Sector-23, Dwarka, New Delhi-110077,
Account No.	32297525238
IFS Code:	SBIN0032182
Type of Account:	Saving Bank

(2) Subscription can also be sent through Multi City Cheque, in favor of ***"SIS Journal of Projective Psychology and Mental Health"*** to the following address by Registered Post:

Dr. Abhilasha Singh Raghav, Ph.D., Director, Hindustan Institute of Management and Computer Studies, Farah, Mathura-281122 U.P. (INDIA), Email: director.himcs@sgei.org, Cell: 91-9837111332

CHANGE OF ADDRESS: Any changes in address should be communicated for updating our records and seamless receipt of the Journal to Prof. B.L. Dubey,Email: bldubey@gmail.com

Copyright ©1994.Somatic Inkblot Society, India/USA

Website: http://www.somaticinkblots.com, OR http://www.dubayhealingcenter.com

SIS J. Proj. Psy. & Ment. Health (2026) 33: 1, 01-03

Editorial:

Implications of 'Ergonomics' Research for the Practice of Projective Assessment

Assessment psychologists usually pay little attention to extraneous factors (i.e., the environment) when conducting mental health testing. Yet, decades ago, Hafner (1955) discussed the importance of the assessment 'Setting' when administering the Rorschach. In the contemporary assessment enterprise, testing occurs in a variety of unique settings such as medical clinics, correctional facilities, schools, business establishments, university campuses, and practitioners' office. More recently, (particularly due to the COVID-19 crisis), assessment is frequently performed from *remote* settings such as place of residence or via an individual's portable tech devices (Corey & Ben-Porath, 2020; Gnambs & Lenhard, 2024).

Other than the testing materials, the examiner, and the patient/client, there are a myriad of factors that could play a significant role in the psychometric credibility of assessment findings. Most of these would be considered 'ergonomic' issues, infrequently discussed in the assessment literature. The field of ergonomics, as an applied science, examines and analyzes the interactional aspects of design features pertaining to the physical, cognitive, and environmental domains of human activity (Karwowski & Marras, 1999; Salvendy, 1997). In this context, impact on the individual centers on physical comfort, safety, potential stressors, aesthetics, and optimal performance. The current commentary highlights some of these issues in reference to the practice of projective assessment. I recently conducted a series of bibliometric content analyses of *Ergonomics* journals regarding coverage on specific investigatory topics over the past 10 years (see Piotrowski, 2026). These studies identified several key topical areas that have implications for the administration of various projective techniques; most noteworthy: lighting/illumination, ambient temperature, weather conditions, colors, noise, time pressure, and indoor design/quality. Most of these 'environmental' factors have a ubiquitous and daily impact on our lives. I briefly discuss 3 of these topical issues below.

Color

Decades ago, researchers discovered that different color hues have unique influence on psychological and emotional states, such as mood (Wexner, 1954); for example, the color *blue* tends to have a calming effect (Wright & Rainwater, 1962). With implications for projective assessment, Elliot (2019) concluded that colors can elicit increased arousal and perceptual attention, whereas Greene et al. (1983) found that arousing hues could prevent boredom. Based on Rorschach administration, Drechsler (1960) concluded that the colors *red* and *green* can interfere with thought processes, with recent research corroborating these findings (Piotrowski, 2023). Since proper assessment protocol requires optimal effort on the part of the patient/client, the color décor of the furniture and examining room can have a significant impact on the productivity and validity of projective testing results.

Music

In the modern age of technological devices, most people are surrounded by music. Both adolescents and adults are seen walking around with their headphones, earphones (e.g., iPods); Music is blasting out of vehicles; even some mental health professionals' offices have piped-in music in waiting rooms. In fact, music therapy is a recognized treatment approach (Li et al., 2021), and there actually is a Music Apperception Test (van den Daele et al., 2018). With regard to projective techniques, investigators have found that music style has a differential impact on the nature of Thematic Apperception Test narratives and emotional content (Carlton & MacDonald, 2003; McFarland, 1984). With regard to the Rorschach,

Satterlee (2006) found significant differences between musicians' and non-musicians on the quality of inkblot responses.

The Weather

The weather is also a ubiquitous and constant factor in our daily lives. Meteorological factors like temperature, humidity, wind velocity, cloudiness, air pressure, precipitation have been associated with weather sensitivity (e.g., daily mood) in human populations (Denissen et al., 2008). Hoeglund (2002) found vast variation in individuals' mood ratings based on weather conditions, although contrary findings have been reported (see Huibers et al., 2010). Of particular importance for assessment psychologists, Koots et al. (2011) found that personality traits are a significant moderator regarding the influence of weather on affective states. With regard to Inkblot measures, Halali et al. (2017) reported that cool temperature can enhance cognitive control. Tal-Or and Razpurker-Apfeld (2021) found that cold temperature can lead to high levels of empathy for the suffering of others. This latter finding has implications for 'story' productions on Thematic tests such as the CAT and TAT, or possibly on conveying affective states in human figure drawings (Piotrowski, 2017).

In conclusion, mental health professionals involved in projective assessment need to be cognizant of myriad environmental factors that could have a potential moderator effect on the psychological state of individuals undergoing testing. Thus, in addition to the issues noted above, factors such as room aesthetics, chair design, lighting, noise interruptions, and/or personal comfort could play a significant role in the assessment enterprise. Indeed, ergonomics science has much to contribute to the practice of projective testing.

References:

Carlton, L., & MacDonald, R. (2003). An investigation of the effects of music on Thematic Apperception Test (TAT) interpretations. *Musicae Scientiae*, *22*, 9-30.

Corey, D.M., & Ben-Porath, Y.S. (2020). Practical guidance on the use of the MMPI instruments in remote psychological testing. *Professional Psychology: Research and Practice*, *51*(3), 199-204.

Denissen, J., et al. (2008). The effects of weather on daily mood. *Emotion*, *8*(5), 662-667.

Drechsler, R.J. (1960). Affect-simulating effects of colors. *Journal of Abnormal and Social Psychology*, *61*(3), 323-328.

Elliot, A.J. (2019). A historically based review of empirical work on color and psychological functioning. *Review of General Psychology*, *23*(2), 177-200.

Gnambs, T., & Lenhard, W. (2024). Remote testing of reading comprehension in 8-year-old children: Mode and setting effects. *Assessment*, *31*(2), 248-262.

Greene, T.C., et al. (1983). Coloring the environment: Hue, arousal, and boredom. *Bulletin of the Psychonomic Society*, *21*(4), 253-254.

Hafner, A.J. (1955). *An investigation of the relationship between specific setting factors and behavior on the Rorschach*. Unpublished doctoral dissertation, Indiana University.

Halali, E., et al. (2017). Keep it cool: Temperature priming effect on cognitive control. *Psychological Research*, *81*, 343-354.

Hoeglund, T.J. (2002). The influence of weather on moods: An idiographic and nomothetic approach. *Dissertation Abstracts International*, *63* (1-B), 509.

Huibers, M., et al. (2010). Does the weather make us sad? Meteorological determinants of mood and depression in the general population. *Psychiatry Research*, *180*, 143-146.

Karwowski, W., & Marras, W.S. (Eds.) (1999). *The occupational ergonomics handbook*. CRC Press.

Kombeiz, O., & Dietl, E. (2019). Light as a positive situational cue at work: Satisfaction with light relates to judgements of other's warmth and competence. *Ergonomics*, *62*(8), 995-1007.

Koots, L., et al. (2011). The influence of the weather on affective experience. *Journal of Individual Differences*, *32*(2), 74-84.

Li, K., et al. (2021). The state of music therapy studies in the past 20 years: A bibliometric analysis. *Frontiers in Psychology*, *12*, Article 697726.

McFarland, R. A. (1984). Effects of music upon emotional content of TAT stories. *Journal of Psychology*, *116*(2), 227-234.

Piotrowski, C. (2017). Drawing techniques in assessment: A summary review of 60 survey-based studies of training and professional settings. *Journal of the Indian Academy of Applied Psychology*, *42*(2), 219-235.

Piotrowski, C. (2023). Color red and the assessment process: Implications for the Rorschach. *Journal of Projective Psychology & Mental Health*, *30*(1), 11-17.

Piotrowski, C. (2026). Ergonomics: Contemporary 'hot topics and under-represented areas of scholarly investigation. *North American Journal of Psychology*, *28*(2), in press.

Salvendy, G. (Ed.) (1997). *Handbook of human factors and ergonomics* (2nd ed.). Wiley.

Satterlee, S. (2006). The Rorschach and music artistry. *Dissertation Abstracts International*, *66*(12-B), 6963.

Stevens, R.J. (2025). The achiever's dilemma: Projective psychological techniques for luxury product placements in Europe. *Dissertation Abstracts International*, *86*(8-B).

Tal-Or, N., & Razpurker-Apfeld, I. (2021). When the physical coldness in the viewer's environment leads to identification with a suffering protagonist. *International Journal of Psychology*, *56*(3), 394-406.

van den Daele, L., et al. (2018). Differential performance of professional dancers to the Music Apperception Test and the Thematic Apperception Test. *Rorschachiana*, *39*(1), 20-49.

von Castell, C., et al. (2018). Which attribute of ceiling color influences perceived room height? *Human Factors*, *60*(8), 1228-1240.

Wexner, L.B. (1954). The degree to which colors (hues) are associated with mood-tones. *Journal of Applied Psychology*, *38*(6), 432-436.

Wilkins, L. (2024). Test conditions impact measures of visual, perceptual, and cognitive performance. *Ergonomics*, *67*(11), 1644-1655.

Wright, B., & Rainwater, L. (1962). The meaning of color. *Journal of General Psychology*, *67*, 89-99.

Chris Piotrowski, PhD,
Senior Editor
University of West Florida (USA)
Email: piotrowskichris@hotmail.com

SIS J. Proj. Psy. & Ment. Health (2026) 33: 1, 04-07

Projective Methods: Applications in Contemporary Marketing and Consumerism Research

Chris Piotrowski

The application of projective techniques in scholarly research on marketing issues, consumer preferences, and human resource management has a long history. Based on perennial criticism of projective measures in the past, it would be of interest whether projective methods continue to attract research attention and academic scrutiny across the disciplines of marketing, consumerism, and management. Based on a bibliographic strategy, the current study identified contemporary research articles where projective tests were the main methodology in studies in these business-related areas. From an original pool of over 75 peer-reviewed articles, the author identified the key studies (n=10) that supported the continued reliance on projective methods in scholarly efforts across these sub-fields. Overall, nearly all of the investigations found some degree of utility regarding projective tests as part of the research design. Thus, despite methodological critiques, projective measures are considered valid research tools across contemporary business-related areas of study.

Introduction:

From a historical perspective, Projective Techniques have garnered significant research attention across a myriad of applied fields within the domain of I/O psychology, most notably in the area of management, human resource selection, marketing, advertising, and consumerism (Cox, 1948; Donoghue, 2000; Grant et al., 1967; Greenberg, 1959; Haire, 1950; Hussey & Duncombe, 1999; Kinslinger, 1966; Phelan, 1962; Piotrowski, 2014; Steinmann, 2009; Vicary, 1948; Watt & Piotrowski, 2025; Will et al., 1996; Zober, 1956). Indeed, researchers have examined empirical validity and utility on a host of projective methods as reliable measurement techniques in the study of consumer behavior and attitudes, advertising effectiveness, brand image, and marketing strategies (Hofstede et al., 2007; Lucas & Britt, 1963; Okamoto, 1989; Rohani et al., 2014; Soley, 2010). The breadth of scholarship in this research area spans a wide spectrum of business applications, including issues such as product efficacy (Belk, 2017; Weitz & Weasley, 2006), food preference (e.g., Banovic et al., 2016), and human resource management (e.g., Carter et al., 2013).

The most relied-upon projective techniques in applied research in this area have been Word association, Sentence completion, and Thematic story-telling measures (Kachersky & Lerman, 2013; Kujala et al., 2014; Zogg, 2005). In a classic study, Ruth and Mosatche (1985) utilized the Thematic Apperception Test (TAT) in the investigation of Freudian sexual symbolism in liquor advertisements. Despite reliance on projective assessment in the field of marketing and management, a systematic review of *contemporary* business research applications using projective methods has not been conducted. Thus, the aim of the current study is to a) identify scholarly publications in the recent I/O literature that included projective measures/tests in the research design, and b) provide a synopsis of major findings of key empirical studies across the fields of marketing, advertising, and consumerism. The findings should provide a coherent overview of contemporary scholarship on the application of projective techniques in these business-related fields.

Method:

In order to identify a pool of relevant studies, an online search of the database *PsycINFO* was performed utilizing a Boolean search strategy. Select keywords such as projective, Rorschach, Thematic,

Chris Piotrowski, PhD, research consultant, University of West Florida, USA, Email: piotrowskichris@hotmail.com

Keywords: projective tests, usage, marketing, business research

Sentence completion, and drawings were combined with terms such as marketing, advertising, brand, consumer, and management. These searches produced an output of 78 studies. Next, the authors manually scanned the bibliographies of studies which identified several additional key references. In order to reflect 'contemporary' research, only those studies published over the prior 15 years (2010-2025) were retained for further review. Table 1 presents a brief synopsis of the 10 major references that addressed the role of projective tests in the context of business-related research.

Table 1. Prominent Contemporary Studies

Cited Reference	Study aim &Methods	Major Findings
Parente et al. (2023)	Consumers' perception of new design of a cosmetic product; 334 females; sentence completion, story completion tasks	36% of the sample favored the after-shower olive oil product; whereas 65% felt that the product left a greasy sensation or had a disagreeable fragrance.
Alcaire et al. (2021)	In order to promote healthy eating patterns, the study explored children's (*n*=263) and mothers' (*n*=1183) conceptualization of school 'snacking'; Drawings	For children, fruits, sandwiches, cookies, and juices were most frequently represented in drawings; Mothers noted lack of time to prepare healthy home-made snacks.
Pontual et al. (2017)	Investigated consumer preferences for type of pizza; 72 celiac and 78 non-celiac individuals; Word association technique	Pizza made with rice-flour or cassava flour, and 'thin dough' were associated with positive views; Gluten-free pizza was preferred.
Kim et al. (2016)	Advanced theory/practice on luxury brand advertising effectiveness; modified Thematic apperception measure	Based on thematic text analysis, the results contributed to luxury brand advertising by identification persuasion based on the level of implicit narrative engendered by the brand's presentation.
Eldesouky et al. (2015)	Studied consumer preferences for type of packaging in food purchases; Word association and sentence completion	Results suggest that handiness in opening, re-sealability, and item transparency were most appreciated by consumers.
Gambaro et al. (2014)	Evaluated consumer perception of various aspects of cosmetic creams; 120 females; Word association	This projective method was found to be efficacious in the identification of desired sensory properties of various creams; The findings optimize critical factors in product selection.
Vidal et al. (2013)	Investigated consumer perceptions and motivations in the purchasing intentions for ready-to-eat foods; sample of 320 adults; Word association, Sentence completion tasks	Results indicated that 'convenience' was the main factor for product purchase; Projective assessment methods were unstructured enough to elicit preference based on personal views toward the product.
Tantiseneepong et al. (2012)	Evaluated the utility in projective techniques in understanding consumer reactions (n=16) to celebrity - endorsed products; picture association method	Results indicated that celebrity endorsers have a significant impact on perceived target market for a product and their role in repositioning a brand; however, consumers may recall the celebrity more than the product.
Doherty & Nelson (2010)	Assessed customer (n=160) loyalty (perceptions, attitudes, values) toward food retailers; Word association, personification and cartoon images	Projective techniques have the ability to gauge latent feelings and attitudes of consumers; hence, genuine, unconscious perceptions can be reliably measured.
Guerrero et al. (2010)	Evaluated perception of traditional food products across 6 European regions; 721 customers; Word association technique	Results indicated that southern European populations associated the term 'traditional', in regard to food, with concepts such as heritage or history, whereas Nordic regions viewed 'traditional' from a practical perspective.

Conclusion:

Despite perennial criticism (i.e., mainly from the academic community) on the use of projective techniques in psychological research, a review of the extant literature shows that projective methods, particularly Word association and Sentence completion techniques, have been frequently applied in empirical studies in applied areas such as marketing, advertising, consumerism, and personnel management. The current bibliographic review indicates that, historically, many sub-fields within the purview of Industrial/Organizational Psychology have embraced projective tests as acceptable measurement tools in scholarly investigations (Fassbender, 1997; Watt & Piotrowski, 2025). Moreover, such acceptance is evident in the contemporary literature on marketing, consumerism, and human resources. Future research efforts should examine changes in longitudinal trends regarding projective assessment, particularly with respect to consumer attitudes and behavior (Youness et al., 2024), as well as upper-level management selection and assessment of management potential (Bach, 2006; Del Giudice, 2010; Piotrowski, 2016; Piotrowski & Watt, 2024).

References:

Alcaire, F., et al. (2021). Healthy snacking in the school environment: Exploring children and mothers' perspective using projective techniques. *Food Quality & Preference*, *90*, Article 104173.

Bach, P.L. (2006). A descriptive study of senior business executives. *Dissertation Abstracts International*, *66*(8-B), 4526.

Banovic, M., et al. (2016). Consumers as co-creators of new product ideas: An application of projective and creative research techniques. *Food Research International*, *87*, 211-223.

Belk, R.W. (2017). Qualitative research in advertising. *Journal of Advertising*, *46*(1), 36-47.

Boddy, C. (2005). Projective techniques in market research: A look at the evidence for the usefulness, reliability, and validity. *International Journal of Market Research*, *47*(3), 239-254.

Boddy, C. (2007). Projective techniques in Taiwan and Asia-Pacific market research. *Qualitative Market Research*, *10*(1), 48-62.

Carter, N.T., et al. (2013). Projective testing: Historical foundations and uses for human resources management. *Human Resource Management Review*, *23*, 205-218.

Cox, K.J. (1948). Can the Rorschach pick sales clerks? *Personnel Psychology*, *1*(3), 357-363.

Del Giudice, M.J. (2010). What might this be? Rediscovering the Rorschach as a tool for personnel selection in organizations. *Journal of Personality Assessment*, *92*(1), 78-89.

Doherty, S., & Nelson, R. (2010). Using projective techniques to tap into consumers' feelings, perceptions, and attitudes. *International Journal of Consumer Studies*, *34*, 400-404.

Donoghue, S. (2000). Projective techniques in consumer research. *Journal of Family Ecology & Consumer Sciences*, *28*(1), 47-53.

Eldesouky, A., et al. (2015). The role of packaging and presentation format in consumers' preferences for food: An application of projective techniques. *Journal of Sensory Studies*, *30*(5), 360-369.

Fassbender, P. (1997). Implications for the use of projective techniques in organizational consulting. *Perceptual & Motor Skills*, *84*(1), 171-175.

Gambaro, A., et al. (2014). Word association technique applied to cosmetic products: A case study. *Journal of Sensory Studies*, *29*(2), 103-109.

Grant, D.L., et al. (1967). Contributions of projective techniques to assessment of management potential. *Journal of Applied Psychology*, *51*(3), 226-232.

Greenberg, A. (1959). Pictorial stereotypes are a projective test. *Journal of Marketing*, *24*(2), 72-74.

Guerrero, L., et al. (2010). Perception of traditional food products in 6 European regions using free word association. *Food Quality & Preference*, *21*(2), 225-233.

Haire, M. (1950). Projective techniques in marketing research. *Journal of Marketing*, *14*, 649-656.

Hofstede, A., et al. (2007). Projective techniques for brand image research. *Qualitative Market Research: An International Journal*, *10*(3), 300-309.

Hussey, M., & Duncombe, N. (1999). Projecting the right image: Using projective techniques to measure brand image. *Qualitative Market Research*, *2*(1), 22-30.

Kachersky, L., & Lerman, D. (2013). Bridging marketing's intentions and consumer perceptions. *Journal of Consumer Marketing*, *30*(7), 544-552.

Kim, J., et al. (2016). Narrative-transportation storylines in luxury brand advertising: Motivating consumer engagement. *Journal of Business Research*, *69*, 304-313.

Kinslinger, H.J. (1966). Application of projective techniques in personnel psychology since 1940. *Psychological Bulletin*, *66*(2), 134-149.

Kujala, S., et al. (2014). Sentence completion for understanding users and evaluating user experience. *Interacting with Computers*, *26*(3), 8-10.

Lucas, D.B., & Britt, S.H. (1963). Projective methods. In D.B. Lucas &S.H. Britt (Eds.), *Measuring advertising effectiveness* (pp. 131-152.). McGraw-Hill.

Okamoto, Y. (1989). Economic psychology in Japan. *Applied Psychology: An International Review*, *38*(4), 443-451.

Parente, E., et al. (2023). Use of completion projective technique to understand consumers' perception upon a novelty cosmetic with olive oil. *Journal of Sensory Studies*, *38*, Article e12800.

Phelan, J.G. (1962). Projective techniques in the selection of management personnel. *Journal of Projective Techniques*, *26*(1), 102-104.

Piotrowski, C. (2014). Mapping the research domain of I/O psychology: A content analysis of dissertations. *Psychology & Education: An Interdisciplinary Journal*, *51*(4), 26-29.

Piotrowski, C. (2016). Mapping the research domain of the field of applied psychology: A bibliometric analysis of the emerging literature. *Journal of the Indian Academy of Applied Psychology*, *42*(1), 11-17.

Piotrowski, C., & Watt, J.D. (2024). Bibliometric analysis of the *Journal of Business & Psychology*: Prominent and under-studied areas of I/O research. *North American Journal of Psychology*, *26*(3), 669-680.

Pontual, I., et al. (2017). Assessing consumer expectations about pizza: A study on celiac and non-celiac individuals using the Word association technique. *Food Research International*, *94*, 1-5.

Rohani, L.S., et al. (2014). One step closer to the field: Visual methods in marketing and consumer research. *Qualitative Market Research: An International Journal*, *17*(4), 300-318.

Rosencranz, M.L. (1961). The application of a projective techniques for analyzing clothing awareness, clothing symbols, and the range of themes associated with clothing behavior. *Dissertation Abstracts*, *21*, 2392-2393.

Ruth, W.J., & Mosatche, H.S. (1985). A projective assessment of the effects of Freudian sexual symbolism in liquor advertisements. *Psychological Reports*, *56*, 183-188.

Soley, L. (2010). Projective techniques in U.S. marketing and management research. *Qualitative Market Research: An International Journal*, *13*(4), 334-353.

Steinmann, R.B. (2009). Projective techniques in consumer research. *International Bulletin of Business Administration*, *5*, 37-45.

Stevens, R.J. (2025). The achiever's dilemma: Projective psychological techniques for luxury product placements in Europe. *Dissertation Abstracts International*, *86*(8-B), n.p.

Tantiseneepong, N., et al. (2012). Evaluating responses to celebrity endorsements using projective techniques. *Qualitative Market Research: An International Journal*, *15*(1), 57-69.

Vicary, J.M. (1948). Word association and opinion research: Advertising. *Public Opinion Quarterly*, *12*, 81-98.

Vidal, L., et al. (2013). Projective techniques to uncover consumer perception. *Food Quality & Preference*, *28*(1), 1-7.

Watt, J.D., & Piotrowski, C. (2025). Creativity research in a business context: Implications for assessment. *Journal of Projective Psychology & Mental Health*, *32*(1), 8-13.

Weitz, B.A., & Weasley, R. (Eds.). (2006). *Handbook of marketing*. SAGE.

Will, V., et al. (1996). Projective and enabling techniques explored. *Marketing Intelligence & Planning*, *14*(6), 38-43.

Youness, C., et al. (2024). Global corporate reputation: A projective quality approach from a customer perspective. *Qualitative Market Research: An International Journal*, *27*(1), 108-128.

Zober, M. (1956). Some projective techniques applied to marketing research. *Journal of Marketing*, *20*, 262-268.

Zogg, J.B. (2005). Adolescent exposure to alcohol advertising. *Dissertation Abstracts International*, *65*(7-B), 3777.

SIS J. Proj. Psy. & Ment. Health (2026) 33: 1, 08-15

Self-insight, Self-concept Clarity, Gullibility, Celebrity Admiration & Compulsive Buying

Hyeyeon Hwang, Bethany Jurs, Lynn E. McCutcheon & Edsen Donato

Compulsive buying is a widespread problem in American society with often devastating consequences. A measure of compulsive buying, along with four measures believed to be related to each other, gullibility, celebrity worship, self-insight, and self-concept clarity, based on previous research, were administered. Results indicated that all five measures were related to each other. Specifically, we found that self-insight and self-concept clarity were positively related to each other (.73, p<.01), and negatively related to gullibility, celebrity worship, and compulsive buying. We also predicted and found that compulsive buying was positively correlated with celebrity worship (.22, p<.01) and gullibility (.15, p<.05). We further predicted that scores on self-insight, self-concept clarity, gullibility, and celebrity worship measures would combine to predict compulsive buying in a stepwise multiple regression analysis. Self-insight proved to be the best predictor of compulsive buying (beta = -.30); addition of the celebrity worship (beta = .16) measure resulted in a total explained variance of 13 %. The discussion focuses on why the other predictors added little to the predictive model. Further validation for the relatively new brief measure of celebrity worship and the importance of the role of psychological assessment in the context of compulsivity were noted.

Introduction:

Compulsive consumer behavior can be defined as repetitive buying that is related to negative feelings. It is conceptualized as a strong urge to buy that is difficult to control and primarily driven by negative emotions (Faber & O'Guinn, 1992). Lam et al. (2018) considers it a behavioral addiction that can lead to criminal and/or legal problems and estimated its prevalence in the population at about five percent. Furthermore, compulsive buying seems to be on the rise, perhaps based on recent digital transactions and technological advancements that make purchasing easier (Sheruly & Koentary, 2024). The importance of compulsive buying stems from the fact that compulsive buyers often suffer from financial problems, which might lead to depression and anxiety (Faber & O'Guinn, 1992; Lejoyeux & Weinstein, 2010; Ridgeway et al., 2008). Furthermore, people who suffer from one kind of problematic consumer behavior may be susceptible to other kinds of harmful consumer addictions like alcoholism, obesity, drug use, and even addiction to one's favorite celebrity (Chen et al., 2022; Reeves et al., 2012). These harmful effects envelop families, friends, and the public because of increased costs for health care, crime control, and financial and legal entanglements (Faber & O'Guinn, 1992; Lam et al., 2018; Ridgeway et al., 2008). Moreover, compulsive buying has been linked to gullibility (Hoffman, 2021; Hollingsworth, 2024), excessive celebrity worship (Chen et al., 2022; Reeves et al., 2012), and a lack of self-concept clarity (Reeves et al., 2012). Hence, the onerous impact of this maladaptive condition makes it crucial to investigate the psychological constructs that may predict compulsive buying behaviors.

Self-insight refers to an "understanding oneself in some depth" (APA Dictionary, 2018). It is an awareness of one's thoughts, feelings, strengths, weaknesses, and behaviors (Banner et al., 2023; Sutton, 2016; Vazire & Carlson, 2010). It plays a critical role in both mental health and everyday decision-making (Sutton, 2016). "Developing self-insight is crucial for personal and professional growth" (Rasheed et al., 2021, p. 36). Self-insight by leaders is related to several positive outcomes, such as follower satisfaction (Steffens et al., 2021). Research shows that higher levels of self-insight are associated with positive outcomes such as reduced anxiety and depression, and greater self-control (Silvia, 2021). Individuals with high self-insight are more likely to recognize problematic behaviors, like compulsive buying, and take steps

Hyeyeon Hwang, Ph.D. University of Central Missouri, **Bethany Jurs**, Ph.D. Transylvania University, **Lynn E. McCutcheon**, Ed.D. North American Journal of Psychology (Contact person najp1999@yahoo.com) and **Edsen Donato**, D.Sc., Union Adventist University, Lincoln, NE, (USA)

Keywords: Self-insight, Self-concept clarity, Gullibility, Celebrity admiration, Compulsive buying

to manage such urges. Copious research has been published on the topic of self-insight (see Morin, 2011 for a review). Vazire and Carlson (2010) found that most people have a reasonably accurate idea of who they are, but virtually no one appears to have entirely accurate self-knowledge, and others are nearly clueless about themselves. However, Eurich (2018) claimed that only 10-15 % of adults understand themselves, though 95 % perceive themselves as being self-aware. Such significant discrepancies are probably, in part, caused by different definitions of self-insight, different ways of measuring it, and cultural differences. To put it another way, there are individual differences in the extent to which people have self-insight.

In terms of measurement, several scales have been developed in an attempt to address individual differences in self-insight (Banner et al., 2023; Eurich, 2018; Morin, 2011; Silvia, 2021; Sutton, 2016; Trapnell & Campbell, 1999). Items from these scales frequently mention the terms 'reflection' and 'self-insight.' One such scale is the *Insight Scale* (IS; Silvia, 2021), a 6-item measure based on a psychometrically sound revision of a longer version (Grant et al., 2002). The IS has been found to correlate negatively with measures of depression, anxiety, stress, neuroticism, and higher levels of conscientiousness (Silvia, 2021).

Self-concept clarity is the extent to which individuals have a consistent and stable understanding of themselves (Campbell et al., 1996; Cui & Fang, 2022). Persons who continually wonder "Who am I?" presumably would lack self-concept clarity. Campbell et al. (1996) found that a measure of self-concept clarity correlated negatively with a measure of neuroticism, and positively with a measure of conscientiousness. Reyes and colleagues (2015) found high self-concept clarity to be associated with positive mental health in a sample of LGBT individuals. Cui and Fang (2022) found that self-concept clarity correlated negatively with scores on a scale to measure admiration for one's favorite celebrity. That is, individuals who tended to be uncertain about their self-concept tended to be more strongly attracted to their favorite celebrity. Furthermore, Campbell et al. (1996) found that depression, anxiety, and stress were associated with low self-concept clarity.

The brief form of the *Celebrity Attitude Scale* (CAS-7; Szila et al., 2024) was developed to have a psychometrically sound short version of a scale to measure attitude toward one's favorite celebrity. Using a longer version of the CAS excessive celebrity admiration has frequently been associated with problematic attitudes such as low self-concept clarity (Cui & Fang, 2022), poor mental health (Collisson et al., 2018; Maltby et al., 2001; Maltby et al., 2011; McCutcheon & Aruguete, 2021) and behaviors, such as impulsive buying (Chen et al., 2022; Reeves et al., 2012; Sheruly & Koentary, 2024) and eating disorders (Aruguete et al., 2014). Furthermore, recent archival research established objective criteria for determining the proportion of participants (in each of the 34 studies) who qualified as celebrity worshippers. The study showed a 20-year trend reflecting an increase in excessive celebrity admiration (McCutcheon & Aruguete, 2021).

Gullibility is an "individual's tendency to accept a false premise in the presence of untrustworthiness cues" (Teunisse et al., 2020, p. 409), a blindness to the likelihood of deception. It could be described as a tendency to believe information of questionable veracity, especially when based on false premises (i.e., You have been specially selected…; Unbeatable prices). Individuals high in gullibility are more likely to be influenced by misleading marketing and promotional tactics, making them vulnerable to compulsive consumerism (George et al., 2020), and they typically have a weaker sense of self (George et al., 2020). Furthermore, they tend to believe in paranormal events and show a lack of social awareness (Teunisse et al., 2020). Beltran and colleagues (2024) found that gullibility successfully predicted scores on the *Celebrity Attitude Scale.*

What these constructs have in common is that excessive amounts of celebrity admiration, gullibility, and compulsive buying seem to be related to negative attitudes and behaviors, whereas low amounts of self-concept clarity and self-insight are also linked to negative attitudes and behaviors, especially anxiety and depression. Further, they all appear to be related to each other. Celebrity worship,

particularly in its more extreme forms, has been identified as another psychological predictor of compulsive buying (Chen et al., 2022; Reeves et al., 2012). Research has shown that individuals who excessively admire celebrities often lack self-concept clarity and may develop problematic behaviors such as compulsive buying as a way to emulate or feel closer to their favorite celebrity (Cui & Fang, 2022; Reeves et al., 2012). The Celebrity Attitude Scale (CAS-7) has been used to measure the intensity of admiration for celebrities and has been found to correlate with several negative outcomes, including depression, anxiety, and impulsive buying behavior (Zsila et al., 2024).

Based on our literature review we propose the following hypotheses:

1) All five measures will be related to each other as proposed in the preceding paragraphs. Specifically, we expect to find Insight and self-concept clarity to be positively related to each other, and negatively related to gullibility, celebrity worship, and compulsive buying. We expect compulsive buying to be positively correlated with celebrity worship and gullibility.
2) Scores on the *Insight Scale*, *Self-concept Clarity Scale*, *Gullibility* Scale, and the *Celebrity Attitude Scale* -7 will combine to significantly predict compulsive buying in a stepwise multiple regression analysis.

Method:

Participants

We recruited 217 participants from three universities located in Missouri, Nebraska, and Kentucky. Of these, 14 participants failed to complete one or more of the study measures or failed the attention check on the CAS-B7 and were removed from subsequent analyses. The final sample comprised 203 participants: 131 females, 71 males, and one who did not respond. The mean age for the total sample was $M = 20.62$, $SD = 5.26$. Most participants were White ($n = 138$) while 18 participants reported their race as Black, 13 as Asian, 23 as Hispanic, 3 as Native American, and 7 as other or preferred not to answer. One did not respond. A minimal amount of course credit was awarded to each participant. An a priori 95% power analysis was conducted using G*Power3 (Faul et al., 2007) for correlations demonstrating at least a small effect size (d=.3). Results show an alpha of .05 requires a total sample of 135 participants. In addition, a minimum sample size of 129 is needed to achieve 95% power for a fixed model linear multiple regression with 4 predictive factors with at least a small effect size (d=.15) at an alpha of .05. Our sample size exceeded these minimums for both analyses.

Measures

Self-concept Clarity (SCC; Campbell et al., 1996). The *Self-concept Clarity* scale is a 12-item measure of the extent to which persons have a unified, clear idea of who they are. The items are responded to on a Likert-type scale with 1 = strongly disagree and 5 = strongly agree. Sample items include: “My beliefs about myself often conflict with one another, ’’ reverse scored), ”I spend a lot of time wondering about what kind of person I really am,” (reverse scored), and ’’In general, I have a clear sense of who I am and what I am.’’ High scores suggest a person who has a clear self-understanding. The SCC has been found to correlate .61 with a measure of self-esteem, -.50 with measures of neuroticism, and .14 with a measure of private self-consciousness. Test-retest with a four-month interval was .79 and .70. Alpha in the Campbell study was .86, whereas Alpha in the present study was .88.

Short Form *Insight Scale* (IS; Silvia, 2021). The Short Form *Insight Scale* is a six-item measure of the extent to which persons understand their attitudes and behaviors. Respondents are shown a Likert scale with 1 = Strongly Disagree and 7 = Strongly Agree. Sample items include “I’m often confused about the way that I really feel about things” (reverse scored), “My behavior often puzzles me” (reverse scored), and “I usually know why I feel the way I do.” High scores suggest a respondent who has good insight into her

or his attitudes and behaviors. The IS has been found to correlate negatively with a brief measure of depression, anxiety, and stress, negatively with a measure of neuroticism, and positively with a measure of conscientiousness (Silvia, 2021). A slightly longer version of the IS has also been found to correlate with a measure of self-awareness (Sutton, 2016). Alphas in the two parts of the Silvia study were .83 and .82. Banner et al. (2023) found an alpha of .80. Alpha in the present study was .88.

Gullibility Scale (GS; Teunisse et al., 2020). This 12-item Likert-type scale was developed to measure one's tendency to believe information that appears to be untrustworthy. Respondents are shown a scale with 1 = very untrue and 7 = very true. Sample items include "I'm pretty poor at working out if someone is tricking me" and "My friends think I 'm easily fooled." High scores suggest a person who is gullible. Scores on this scale are unrelated to measures of social desirability, trust, and cognitive ability. High scorers were more likely to respond to email scams than those who earned low scores. A more recent study showed that GS scores predicted a behavioral measure of gullibility (George et al., 2020), while another study showed that gullibility was positively correlated to the *Celebrity Attitude Scale* (Beltran et al., 2024). In the Teunisse studies, alphas ranged from .88 to .95, and test-retest reliability with a 12-week interval was .80. Alpha in the present study was .90.

The *Celebrity Attitude Scale- Brief* (CAS-7; Zsila et al., 2024) consists of two subscales. Healthy (3 items) is reflected in agreement with items like "It is enjoyable just to be with others who like my favorite celebrity." A second level of celebrity worship (unhealthy, 4 items) is characterized by more intensely personal and borderline pathological items like "I share with my favorite celebrity a special bond that cannot be described in words." The response format for the CAS-7 is a 5-point scale, ranging from 1(*strongly disagree*) to 5(*strongly agree*). High scores indicate a strong attachment to one's favorite celebrity. We used an eighth item, "When something good happens to my favorite celebrity, I feel bad about it," as an attention check since it makes little sense and is almost a direct contradiction of one of the other seven items. The CAS-7 is based on the seven psychometrically best items derived from the 23-item *Celebrity Attitude Scale* (Zsila et al., 2024). Previous studies have established the reliability and convergent and external validities of the 23-item CAS (e.g., Griffith et al., 2013, Hitlan et al., 2021; Williams et al., 2024; & see Brooks, 2018, for a review). For example, Reeves et al. (2012) found that the CAS correlated .18 with compulsive buying and -.26 with concept clarity. Zsila et al. (2024) found a significantly positive relationship between CAS-7 scores and scores on depression, anxiety, and stress. McCutcheon et al. (submitted) also found a significantly positive relationship between CAS-7 scores and scores on depression, anxiety, and stress, as well as a positive correlation between CAS-7 scores and scores on a measure of pathological concern for others. Typical alphas for the 23-item CAS total scale range from .84 to .94 (Flint et al., 2022; Grabbe et al., 2022; & Jia et al., 2023). Zsila et al. (2024) found a total alpha of .88 for the CAS-7 in Hungary, Ahadi et al. (2025) found a total alpha of .86 in Iran, and McCutcheon et al. (submitted) found alphas of .80 for healthy and .78 for the unhealthy subscales. Alpha in the present study was .87.

We combined all three items adapted from one measure of impulsive consumer purchasing (Ridgeway et al., 2008), and two from another (Faber & O'Guinn, 1992), and named it the *Richmond Purchasing Scale* (RPS). We wanted a five-item scale to provide a greater separation of scores and a greater probability of detecting significant correlation with other measures. A sample item from the former measure is ''I buy things I don't need,'' and a sample item from the latter is ''I buy things even though I can't afford them". We used a Likert-type scale with 1 = strongly disagree, and 7 = strongly agree. High scores indicate a person who is an impulse buyer. We chose all three items from the Ridgeway scale. They loaded between .70 and .83 on a single factor, and in three separate studies the alpha reliability ranged from .78 to .84. The Ridgeway scale was found to correlate low with a measure of social desirability, high with other measures of compulsive buying and actual purchasing behavior, and high with measures of depression, anxiety, and stress (Ridgeway et al., 2008). The two items chosen from the Faber scale were selected partly because they tapped ideas not covered by the Ridgeway Scale. The average factor coefficient for the total seven-item scale was .79. The Faber scale was also related positively to measures of

depression and anxiety. Cronbach alpha for the Faber scale was .95 (Faber & O'Guinn, 1992). Alpha in the *Richmond Purchasing Scale* in the present study was .86.

Procedure

After obtaining permission from the Institutional Review Boards, the *Brief Celebrity Attitude Scale* (CAS-B7), *Richmond Purchasing Scale* (RPS), *Insight Scale* (IS), *Gullibility Scale* (GS), and *Self-concept Scale* (SCC) were administered to all participants in random orders to negate the possibility of a systematic order effect. We deleted data based on failure to complete the questionnaire or failure in the attention check. Participants were debriefed after completion of the experiment.

Results:

Table 1 presents the basic results for the hypotheses in this study design.

Table 1 Means (*SD*s), and zero-order correlations for the study variables

	Means (*SD*s)	**Zero-order Correlations**				
		1	2	3	4	5
1) Self-insight Scale (IS)	4.15 (1.41)	1				
2) Self-concept Clarity Scale (SCC)	2.92 (0.85)	0.73**	1			
3) Celebrity Attitude Scale – Brief (CAS-B7)	2.28 (0.89)	–0.19**	–0.20**	1		
4) Gullibility Scale (GS)	2.87 (1.05)	–0.28**	–0.30**	0.15*	1	
5) Richmond Purchasing Scale (RPS)	3.99 (1.52)	–0.32**	–0.30**	0.22**	.15*	1

*p<.05; **p<.01

Our first hypothesis was that all five measures would be related to each other. Specifically, we predicted that self-insight and self-concept clarity would be positively related to each other, and negatively related to gullibility, celebrity worship, and compulsive buying. We also predicted compulsive buying to be positively correlated with celebrity worship and gullibility. We found results confirming our hypotheses as Table 1 reveals.

A stepwise multiple regression analysis was performed to identify the most influential predictors (self-insight, self-concept clarity, gullibility, and attitude toward one's favorite celebrity) of compulsive buying. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. At each step, variables were chosen based on p-values less than .05. In the first step, self-insight was entered into the model, explaining 11% of the variance in compulsive buying, F (1, 201) =23.63, p < .001. In the second step, celebrity attitude was added, leading to a total explained variance of 13% in compulsive buying, F (2, 200) =14.85, p < .001. The final model, including both self-insight and celebrity attitude measures, was statistically significant, with the self-insight measure recording a higher beta value (Beta = – .30, p <.001) than the celebrity attitude measure (Beta = .16, p = .02).

Discussion:

Our first hypothesis was that all five measures would be related to each other. Table 1 indicates that all five measures were significantly interrelated. Furthermore, self-insight and self-concept clarity were positively related to each other, and negatively related to gullibility, celebrity worship, and compulsive buying, as predicted. The prediction that compulsive buying would be positively correlated with celebrity worship and gullibility was likewise confirmed. Perhaps the confirmation of our first hypothesis was not surprising given the fairly large number of studies cited in the introductory paragraphs that supported our first hypothesis.

Our second hypothesis was that some combination of the four predictor variables (GS, IS, SCC, CAS-7) would successfully predict scores on our measure of compulsive buying behavior (RPS). Indeed, two of our four predictors (IS & CAS-7) entered the stepwise regression analysis. Self-concept clarity correlated a bit stronger (-.30) with the compulsive buying measure than the celebrity worship measure (.22), but did not enter the stepwise model, probably since it overlapped strongly (.73) with the measure of self-insight. Gullibility probably did not enter the stepwise model because it was only weakly related to the compulsive buying measure.

In addition, our study sheds further light on the correlates of the CAS-7, a relatively new and brief measure of the strength of the parasocial relationship between non-celebrities and their favorite celebrities (Zsila et al., 2024). The Zsila study showed that high scores on the CAS-7 in Hungary were associated with high scores on problematic Internet use, depression, anxiety, and stress. Ahadi et al. (2025) found that the CAS-7 was both reliable and valid in an Iranian sample. A more recent study (McCutcheon et al., submitted) replicated the Zsila findings for depression, anxiety, and stress in an American sample. The present study adds (lack of) self-insight, (lack of) self-concept clarity, gullibility, and compulsive buying to the list of correlates to the CAS-7, thus providing additional evidence for the validity of the CAS-7, and suggesting that excessive worship of one's favorite celebrity is something to be avoided.

Limitations to this study may include sampling bias where the selected sample may not be fully representative of the target population, misinterpretation of questions where respondents may misunderstand questions and lead to inaccurate or inconsistent answers, lack of control over external factors where respondents may be influenced by their mood, distractions, or the environment while completing the survey, and finally, response bias where respondents may provide socially acceptable answers rather than their honest opinions.

Also, among our 203 participants, 64.5% self-identified as female. Previous research (Maraz et al., 2016) has shown that women typically show a higher compulsive buying rate compared to men. In addition, women have been found to have a stronger negative association between celebrity worship and self-esteem (Zsila et al., 2021). Having a more balanced gender ratio might have altered our results somewhat.

Conclusions:

Compulsive buying is a serious problem in the United States, sometimes leading to harmful effects that envelop families, friends, and the public based on increased costs for health care, crime control, and financial and legal entanglements (Faber & O'Guinn, 1992; Lam et al., 2018; Ridgeway et al., 2008). A major objective of future research is to identify salient variables that are related to compulsive buying. In the context of the present study, with additional evidence showing a causal link between lack of self-insight and compulsive buying, perhaps therapeutic strategies could be developed that would enable compulsive buyers to gain greater self-insight.

References:

Ahadi, M., Ahmadi, K., Pourmousavian, M., Nasab, F. S., & Jahedi, S. (2025). Psychometric evaluation of the short version of the Celebrity Attitude Scale (CAS-7) in an Iranian sample. *North American Journal of Psychology, 27*(1), 167-172.

American Psychological Association Dictionary (2018). Dictionary.apa.org/self-insight

Banner, S. E., Rice, K., Schutte, N., Cosh, S. M., & Rock, A. J. (2023). Reliability and validity of the self-reflection and insight scale for psychologists and the development and validation of the revised short version. *Clinical Psychology and Psychotherapy, 31*(1), 1-13. Doi :10.1002/cpp.2932

Beltran, N. M., Botio, F. P., Casimiro, K. A., Cruz, C. A., & Lopez, R. P. (2024). Celebrity worship as a predictor of young adults' gullibility. Unpublished thesis, Bulacan State University. Retrieved from ResearchGate on October 7, 2024.

Brooks, S. K. (2018). FANatics: Systematic literature review of factors associated with celebrity worship, and suggested directions for future research. *Current Psychology*, *40*, 864-886. https://doi.org/10.1007/s12144-018-9978-4

Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology, 70*(1), 141-156.

Chen, O., Zhao, X., Ding, D., Zhang, V., Zhou, H., & Liu, R. (2022). Borderline pathological celebrity worship and impulsive buying intent: Mediating and moderating roles of empathy and gender. *Frontiers in Psychology, 13*, 1-8. Doi:10.3389/psyg.2022.823478

Collisson, B., Browne, B. L., McCutcheon, L. E., Britt, R., & Browne, A. M. (2018). The interpersonal beginnings of fandom: The relation between attachment style, trust, and the admiration of celebrities. *Interpersona, 12*(1), 23-33. Doi: 10.5964/ijpr.v12i1.282

Cui, J., & Fang, Y. (2022). Mediating effects of self-concept clarity and self-objectification on the relationship between celebrity worship and the process of considering cosmetic surgery among Chinese undergraduates. *BMC Psychology, 10,* 1-8. Doi.org/10.1186s40359-022-00975-6

Eurich, T. (2018, Jan. 4). Managing yourself: What self-awareness really is: *Harvard Business Review,* 1-9.

Faber, R. J., & O'Guinn, T. C. (1992). A clinical screener for compulsive buying. *Journal of Consumer Research, 19*, 459-469.

Faul, F., Erdfelder, E., Lang, A.G., Buchner, A. (2007). G*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2):175-91. Doi: 10.3758/bf03193146

Flint, E., Calicchia, J., McCutcheon, L. E., & Huynh, H. (2022). Examining how celebrity admiration influences decision making. *Journal of Studies in Social Sciences and Humanities, 8*(2), 1-11.

George, M. S., Teunisse, A. K., & Case, T. I. (2020). Gotcha! Behavioural validation of the Gullibility Scale. *Personality and Individual Differences, 162* Article 110034. https://doi.org/10.1016/j.paid.2020.110034

Grabbe, J., McCutcheon, L. E., Johnston, M., Gillen, M. M., & Jenkins, W. J. (2022). Admiration for celebrities and belief in conspiracy theories: A brief report. *North American Journal of Psychology*, *24*(3), 443-450.

Grant, A., Franklin, J., & Langford, P. (2002). The self-reflection and insight scale: A new measure of private self-consciousness. *Social Behavior and Personality: An International Journal, 30*(8), 821-835. Doi:org/10.2224/sbp.2002.30.8.821

Griffith, J., Aruguete, M., Edman, J., Green, T., & McCutcheon, L. E. (2013). The temporal stability of the tendency to worship celebrities. *SAGE Open*, *3*, 1-5. DOI: 10.1177/2158244013494221

Hitlan, R. T., McCutcheon, L. E., Volungis, A., Joshi, A., Clark, C. B., & Pena, M. (2021). Social desirability and the Celebrity Attitude Scale. *North American Journal of Psychology, 23*(1), 105-114.

Hoffman, B. (2021). You are more gullible than you think. *Psychology Today.* https://www.psychologytoday.com/us/blog/motivate/202102/you-are-more-gullible-you-think.

Hollingsworth, K. (2024, August). The psychology behind falling for a cyber scam. Consilien.com/news/the-psychology-behind-falling-for-a-cyber-scam

Jia, R., Yang Q., Liu, B., Song, H., & Wang, Z. (2023). Social anxiety and celebrity worship: The mediating effects of mobile phone dependence and moderating effects of family socioeconomic status. *BMC Psychology. 11:*364, 1-9. https://doi.org/10.1186/s40359-023-01405-x

Lam, S. C., Chan, Z. S., Chong, A. C., Wong, W. W., & Ye, J. (2018). Adaptation and validation of Richmond Compulsive Buying Scale in Chinese population. *Journal of Behavioral Addictions, 7*(3), 760-769. Doi:10.1556/2006.7.2018.94

Lejoyeux, M., & Weinstein, A. (2010). Compulsive buying. *American Journal of Drug and Alcohol Abuse, 36*(5), 248-253. Doi:10.3109/00952990.2010.493590

Maltby, J., Day, L., McCutcheon, L. E., Gillett, R., Houran, J., & Ashe, D. D. (2004). Personality and coping: A context for examining celebrity worship and mental health. *British Journal of Psychology, 95,* 411-428.

Maltby, J., McCutcheon, L. E., Ashe, D. D. & Houran, J. (2001). The self-reported psychological well-being of celebrity worshippers. *North American Journal of Psychology*, *3*, 444-452.

Maltby, J., McCutcheon, L. E., & Lowinger, R. J. (2011). Brief report: Celebrity worshipers and the five-factor model of personality. *North American Journal of Psychology, 13,* 343-348.

Maraz, A., Griffiths, M.D., & Demetrovics, Z. (2016). The prevalence of compulsive buying: A Meta-analysis. *Addiction*, *111*(3), 408-419, doi: 10.1111/add.13223.

McCutcheon, L. E., & Aruguete, M. S. (2021). Is celebrity worship increasing over time? *Journal of Studies in Social Sciences and Humanities, 7*(1), 66-75.

McCutcheon, L. E., Grieve, R., Jorgensen, M., Nebl, P. J., Luchner, A., & Zsila, A. (submitted). Is a brief measure of excessive celebrity admiration related to indicators of pathological concern for others, distress, and adverse childhood experiences?

Morin, A. (2011). Self-awareness part 1: Definitions, measures, effects, functions and antecedents. *Social and Personality Compass, 5*(10), 807-823. 10.1111/j.1751-9004.2011.00387.x

Rasheed, S. P., Sundus, A., Younas, A., Fakhar, J., & Inayat, S. (2021). Development and testing of a measure of self-awareness among nurses. *Western Journal of Nursing Research, 43*(1), 36-44. Doi: 10.1177/0193945920923079

Reeves, R. A., Baker, G. A., & Truluck, C. S. (2012). Celebrity worship, materialism, compulsive buying, and the empty self. *Psychology & Marketing*, *29*(9), 674-679.

Reyes, M. E. S., Lanic, P. J. P., Lavadia, E. N. T., Tactay, E. F., Tiongson, E. R., Tuazon, P. J., McCutcheon, L. E. (2015). Self-stigma, self-concept clarity, and mental health status of Filipino LGBT individuals. *North American Journal of Psychology, 17*(2), 343-350.

Ridgeway, N. M., Kukar-Kinney, M., & Monroe, K. B. (2008). An expanded conceptualization and a new measure of compulsive buying. *Journal of Consumer Research, 35*, 622-639. Doi:10.1086/591108

Sheruly, I., & Koentary, A. S. (2023). The effect of parasocial relationship on online impulsive buying tendency: Exploring the role of financial literacy and self-control. *Tazkiya Journal of Psychology, 11*(2), 115-131. http://doi.org/10.15408/tazkiya.v11i2.31281

Silvia, P. J. (2022). The Self-Reflection and Insight Scale: Applying item response theory to craft an efficient short form. *Current Psychology, 41*(12). 8635-8645. https://Doi.org/10.1007/s12144-020-02199-7

Steffens, N. K., Wolyniec, N., Okimato, T. G., Mols, F., Haslam, S. A., & Kay, A. A. (2021). Knowing me, knowing us: Personal and collective self-awareness enhances authentic leadership and leader endorsement. *Leadership Quarterly, 36*(6). 101498 Doi.org/10.1016/j.leaqua.2021.101498

Sutton, A. (2016). Measuring the effects of self-awareness: Construction of the self-awareness outcomes questionnaire. *Europe's Journal of Psychology, 12*(1), 645-658. Doi :10.5964/ejop.v12i4.1178

Teunisse, A. K., Case, T. I., Fitness, J., & Sweller, N. (2020). I should have known better: Development of a self-report measure of gullibility. *Personality and Social Psychology Bulletin, 46*(3), 408-423. Doi :10.1177/0146167219858641

Trapnell, P. D., & Campbell, J. D. (1999). Private self-consciousness and the five-factor model of personality: Distinguishing rumination from reflection. *Journal of Personality and Social Psychology, 76*(2), 284-304.

Vazire, S., & Carlson, E. N. (2010). Self-knowledge of personality: Do people know themselves? *Social and Personality Compass, 4*(8), 605-620. 10.1111/j.1751-9004.2010.00280.x

Williams, J. L., Locker, Jr., L. L., Roberts, J. E., Abernathy, B., Johnson, A., & Mahoney, M. (2024). Brief report: Exploring the relationship between the Celebrity Attitude Scale and the Multidimensional Measure of Parasocial Relationships. *North American Journal of Psychology, 26*(1)*,* 231-236.

Zsila, A., McCutcheon, L. E., Horvath, R., Urban, R., Paksi, B., Darnai, G., Janszky, J., & Demetrovics, Z. (2024). Prevalence of celebrity worship: Development and application of the short version of the Celebrity Attitude Scale (CAS-7) on a large-scale representative sample. *Journal of Behavioral Addictions, 13*(2), 463-472. Doi:10.1556/2006.2024. 00019

Zsila, A., Orosz, G., McCutcheon, L. E., & Demetrovics, Z. (2021). Individual differences in the association between celebrity worship and subjective well-being: The moderating role of gender and age. *Frontiers in Psychology*, *12*: 651067, doi: 10.3389/fpsyg.2021.651067

SIS J. Proj. Psy. & Ment. Health (2026) 33: 1, 16-22

A Novel Approach to Sentence Completions: Associations between Language and Object Relations in an Inpatient Psychiatric Sample

Alex M. Ray & John T. Rucker

The study of language and psychopathology has experienced an empirical surge in recent decades. Empirical efforts have connected language to broad psychological disturbances (e.g., trauma, depression, suicidality) yet less is known about how language relates to narrow constructs governing self/interpersonal functioning (i.e., object relations). This report represents a novel approach using sentence completion test data to examine associations between linguistic expressions and distinct features of object relations. To that end, 159 consecutively admitted psychiatric inpatients were administered the Bell Object Relations and Reality Testing Inventory (BORRTI), Inventory for Personality Organization (IPO), and the Rotter Incomplete Sentences Blank (RISB) in the first week of hospital admission. Several statistically significant correlations between linguistic expressions and BORRTI and IPO scale scores emerged. Meaningful patterns of correlations are understood in the context of psychoanalytic theory and literature on language and psychopathology. Clinical implications of these research findings, alongside future directions and limitations, are discussed.

Introduction

"Whether it sees itself as an instrument of healing, of formation, or of exploration in depth, psychoanalysis has only a single intermediary: the patient's Word." (Lacan, as translated by Wilden, 1968, p. 9).

The idiosyncratic nature of language use may symbolize intra- and interpersonal processes in as much as words reflect the mind's attempt to represent and express itself (Chung & Pennebaker, 2007; Rizzuto, 2015; Tausczik & Pennebaker, 2009). Translating contents of the mind into a finite number of mutually agreed-upon, understood, and societally sanctioned words amidst unconscious factors has been found to be illuminating (Lacan, 1953/2006; Tausczik & Pennebaker, 2009). As such, careful attention to word choice and language patterns may enrich efforts to understand a patient's mental states and structural dynamics.

The symbolic idea of words as conveyors of intrapsychic processes is not new. Indeed, there exists a theoretical and empirical basis where linguistics correlate with various aspects of psychological functioning. These linguistic markers have been identified for the study of personality typologies (Ireland & Mehl, 2014; Koutsoumpis et al., 2022; Pennebaker & King, 1999; Qiu et al., 2012; Sanford, 1942), depression (Al-Mosaiwi & Johnstone, 2018; Trifu et al., 2017; Trifu et al., 2024; Yahya et al., 2023), trauma severity (Kleim et al., 2018; Paquet et al., 2024; Qiu et al., 2024; Quillivic et al., 2025), and psychotherapeutic change (Arntz et al., 2012; Nikzad et al., 2025). Clinically, changes in patients' linguistic patterns, such as decreased verb repetition (Halfon et al., 2017; Halfon & Weinstein, 2013), increased verbal spontaneity (Weintraub, 1981, 1989), and increased emotional and abstraction language (Mergenthaler, 1996, 1998) have been associated with treatment outcomes in psychoanalytic psychotherapy. More specifically, the evolution of patients' emotional access and reflection has been observed through linguistic shifts (Mergenthaler, 1996, 1998; Weintraub, 1981, 1989), as well as shifts from raw affect into understandable and meaningful emotional narratives (Halfon et al., 2017; Halfon & Weinstein, 2013). More recently, Rucker and Sharp (2024) observed reflective functioning changes aligning with linguistic shifts on a sentence completion test in a mentalization-based treatment.

Alex Ray, B.S., University at Albany, State University of New York, Albany NY 12222 **John Rucker,** Psy.D., The Austen Riggs Center, Stockbridge, MA 01262 (USA); Menninger Department of Psychiatry and Behavior Health, Baylor College of Medicine, Houston TX 77030, johnruckerpsyd@gmail.com

Keywords: object relations, language, psychoanalysis, sentence completion

Distinct linguistic profiles have been identified across levels of personality organization as well (Jeanneau & Armelius, 1993; Sundbom & Jeanneau, 1996). Jeanneau and Armelius (1993) found borderline personality organization-patients often used language that was impersonal, whereas neurotically organized patients used sophisticated and rich language (e.g., use of deictic words, high-level defenses); and psychotically organized patients used language that was poorly formed and lacked well-formed words or expressions. Relatedly, independent psychoanalytic scholars have proffered that identity formation and self-development are expressed in language use (Akhtar, 1995; Meissner, 2008a, 2008 b, 2008c). For example, Meissner (2008a, 2008b, 2008c) presented language acquisition, the relationship between thought and language, and the significance of pronouns as integral to self-expression, identity formation, and one's sense of self and others.

Despite these empirical advancements, less is known how language relates to narrow psychological constructs, particularly those relevant to self/interpersonal functioning (i.e., object relations). Lesser still is known how performance-based personality instruments offer a meaningful way to elicit and understand these links. The current investigation represents a novel and early attempt to empirically examine relationships between language use on a sentence completion test and features of object relations functioning. Given the scarcity of extant literature connecting these factors, our hypotheses are exploratory. First, we hypothesized that language expressions would demonstrate a meaningful pattern of associations across features of object relations functioning. Specifically, we imagined that aggression, as measured by the Inventory for Personality Organization (IPO; Clarkin et al., 2001), would correlate with anger and conflict words (Boyd et al., 2022). Relatedly, it was hypothesized that words suggesting social preoccupation (e.g., prosocial words; social behavior words; he/she/they) would be positively associated with insecure attachment, as measured by the Bell Object Relations and Reality Testing Inventory (BORRTI; Bell, 1995). Given their proposed relevance to hypermentalizing (Rucker & Sharp, 2024); Rucker & Ruffalo, 2025), it was hypothesized that all-or-none and certitude words (e.g., always, never, completely) would positively associate with the reality testing scale of the IPO as well as the reality distortion scale of the BORRTI.

Method:

Participants

All participants (N = 159) were hospitalized between October 2023 and August 2024 at a psychiatric hospital in the Southern United States. The gender of the sample was even (50.9% female), with an average age of 37.38 years (SD = 13.51). The demographic makeup was as follows: 83.0% Caucasian, 6.9% African American, 5.0 % Latin American, 4.4% Asian American, and 0.6% Pacific Islander. A smaller portion of the sample was administered Structured Clinical Interview for DSM – 5th Edition – Research Version (SCID-5-RV; First, et al., 2015) as part of standard procedures in the second week of hospitalization. The psychiatric complexity of this subsample (n = 100) is represented by M = 6.12 (SD = 5.35) personality disorder symptoms. In addition, the SCID-5-RV offered a method of categorizing whether participants met diagnostic criteria; the statistics were as follows: n = 10 bipolar disorder; n = 33 persistent depressive disorder; n = 48 major depressive disorder; n = 35 personality disorder; n = 32 comorbid personality disorder and mood disorder; n = 30 Post-Traumatic Stress Disorder; n = 47 at least one anxiety disorder; n = 42 at least one substance use disorder.

Instruments

Rotter Incomplete Sentences Blank **(RISB; Rotter et al., 1992).** The RISB is a performance-based personality instrument where respondent's complete sentences to express their real feelings across 40 short, diverse sentence stems. Respondents are not given further instructions or limits on how much to write or what to write about. The sentence stems include topics about others ("Other people; A mother; Men"),

the self ("I failed; I need; My greatest fear is"), and a variety of other domains ("Marriage; Sports; In school; Back home"). The interrater reliability of the RISB has consistently proven good to excellent within contemporary psychometric standards (Joy, 2017; McCloskey, 2014; Rotter et al., 1992; Torstrick et al., 2015). The free-response element of the sentence completion method renders a collection of writing as representative of an examinee's idiosyncratic style, psychological functioning, personality pathology, and recently, their object relations functioning (Joy, 2017; McCloskey, 2014; Piotrowski, 2018; Rucker et al., 2025; Torstrick et al., 2015).

Bell Object Relations and Reality Testing Inventory **(BORRTI; Bell, 1995)**. The BORRTI is a 90-item true/false, self-report instrument with seven clinical scales and three validity scales. The BORRTI is anchored in ego psychology and object relations theories and was originally developed to measure the clinical impact of long-term psychoanalytic therapy for patients with severe psychopathology (Bell, 1995). The BORRTI has been well-validated, administered across a variety of treatment settings, and deemed suitable to assess one's sense of interpersonal functioning underpinned by object relations (Hadinezhad et al., 2014; Huprich & Greenberg, 2003; Pad et al., 2020).

The ***Inventory for Personality Organization*** **(IPO; Clarkin et al., 2001)** is an 83-item Likert scale self-report instrument with five clinical scales and no validity scales. The five clinical scales align with Otto Kernberg's vision of personality structures, with higher scores reflecting greater disturbance in primitive defenses, identity diffusion, reality testing, aggression, and moral values (Kernberg, 1976). The IPO has demonstrated psychometric adequacy for assessing object relations, levels of personality organization, and general psychiatric disturbance (Barreto et al., 2017; Beheydt et al., 2020; Hörz-Sagstetter et al., 2021; Unoka et al., 2022).

Linguistic Inquiry and Word Count – 22 **(LIWC-22; Boyd et al., 2022).** The LIWC-22 system is an online processor analyzing typed text submissions into over 120 categories of linguistic expression. Linguistic categories range from the number of pronouns and adverbs to the frequency of illness words, swear words, exclamation points, drive words, affiliation words, and more. Connections between LIWC-22 language categories and various psychological states/traits have been empirically substantiated (Boyd et al., 2022; Corbin et al., 2023; Munin et al., 2025).

Procedures

After nursing staff affirmed capacity to consent to research, each inpatient was asked to participate in the IRB-approved project. Consenting inpatients were administered the BORRTI, IPO, and RISB in the first week of hospital admission. Exclusion criteria involved being under the active effect(s) of harmful drugs and/or substances confirmed by toxicology report, being under the age of 18 or above age 80, and/or the presence of organic cognitive/physical impairment that may have hindered ability to comfortably engage with the sentence completion task (i.e., dementia, Parkinson's Disease, Wernicke's aphasia). Completed RISB profiles were typed into a Microsoft Word Document and submitted to the LIWC-22 processor by the primary investigator (JR).

Data Analyses

This study used Pearson correlations to investigate potential linguistic correlates of object relations use. To mitigate risk of Type I error, Pearson correlations concentrate around effect sizes with $p < .01$.

Results:

Several small statistically significant findings emerged between the LIWC-22 categories and BORRTI scales. The Alienation scale reached a small negative effect size correlation with wellness words ($r = -.24$). The Insecure Attachment scale reached a small negative effect size correlation with prepositions ($r = -.23$) and money words ($r = -.21$). The Egocentricity scale reached a small effect size correlation with

cause words (r = .21) and wellness words (r = -.21). The Social Incompetence scale reached a small effect size correlation with perception words (r = .22). The Reality Distortion scale reached a small effect size correlation with tone words (r = -.22), "I" words (r = .21), articles (r = -.26), prepositions (r = -.21), and words with negative tones (r = .20). The Uncertainty of Perception scale reached a small effect size correlation with "we" words (r = -.22), perception words (r = .21), feeling words (r = .23) and time words (r = -.27). Lastly, the Hallucinations/Delusions scale reached a small effect size correlation with "we" words (r = -.21) and "they" words (r = .22).

Similarly, several statistically significant findings emerged between the LIWC-22 categories and IPO scales. The Primitive Defenses scale reached a small effect size correlation with prepositions (r = -.21) and time words (r = -.24). The Identity Diffusion scale reached a small effect size correlation with "we" words (r = -.21), articles (r = -.20), and prepositions (r = -.24). The Reality Testing scale reached a small effect size correlation with time words (r = -.21). The Aggression scale reached a small effect size correlation with word count (r = -.21), she/he pronouns (r = -.24), prepositions (r = -.23), anger words (r = .23), conflict words (r = .24), and time words (r = -.22). Lastly, the Moral Values scale reached a small effect size correlation with anger words (r = .22) and time words (r = -.24).

Discussion:

This study examined the relationship between language and object relations functioning in a complex psychiatric inpatient sample. Given sparse literature connecting these topics, this discussion is brief and framed with preliminary interpretations based on correlations where $p < .01$. The small effects sizes suggest isolated language tools are insufficient as sole markers of psychopathology. Rather, a meaningful constellation of language tools may be more indicative of psychiatric typology.

Positive and negative associations were observed between object relations features and categories of language elicited by the RISB. This is meaningful such that a series of positive and negative correlations, representing *what was* and *was not* written, associative with object relations functioning. This lends support to the idea that intrapsychic functioning is contingent on the presence and absence of psychological pressures expressed via language. For example, the use of cause words (e.g., how, because, make, why) positively associated with Egocentricity scores on the BORRTI, whereas the use of wellness words (e.g., healthy, gym*, supported, diet) was negatively associated. This may suggest that dynamics related to narcissism may be embodied in excess attribution-based language and less language on well-being.

Our second hypothesis was confirmed such that anger (e.g., hate, mad, angry) and interpersonal conflict (e.g., fight, kill, killed, attack) words positively associated with aggression scale scores on the IPO. This lends empirical support to the notion that self/other friction is related to intrapsychic predominance of aggression, as demonstrated linguistically on the RISB (Clarkin et al., 2001; Kernberg, 1976). An unexpected pattern of meaningful associations emerged in that time words consistently reached small negative associations across four of the five personality organization structures. Whereas the nature of this pattern requires further investigation, we look towards Julius Fraser (1981) for preliminary direction. In his hierarchical theory of time, J.T. Fraser proffered that impaired reality testing disrupts temporal integration, thus making it difficult for someone to consolidate subjective experiences of time. This finding offers an early interdisciplinary link between the study of psychoanalysis and temporality.

Limitations of the study:

First, there is limited literature available from which to conceptually and methodologically situate our findings. As such, it is difficult to make definitive claims on the nature of the relationship between object relations and language use based on these results without replication studies. Further, all effect sizes were small. Prior to the generalizability of these findings, replication studies are necessary with samples representing the continuum of psychiatric severity. Researchers may also explore longitudinal designs to

examine whether changes in language use signify changes in object relations functioning throughout psychoanalytic treatment (similar to Halfon et al., 2017; Halfon & Weinstein, 2013; Mergenthaler, 1996, 1998; Rucker & Sharp, 2024; Weintraub, 1981, 1989). Moreover, our sample lacked demographic diversity as most participants were Caucasian and identified as female. Language use varies across culture, geographical region, and education. As such, future studies might use a sample that is representative of broader diversity. Lastly, the object relations measures in this study were exclusively self-report instruments. Future studies might emphasize performance-based personality testing to measure object relations since the spontaneous demonstration of object relations is less amenable to conscious control than is suggested by face-valid item endorsements on self-report inventories (Rucker et al., 2024).

Nevertheless, the current findings are relevant to clinical practice. These results support initial speculations from Jacques Lacan by documenting an empirical relationship between language use and intrapsychic structures (i.e., object relations). In addition, this study is a step towards empirically examining psychoanalytic concepts and situates these results among advancements in separate fields of study (e.g., linguistics; temporality) to convey the interdisciplinary relevance of the concepts. Lastly, these findings demonstrated that object relations can be linked to the presence or absence of distinct linguistic expressions on an open-ended free-response task. This lends empirical support to psychoanalytic interventions that focus attention on the types and frequencies of language that unfold in the process of free association.

References:

Akhtar, S. (1995). A third individuation: Immigration, identity, and the psychoanalytic process. *Journal of the American Psychoanalytic Association, 43*(4), 1051–1084.https://doi.org/10.1177/000 306519504300406

Al-Mosaiwi, M., & Johnstone, T. (2018). In an absolute state: Elevated use of absolutist words is a marker specific to anxiety, depression, and suicidal ideation. *Clinical Psychological Science, 6*(4), 529–542. https://doi.org/10.1177/2167 702617747074

Arntz, A., Hawke, L. D., Bamelis, L., Spinhoven, P., & Molendijk, M. L. (2012). Changes in natural language use as an indicator of psychotherapeutic change in personality disorders. *Behaviour Research and Therapy, 50*(3), 191–202. https://doi.org/10.1016/j.brat.2011.12.007

Barreto, J. F., Matias, M., Carvalho, H. M., & Matos, P. M. (2017). Uncovering personality structure with the Inventory of Personality Organization: An exploration of factor structure with a Portuguese sample. *European Review of Applied Psychology / Revue Européenne De Psychologie Appliquée, 67*(5), 247-257. https://doi.org/10.1016/j.erap.2017.08.001

Beheydt, L., Schrijvers, D., Sabbe, B., Jansen, B., De Grave, C., & Luyten, P. (2020). DSM-5 assessments of the level of personality functioning: Intrapersonal and interpersonal functioning. *Psychiatry: Interpersonal and Biological Processes, 83*(1), 84-93. https://doi.org/10.1080/0033 2747.2019.1650411

Bell, M. (1995). *Bell Object Relations and Reality Testing Inventory.* Western Psychological Services.

Boyd, R. L., Ashokkumar, A., Seraj, S., & Pennebaker, J. W. (2022). *The development and psychometric properties of LIWC-22*. Austin, TX: University of Texas at Austin. https://www.liwc.app

Clarkin, J., Foelsch, P. A., & Kernberg, O. F. (2001). *The Inventory of Personality Organization.* The Personality Disorders Institute Weill College of Medicine, Cornell University.

Corbin, L., Griner, E., Seyedi, S., Jiang, Z., Roberts, K., Boazak, M., Bahrami Rad, A., Clifford, G. D., & Cotes, R. O. (2023). A comparison of linguistic patterns between individuals with current major depressive disorder, past major depressive disorder, and controls in a virtual, psychiatric research interview. *Journal of Affective Disorders Reports*, *14*, Article 100645. https://doi.org/ 10.1016/j.jadr.2023.100645 *Encyclopedia of Lacanian Psychoanalysis*. (n.d.). *Speech*. No Subject. Retrieved June 1, 2025, from https://nosubject.com/Speech

First, M., Williams, J., Karg, R., Spitzer, R. (2015). Structured Clinical Interview For DSM- 5—Research Version (SCID-5 For DSM-5, Research version; SCID-5-RV). American Psychiatric Association.

Fraser, J. T. (1981). Temporal levels and reality testing. *The International Journal of Psycho-Analysis, 62*(Pt 1), 3–26.

Halfon, S., Fişek, G., & Çavdar, A. (2017). An empirical study of verb use as indicator of emotional access in therapeutic discourse. *Psychoanalytic Psychology, 34*(1), 35–49. https://doi.org/10.1037/ pap0000081

Halfon, S., & Weinstein, L. (2013). From compulsion to structure: An empirical model to study invariant repetition and representation. *Psychoanalytic Psychology, 30*(3), 394 – 422. http://dx.doi.org/ 10.1037/ a0033618

Ireland, M. E., & Mehl, M. R. (2014). Natural language use as a marker of personality. In T. M. Holtgraves (Ed.), *The Oxford handbook of language and social psychology* (pp. 201–218). Oxford University Press.

Jeanneau, M., & Armelius, B. A. (1993). Linguistic characteristics of neurotic, borderline and psychotic personality organization. *Scandinavian Journal of Psychology, 34*(1), 64–75. https://doi.org/10.1111/j.1467-9450.1993.tb01101.x

Joy, S. P. (2017). Reading personality: Assessing "big three" traits with the sentence completion method. *Current Issues in Personality Psychology, 5*(4), 215-231. https://doi.org/10.5114/cipp.2017.69857

Kleim, B., Horn, A. B., Kraehenmann, R., Mehl, M. R., & Ehlers, A. (2018). Early linguistic markers of trauma-specific processing predict post-trauma adjustment. *Frontiers in Psychiatry, 9*, 645. https://doi.org/10.3389/fpsyt.2018.00645

Koutsoumpis, A., Oostrom, J. K., Holtrop, D., van Breda, W., Ghassemi, S., & de Vries, R. E. (2022). The kernel of truth in text-based personality assessment: A meta-analysis of the relations between the Big Five and the Linguistic Inquiry and Word Count (LIWC). *Psychological Bulletin, 148*(11–12), 843–868. https://doi.org/10.1037/bul0000381

Hadinezhad, H., Tabatabaeian, M., & Dehghani, M. (2014). A preliminary study for validity and reliability of Bell Object Relations and Reality Testing Inventory. *Iranian Journal of Psychiatry and Clinical Psychology, 20*(2), 162-169.

Hörz-Sagstetter, S., Caligor, E., Preti, E., Stern, B. L., De Panfilis, C., & Clarkin, J. F. (2018). Clinician-guided assessment of personality using the Structural Interview and the Structured Interview of Personality Organization (STIPO). *Journal of Personality Assessment*, *100*(1), 30-42. https://doi.org/10.1080/00223891.2017.1298115

Huprich, S. K., & Greenberg, R. P. (2003). Advances in the assessment of object relations in the 1990s. *Clinical Psychology Review, 23*(5), 665-698. https://doi.org/10.1016/S0272-7358(03)00072-2

Kernberg, O. F. (1976). *Object relations theory and clinical psychoanalysis*. Aronson.

Lacan, J. (2006). The function and field of speech and language in psychoanalysis (A. Sheridan, Trans.). In B. Fink (Ed.), *Écrits: The first complete edition in English* (pp. 197–268). W. W. Norton & Company. (Original work published 1953)

Lacan, J. (1988). *The seminar. Book I: Freud's papers on technique, 1953–1954* (J. Forrester, Trans.). Norton; Cambridge University Press. (Original work published 1954)

Lacan, J. (1977). *Écrits: A selection* (A. Sheridan, Trans.). Tavistock Publications. (Original work published 1966)

McCloskey, L. C. (2014). Construct and incremental validity of the Rotter Incomplete Sentences Blank in adult psychiatric outpatients. *Psychological Reports, 114*(2), 363-375. https://doi.org/10.2466/03.09.PR0.114k22w7

Meissner, W. W. (2008a). The role of language in the development of the self I: Language acquisition. *Psychoanalytic Psychology, 25*(1), 26–46. https://doi.org/10.1037/0736-9735.25.1.26

Mergenthaler, E. (1996). Emotion-abstraction patterns in verbatim protocols: A new way of describing psychotherapeutic processes. *Journal of Consulting and Clinical Psychology, 64*(6), 1306 –1315. http://dx.doi.org/ 10.1037/0022-006X.64.6.1306

Mergenthaler, E. (1998). Cycles of emotion-abstraction patterns: A way of practice oriented process research? *British Psychological Society Psychotherapy Section Newsletter, 24*, 16 –29.

Meissner, W. W. (2008b). The role of language in the development of the self II: Thoughts and words. *Psychoanalytic Psychology, 25*(2), 220–241. https://doi.org/10.1037/0736-9735.25.2.220

Meissner, W. W. (2008c). The role of language in the development of the self III: The significance of pronouns. *Psychoanalytic Psychology, 25*(2), 242–256. https://doi.org/10.1037/0736-9735.25.2.242

Munin, S., Ong, D. C., Okland, S., Freedman, G., & Beer, J. S. (2025). Language measures correlate with other measures used to study emotion. *Communications Psychology*, *3*(1), Article 29. https://doi.org/10.1038/s44271-025-00212-x

Nikzad, A. H., Lysaker, P. H., Minor, K. S., Leonhardt, B., Liberman, M. Y., Vohs, J., Wiesepape, C. N., & Tang, S. X. (2025). Evolution of linguistic markers of agency, centrality and content during metacognitive therapy for psychosis: A pilot exploratory study. *Early Intervention in Psychiatry, 19*(1), e13628. https://doi.org/10.1111/eip.13628

Pad, R. A., Huprich, S. K., & Porcerelli, J. (2020). Convergent and discriminant validity of self- report and performance-based assessment of object relations. *Journal of Personality Assessment, 102*(6), 858-865. https://doi.org/10.1080/ 00223891.2019.1625909

Paquet, C. B., Cogan, C. M., & Davis, J. L. (2024). Implications of language use in posttraumatic nightmares on psychological symptoms. *Psychological Trauma: Theory, Research, Practice, and Policy, 16*(2), 312–320. https:// doi.org/10.1037/tra0001266

Pennebaker, J. W., & King, L. A. (1999). Linguistic styles: Language use as an individual difference. *Journal of Personality and Social Psychology, 77*(6), 1296–1312. https://doi.org/10.1037/0022-3514.77.6.1296

Piotrowski, C. (2018). Sentence completion methods: A summary review of 70 survey-based studies of training and professional settings. *Journal of Projective Psychology and Mental Health, 25*(1), 60-75.

Qiu, A. H., Tay, D., & Watson, B. (2024). Metaphorical language and psychopathological symptoms: A case study of trauma victims' metaphor use. *BMC Psychology, 12*(1), 57. https://doi.org/10.1186/s40359-023-01492-w

Qiu, L., Lin, H., Ramsay, J., & Yang, F. (2012). You are what you tweet: Personality expression and perception on Twitter. *Journal of Research in Personality, 46*(6), 710–718. https://doi.org/10.1016/j.jrp.2012.08.008

Quillivic, R., Auxéméry, Y., Gayraud, F., Dayan, J., & Mesmoudi, S. (2025). Linguistic markers for identifying post-traumatic stress disorder and associated symptoms: A systematic literature review. *Journal of the American Medical Informatics Association*, *32*(8), 1350-1363. https://doi.org/10.1093/jamia/ocaf075

Rizzuto, A.-M. (2015). *Freud and the spoken word: Speech as a key to the unconscious* (1st ed.). Routledge. https://doi.org/10.4324/9781315718200

Rotter, J. B., Lah, M. I., & Rafferty, J. E. (1992). *Rotter Incomplete Sentences Blank: Manual* (2nd ed). Pearson.

Rucker, J., Berry, B., & Rufino, K. (2025). Psychometric properties of object relations scales for the Rotter Incomplete Sentences Blank in an inpatient sample. *Journal of Personality Assessment.* Advance online publication. https://doi.org/10.1080/00223891.2025.2539406

Rucker, J., Berry, B., & Sharp, C. (2024). Assessing Criterion A of the Alternative Model for Personality Disorders: The potential of performance-based personality measures. *Journal Personality Disorders*, *38*(2), 171–194. https://doi.org/10.1521/pedi.2024.38.2.171

Rucker, J., & Ruffalo, M. (2025). Relationships between language use, working alliance, and personality pathology in an inpatient psychiatric sample. *Journal of Contemporary Psychotherapy: On the Cutting Edge of Modern Developments in Psychotherapy.* Advance online publication. https://doi.org/10.1007/s10879-025-09694-6

Rucker, J., & Sharp, C. (2024). Mentalization-based approaches to comorbid personality pathology and treatment-resistant depression. *Psychoanalytic Psychology, 42*(1), 19–26. https://doi.org/10.1037/pap0000524

Sanford, F. H. (1942). Speech and personality. *Psychological Bulletin, 39*(10), 811–845. https://doi.org/10.1037/h0060838

Sundbom, E., & Jeanneau, M. (1996). Multivariate modelling and personality organization: A comparative study of the Defense Mechanism Test and linguistic expressions. *Scandinavian Journal of Psychology, 37*(1), 74–83. https://doi.org/10.1111/j.1467-9450.1996.tb00640.x

Tausczik, Y. R., & Pennebaker, J. W. (2009). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of Language and Social Psychology, 29*(1), 24–54. https://doi.org/10.1177/0261927X09351676

Torstrick, A., McDermut, W., Gokberk, A., Bivona, T., & Walton, K. E. (2015). Associations between the Rotter Incomplete Sentences Blank and measures of personality and psychopathology. *Journal of Personality Assessment, 97*(5), 494-505. https://doi.org/10.1080/00223891.2015.1015679

Trifu, R. N., Nemeş, B., Bodea-Hategan, C., & Cozman, D. (2017). Linguistic indicators of language in major depressive disorder (MDD): An evidence-hyphen based research. *Journal of Evidence-Based Psychotherapies, 17*(1), 105–128. https://doi.org/10.24193/jebp.2017.1.7

Trifu, R. N., Nemeş, B., Herta, D. C., Bodea-Hategan, C., Talaş, D. A., & Coman, H. (2024). Linguistic markers for major depressive disorder: A cross-sectional study using an automated procedure. *Frontiers in Psychology, 15*, 1355734. https://doi.org/10.3389/fpsyg.2024.1355734

Unoka, Z., Csáky-Pallavicini, K., Horváth, Z., Demetrovics, Z., & Maraz, A. (2022). The Inventory of Personality Organization: A valid instrument to detect the severity of personality dysfunction. *Frontiers in Psychiatry*, *13*, 995726. https://doi.org/10.3389/fpsyt.2022.995726

Weintraub, W. (1981). *Verbal behavior: Adaptation and psychopathology*. Springer.

Weintraub, W. (1989). *Verbal behavior in everyday life.* Springer

Yahya, N., & Abdul Rahim, H. (2023). Linguistic markers of depression: Insights from English-language tweets before and during the COVID-19 pandemic. *Language and Health, 1*, Article 100001. https://doi.org/10.1016/j.laheal.2023.10.001

SIS J. Proj. Psy. & Ment. Health (2026) 33: 1, 23-29

Behaviour Addiction in Young Adults: Blind Analysis through Somatic Inkblot Test

Bhavya Mishra, Anand Dubey & Satyadhar Dwivedi

Online games are becoming increasingly popular every day. Internet gaming addiction has caused negative consequences for young adults. The establishment of specialized treatment centers in South-East Asia, the United States, and Europe reflects the growing need for professional help. It is argued that by understanding the appeal of Internet gaming, its context, and neurobiological correlates, it can be comprehensively understood. The index case of a 20-year-old young adult, having internet Game addiction, was administered the Somatic Inkblot Test (SIS-II) for the assessment of personality and underlying unconscious conflict. The responses have been analyzed using content analysis and psychoanalytic interpretation. The blind analysis validates the history reported by the client and his parents and serves as an aid to plan further therapeutic intervention. The findings revealed the client has poor interpersonal relationships with his father and mother, low self-esteem, aggressive behavior and depression.

Introduction:

With the rapid growth of technology, smartphones have become an essential part of everyday life. It provides easy access to communication, information, and entertainment. However, spending too much time on smartphones has raised concerns about possible addiction and its negative effects on thinking ability, social relationships and mental health. The World Health Organization (2016) defines addiction as a pattern of repeated use that provides relief or pleasure but leads to cravings and dependence. Smartphone addiction fits this description, as it involves using the phone too much, feeling anxious without it, losing control over usage, and continuing to use it even when it causes problems (Billieux et al., 2015; Kuss & Griffiths, 2017; Samaha & Havi, 2016; Soni et al., 2017).

What makes the use of smartphones problematic is when they begin to interfere with daily routines. Research studies show that addiction may be present when a person constantly thinks about the phone, ignores responsibilities, becomes upset when they cannot use it (Cheever, et al., 2014; King et al., 2013), and fails to cut down their usage despite trying to stop it (Lee et al., 2014). More impulsive people, who have trouble controlling their emotions or seek attention online, are more likely to develop such an addiction (Billieux et al., 2007). Studies have also shown that smartphone addiction is especially common among teenagers and young adults. According to a meta-analysis by Sohn et al. (2019), about 23.3% of children and adolescents throughout the world show signs of problematic use of smartphones. The problem seems worse in Asia, especially among college students. In India, Dharmadhikari et al. (2019) found that 46.15% of medical students were addicted to smartphones. Another review by Zhong et al. (2022) found that around 41.93% of Asian medical students showed signs of addiction. Although not many studies have been conducted on Indian adolescents, one study found that out of all smartphone users, 33.3% showed a high level of usage. These students also scored very high on the Depression, Anxiety, and Stress Scale (DASS-21) and on the Pittsburgh Sleep Quality Index (PSQI). The findings also indicated that the more use of phones has been linked to more stress and poor sleep (Soni et al. 2017)

Smartphone use is linked to increased aggression, detachment from reality, and hallucinations among adolescents. Notably, 37% of 13-year-olds reported aggressive behavior, and 20% experienced hallucinations. The study suggests that excessive screen time may disrupt brain and social development, blurring the line between reality and virtual experiences. (Kliesener et al. 2022). Studies show that too

Bhavya Mishra, M.Phil, Trainee, & **Satyadhar Dwivedi**, Assistant Professor, Institute of Mental Health and Hospital, Agra (Corresponding author: Email: satyadhardwivedi@gmail.com), **Anand Dubey**, CEO Dubay Healing Center, 7490 Coon Club Road, Medina, OH 44256 (USA)

Keywords: Behavioral Addiction, Depression, Somatic Inkblot Series, Smartphone Addiction

much smartphone use might be linked to depression, anxiety, and poor sleep. This overuse could cause depression or anxiety, which then leads to sleep issues (Demirci et al., 2015; Thomee et al., 2011). Hwang et al. (2012) found that students who overused smartphones had higher levels of anxiety and depression than those who used them moderately. Adams et al. (2013) explained that increased levels of technology use after the onset of sleep are linked to poorer sleep quality, and poorer sleep quality results in symptoms of depression or anxiety. Similarly, Lemola et al. (2015) found that using electronic devices at night was linked to sleep problems and symptoms of depression. While smartphones bring many benefits, young people should be careful about how much they use them, as addiction can harm their mental health. Although smartphone addiction is not officially classified as a mental disorder, many studies have estimated its prevalence ranging from above 0% to 35% (Lopez et al. 2014). Aljomaa et al. (2016) in a study on university students reported that about 48 percent of students were addicted to smartphones. Other studies also reported the rate of smartphone addiction is most frequently reported to be between 10% and 20% (Billieux, Maurage, et al., 2015 and Carbonell et al., 2012).

The present case study is a modest attempt to find out the personality factors and unconscious forces leading to an uncontrolled desire to use a smartphone in a young adult student, average in studies and losing interest in studies. He remains socially isolated, avoids responsibilities normally expected at this age and continues to complain of body aches and pain.

Measure:

Somatic Inkblot Test:

The Somatic Inkblot Test (62-image version) is a structured, projective diagnostic tool designed to explore underlying suppressed unconscious material and is an adjunct to psychotherapy and counselling. It is designed for self-administration. Originally conceptualized in 1959, it underwent extensive research and field testing, leading to a reliable and valid instrument (Cassell, 1980, 1990; Cassell & Dubey, 2003; Dubey & Cassell, 1993; Dubey et al.,2019). The SIS images are a mixture of unstructured, semi-structured and structured inkblots designed to bring out the unprocessed material from the unconscious mind. The stimuli presented are structured to elicit both typical and atypical response patterns, making the tool inherently projective in nature. Responses are spontaneous, often revealing deep-seated intrapsychic associations unique to each person.

The diagnostic strength of the SIS lies in its ability to evoke symbolic content and personal meaning, which can be compared against normative peer data and analyzed using recognized diagnostic criteria. Its therapeutic value emerges from the opportunity it provides to explore the responses further, formulating treatment planning and opening avenues for follow-up discussions. In many cases, the process evokes emotional reactions, sometimes intensely offering the potential for catharsis and deeper therapeutic engagement (Dubey et al. 2018).

The Case:

Mr. AB is a 20-year-old unmarried male, the youngest child in a nuclear family, living with his parents and elder sister. He has completed his 12th grade but is currently not engaged in any academic, occupational, or social activity. He came to the OPD at the Institute of Mental Health and Hospital, Agra, accompanied by his parents. The primary complaints as reported were persistent severe headaches and generalized body aches that have been ongoing for the past two years. According to his parents, the client was a bright student and had scored 96% in his 10^{th}-grade board examinations. He expressed a strong interest in pursuing commerce; however, his parents insisted that he take the science stream, which left him dissatisfied. After completing the 10th grade, he joined the school in 11th grade but did not attend the classes regularly. Simultaneously, he started preparing for the Indian Institute of Technology (IIT) entrance exams through online classes.

The onset of his symptoms coincided with the beginning of his IIT preparation. He found it increasingly difficult to cope with the rigorous study schedule and began accumulating academic backlogs, leading to heightened stress and somatic complaints such as persistent body pain. He reported being unable to carry out even basic tasks due to the discomfort. Although he expressed a desire to skip the 12th board exams due to his poor health condition, he eventually took the examination at the insistence of his parents and scored 70 percent. Over the period, he withdrew from his social environment. He stopped going out, ceased meeting or playing with friends, and abandoned hobbies, such as craftwork, as he is no longer capable of doing anything. He spent most of his time lying in bed, complaining of severe body pain. His condition deteriorated to the extent that he began eating meals in bed and avoided all physical activity. To distract him from his distress, his parents provided him with a smartphone. However, this backfired as he began spending more time -typically from 9.00 PM to 2.00 AM playing mobile games and browsing. When his parents tried to limit his screen time, he showed resentment and displayed defiant behavior. He often responded with statements such as, "You do not understand my pain; I cannot do anything. It hurts a lot, and I won't do the task." He also justified his behavior by comparing himself to his sister, saying, “You don’t ask her to stop using the phone, so why are you stopping me?”

He became increasingly irritable, socially withdrawn, and possessive of his phone, refusing to give it up. He rationalized his smartphone use as a necessary distraction from his ongoing physical and emotional discomfort. In one alarming incident, when his phone was confiscated, he stood on the rooftop of the building and threatened to jump from the 15th floor unless the phone was returned to him.

Current Status:

At present, the client is not enrolled in any educational or vocational course. He remains socially isolated, avoids all responsibilities, and continues to complain of body aches and pain. His clinical presentation aligns with patterns of behavioral addiction, particularly smartphone addiction. This behavior appears to function as a maladaptive coping mechanism for dealing with academic stress, emotional dysregulation, and a perceived sense of failure, leading to a cycle of avoidance, dependency, and psychosocial withdrawal.

Findings of Somatic Inkblot Test (SIT):

A few clinically significant responses given on the Somatic Inkblot test are interpreted using content analysis, symbolism and psychoanalytic interpretation.

Image A 9: “Two people are doing something and someone is watching them”. Two people are the most typical response in this image, but “someone is watching” indicates his suspicious attitude towards his father. He has reported in the case history that his parents are constantly monitoring him, which he finds very distressing. He feels at peace while using his phone, but when his parents question why his body hurts during other activities, but not while using the phone. He interprets it as a sign that they do not want to see him happy and is always very critical.

Image A10: “Two living beings are in the container filled with boiling water”. It indicates his aggressive behavior and shows his feelings of being punished. He always says his parents do not empathize with his pain, and even after knowing, they force him to do a different task.

Image A11: “Dolphin gets cut into two,” which indicates his hostile attitude and aggressive behavior. He gets irritated with his parents and other family members whenever they try to communicate with him.

Image A13: “It is someone’s hand, and he is trying to remove it from fire,” which indicates his tension and suffering, which he is managing. The client is dealing with psychosomatic pain and feels as if

it is never-ending. He keeps on ruminating that he will get well soon and will lead a normal life.

Image A15: "Someone is falling". This response indicates his pensive mood and suicidal ideation. The client once threatened his parents that he would jump from the building if he did not get back his phone.

Image A19: "Two animals are fighting." This response shows his aggressive behavior.

Image A21: "Flying animal with two other animals" indicates his aggressive attitude towards his father. The client always blames his father for not caring about his sufferings and being forced to continue his studies and get engaged in some extracurricular activity.

Image A25: "Some body part; mosquito/insect." The client avoided perceiving the female body in this image, which may indicate his low interest in the opposite sex.

Image A27: "Person appears to sit on animal". He avoided perceiving the common response to the female torso, which may indicate conflicts with his mother. He feels as if his mother favors his sister and keeps on asking him not to lie in bed and do some productive work. He feels that she scolds him, but never to his sister.

Image A31: "Two faces can be seen". He avoided specifying them, which may indicate conflicts with his parents.

Image B1: "Small animal is sitting on someone's hand; and two animals sitting together" might indicate his sexual fantasy. The "small animal" may symbolize children (Philips & Smith, 1953) and may again indicate conflict with his father.

Image B3: "Cactus tree; two rats on top of something and celebrating". The Cactus tree symbolizes protection and strength. It can help enhance communication and understanding of other people. Here, it may symbolize the mother, and the two children might symbolize the client and his sister. The response may further indicate his desire to get attention and have affection from his mother.

Image B4: "Two faces". He avoided pointing out who they are, which may indicate conflict with the father.

Image B14: "Two people sitting and standing in front of a train gate" may indicate his sexual fantasy.

Image B15: "Fighting" may indicate his hostility and aggression, which must be addressed during therapy sessions.

Image B18: "Bone" in this image may indicate his sexual fantasy. Normally, people see the male phallic part in this image.

Image B19: "Virus-like Covid-19". The response may indicate frustration and interpersonal conflict. He has avoided perceiving two hearts, which is a common response in this image, may further indicate interpersonal conflicts and frustration.

Image B20: "One animal is caught; Body part" may indicate anxiety and fear of being punished.

Image B27: "Two animals, one is dead, and the other is shocked," may indicate his pensive mood and conflict. This might be an indication of potentially latent suicidal ideation.

Image B28: "Someone has kidnapped someone", indicates his feelings of helplessness and dependency. He avoided perceiving the most typical response -mother and child, which may indicate affectionate deprivation and poor interpersonal relationships with his mother.

Discussion:

The client is a 20-year-old young adult who has complaints of psychosomatic pain, emotional withdrawal, and signs of behavioral addiction, particularly smartphone overuse. Although he reported a generally happy and deprivation-free childhood, psychological testing using the Somatic Inkblot Test indicates the presence of unresolved familial conflicts and internal emotional distress. The inkblot responses highlight themes of parental conflict—specifically with the father and mother—marked by aggression, avoidance, and issues with authority. There is also emotional tension associated with the mother, indicating deprivation and unmet emotional support, which may have contributed to the current psychological state. Marked hostility, pensive mood and suicidal ideation are also projected on inkblot responses.

These findings align with literature indicating that unresolved family dynamics in adolescence can significantly impact emotional regulation and self-concept in early adulthood (Allen et al, 1994). The index case shows patterns of emotional regression, irritability, and avoidance behavior, likely originating from internalized emotional conflicts. Emotional suppression and a lack of coping strategies may contribute to his irritability and oppositional behavior, particularly within family settings.

The client's persistent somatic complaints and his refusal to engage in daily activities further suggest the presence of psychosomatic defenses, where emotional pain is manifested as physical discomfort. This is consistent with psychodynamic models that explain somatization as an expression of intrapsychic conflict (McDougall, J,1989). Additionally, the patient's intense emotional dependency and withdrawal from social interactions indicate an underlying fear of rejection and failure, particularly after experiencing academic setbacks.

The particular concern in this case study is the client's reliance on his smartphone, which seems to function as an emotional buffer against distressing thoughts and interpersonal rejection. Rather than promoting distraction or relaxation, excessive smartphone use in this case appears to reinforce emotional avoidance and compulsive behavior patterns. Studies in this area have shown that behavioural addictions such as problematic smartphone use are often associated with emotional dysregulation and serve as coping mechanisms in individuals with unmet psychological needs (Elhai et al., 2017).

The client's expressions of suicidal ideation, emotional numbness, and the desire to escape highlight the urgency for comprehensive psychological intervention. These symptoms reflect not only current distress but also deeper existential concerns about self-worth, autonomy, and perceived failure. The findings on the Somatic Inkblot Test, thus, offer a valuable lens through which the therapist can understand the emotional underpinnings of the suffering individual's behavior and psychological symptoms.

Conclusion:

The present case study highlights the value of projective assessments in uncovering underlying psychological dynamics which are not always evident in clinical interviews. Despite the absence of overt trauma, the Somatic Inkblot Test revealed significant emotional conflict, familial distress and internalized anxiety. His behavior suggests that the smartphone serves as a maladaptive coping mechanism for unresolved psychological tension and emotional pain.

Understanding the emotional and relational roots of the patient's distress—especially in the context of family dynamics and academic pressure—can inform a more targeted and holistic intervention strategy. Early identification and psychotherapeutic intervention are essential to address emotional dysregulation, strengthen coping mechanisms, and reduce dependence on avoidance behaviors such as the excessive use of smartphones. This case underscores the importance of integrating projective techniques with clinical evaluation to better understand and manage the complex emotional needs of young adults

facing psychosocial and behavioral challenges. The SIT is a reliable, dependable projective test as its findings match the history given by parents and behavioral symptoms of the patient.

References:

Adams, S. K., & Kisler, T. S. (2013). Sleep quality as a mediator between technology-related sleep quality, depression, and anxiety. *Cyberpsychology, Behavior, and Social Networking,* 16(1), 25–30. https://doi.org/10.1089/cyber.2012.0157

Allen, Joseph P., et al. "Longitudinal Assessment of Autonomy and Relatedness in Adolescent-Family Interactions as Predictors of Adolescent Ego Development and Self-Esteem." *Child Development*, vol.65, no.1, 1994, pp. 179–94. JSTOR, https://doi.org/10.2307/1131374.

Aljomaa, S. S., Mohammad, M. F., Albursan, I. S., Bakhiet, S. F., & Abduljabbar, A. S. (2016). Smartphone addiction among university students in the light of some variables. *Computers in Human Behavior*, 61, 155–164. https://doi.org/10.1016/j.chb.2016.03.041

Billieux, J., Maurage, P., Lopez-Fernandez, O., Kuss, D. J., & Griffiths, M. D. (2015). Can disordered mobile phone use be considered a behavioral addiction? An update on current evidence and a comprehensive model for future research. *Current Addiction Reports*, 2(2), 156–162. https://doi.org/10.1007/s40429-015-0054-y

Billieux, J., Van der Linden, M., D'Acremont, M., Ceschi, G. and Zermatten, A. (2007). Does impulsivity relate to perceived dependence on and actual use of the mobile phone? *Applied Cognitive Psychology*, 21, 527-537. Doi:10.1002/acp.1289

Carbonell, X., Chamarro, A., Griffiths, M. D., Oberst, U., Cladellas, R. & Talarn, A. (2012). Problematic Internet and cell phone use in Spanish teenagers and young students. *Anales de Psicología*, 28(3), 789–796. Doi:10.6018/analesps.28.3.156061

Cassell, W. A. (1980). *Body Symbolism and the Somatic Inkblot Series*. Anchorage, Alaska. Aurora Publishing.

Cassell, W.A. (1990). *Somatic Inkblot Series Manual. Administration, Scoring and Interpretation*. SIS Centre, Anchorage, Alaska.

Cassell, W.A. & Dubey, B.L. (2003). *Interpreting Inner World Through Somatic Imagery*, SIS Center, Anchorage, Alaska (USA)

Cheever, N., Rosen, L., Carrier, L. M., & Chavez, A. (2014). Out of sight is not out of mind: The impact of restricting wireless mobile device use on anxiety levels among low, moderate and high users. *Computers in Human Behavior*, 37, 290–297. Doi:10.1016/j.chb.2014.05.002

Dubey, B.L. & Cassell, W.A. (1993). Some Experience with the Somatic Inkblot Series, *British Journal of Projective Psychology*, 38: 1, 19-41

Dubey, B.L., Banerjee, P., & Dubey, Anand (2019). *Inkblot Personality Test - Understanding the Unconscious Mind*, Sage Publications Inc. New Delhi, http://dx.doi.org/10.4135/9789353287771

Dubey, B. L., Kumar, R., & Dubey, A. (2018). Somatic Inkblot Series and the Journal of Projective Psychology & Mental Health: Inception to Silver Jubilee. *SIS Journal of Projective Psychology & Mental Health*, 25(1), 5–34.

Demirci, K., Akgönül, M., & Akpinar, A. (2015). Relationship of smartphone use severity with sleep quality, depression, and anxiety in university students. *Journal of Behavioral Addictions*, 4(2), 85–92.https://doi.org/10.1556/2006.4.2015.010

Dharmadhikari, S. D., Harshe, D. G., Bhide, P. P., Jaisoorya, T. S., & Jagtap, B. N. (2019). A cross-sectional study of excessive smartphone use among medical students in a medical college in Western Maharashtra. *Journal of Family Medicine and Primary Care*, 8(10), 3518–3523.https://doi.org10.4103/IJPSYM.IJPSYM_75_19.

Elhai, J. D., Dvorak, R. D., Levine, J. C., & Hall, B. J. (2017). Problematic smartphone use: A conceptual overview and systematic review of relations with anxiety and depression psychopathology. *Journal of affective disorders*, 207, 251–259. https://doi.org/10.1016/j.jad.2016.08.030

Hwang, K.-H., Yoo, Y.-S., & Cho, O.-H. (2012, October 28). Smartphone Overuse and Upper Extremity Pain, Anxiety, Depression, and Interpersonal Relationships among College Students. The Journal of the Korea Contents Association. *The Korea Contents Association*. 12(10) https://doi.org/10.5392/jkca.2012.12.10.365

King, D. L., Herd, M. C. E., & Delfabbro, P. H. (2018). Motivational components of tolerance in Internet gaming disorder. *Computers in Human Behavior,* 78, 133–141. Doi:10.1016/j.chb.2017.09.023

Kliesener, T., Meigen, C., Kiess, W., & Poulain, T. (2022). Associations between problematic smartphone use and behavioural difficulties, quality of life, and school performance among children and adolescents. *BMC psychiatry*, 22(1), 195. https://link.springer.com/article/10.1186/s12888-022-03815-4

Kuss, D. J., & Griffiths, M. D. (2017). Social networking sites and addiction: Ten lessons learned. *International Journal of Environmental Research and Public Health*, 14(3), 311.https://doi.org/10.3390/ijerph14030311

Lemola, S., Perkinson-Gloor, N., Brand, S., Dewald-Kaufmann, J. F., & Grob, A. (2015). Adolescents' electronic media use at night, sleep disturbance, and depressive symptoms in the smartphone age. *Journal of youth and adolescence*, 44(2), 405–418. https://doi.org/10.1007/s10964-014-0176-x

Lee, Y. K., Chang, C. T., Lin, Y., & Cheng, Z. H.The dark side of smartphone usage: Psychological traits, compulsive behavior and technostress.*Computers in Human Behavior*, 31, 373–383. https://doi.org/10.1016/j.chb.2013.10.047

Lopez-Fernandez, O., Honrubia-Serrano, L., Freixa-Blanxart, M., & Gibson, W. (2014). Prevalence of problematic mobile phone use in British adolescents. *Cyberpsychology, behavior and social networking*, 17(2), 91–98. https://doi.org/10.1089/cyber.2012.0260

McDougall, J. (1989). *Theaters of the body: A psychoanalytic approach to psychosomatic illness*. W. W. Norton & Company.

Philips, L. & Smith, J.G (1953). *Rorschach Interpretation:Advance Technique*, Grune, New York.

Samaha, M., & Hawi, N. S. (2016). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior,* 57, 321–325.https://doi.org/10.1016/j.chb.2015.12.045

Sohn, S. Y., Rees, P., Wildridge, B., Kalk, N. J., & Carter, B. (2019). Prevalence of problematic smartphone usage and associated mental health outcomes: A meta-analysis. *BMC Psychiatry*, 19, 356.https://doi.org/10.1186/s12888-019-2350-x

Soni, R., Upadhyay, R., & Jain, M. (2017). Prevalence of smartphone addiction, sleep quality, and associated behaviour problems in adolescents. *International Journal of Research in Medical Sciences*, 5, 515–519.http://dx.doi.org/10.18203/2320-6012.ijrms20170142

Thomée, S., Härenstam, A., & Hagberg, M. (2011). Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults – A prospective cohort study. *BMC Public Health*, 11, 66. https://doi.org/10.1186/1471-2458-11-66

WHO (2016). World Health Statistics 2016 [OP]: monitoring health for the sustainable development goals (SDGs). https://www.google.co.in/books/edition/World_Health_Statistics_2016_OP

Zhong, Y., Ma, H., Liang, Y. F., Liao, C. J., Zhang, C. C., & Jiang, W. J. (2022). Prevalence of smartphone addiction among Asian medical students: A meta-analysis of multinational observational studies. *The International journal of social psychiatry*, 68(6), 1171–1183. https://doi.org/10.1177/00207640221089535

SIS
JOURNAL OF PROJECTIVE PSYCHOLOGY AND MENTAL HEALTH
(An Official Publication of Somatic Inkblot Society)

Published Regularly Twice a Year in January and July

First Volume Published in 1994
All Volumes of the SIS Journal are also available in PDF Format
Individuals/Institutions can become Members of Somatic Inkblot Society
By Submitting Membership Application Form Given in the Journal
and Receive Print Version/Soft copy of the Journal
Published After the Date of Membership
Free of Cost

Bankey L. Dubey, Ph. D., DPM, DM&SP
Editor Emeritus
SIS Journal of Projective Psychology and Mental Health
Email: bldubey@gmail.com

SIS J. Proj. Psy. &Ment. Health (2026) 33: 1, 30-37

Treatment Resistant Anxiety Disorder (TR-AD): Gestalt Views and SIS Projection

L. S. S. Manickam, P. Vani, R. Parvathy & B.L. Dubey

Treatment-resistant anxiety disorders (TR-AD) pose a significant clinical challenge, contributing to chronicity, comorbidities, and considerable individual and socioeconomic burden. We present the case report of a 50-year-old married man with a 39-year history of anxiety, his responses on the Somatic Inkblot Test (SIS-II Booklet form) and the blind interpretation of these responses. The findings suggest that individuals with anxiety persisting for two or more years and resistant to conventional treatment may benefit from projective test interventions (SIS-II assessment) for early identification of resistance, thereby facilitating therapeutic breakthroughs or clarifying mechanisms of symptom maintenance. From a Gestalt therapy perspective, a field-restricted environment such as inpatient treatment setting may further support resolution of unfinished business and enhance awareness, offering a complementary pathway for engaging resistant anxiety.

Introduction:

Anxiety disorders remain one of the most common psychiatric conditions worldwide (Craske & Stein, 2016) impacting approximately 301 million people globally in 2019 and the epidemiological data estimated that approximately 7.3% of the global population experiences an anxiety disorder at any given time (WHO, 2023). In India as of 2017, around 45 million individuals were affected by anxiety disorders, making them the most common mental disorders (India Study Group, 2020). (Reference not given) Though various pharmacological and psychotherapeutic strategies have been implemented to treat anxiety disorders, a subset of cases remains resistant to treatment, creating significant challenges for mental health service providers. This non-responsive anxiety is most precisely termed as treatment-resistant anxiety disorder (TR-AD) (Domschke et al, 2024). Recent Delphi study arrived at an international consensus and recommended the following operational criteria : (a) failure to respond after adequate trials of at least two first-line interventions (e.g., SSRI/SNRI and/or a structured psychotherapy like CBT), and (b) insufficient symptomatic change defined by <50% reduction on standardized anxiety scales (e.g., HAM-A or BAI) and/or CGI-I > 2, after confirmed adherence and adequate dosing/duration (typically ≥8 weeks per trial) usage (Domschke et al, 2024). These criteria which were derived via a Delphi process to standardize research and clinical data are yet to find a place in major classificatory systems. Quite often, individuals with TR-AD are also likely to present with comorbid benzodiazepine dependence due to long-standing use of anti-anxiety medications (Lader, 2011)

From a Gestalt therapy perspective, anxiety is conceptualized as a holistic state of organismic arousal that lacks sufficient support for expression toward a need. In working with anxiety, the focus of gestalt therapy is not on individual symptoms but on the relationship that emerges at the contact boundary between client and therapist (Herara et al, 2019). Rather than viewing anxiety as mere pathology, it is regarded as an indication that vital arousal has been interrupted and with appropriate therapeutic containment and this energy can be redirected toward awareness and growth (Herara et al, 2019). Anxiety arises when certain organismic needs are deemed unacceptable, leading to their suppression by rigid relational patterns that constrict creativity and the capacity to meet immediate situational demands in the

---

L. S. S. Manickam, PhD. Professor in Clinical Psychology and Director, Indian Psychologists Network, Thiruvananthapuram, Kerala 695133. Email: Lssmanickam@gmail.com, (Corresponding author), **Pulaparambil Vani**, MD, PGDMLE, Consultant Neuropsychiatrist, Bangalore; **R. Parvathy**, M.A Clin Psychology, Consultant Psychologist & Psychotherapist, Medha, Mumbai, medha.therapy@gmail.comand **Bankey L. Dubey**, PhD. Director Dubay Healing Center, Medina OH-44256 (USA)

Key words: Treatment resist treatment-resistant anxiety disorder (TR-AD), SIS, Resistance, Field perspective, Gestalt therapy

here and now (Herrera, 2016). From this standpoint, treatment-resistant anxiety may reflect such entrenched interruptions and unfinished business, perpetuating the disorder until awareness and supported contact are restored.

Somatic Inkblot Series (SIS), originally developed by Cassell (1980, 1990, Cassell & Dubey, 2003), is a projective technique that was designed to explore unconscious conflicts, somatic preoccupations, and symbolic imagery projected by clients. SIS emphasizes **body symbolism**, making it particularly useful in identifying the conflicts of clients presenting with psychosomatic complaints, anxiety, and treatment-resistant conditions. The instrument has been validated for personality assessment, diagnostic evaluation, and therapeutic intervention (Dubey, Cassell, Manickam, & Singh, 2005; Dubey, 2020, Dubey et al, 1992, 2019, Dubey & Dubey, 2021, 2022, Singh & Dubey, 2020, 2022). In clinical practice, SIS-II (two sets of 31 images) has demonstrated **therapeutic usefulness** in breaking resistance and facilitating communication of unconscious material that is otherwise inaccessible through structured interviews (Manickam & Suhani, 2003; Manickam, Suhani, & Jasseer, 2004). By allowing projection of fears, bodily anxieties, and unresolved conflicts, SIS provides insight into **underlying dynamics** sustaining persistent anxiety. This may particularly be relevant in **non-responsive anxiety conditions**, where clients may not benefit fully from pharmacological or cognitive-behavioural approaches due to unaddressed intrapsychic or psychosomatic components. Manickam and Dubey (2021) reported how SIS images from a gestalt therapy perspective helped a person with PTSD to unravel the unfinished business, get over the fixed gestalt, make the contact cycle complete.

Here we present a person with long standing anxiety disorder which did not respond to pharmacological and psychological treatment suggesting it to be TR-AD. We have also presented the responses of SIS-II that brought to awareness the unfinished business and the polarities, and at the same time the person made use of the resistance/protective mechanism to stay without attempting to get over it. The implications of the responses and its significance from a gestalt therapy perspective are discussed.

Case History:

The client is a 50-year-old, married male, working as a schoolteacher, hailing from a middle socioeconomic status, nuclear family presented with a history of anxiety symptoms spanning over three decades. His difficulties began at the age of nine, following an episode of gastrointestinal distress after a meal at a relative's house. Since then, he developed a persistent fear of vomiting, heightened bodily vigilance, and anticipatory anxiety, which he linked to his grandmother's history of migraine. During the same period, his sister's seizures and hospitalization intensified his feelings of helplessness, restlessness, and somatic tension. By late childhood, he exhibited obsessional features, including prolonged bathing, repeated washing, and excessive time spent in the washroom, particularly before examinations or travel. These rituals were accompanied by worry, muscle tension, and fear of losing control in public situations. At around 11 years of age, he developed phobic anxiety, with intense fear of lightning, thunder, and flying cockroaches, leading to avoidance behavior and safety measures such as carrying insect spray. Through adolescence, he reported excessive exam-related worry, irritability, disturbed concentration, and physiological arousal. At the age of 20, he fainted while travelling to college, an event that marked the onset of persistent fears of fainting, autonomic hyper arousal (palpitations, sweating, nausea), and recurrent vomiting sensations. These symptoms were most pronounced in stressful situations, public places, and during examinations or long-distance travel.

Three months later, in 1994, he consulted a psychiatrist in his hometown and was prescribed medications which provided relief for about three months. As advised, he also sought psychotherapeutic help, where he was recommended relaxation training, cognitive restructuring, and stress reduction. After 3 months of therapy, he reported improvement and subsequently discontinued both medications and the psychological support. Three months later, he experienced symptom relapse, particularly while attending

teacher education training. The same psychiatrist prescribed **Aripiprazole**, which improved his concentration but he was still feeling tense. Discontinuation of medication precipitated withdrawal symptoms, including shivering, palpitations, breathlessness, and nausea which prompted the patient to restart medications. Despite adherence, symptoms persisted. Approximately a decade later, another psychiatrist prescribed **Sertraline** and **Clonazepam**. The client reported being "encouraged to marry and seek employment" as part of treatment advice.

He married at the age of 36 on the advice of an astrologer and has remained married for 14 years, with one daughter. Initially, he denied marital problems but later expressed frustration, including reduced intimate relationship over the past five years, attributed partly to diabetes. According to his wife, the client had no observable major difficulties apart from recurrent complaints of underemployment, frequent worry, occasional irritability, lethargy and daytime sleeping during holidays. She also noted his repeated expressions that he could "live a luxurious life if he won the lottery," indicating dissatisfaction with his socioeconomic status.

Two years prior to referral for psychotherapy, the client consulted a psychiatrist (Dr. V) due to worsening anxiety. While on medication, he denied major sleep disturbances; however, he described occasional morning low mood, feelings of helplessness, and intermittent suicidal thoughts. His predominant concerns revolved around 'his psychological dependence on benzodiazepines, insomnia, fluctuating anxiety which was work related'. These episodes were marked by nausea, palpitations, shivering, dizziness, restlessness, and impaired concentration during teaching, lasting for hours together. Even minor health issues precipitated these attacks. His medical history was notable for diabetes mellitus, hypertension, and hypercholesterolemia, for which he was on regular treatment. As his symptoms persisted without relief and the difficulty weaning off from the medications remained unresolved, he was referred for psychotherapy.

The **Clinical Global Impressions scale (CGI)** is a widely used clinician-rated tool with good inter-rater reliability that measures global improvement and treatment response (Guy, 1976), and it has been effectively applied to calculate clinically significant change in routine clinical practice (Kelly, 2010). On CGI, his retrospective score at the time of seeking help 2 years ago was rated as >1 (Kelly, 2010), and at the time of referral and after therapy sessions, his score remained unchanged at >2. This indicates that the client showed minimal to no clinically significant improvement across the course of treatment, suggesting persistence of symptoms and non-responsiveness to appropriate interventions.

Findings and Discussion:

The client gave 72 responses (Set A: 38; Set B: 34) and he perceived 22 responses as "not a pleasing one," and 3 were described as "pleasant." The pleasant responses included: Card 5A: "It's a pleasant picture 1. A bird at the bottom, not a scary one; 2. Symbol of love; 3. Another bird at the top, together, looks like an emblem." Card 6A: "1. On one side a doll, 2. On the other side is a toy, a pleasant picture." Card 31B: "Father, mother, boy child and a girl child, this is a pleasing picture." He gave six "emblem" responses, of which all but one was perceived as unpleasant. A symbolic psychoanalytic interpretation of an emblem views it as a manifestation of unconscious conflicts and desires, stemming from repressed thoughts and early childhood experiences that are indirectly represented by the emblem's imagery. The emblem of its meaning is both the object itself and a substitute for a hidden, unconscious thought or feeling, providing a delayed form of gratification or expression. Additionally, there were 9 Human Movement (M) and 5 Animal Movement (FM) responses, and all were popular responses that ruled out underlying psychotic processes. **A few clinically significant responses** projected on the Somatic Inkblot Test were interpreted using content analysis, symbolism, and a gestalt perspective by the co-author (BLD), who was blind to the client's clinical history.

Image A4: "On the side, one person standing with hands raised. On the other side, a person with anger, harmful person". The client might be projecting the aggressive behaviour of a person who has

raised his hands and need help / support from others. Such situations are often seen in family violence.

Image A7: "It is exactly like an emblem, upper part is like cashew mango is handing, down part- a labourer (no specific gender mentioned)". If a male has not perceived a "dancing lady" in this image, it may indicate that the man has traumatic experience from a female. It may further indicate poor interpersonal relationships with his wife and a kind of hatred and aggression towards her.

Image A9: "On the left side - a lady (Not a pleasing one, scary picture) but not a beautiful woman" Instead of perceiving two persons, male and female, or any two persons, which is a healthy response, in this image, he projected a scary picture of a lady, may indicate hatred and aggression towards his wife. He did not perceive a male figure – a most common response, towards the other side of the image, may indicate his avoidance and psychological separation from his wife.

Image A16: "Emblem, two birds within the emblem". Two birds kissing / playing is the normal response in this image, which may indicate a good interpersonal relationship. Normally couples having conflicting relationships may avoid seeing birds kissing or making love. This image may further indicate frustrated love affairs and conflict in love relations. The theme of interpersonal conflict is projected in earlier three images also which must be addressed during therapy sessions.

Image A21: "Big bird, cannot make out what is next to it" Batman / flying bird and two children is a normal and healthy response in this image, which indicates a good interpersonal relationship with parents/authority figures. The projection of "Big bird" denotes authority/father figure. Avoidance of two babies on either side is a strong indication of conflict with his father particularly during childhood. The poor relationship with father might have impacted his personality.

Image A24: "Not clear, two people harassing another person, one is closing the mouth of the other person. The third person is a very hard person who is closing the mouth of the client and is not allowed to express". The responses indicate feelings of harassment and physical abuse during childhood. Such traumatic memory must be addressed during therapy sessions.

Image A26: "Fossils of a creature, died long ago, only head and tail" depressing, not a pleasant one". The response indicates his pensive mood and a kind of regression where he is feeling that the death might have resolved his present problems. The client must get pharmacological help to address a depressive mood. The therapist must address if the client has witnessed abortion of his wife or some significant family member.

Image A27: "It is the aerial view of a cave" Female breast is the most common normal response in this image. The client has avoided perceiving female breasts which may indicate deprivation/ conflict with mother during childhood. Those who lost their mother during childhood, lived away from their parents, or reared by grandparents, often reject this image. Male having poor interpersonal conflict with his wife may also reject the common perception of breast. The perception of CAVE may indicate sexual fantasy and sexual frustration.

Image A28: "Dropped breasts of a woman, but not a full picture of the woman". The response may indicate his frustration and hatred towards a female, possibly his wife whom he does not like.

Image A29: "Not clear, inside looks tiger like creature". The perception of tiger in this image may indicate that the client is demanding, dependent with passive aggressive attitude (Schafer, 1954)

Image B1: "Like a nest, young birds opening mouths for food and a bird outside. Looks as if it has come to harm the young birds". The response indicates his insecurity and craving for affection. It further indicates unpleasant feelings of his childhood because of the harsh attitude of his father, which must be addressed during therapy sessions.

Image B2: "Two scary creatures. A strong creature forcefully taking away another creature". The theme of image B1 is projected again in this image which indicates feelings of harassment and insecurity. The therapist must ascertain whether the client had a difficult childhood memory, or it is a development in later life.

Image B12: "Some bird carrying its prey in the legs, not a pleasing picture" indicates his insecurity towards life and future. Such pathological anatomy responses are often seen in psychotic patients.

Image B19: "Octopas- disgusting to hold in hands". Two hearts are the most common normal response in this image. A person having broken love relations, frustrated love affairs or poor interpersonal relationships with his wife often avoids perceiving hearts. The case history also supports this finding.

Image B22: "A person lying down, looking up and stones falling on him". The response indicates his feelings of helplessness and inability to manage the adverse situations in his favour. It further indicates his depressive mood.

Image B28: "One woman, standing aloof with her hands but face is not of a human being -not a pleasing picture, It has fox's face. 'Fox woman'. Human beings with the head of the fox, a crown present on the head, hands tied, wearing a saree". The "fox woman" may represent the cunning nature that the client is projecting towards his wife. The fox symbolism is deeply tied to cunning, transformation, and spiritual guidance. The conflict with his mother and his wife has been reported in the case history. Mother hugging/ holding the Child is a most common normal response in this image which reflects a smooth loving relationship with parents, particularly with mother. The client has totally avoided perceiving the child with the mother, which indicates severe conflict with the mother. It may also reflect severe conflict with the mother figure which can be his wife.

To summarise the responses, it indicates that the client has a high level of frustration and hatred towards a significant woman in his life. Further, it suggests that he has unresolved anxiety, feelings of insecurity and uncertainty, depressive mood, feelings of helplessness and aggressive behaviour. It also indicates that he had a strained relationship with his father. There is evidence that his feelings are being hurt, and he is craving for love and affection. There are also evidences of sexual fantasy, sexual frustration and inadequate love in his interpersonal relationships. The responses also indicated that the client has distorted perception towards his life events.

Discussion:

Mr. S's' long-standing, chronic anxiety symptoms, persisted despite multiple treatment attempts and the CGI score remaining <2 meet the clinical definition of TR-AD (Domschke et al, 2024). This formulation is consistent with definitions of treatment resistance as failure to respond to at least two adequate trials of evidence-based treatments, and the illness course reflects chronic anxiety with periodic exacerbations which are situation/field related.

One of the socio-culturally accepted 'solution' to psychological or behavioural problems in India is marriage, often encouraged by close family members and friends. This is reinforced by the prediction of the astrologer (Das et al., 2022). Although this trend is gradually changing, there remains a widespread

belief that marriage has the potential to transform lifestyle and behavior, particularly in the context of mental health difficulties such as addiction or chronic stress. However, clinical evidence suggests that marriage does not resolve underlying psychopathology; individuals who are socially disconnected or resistant to change often continue to struggle despite being married (Chadda & Deb, 2013; WHO, 2022). In the present case, the client's longstanding difficulties persisted despite marriage, underscoring the need to raise awareness that marriage should not be misconstrued as a "treatment" or primary solution for psychological problems. (Deleted the sentence)

Though the client initially presented as having a good relationship with his wife, as therapy progressed, he revealed frustrations in the marriage and spoke of living with his 'fantasy girl 'in his phenomenological world. The blind interpretation of Somatic Inkblot Test responses reiterated the same and probably SIS serves as a diagnostic and therapeutic bridge for clients with non-responsive anxiety by revealing contact disturbances, fostering therapeutic alliance, and offering culturally valid insights into somaticized expressions of distress. This makes SIS a valuable adjunctive tool for assessment and intervention when conventional approaches show limited efficacy. For clients with long-standing or treatment-resistant anxiety, SIS helps uncover symbolic expressions of fear, control, and helplessness, thereby guiding integrative therapeutic strategies such as gestalt interventions, relaxation, or body-focused psychotherapy. Administering SIS to the couple, as reported by Kruthi et al. (2015), might have helped to uncover underlying discrepancies in their relationship or possible sexual conflicts between the couple (Manickam & Suhani, 2013, 2014).

The SIS images may facilitate relational dialogue by supporting contact with the person and enhancing awareness of the 'contact-full' self, as emphasized by Finlay (2016) and further reported by Manickam and Dubey (2021). However, the awareness that the client phenomenologically experienced did not help him to work through different figures that came up. Individuals with a 'fixed gestalt' may perceive stereotyped responses, indicating their habitual way of perceiving others and the environment. From a gestalt perspective, Engle and Holiman (2002) observed that resistance to awareness serves as a self-protective function, shielding the client from the anxiety that accompanies change. This resistance is often expressed as ambivalence, in which one aspect of the person desires changes while another resists it. Consistent with early Gestalt theory, clients are frequently unaware of such internal conflicts and their impact on relationships with self and others and the environment. As Engle and Holiman (2002) noted, *'An individual will tend to protect him/herself from harm by avoiding unmanageable levels of anxiety'* (p. 177) and may not want to process.

Treatment-resistant anxiety disorders pose a major clinical challenge, contributing to chronicity, comorbidities, and significant personal and socioeconomic burden (Domschke et al, 2024). This highlights the urgent need to identify predictive markers, clarify underlying mechanisms, and develop innovative pharmacological and psychotherapeutic interventions. From a Gestalt therapy perspective, an inpatient setting may be understood as a *restricted field*, where environmental demands and external stressors are reduced, creating a safer and more contained therapeutic context. This narrowing of the field allows the client to focus on the immediate therapeutic relationship and internal processes without being overwhelmed by the broader life circumstances that maintain anxiety. Within such a structured environment, awareness can be deepened, unfinished business can surface, and new modes of contact can be safely experimented with, thereby enhancing the possibilities for change in treatment-resistant anxiety conditions (Perls, Hefferline, & Goodman, 1994; Parlett, 1991; Yontef & Jacobs, 2014).

Conclusions:

Clinicians need to adopt a phenomenological orientation and remain attentive to identifying disorders that may not commonly surface in routine clinical practice. The presented case along with SIS findings perspectives suggest that for treatment-resistant anxiety, resistance may be best conceptualized as a

multilayered phenomenon: (a) a protective boundary process to be respected and explored (Gestalt-experiential stance), and (b) a barrier to unconscious expression that can be loosened through symbolic/projective methods (SIS). Integrating both views allows the therapist to honour the client's resistances while also providing alternative routes of access to entrenched fears. This dual framing is especially valuable in clients who fail to respond to standard pharmacological or CBT protocols, as it widens the therapeutic toolkit beyond compliance and symptom-reduction models toward awareness, integration, and creative expression.

References:

Cassell, W.A. (1980). *Body symbolism and the Somatic Inkblot Series*. Alaska. Aurora Publishing co.

Cassell, W.A. (1990). *Somatic Inkblot Test Manua*l. SIS Center, Anchorage, USA.

Cassell, W.A. & Dubey, B.L. (2003). *Interpreting inner world through somatic imagery*. Anchorage: SIS Center.

Chadda, R. K., & Deb, K. S. (2013). Indian family systems, collectivistic society and psychotherapy. *Indian Journal of Psychiatry, 55*(Suppl 2), S299–S309. https://doi.org/10.4103/0019-5545.105555

Craske, M. G., & Stein, M. B. (2016). Anxiety. *Lancet (London, England)*, *388*(10063), 3048–3059. https://doi.org/ 10.1016/S0140-6736(16)30381-6

Das, A., Sharma, M. K., Kashyap, H., & Gupta, S. (2022). Fixating on the future: An overview of increased astrology use. *International Journal of Social Psychiatry*, *68*(5), 925-932.

Domschke, K., Seuling, P. D., Schiele, M. A., Bandelow, B., Batelaan, N. M., Bokma, W. A., Branchi, I., Broich, K., Burkauskas, J., Davies, S. J. C., Dell'Osso, B., Fagan, H., Fineberg, N. A., Furukawa, T. A., Hofmann, S. G., Hood, S., Huneke, N. T. M., Latas, M., Lidbetter, N., Masdrakis, V., Baldwin, D. S. (2024). The definition of treatment resistance in anxiety disorders: a Delphi method-based consensus guideline. *World Psychiatry*, *23*(1), 113–123. https://doi.org/10.1002/wps.21177

Dubey, B. L. (2020). Presidential Address: Advances in projective psychology: Techniques and applications. *SIS Journal of Projective Psychology & Mental Health*, *27*(2), 68-70.

Dubey, B.L., Banerjee, P. & Dubey, A. (2019). *Inkblot personality test -Understanding the unconscious mind*. Sage Publications Inc.

Dubey, B.L., Cassell, W. A., Manickam, L.S.S. & Singh., A. R. (2005). Efficacy of Somatic Inkblot Test in personality assessment, diagnostic evaluation and therapeutic intervention. *Indian Journal of Clinical Psychology, 31,* 10-23.

Dubey, B.L. & Dubey, A. (2021). Manual of Somatic Imagery Test (SIT-30 Online Test), *SIS Journal of Projective Psychology & Mental Health,* 28(2), 83-112.

Dubey, B.L. & Dubey, A. (2022). Application of Somatic Inkblot Test in personality assessment, screening and therapeutic intervention, *SIS Journal of Projective Psychology & Mental Health*, 29(2), 97-103.

Dubey, B. L., Pershad, D. & Cassell, W.A. (1992). Reliability and validity of SIS. Proceedings of 25th International Congressof Psychology, Brussels.

Engle, D & Holiman, M. (2002). A gestalt-experiential perspective on resistance. Journal of Clinical Psychology. 58 (2):175-183.

Finlay, L. (2016). *Relational integrative psychotherapy*. John Wiley & Sons Ltd.

Guy, W. (Ed.). (1976). Clinical Global Impressions. Rockville, MI: National Institute of Mental Health.

Herrera, P. (2016). The construction of a gestalt-coherent outcome measure. In J. Roubal, P. Brownell, G. Francesetti, J. Melnick, & J. Ze-leskov-Djoric (Eds.), Towards a Research Tradition in GestaltTherapy, pp. 1–368. Newcastle upon Tyne: Cambridge Scholars/Publishing

Herrera, P., Mstibovskyi, I., Roubal, J., & Brownell, P. (2019). Researching Gestalt Therapy foctice-based settings: A single-case experimental design. *Revista Argentina de ClínicaPsicológica*, *27*(2), 321-352.

Kelly, P. J. (2010). Calculating clinically significant change: Applications of the Clinical Global Impressions (CGI) Scale to evaluate client outcomes in private practice. *Clinical Psychologist*, *14*(3), 107-111.

Kruthi, M., Ghanbary, M. & Manickam, L. S. S. (2015). Somatic Inkblot Series –II profiles of Iranian couples: An Exploratory study. *SIS Journal of Projective Psychology and Mental Health, 22(2),* 124-129.

Lader, M. (2011). Benzodiazepines revisited: Will we ever learn? *Addiction, 106*(12), 2086–2109. https://doi.org/10.1111/j.1360-0443.2011.03563.x

Manickam, L. S. S., & Dubey, B. L. (2021). PTSD and 'Unfinished Business': Can SIS images lead to re-experiencing and gestalt closure?. *SIS Journal of Projective Psychology and Mental Health*, *28(1)*, 58-62.

Manickam, L.S.S., Ghanbary, M., & Kruthi, M. (2013). Therapeutic effectiveness of SIS- II in a case of psychogenic cough. *SIS Journal of Projective Psychology and Mental Health, 20*(2),91-97.

Manickam, L. S. S., & Suhani, B. T. (2003). Psychotherapeutic usefulness of SIS-II in a male client with somatoform disorder: Case illustration. *SIS Journal of Projective Psychology & Mental Health, 10*(2), 209–218.

Manickam, L. S. S., & Suhani, B. T. (2014). Marital conflict: An exploration of relationship issues in couples through SIS-II. *SIS Journal of Projective Psychology and Mental Health, 21(1),* 37-41

Manickam, L.S.S., Suhani, B.T. & Jasseer, J. (2004). Psychotherapy of a male patient with dissociative convulsive disorder: SIS breaks the resistance. *SIS Journal of Projective Psychology & Mental Health*, *11*(1), 36-44.

Parlett, M. (1991). Reflections on field theory. *The British Gestalt Journal, 1*(2), 69–81.

Perls, F. S., Hefferline, R. F., & Goodman, P. (1994). *Gestalt therapy: Excitement and growth in the human personality*. The Gestalt Journal Press. (Original work published 1951).

Schafer, R. (1954). Psychoanalytic Interpretation in Rorschach Testing.Grune.

Singh, S. & Dubey, B.L. (2020). Therapeutic Intervention through Somatic Imagery Test - A Case Study. *SIS Journal of Projective Psychology & Mental Health,* 27(2), 112-115.

Singh, S. & Dubey, B.L. (2022). Intervention using Somatic Inkblot Test in sexual deviance - A Case Study. *SIS Journal of Projective Psychology & Mental Health*, 29(1), 51-56.

World Health Organization. (2022). *World mental health report: Transforming mental health for all.* Geneva: WHO. https://www.who.int/publications/i/item/9789240063600

Yontef, G., & Jacobs, L. (2014). Gestalt therapy. In D. Wedding & R. J. Corsini (Eds.), *Current psychotherapies* (10th ed., pp. 299–336). Cengage Learning.

SIS J. Proj. Psy. & Ment. Health (2026) 33: 1, 38-43

Perceptual Accuracy on Rorschach in Patients with Schizophrenia and Obsessive-Compulsive Disorder

Varun Kumar, Ashok Parasar, N.K Nidhi & Ashok Kumar Patel

The present study aims to examine perceptual accuracy in patients diagnosed with schizophrenia and obsessive-compulsive disorder (OCD). Schizophrenic disorders are generally characterized by fundamental and distinctive distortions in thinking and perception, often accompanied by inappropriate or blunted affect. Despite these disturbances, clear consciousness and intellectual capacity are typically preserved, although certain cognitive deficits may develop over time. OCD is more commonly observed in males and less frequently among first-born children (Pollard, Wiener, Merkel, & Enseley, 1990). Functional neuroimaging studies in OCD patients have demonstrated abnormal activity in regions such as the anterior/lateral orbit frontal cortex, cingulated gyrus, striatal cortex, and caudate nucleus (Linden, 2006; Rauch, Shin, & Wright, 2003). The primary objective of this study was to compare perceptual accuracy between patients with schizophrenia and those with OCD. A total of 60 patients (30 with schizophrenia and 30 with OCD) were selected from the outpatient department of the Post Graduate Institute of Behavioural and Medical Sciences, Raipur (C.G.) for inclusion in the study. The assessment tools employed included a socio-demographic data sheet and the Rorschach Inkblot Test.

Introduction:

Schizophrenic individuals often struggle to perceive both themselves and the external world with accuracy. These perceptual distortions are primarily reflected in poor judgment, which hinders their ability to realistically assess experiences and often results in behavior that appears odd or inappropriate. In its most severe form, perceptual distortion underlies hallucinatory experiences. The greater an individual's distortion of sensory input—whether visual, auditory, or olfactory, the higher the likelihood of perceiving sensations for which there is no external stimulus. Within the Rorschach Comprehensive System, variables such as Popular Responses (P), X+%, F+%, X-%, XA%, and WDA% are indicators of perceptual accuracy. Among these, X+% and X-% are particularly significant in identifying perceptual impairments (Exner, 1974).

Obsessive-Compulsive Disorder (OCD) is a distressing and functionally impairing psychiatric condition characterized by recurrent, intrusive thoughts, impulses, or images, and/or repetitive behaviors or mental acts. These symptoms significantly interfere with role performance and social functioning (American Psychiatric Association, 2000). The lifetime prevalence of OCD is currently estimated to be between 2% to 3% globally (Szeszko et al., 2004; Zetin & Kramer, 1992). OCD is more commonly observed in males and is less prevalent among first-born children (Pollard, Wiener, Merkel, & Enseley, 1990). Functional neuroimaging studies have revealed atypical brain activity in individuals with OCD, particularly in the anterior/lateral orbit frontal cortex, cingulate gyrus, striatal cortex, and caudate nucleus (Linden, 2006; Rauch, Shin, & Wright, 2003).

The onset of OCD is typically gradual, often beginning in early adulthood, although cases of childhood onset are not uncommon (Piacentini & Langley, 2004; Wilhelm, Tolin, & Steketee, 2004). Genetic influences have been supported by both family and twin studies (Van Grootheest, Cath, Beekman, & Boomsma, 2007). Additionally, the disorder may be triggered or exacerbated by psychosocial stressors

Varun Kumar Srivastav, MPhil, Clinical Psychologist, Dept. of Psychiatry (DMHP), Government Medical College Betiah, West Champaran-845438; **Ashok Parasar**, MPhil, Ph.D, Clinical Psychologist, MCS District Hospital, Gyanpur, Badohi-221304. **N.K. Nidhi**, M. Phil student, Dept of Clinical Psychology, AIBAS, Amity University - Gwalior-474005 and **Ashok Kumar Patel**, M. Phil, Assistant Professor, Dept of Clinical Psychology, AIBAS, Amity University, Gwalior-474005 (Corresponding author: email: ashok.patel95@yahoo.com

Keywords: Schizophrenia, OCD, Perceptual accuracy and Rorschach.

such as marital or sexual difficulties, pregnancy, serious illness in a close associate, or bereavement. Symptoms tend to fluctuate with life stressors, although in some individuals, a progressive worsening of symptoms may occur (Zetin & Kramer, 1992).

The Rorschach Comprehensive System (CS) developed by Exner (1993, 2003) is extensively employed in clinical personality assessment. Numerous studies have validated its utility in evaluating psychotic symptoms (Exner, 2003; Kleiger, 1999). Among the most diagnostically salient variables in the CS for distinguishing patients with schizophrenia from other psychiatric populations are those reflecting perceptual inaccuracies and disordered thinking.

In the CS, perceptual accuracy is operationalized through the variable of Form Quality, which tends to decline as psychotic severity increases. In extreme condition, such distortions provide the basis for hallucinatory experiences (Exner, 2003). Thought disorder, a hallmark of schizophrenia, manifests in a range of forms. Rorschach responses that yield Special Scores—indicating inflexible, idiosyncratic, or illogical thinking are often reflective of the disorganized cognition that typifies schizophrenia (Exner, 2003). According to Exner (2003), no other psychiatric condition is as distinctly characterized by concurrent deficits in both perception and cognition as schizophrenia. Rorschach variables indicative of perceptual distortion and disorganized thinking constitute the foundation of the Schizophrenia Index (SCZI) within the CS.

The Perceptual Thinking Index (PTI) in Exner's Comprehensive System for the Rorschach has been developed as an improvement over the Schizophrenia Index (SCZI) to provide a more accurate measure of psychosis with a lower false positive rate (Exner, 2000; Smith et al., 2001). The PTI includes variables such as poor Form Quality (X-% and M-) and Special Scores (e.g., Wsum6), which have been empirically linked to thought disturbances, perceptual distortions, and cognitive slippage (Exner, 1993; Perry et al., 2003; Smith et al., 2001). Cross-cultural studies also indicate that PTI scores are consistently low in normative samples, supporting its validity across diverse populations (Erdberg & Schaffer, 1999, 2001). The PTI, a refined version of the SCZI, comprises five criteria derived from Rorschach indices assessing both perceptual distortion and cognitive slippage. It was introduced to reduce the rate of false positives. The PTI includes two additional variables within the CS: Extended Form Appropriate (XA%) and Extended Form Appropriate for W and D responses (WDA%) (Exner, 2000b).

Olin and Keating (1998) suggested that while the OBS might indicate obsessive concern for details, it does not necessarily signify OCD. Their study found that individuals with OCD had more responses (greater than 33), a higher number of Whole (W) or Dd (uncommon detail) responses, and more C' (achromatic color) responses, along with higher F+% or X-% (indicating reality testing without emotion). They also noted a higher intellectualization index in OCD patients. Schizophrenia has a well-established role in the Rorschach domains, with the SCZI and PTI being key indicators of psychosis.

Over time, the Rorschach Inkblot Test has been adapted for specific diagnostic purposes, with various scoring systems capable of identifying symptoms related to conditions such as depression, schizophrenia, and obsessive-compulsive disorder (OCD). Given its sensitivity to perceptual distortions and cognitive slippage, the present study was designed to *examine perceptual accuracy in patients with schizophrenia and OCD, aiming to identify and compare differences in their perceptual functioning using the Rorschach CS.*

Materials and Method:

Sample:

A sample of 60 patients (30 Schizophrenia and 30 OCD), diagnosed by psychiatrists based on ICD-10, were selected from outpatient and inpatient department of the Post Graduate Institute of Behavioural and Medical Sciences, Raipur.

Tools used:

Socio- demographic details A specifically structured proforma was used to collect essential demographic and clinical variables such as, age, gender, religion, marital status, education, history of previous illnesses, mode of onset, and clinical course of the disorder.

Rorschach Inkblot test The Rorschach Inkblot Test was individually administered to all patients. The scoring and interpretation of the responses were done following Exner's Comprehensive System (Exner, 2003).

Statistical analysis

The data were analysed using descriptive statistics, including Means, SD, frequencies, and percentages. Comparative analyses of socio-demographic variables were done using Chi-square test, while group differences were assessed using t-test. All statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS) version 20.0.

Results:

Table 1. Age of Schizophrenia and OCD Patients

Variable	Groups	N	Mean± SD	t- ratio
Age (in years)	Schizophrenia	30	30.33 ± 8.16	.245
	OCD	30	30.86 ± 8.68	

NS = Not significant

Table 1 shows that when their age is considered, schizophrenic patients did not show any significant difference when compared to OCD patients.

Table 1a: Socio-demographic details of Schizophrenic patients and OCD patients

Variables		Groups				Chi-Square
		Schizophrenia (N=30)		OCD (N=30)		
		Frequency	%	Frequency	%	
Sex	Male	25	83.3	21	70.0	1.491
	Female	5	16.7	9	30.0	
Education	I to V	3	10.0	2	6.7	3.179
	VI to X	9	30.0	7	23.3	
	X to XII	9	30.0	11	36.7	
	Undergraduate	7	23.3	10	33.3	
	Graduates & above	2	6.7	0	6.7	
Marital status	Married	21	70.0	21	70.0	0.000
	Unmarried	9	30.0	9	30.0	
Occupation	Govt. Service	7	23.3	8	26.7	9.686
	Not working	2	6.7	0	0.0	
	Farming	5	16.7	2	6.7	
	Business	5	16.7	7	23.3	
	Housewife	3	10.0	7	23.3	
	Student	4	13.3	6	20.0	
	Daily wager	4	13.3	0	0.0	
Religion	Hindu	30	100.0	30	100.0	0.000
Domicile	Rural	22	73.3	22	73.3	0.000
	Urban	5	16.7	5	16.7	
	Suburban	3	10.0	3	10.0	
Types of family	Nuclear	13	43.3	28	93.3	17.330
	Joint	17	56.7	2	6.7	

Monthly family income (Rupees)	Up to 10000	12	40.0	10	33.3	0.432
	11000 to 20000	11	36.7	11	36.7	
	Above 20000	7	23.3	9	30.0	

*p<0.05, **p<0.01,

Table 1a presents the socio-demographic characteristics of patients of schizophrenia and OCD. The variables examined include sex, education, marital status, occupation, religion, domicile, family type, and monthly family income. Both the groups did not show significant differences for sex, education, marital status, occupation, religion, domicile, and family type. However, a significant difference ($p < 0.001$ level) was found in monthly family income between the two groups.

Table 2: Showing the frequency, percentage and Chi square on Perceptual accuracy of both groups

Variables		Schizophrenia (N=30)		OCD(N=30)		
		Frequency	%	Frequency	%	Chi Square
X+%	Present	5	16.7	0	-	5.455
	Absent	25	83.3	30	100.0	
X-%	Present	14	46.7	2	6.7	12.814
	Absent	16	53.3	27	90.0	
	Average	0	-	1	3.3	
F+%	Present	5	16.7	0	-	5.455
	Absent	25	83.3	30	100.0	
Popular	Below average	30	100.0	21	70.0	10.588
	Average	0	-	9	30.0	
XA%	Present	14	46.7	5	16.7	7.228
	Absent	14	46.7	24	80.0	
	Average	2	6.6	1	3.3	
WDA%	Present	18	60.0	10	33.3	5.486
	Absent	12	40.0	18	60.0	
	Average	0	0.0	2	6.7	

Discussion:

Socio-demographic Profile

The two groups were matched for several socio-demographic variables, including sex, occupation, religion, domicile, and type of family with no significant differences. However, significant differences were found in some variables such as age ($p < 0.001$), education, marital status, and family type ($p < 0.05$). The mean age of schizophrenic patients was 29.75 years (SD = 9.96), whereas OCD patients had a higher mean age of 42.33 years (SD = 14.62). These findings are consistent with earlier epidemiological data indicating that schizophrenia typically manifests in the age of 15 to 54 years (Sadock & Sadock, 2007; Jablensky, 2009), while OCD tends to have a broader age of onset, often peaking between 20 to 50 years (Sadock & Sadock, 2007). The current data reflect this developmental divergence between the disorders.

Regarding educational background, a considerable portion of both groups had completed secondary or higher secondary education. However, OCD patients showed a relatively higher level of educational attainment. While 23.3% of OCD participants were undergraduates, only 6.7% of the schizophrenia group had completed graduate level. The findings may reflect the differential functional impairments caused by the two disorders, with schizophrenia often leading to earlier and more profound disruptions in educational and occupational functioning.

Occupational status varied across groups, with participants engaged in various professions including government service, farming, business, and household work. No significant differences were

observed between the groups in this domain. All participants in both groups identified as Hindu, which may be attributable to the regional demographic characteristics of the study's catchment area. A majority of the participants in both groups were from rural areas, aligning with findings by Martyns-Yellow (1992), who reported increased psychiatric burden and limited access to care in rural populations.

A significant difference was found between the groups concerning monthly family income. A higher proportion of schizophrenia patients (40%) reported monthly family incomes below rupees 10,000, while majority of OCD patients (36.7%) had their income in the range of rupees 11,000–20,000. Previous research has consistently documented an association between lower socioeconomic status and schizophrenia, positing explanations ranging from increased exposure to psychosocial stressors and perinatal complications to poor nutrition and healthcare access (Mishler & Scotch, 1963).

Rorschach Perceptual Accuracy Indices

The core objective of the study - examining perceptual accuracy through Rorschach variables - yielded informative results. The **X+%**, an index of perceptual accuracy and conventional reality testing, was found to be substantially below the normative average (>70%) in both groups, with particularly low values in the schizophrenia (mean = 16.7%). This finding suggests impaired form perception and supports the presence of significant perceptual distortions in schizophrenia, consistent with earlier findings (Exner, 1993; Hartmann et al., 2012). Although OCD patients also showed poor X+% scores, the difference between the two groups was not statistically significant.

The **X−%**, which directly indicates perceptual distortion, was markedly higher among schizophrenia patients, with 46.7% showing elevated levels. In contrast, 90% of OCD patients did not exhibit any significant X−% responses. This disparity aligns with known cognitive-perceptual impairments in schizophrenia and highlights the more reality-bound cognition often preserved in OCD.

The **F+%**, a narrower measure of form quality, further corroborated these findings. It was absent in all OCD patients and present in 16.7% of schizophrenia patients, reinforcing the evidence of perceptual distortion and difficulty with conventional form interpretation, particularly among those with schizophrenia.

Analysis of **Popular responses**, which reflect adherence to social norms and conventional thinking, showed that all schizophrenia patients scored below average, indicating reduced social conformity and impaired cognitive organization. While 70% of OCD patients also fell below average on this metric, 30% achieved average levels, suggesting relatively better preservation of normative cognitive processes compared to the schizophrenia group.

The **XA%**, which encompasses form accuracy across all responses, showed that only 46.7% of schizophrenia patients had accurate responses, with a similar proportion lacking any XA% entirely. Among OCD patients, 80% demonstrated absent XA%, further highlighting perceptual distortions in both groups, more pronounced in schizophrenia.

The **WDA%**, which evaluates form accuracy in commonly used areas of the inkblot, was present in 60% of schizophrenia patients, suggesting some preserved perceptual accuracy in more salient or obvious features. However, among OCD patients, 60% lacked WDA% responses, while 33.3% showed its presence and 6.7% showed average scores.

Findings of other Indices

Movement Responses (M-): A higher frequency of negative movement responses (M-) was observed in schizophrenia patients, reflecting significant thought disturbance and perceptual inaccuracy. OCD patients had fewer negative movement responses, indicating less severe perceptual distortions and better reality testing compared to schizophrenia patients.

Special Scores (Wsum6): Higher Wsum6 scores were found in schizophrenia patients, representing severe cognitive slippage and bizarre thought patterns which was lower in OCD patients.

Whole Responses (W): Schizophrenia patients tended to have fewer whole responses, indicating fragmented thinking and difficulties in integrating parts into a coherent whole. Whereas, OCD patients generally had a higher number of whole responses, reflecting better perceptual integration and more structured thinking.

Uncommon Detail (Dd) Responses: There was an increased number of Dd responses in schizophrenia patients, indicating a focus on unusual or minor details, which is characteristic of their perceptual distortions. OCD patients also showed a tendency towards a higher number of Dd responses, but these were often associated with obsessive concern for details rather than perceptual distortions.

Conclusion:

The findings suggest that while both schizophrenia and OCD patients exhibit certain overlaps in perceptual accuracy variables, the nature and underlying reasons for these patterns differ. Schizophrenia patients display more severe perceptual and cognitive distortions, as evidenced by higher poor form quality, negative movement responses, and special scores. In contrast, OCD patients, while showing some perceptual anomalies, generally maintain better reality testing and perceptual integration, with their responses often influenced by obsessive concerns and intellectualization rather than psychotic processes.

References:

Exner, J. (2002). *The comprehensive system for administering, scoring, and interpreting the Rorschach.* New York, NY: Wiley.

Exner, J. (2005). *A Rorschach Workbook for the Comprehensive System* (5th ed.) Asheville, NC: Rorschach Workshops.

Exner, J. (2007). A new U.S. adult non patient sample. *Journal of Personality Assessment,89*, S154-S158.

Exner, J. E. (1993). *The Rorschach—A Comprehensive System. Basic Foundations* (Vol. 1). New York: John Wiley and Sons.

Exner, J. E. (1974). *The Rorschach: A comprehensive system* (Vol. 1). New York: Wiley.

Exner, J. E. (2001). A comment on "The misperception of psychopathology: Problems with the norms of the Comprehensive System for the Rorschach." *Clinical Psychology: Science and Practice, 8*, 386–388.

Exner, J. E. (2003). *The Rorschach: A comprehensive system. Basic foundations and principles of interpretation* (4th ed.). N.Y: Wiley.

Rorschach, H. (1921). *Psychodiagnostics: A Diagnostic Test Based on Perception* (3rd ed.). Bern: Huber; New York: Grune., Saul, R. (1949). *Psychodiagnosis*. New York: Grune Rotter, Julian B.; and Willerman, Benjamin 1947 The Incomplete Sentences Test as a Method of Studying Personality. *Journal of Consulting Psychology,11*,43–48.

Hermans, D., Martens, K., De Cort, K., Pieters, G., & Eelen, P. (2008). Reality monitoring and metacognitive beliefs related to cognitive confidence in obsessive-compulsive disorder. *Behaviour Research and Therapy, 46*(1), 20-29.

Holaway, R. M., Heimberg, R. G., & Coles, M. E. (2006). A review of intolerance of uncertainty model. *Clinical Psychology Review, 26*(7), 1008-1023.

Olin, S. S., & Keatinge, C. (1998). The Rorschach with obsessive-compulsive disorder: An empirical review. *Journal of Personality Assessment, 70*(1), 53-70.

Perry, W., Minassian, A., Cadenhead, K. S., Sprock, J., & Braff, D. L. (2003). The Rorschach and thought disorder in schizophrenia. *Schizophrenia Research, 60*(1), 23-30.

Smith, S. R., Baity, M. R., Knowles, E. S., & Hilsenroth, M. J. (2001). The Rorschach Perceptual-Thinking Index (PTI): A meta-analytic review. *Journal of Personality Assessment, 76*(2), 309-325.

Stern, E. R., Welsh, R. C., Fitzgerald, K. D., Abelson, J. L., & Taylor, S. F. (2013). Resting-state functional connectivity between front-parietal and default mode networks in obsessive-compulsive disorder. *PLOS ONE, 8*(10), e75339.

Stokes, S. E., Holt, C. L., Fang, X., & Schlosser, L. (2003). Predicting psychosis: The utility of the Perceptual-Thinking Index. *Journal of Personality Assessment, 81*(3), 251-259.

Viglione, D. J., Perry, W., & Meyer, G. J. (2003). An overview of Rorschach research. *Psychological Assessment, 15*(1), 11-18.

SIS J. Proj. Psy. & Ment. Health (2026) 33: 1, 44-49

Intervention using Somatic Inkblot Test in Dissociative Disorder - A Case Study

Divyanshi Thakwani & Satyadhar Dwivedi

Dissociative disorders are mental health conditions that involve experiencing a loss of connection between thoughts, memories, feelings, surroundings, behavior and identity. These conditions include escape from reality in ways that are not wanted and not healthy. This causes problems in managing everyday life. The Somatic Imagery Test was administered to a 28-year-old female with complaints of anxiety, episodes of trance and possession, difficulty focusing on her daily routine, recurrent episodes of unconsciousness (4–5 times a day), and an overwhelming sensation of being possessed by a divine force—specifically *Maa Durga or Kali*. The inkblot images were helpful in eliciting underlying emotional distress, unresolved conflicts, and significant stressors, thereby corroborating the client's account and aiding the process of psychotherapeutic intervention.

Introduction:

According to the ICD-10, dissociative disorders (also referred to as *conversion disorders*) involve a disruption or discontinuity in the normal integration of consciousness, memory, identity, perception, motor control, and behavior (World Health Organization, 1992). These disturbances often emerge in response to overwhelming psychological stress or trauma and are not attributable to any known physical or neurological condition. Dissociation commonly occurs in individuals who have experienced early, repeated, or severe interpersonal trauma, such as childhood sexual or physical abuse, especially when it happens during critical developmental periods (Brown, 2002). It is particularly prevalent in those with disrupted attachment, chronic stress, or violations of bodily integrity, leading to a fragmented sense of self and body (Fuller-Tyszkiewicz & Mussap, 2011) Traditionally, these disorders have been examined through the lenses of trauma, stress, and cultural context. However, recent perspectives have begun to highlight the central role of body image and embodiment in the onset and maintenance of dissociative phenomena (Scheffers et al., 2017).

Body image refers to the internalized mental representation of one's body, encompassing perceptions, beliefs, and emotional attitudes toward its form and function (Cash & Smolak, 2011). When a person develops a deeply negative view of their body, often expressed in feelings like "I feel fat" or intense shame—this disturbed body image disrupts the unified sense of self (Petrucelli, 2016). According to Petrucelli (2016), such negative self-representations are not simply about appearance but also reflect painful internal experiences that the person finds unbearable. In response, the mind may choose to "shut off" or disconnect from these overwhelming emotions through dissociation (Bromberg, 2001). In this protective process, the individual distances themselves from the distress associated with their body image. When the body image becomes distorted by overwhelming negative feelings or shame, the natural integration between what we feel and what we know about our body breaks down. This misalignment makes it difficult for the person to fully experience or regulate their emotions, which in turn can encourage dissociation as a way to cope (Petrucelli, 2016; Bromberg, 2001). Together, these ideas suggest that when an individual's internal representation of their body is severely disturbed, they may experience a split between their emotional self and their physical self. Dissociation then becomes a defensive strategy to escape the painful reality of a fragmented body image. This understanding helps explain why, for example, people who struggle with intense body shame sometimes experience dissociation, as it allows them to momentarily disconnect from their overwhelming feelings (Petrucelli, 2016; Scheffers et al., 2017; Rudy et al., 2022).

Divyanshi Thakwani, M. Phil trainee & **Satyadhar Dwivedi,** Assistant Professor, Dept. of Clinical Psychology, Institute of Mental Health and Hospital, Agra (Corresponding author; Email: satyadhardwivedi@gmail.com)

Key words: Dissociative Disorder, Somatic Inkblot Series,

These states may serve as a symbolic expression of internal conflicts, offering psychological relief by shifting control away from the self. As such, assessments that engage the symbolic and projective aspects of the psyche, such as the Somatic Inkblot Series (SIS) can offer valuable insight. These tools may help surface latent conflicts or trauma by bypassing verbal defences and tapping into the unconscious, where dissociative symptoms often originate (Dubey et al., 2019).

About SIS Test:

The Somatic Inkblot Series (SIS) is a structured projective technique designed to explore personality, emotional functioning, and underlying psychological conflicts through spontaneous responses to semi-ambiguous inkblot images. Conceived in 1959 by Professor Wilfred A. Cassell and later expanded in collaboration with Professor Bankey L. Dubey, the SIS was developed in response to the need for a more somatically focused and psychodynamically rich assessment tool (Cassell & Dubey, 2003). Unlike traditional inkblot techniques such as the Rorschach or Holtzman Inkblot Test, which often lack specific anatomical cues, the SIS integrates body and organ-related imagery to facilitate projection of somatic concerns and unconscious material (Cassell, 1989). The test includes three formats—SIS-I (20 cards), SIS-II (a 62-image booklet), and a video version, which enhances relaxation and therapeutic engagement through visual and auditory stimuli (Cassell & Dubey, 2003).

SIS is uniquely suited for populations with limited verbal abilities, such as children, individuals with developmental challenges, or those from different linguistic backgrounds as it relies on imagery rather than text (Cassell & Dubey, 2003). Furthermore, its application spans a wide range of clinical contexts including anxiety, depression, conversion disorders, and even spiritual exploration (Cassell, 1990). Studies have established the reliability and validity of SIS (Dubey et al., 1992; Verma, 1995), its effectiveness in diagnosis (Rathee et al., 1998), and therapy in different clinical conditions (Dubey et al., 2005; Manickam & Dubey, 2021). Overall, the Somatic Inkblot Series offers a dynamic and innovative approach to psychological assessment, allowing practitioners to access the "inner cry" of the suffering individual through a symbolic, visual, and often deeply emotional medium (Cassell, 1989).

The Case:

The client, Miss G, is a 28-year-old female, having completed a B.Sc. in Nursing and currently working as a nurse. She was referred with chief complaints of anxiety, episodes of trance and possession, difficulty focusing on her daily routine, recurrent episodes of unconsciousness (4–5 times a day), and an overwhelming sensation of being possessed by a divine force, specifically Maa Durga or Kali. The symptoms had persisted for the past two months. According to the client, her distress began when she was posted in a rural area for her job, 3 years ago. During this period, she stayed in a rented accommodation where another tenant reportedly became jealous of her. Alongside this, she experienced significant distress regarding her job, as she did not wish to continue her rural posting due to availability of limited amenities. The dissatisfaction with the job and the low salary added to her emotional burden. During her stay, she learned that the tenant's wife previously suffered from episodes of trance and possession. In a heated conversation, the tenant allegedly threatened her, saying, "I'll do something to you; you won't ever recover from it." Following this, the tenant's wife fully recovered, and the client started experiencing severe anxiety. Gradually, her anxiety escalated into panic attacks, followed by episodes of trance and possession, wherein she believed that an evil spirit had taken control of her and intended to kill her. She expressed persistent fear, stating, "Evil spirits have possessed me; they want to strangle me. I will only get healed if I take a bath in the Ganga." Alongside these experiences, she began exhibiting depressive symptoms, including low mood, loss of interest in work, hopelessness, and helplessness.

Her family sought help from various faith healers, but her symptoms persisted. In January 2025, she visited the IMHH, Agra OPD, reporting an increase in the frequency of her dissociative episodes over

the past two months, followed by brief periods of unconsciousness. Upon further exploration of her history, the client revealed multiple stressors from her childhood. Her father had married twice, and both wives lived together. She currently resides with both of her mothers. Her father was described as a heavy alcohol consumer, who, under the influence, would engage in frequent conflicts with the client's biological mother, which the client did not like. Additionally, he had an extramarital affair, further contributing to the client's stress. Gradually, along with the stress about her job environment, her emotional turmoil manifested in frequent episodes of unconsciousness, occurring 4-5 times daily accompanied by a powerful feeling of being possessed by a deity such as Maa Durga or Kali. The dissociative episodes she experienced began to serve dual functions, both as a maladaptive coping mechanism and a strategy for regaining control. They were **negatively reinforced** by family dynamics wherein, whenever a fight occurred between her father and mother, the client would dissociate, which would temporarily halt the conflict. Her father would also stop his habitual drinking for a few days to lessen the stress surrounding the client whenever she had these episodes, reinforcing the behaviour further. Additionally, the dissociative episodes were **positively reinforced** as she began receiving increased care, attention, and emotional support from her family members, meeting her long-standing emotional needs and intensifying the cycle. Thus, in this way dissociation became a perverse strategy for regaining control. Two months ago, she also appeared for the UPPSC nursing exam, and the uncertainty surrounding the results had heightened her panic attacks and dissociative episodes. Each time she experienced these episodes, her voice would deepen, and she would attempt to strangle herself, saying, "I will kill you; you won't survive." Preoccupation with supernatural beliefs, possession states, and dissociative symptoms in response to significant stressors can indicate underlying dissociative pathology. When such experiences disrupt one's daily life, self-concept, and emotional stability, they require thorough clinical assessment and intervention. Given the psychosocial factors contributing to the maintenance of her illness, a structured intervention plan was designed:

Psychological Intervention:

- **Psychoeducation:** The client was educated about the nature of dissociative disorders and how her symptoms were influenced by stress and reinforced by secondary gains

- **Cognitive-Behavioural Therapy (CBT) for Interpersonal Relationships:** Therapy sessions focused on helping her develop healthier ways to cope with interpersonal conflicts rather than relying on dissociation.

- **Explanation of Reinforcement Mechanisms**: It was explained to her how her illness was being reinforced through family dynamics, particularly how her symptoms led to temporary relief from distress (such as her father's reduced drinking).

- **Behavioural Model of Illness**: The progression and maintenance of her illness were explained through a behavioural framework, helping her recognize how maladaptive coping mechanisms had developed.

- **Pathological Coping Mechanism:** The client was encouraged to develop alternative coping strategies to handle stress, such as assertiveness training, relaxation techniques, and problem-solving skills.

Additionally, the Beck Depression Inventory was administered before the intervention, with her scores ranging from 31-40, indicating severe depression. Following the intervention, her scores dramatically reduced to the range of 1-10, indicating no mood disturbance.

This case highlights the complex interplay between family stressors, dissociation, and reinforcement of symptoms through secondary gains. To explore her unconscious conflicts, personality structure, and dissociative tendencies, a projective personality tool—the Somatic Inkblot Test (Cassell, 1990 and Cassell & Dubey, 2003) was administered. The responses were analysed using content analysis and psychoanalytic interpretation (Cassell & Dubey, 2003; Dubey et al, 2019).

The Somatic Inkblot Test provided valuable insights into unconscious conflicts and dissociative processes, enabling a more targeted psychotherapeutic intervention aimed at breaking the reinforcement cycle and fostering adaptive coping mechanisms. The client continues to receive therapy to help her gain emotional resilience and develop healthier ways to navigate family and work-related stressors. A few clinically significant responses, projected on SIS images are interpreted using content analysis, with symbolic and psychoanalytic interpretation being discussed as follows:

Image A5: The client identified the image as "heart and animal," whereas a typical response would have been "clown" or "happy person." Because her interpretation deviated from the typical responses, it may indicate her pensive mood and difficulties with self-image.

Image A6: The client projected as "two stands and one ball," and avoided to perceive the common response "teddy bear." This may indicate parental deprivation and craving for affection during childhood, which is supported by the case history.

Image A7: The client described the image as "snake," and avoided perceiving the most common response, namely, "dancing lady." This may indicate that the person has traumatic experience and severe conflicts in interpersonal relationships. The snake may further indicate conflict in phallic area and disturbed interpersonal relationships. The responses may further indicate potential difficulties with self-image and conformity with group norms.

Image A9: "Two persons - females" is a normal response though avoiding seeing a male and female may indicate poor interpersonal relationship with opposite sex. The avoidance of male figure with female may further bring her hatred and deep-rooted conflicts with males, more likely with father-figures.

Image A12: "A baby in mother's womb" is a typical response. This may indicate her regression to the foetal level. She feels the mother's womb would have been the safest place, free from all kinds of conflicts which she seems to experience currently.

Image A14: The client did not see anything in this image. Rejection of this image may indicate physical problems and somatic pain, which is confirmed by her case history.

Image A15: She saw "one person's back" whereas typical responses would have been "stomach; foetus, or bird." Projecting "back" may indicate her desire to turn her face away from the reality to avoid painful situations.

Image A16: The client saw "lungs and heart" in this image which is a sign of good prognosis. She is likely to experience improvement with psychotherapeutic interventions.

Image A17: "Pelvis" may signify a sense of self and identity, which is very low in this case. In case of a female, it is associated with pleasure, relationships, and emotional flow. It might symbolize difficulty with expressing emotional aspects of life, including intimacy. Further probing during therapy sessions may bring out more unprocessed unconscious material.

Image A21: She saw "vertebrae, spinal cord," whereas people see "turtle; flying bird; babies on sides" usually. Avoiding to see turtle and babies on the sides, may indicate poor interpersonal relationships with parents particularly during childhood. Often it is seen when father/ father figure is very strict. The case history confirms poor interpersonal relationship of the client with her parents.

Image B17: "Uterus" is atypical response in this image which may indicate her desire to have intimate relationship. She avoided perceiving the common response "heart" which may indicate her conflict and disturbed relationship with her parents/ significant person. Perceiving "heart" most often symbolise intimate relationship.

Image B18: "Male phallic organ" is a normal response on this image. It may indicate healthy erotic imagery. It also suggests no conflict in the sexual area. Snake, spine, missiles and sailing boats in sea/river indicate symbolic Freudian connotation of male sex organ. The response may also indicate her desire of intimate relationship which is a normal response in adults like her.

Image B19: She saw "octopus" and avoided the common response of 'two hearts'. A person having frustrated love affair/ conflicting relationships may avoid perceiving two hearts on either side. Poor interpersonal relationship with both parents has been highlighted in her case history. The therapist needs to inquire about broken affairs, if any.

Image B 27: The client saw "Two rabbits" in this image and avoided perceiving two "babies" the most common response, which may indicate poor self, low ego strength, and during childhood. Further probing may help to understand if she was an "welcome baby" by the parents and family during her childhood. Two rabbits may also symbolise small children.

Image B 28: She saw an "old person" in this image and avoided "Mother loving the child", it being the most common response. This may indicate conflict with her mother-figure. The "old person" may symbolise non-supporting / non-helping parents.

Image B 30: The client saw "part of spinal cord" and avoided the most common response of "two ears" or "foetus" which may indicate non - sympathetic and non-receptive behavior of parents and other significant family members. A dissociative patient often seeks attention of close family members and wants them to listen to him/ her.

Discussion:

The inkblot responses revealed repeated misperceptions or rejections of body-related imagery, suggesting a fragmented body schema and discomfort with physical self-awareness. Additionally, inconsistencies in perceiving common human forms and relational figures point toward disturbances in how the client views herself in relation to others—reflecting a fragile self-concept and impaired internalized representations.

Raised in a highly dysfunctional family environment—marked by her father's alcoholism, polygamous relationships, and chronic inter-parental conflict—the client's early psychosocial landscape was devoid of emotional safety, consistency, and validation. These adverse experiences severely impaired her capacity to form a stable and cohesive sense of self. The lack of clear attachment figures and the constant exposure to emotionally deregulating circumstances likely disrupted the typical development of body awareness and identity, leading to the distorted imagery seen in the assessment.

Her dissociative symptoms, including trance-like states, loss of consciousness, and identification with deities, appear to be rooted in these unresolved internal conflicts. They functioned as pathological coping mechanisms, providing temporary escape from overwhelming affect but ultimately reinforcing maladaptive patterns of emotional regulation. Notably, her dissociation also served a secondary gain function within her family system, such as temporarily reducing her father's substance use. This dynamic further entrenched the symptoms as functional but resulted in unhealthy strategies for navigating interpersonal stress.

Following this assessment, the client was engaged in 4–5 structured therapy sessions that incorporated psychoeducation, CBT for interpersonal relationships, and explanation of reinforcement mechanisms, along with behavioural and coping-based approaches. These sessions aimed to increase her insight into the stress-dissociation link, reduce reinforcement for maladaptive behaviours, and foster healthier coping mechanisms.

Encouragingly, the client showed substantial clinical improvement, reporting over 80 percent reduction in dissociative episodes and emotional dysregulation. She began to develop greater psychological insight, demonstrated increased emotional expression, and was more willing to engage in interpersonal dialogue without resorting to dissociation. The therapeutic work thus, has laid a strong foundation, but treatment is still in progress, with continued focus on deepening her self-concept, solidifying body-image integration, and building resilience in the face of interpersonal stressors.

In summary, the assessment not only corroborated clinical observations but also illuminated the symbolic and unconscious processes underlying her symptoms. These findings significantly inform both the diagnosis and therapeutic direction, underscoring the need for long-term psychotherapeutic work focused on identity consolidation, emotional regulation, and adaptive interpersonal functioning.

Conclusion:

The Somatic Inkblot images indicated her average productivity and functional intellectual ability, awareness with her surroundings, ego strength maintained, poor interpersonal relationship particularly with parents, healthy erotic imagery and control over impulsive behavior, feeling of deprivation and craving for affection. She was administered five sessions of psychoeducation, CBT to improve interpersonal relationships. The client has shown significant improvement and is continuing psychotherapy.

References:

Bromberg, P. M. (2001). Treating patients with symptoms and symptoms with patience: Reflections on shame, dissociation, and eating disorders. *Psychoanalytic Dialogues*, *11*(6), 891-912. DOI:10.1080/10481881109348650

Brown, R.J. (2002). The cognitive psychology of dissociative states. *Cognitive Neuropsychiatry, 7,* 221-235. http://dx.doi.org/10.1080/13546800244000085

Cash, T. F., & Smolak, L. (Eds.). (2011). *Body image: A handbook of science, practice, and prevention*. Guilford press.

Cassell, W. A. (1989). *Therapeutic Application of the SIS. Paper presented in the meeting of the Society for Personality Assessment*, New York.

Cassell, W.A. & Dubey, B.L. (2003). *Interpreting Inner World Through Somatic Imagery*, SIS Center, Anchorage, Alaska (USA)

Cassell, W.A. (1990). *Manual of Somatic Inkblot Test. Anchorage* (USA): SIS Center.

Dubey, B. L., Cassell, W. A., Manickam, L.S.S. & Singh., A. R. (2005). Efficacy of Somatic Inkblot Test in personality assessment, diagnostic evaluation and therapeutic intervention. *Indian Journal of Clinical Psychology, 31*, 10-23.

Dubey, B. L., Pershad, D. & Cassell, W.A. (1992*). Reliability and validity of SIS*. Proceedings of 25th International Congress of Psychology, Brussels.

Dubey, B.L., Banerjee, P. & Dubey, A. (2019). *Inkblot Personality Test -Understanding the Unconscious Mind*, Sage Publications Inc.

Fuller-Tyszkiewicz, M., & Mussap, A. (2011). *Examining the dissociative basis for body image disturbances*. DOI:10.5539/ijps.v3n2p3

Manickam, L. S. S., & Dubey, B. L. (2021). PTSD and „Unfinished Business": Can SIS images lead to re-experiencing and gestalt closure? *SIS Journal of Projective Psychology & Mental Health, 28*(1), 58-62.

Petrucelli, J. (2016). Body-states, body image and dissociation: When not-me is 'not body'. *Clinical Social Work Journal*, *44*(1), 18-26. https://doi.org/10.1007/s10615-015-0539-0

Rathee, S. P., Sarkar, P. and Singh, A. (1998). Diagnostic validity of SIS-II among psychopathological cases of armed forces. *SIS Journal of Projective Psychology & Mental Health, 52*(1), 139-144.

Rudy, J. A., McKernan, S., Kouri, N., & D'Andrea, W. (2022). A meta- analysis of the association between shame and dissociation. *Journal of Traumatic Stress*, *35*(5), 1318-1333. DOI: 10.1002/jts.22854

Scheffers, M., Hoek, M., Bosscher, R. J., van Duijn, M. A., Schoevers, R. A., & van Busschbach, J. T. (2017). Negative body experience in women with early childhood trauma: associations with trauma severity and dissociation. *European journal of psych traumatology*, *8*(1), 1322892. doi: 10.1080/20008198.2017.1322892

Verma, S. K. (1995) Reliability and validity of Somatic Ink Blot Series Tests. *SIS J. of Proj. Psy. & Mental Health, 2*(1), 67-71.

World Health Organization. (1992). *The ICD-10 classification of mental and behavioural disorders: Clinical descriptions and diagnostic guidelines*. World Health Organization.

SIS J. Proj. Psy. & Ment. Health (2026) 33: 1, 50-59

A Systematic Review on Maternal Mental Health Scales for Pregnant Women

Shraddhesh K. Tiwari & Aparna Sharma

This study was designed to review the psychometric properties and cultural gaps in existing maternal mental health scales. Google Scholar, PubMed and PsycINFO were used to search published articles from 2005 to 2025 on Maternal Mental Health Scales and PRISMA guidelines followed to include the scale studies. The results brought 26 scales which deal with domains of pregnancy issues such as anxiety, maternal stress, pregnancy experience etc. The available scales were reviewed for their sample, number of items, domains, response format, psychometric properties, language and study location, country and their cultural context. The present study highlights the progress of maternal mental health, during the last two decades, along with the substantial disparities between developed and developing countries.

Introduction:

Maternal mental health includes a woman's emotional and psychological well-being from preconception period to pregnancy (antenatal), and postpartum (postnatal) phase. It is an umbrella term of mental health conditions in which anxiety, depression, stress-related disorders can be seen in pregnancy (WHO, 2022). Maternal mental health is crucial for both mother and developmental outcomes of the fetus and infants. Kingston et al (2012) demonstrated that the psychological state of women during the preconception phase affects health seeking behavior, conceptions related decisions and accomplish pregnancy related challenges. Untreated mental health issues may be a greater risk of obstetric complications, including, preterm birth, and low birth weight in infants (Glover, 2014). Fluctuation of hormone level and psychosocial stressors worsen present mental health issues and trigger new ones. Elevated risk of complications like intrauterine growth restriction and poor maternal fatal bonding are found prevalent and associated with anxiety and antenatal depression (Biaggi et al., 2016). Mental health disorder is mostly common in women during pregnancy and postpartum period including depression anxiety, stress and post-traumatic stress disorder. Globally, Antenatal depression is found in approximately 10–20% of pregnant women (Fisher et al 2012). However, this data may be higher in low and middle-income countries with a range of 15% -25% followed by socioeconomic stressors (Gelaye et al., 2016). Generally, it has been seen that postpartum depression arises in new mothers around 13-19% worldwide. It initiates within the first six months after delivery and last long time if it is not treated timely. Indian studies suggest the prevalence of 22% to 26% as a growing public health concern (Upadhyay et al., 2017). Anxiety disorder is found to be a strong predictor of postpartum anxiety and depression, and 15-20 % pregnant women experience clinically significant anxiety symptoms (Dennis et al., 2017). Perceived stress and life event stress are reported by 20-30% of women during pregnancy and found as adverse birth consequences such as low birth weight and preterm labor (Lebel et al., 2020). Maternal mental health is a significant contributor in negative child health and development. WHO (2022) reported perinatal mental illness is a leading factor of maternal mortality and suicide. Low resource settings and inadequate treatment affect around 75% of women. In addition, WHO emphasizes the integrated care system into maternal and child health to assure early detection and comprehensive support for pregnancy care. Now a days, various standardized psychological tools are available for screening, diagnosis, and monitoring of maternal mental health conditions, such as Pregnancy-Specific Anxiety Tool (Bayrampour et al, 2023), Pregnancy Related

Shraddhesh Kumar Tiwari, Ph.D. Dept of Psychology, and **Aparna Sharma**, Ph.D. Dean, School of Liberal Arts, Noida International University, Greater Noida UP (India), Email: sktiwari057@gmail.com (Corresponding Author).

Keywords: Pregnant women, Systematic Review, Psychological Health, Pregnancy Care

Anxiety Scale (Brunton et al, 2019), Anxiety Assessment Scale for Pregnant Women (Durat et al, 2018), Pregnancy Related Anxiety Questionnaire (Purkhajuee et al, 2016), Pregnancy Concerns Scale (Nakic Radoš et al 2015). In this regards, stress and distress scales are developed within last 10 years for example, Pandemic-Related Pregnancy Stress Among Pregnant Women (Garcia-Silvaa et al, 2021), Perceived Prenatal Maternal Stress Scale (Gangadharan et al 2019), Healthy Pregnancy Stress Scale (Frazier et al 2018), Korean Pregnancy Stress Scale (Kim et al, 2018) and Psychosocial Stress for Pregnant Women (Devisree, 2018). Other scales that contribute to maternal mental health are also explored by various psychologists such as women empowerment scale, attachment scale, social capital, pregnancy outcome, baby outcomes etc. These scales are developed to screen, diagnose or continuous monitoring of symptoms, severity and early treatment. The developed scales are having lack of cultural sensitivity and validation for diverse populations. Diverse settings exist in terms of countries income level, cultural sensitivity and original scales validation of diverse populations. However, some scales are not developed on pregnant women but validated on respective samples and generalized for all populations. Cultural mismatch can be misdiagnosed particularly in non-western and low middle-income countries where health belief systems are found significantly different, for example, Asian and African cultures could not capture the most common somatic symptoms (Kirmayer, 2001). Language barriers, socio demographic variables like education, socioeconomic status also affect mental status. The newly developed tools are very effective, but not accountable for context factors. In addition, the "one-size-fits-all" approach reduces the effectiveness of scales across diverse cultural and linguistic settings and consequently inappropriate and inequitable maternal mental health care. Therefore, cultural limitations in maternal mental health practices are crucial for promoting equitable mental health care. It has been seen that local beliefs, idioms of distress, family structure and gender norms are not considered. Keeping this in mind, the objective of the present study is 1) to find out the existing scales developed on pregnant women to examine the psychometric properties and 2) to review the domains of included scales on pregnant women globally for two decades.

Method

Search Strategy

A wide range of scales published in scientific journals with statistical analysis were searched. Scales only developed on pregnant women were included. Google scholar, PubMed and PsycINFO are used to search published articles from 2005 to 2025. Search strategy was done with the following key words: anxiety, depression, maternal stress, and pregnancy experience, prenatal care, family support, body understanding, women empowerment, bonding, quality of life and social capital. Flow chart of Included scale studies mentioned in Fiugure-1.

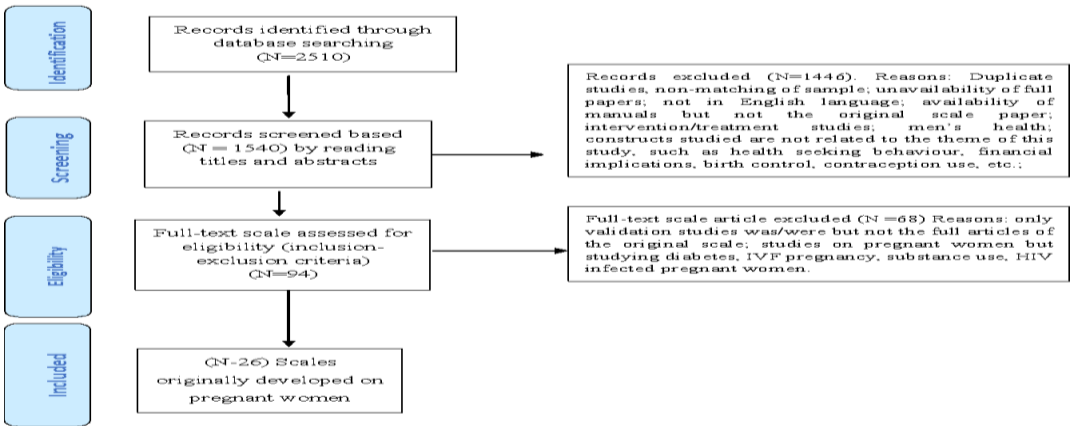


Fig. 1: Flow Chart of Inclusion of Studies (PRISMA 2009)

Measures:

Detailed description of scale articles with arranged with authors, year, of publication, sample size, number of items, response format, psychometric properties, and country is mentioned in table-1 and 2.

Procedure:

The scales were carefully reviewed and checked by two authors. The search of literature, review process and tabulation, sorting duplicate studies, various sub-headings i.e., name of scale, authors and publication years, sample size, number of items, measured dimensions, types of rating scales, psychometric properties, language, and country are done collectively. Further, scales were discussed as per domain specific constructs and their country with cultural perspective in which scales are developed.

Results:

The study was focused on review of scales developed on pregnant women and their validation studies on different regions, language and countries. Included scales were widely reviewed in terms of sample characteristics, scale characteristics, country of origin and years of development. Psychological health outcome variable extracted from wide range of scales which focal themes were to assess anxiety, stress, quality of life, family support, body understanding, social capital, women empowerment, bonding and pregnancy experience. Detailed description of the scales' psychometric properties is mentioned as followed:

Sample Characteristics

Twenty-six scales originally developed on pregnant women, were included in the study. The minimum sample size is 20 and the maximum is 1144. The average number of items was 25, ranging from 5 to 70.

Psychometric Properties of the scales

24 scales (92.30) reported Cronbach's alpha. Only one scale (3.84%) mentioned reliability score. 12 scales (46.15) are mentioned in both statistical techniques exploratory and confirmatory factor analysis, 7 scales (26.92%) studies are used only in exploratory factor analysis. In addition, 5 scales (19.23%) utilized sensitivity and specificity. 3 scales (11.53%) reported content validity, 2 scale studies (7.69%) describe multidimensional scaling, 1 scale (3.84%) used t-test, 3 studies (11.53%) mentioned correlation coefficient, 5 scales (19.23%) used construct validity, 4 scale studies (15.38%) concurrent validity, 1 scale study (3.84%) examined cross cultural validity, 4 scale (15.38%) reported convergent validity, 2 scales studies (7.69%) mentioned divergent and criterion validity.

Table-1: Description of sample size, number of items and psychometric properties of scales on pregnant women.

S.N.	Author(s)	Sample	Items	Rating Point Scale	(Cronbach's Alpha)	Country
1	Crossland et al (2025)	716	32	6	(0.63-0.89)	United Kingdom
2	Aydogan Gedik S et al. (2025)	369	21	4	(0.919)	Turkey
3	Kitamur et al (2025)	321	33	NA	NA	Japan
4	Yogeshwar et al (2025)	254	25	NA	(0.88)	India
5	Jannah et al (2024)	20	70	5	(0.80-0.91)	Malaysia
6	Esra Öze et al (2024)		26		(0.70)	Turkey
7	Bayrampour et al (2023)	819	33	4	(0.93)	Canada

8	Afulani et al (2021)	293	26	4	(0.95)	USA
9	Uddin et al (2021)	30	18	4	(0.78)	Bangladesh
10	Agampodi et al (2019)	493	24	NA	(0.94)	Shri Lanka
11	Kirk et al (2019)	613	20	5	(0.88)	UK
12	Gangadharan et al (2019)	356	15	4	(0.83)	India
13	Frazier et al (2018)	282	18	6	(0.82)	Georgia
14	Kim et al (2018)	388	43	4	(85- 0.86)	Korea
15	Devisree (2018)	190	29	3	(0.73)	India
16	Durat et al (2018)	269	9	5	(0.77)	Saudi Arab
17	Cuijlits and et al (2016)	1,050	5	4	(0.79 -.87)	Netherlands
18	Purkhajuee et al (2016)	187	17	7	(0.78),	Iran
19	Huizink et al (2016)	1,144	10	5	(0.80),	Netherlands
20	Borghei et al (2016)	161	38	4	(0.92)	Iran
21	Somerville et al (2014)	437	31	4	(0.86-0.90),	Australia
22	Vachova et al (2013)	225	26	5	(0.70)	Czech
23	Pop et al (2011)	419	17	4	(0.78)	Netherlands
24	Kazi et al (2009)	421	12	5	(0.75 -0.86),	Pakistan
25	DiPietro et al (2008)	112	10	4	(0.82- 0.83)	U.S.
26	Kameda et al (2008)	173	42	4	(0.89)	Japan

Abbreviations: EFA -Exploratory Factor Analysis, CFA – Confirmatory Factor Analysis

Table-2: Number of domains and description of included scales developed on pregnant women

S. N.	Name of Scale	Author(s)	No. of Domains	Domain Name
1	Multidimensional Assessment of Interoceptive Awareness	Crossland et al (2025)	8	Noticing, Not distracting, Not worrying, Attention regulation, Emotional awareness, Self-regulation, Body listening, Trusting
2	Aydoğan-Depression Screening Scale for Pregnant	Aydogan Gedik S et al. (2025)	4	Low energy, Pessimism, Worthlessness - Guilt, Depressed Mood
3	Mental Health Screening Questionnaire	Kitamur et al (2025)	5	Antenatal depression, Tokophobia, Fetal bonding disorder, Suicidality, and Emesis
4	Quality of life of pregnant females	Yogeshwar et al (2025)	4	Physical, Activities of Daily Living, Social and Psychological
5	Questionnaires for Measuring Pregnancy Anxiety, Sleep Quality, Knowledge Level, and Birth Readiness	Jannah et al (2024)	4	Anxiety, Sleep quality, Knowledge Level, Birth Readiness
6	Quality of life in pregnancy scale	Esra Öze et al (2024)	5	Perception of general satisfaction, Emotional domain, Physical domain, social support systems, social domain
7	Pregnancy-Specific Anxiety Tool	Bayrampour et al (2023)	6	Severity, Health and Wellbeing of the baby, Labor and Pregnant Person's Well-being, Postpartum, Career and Finance, Support
8	Person-Centred Prenatal Care Scale for People of Colour	Afulani et al (2021)	3	Dignity and Respect, Communication and Autonomy, Responsive and Supportive Care
9	Family Support Scale for Newly Pregnant Women	Uddin et al (2021)		Perceived support from family
10	Social Capital Assessment Tool in Pregnancy for Maternal Health	Agampodi et al (2019)	4	Structural Bonding, Structural Bridging, Social Contribution and Cognitive Bonding
11	Body Understanding Measure for Pregnancy Scale	Kirk et al (2019)	3	Appearance, Weight, Physical

12	Perceived Prenatal Maternal Stress Scale	Gangadharan et al (2019)	4	Perceived Social Support, Pregnancy Specific Concern, Intimate Partner Relationship and Financial Concern
13	Healthy Pregnancy Stress Scale	Frazier et al (2018)	2	General Pregnancy Stress, and Relationship Strain
14	Korean Pregnancy Stress Scale	Kim et al (2018)	8	Physical and Psychological Changes, Coping in Daily Life, Health of the mother and Baby, Maternal Role, Family Support, Healthcare Services, Social Atmosphere, and Reconciliation of Work Life
15	Psychosocial Stress for Pregnant Women	Devisree (2018)	4	Pregnancy Related, Hospital Provider Related, Concern Work Related, Spousal Related
16	Anxiety assessment scale for pregnant women in labor	Durat et al (2018)	2	Birth process, Motherhood constellation
17	Pre- and Postnatal Bonding Scale	Cuijlits and et al (2016)	1	Pre and post bonding items
18	Pregnancy Related Anxiety Questionnaire	Purkhajuee et al (2016)	5	Self-Centred Fear, Fear of Child with Health Issues, Fear of Childbirth, Fear of Change and Fear of Change in Marital Relationship
19	Pregnancy Anxiety Questionnaire–Revised for All Pregnant Women	Huizink et al (2016)	3	Fears of Giving Births, Worries About Bearing a Handicapped Child and Concern about Own Appearance
20	Iranian Pregnant Women's Empowerment	Borghei et al (2016)	3	Educational Empowerment, Autonomy, Socio-Political
21	The Perinatal Anxiety Screening Scale	Somerville et al (2014)	4	Acute anxiety an adjustment, General worry and specific fear, Perfectionism, control and trauma, and social anxiety
22	Specific Quality of Life Questionnaire for Physiological Pregnancy	Vachova et al (2013)	4	Physical, Psychological, Social Relation and Environmental
23	Development of the Tilburg Pregnancy Distress Scale	Pop et al (2011)	2	Confinement, Delivery and General Health
24	A-Z stress scale for pregnant women	Kazi et al (2009)	3	Concern About Birth and Baby, Concern About Physical Symptom and Body Image, Concern About Emotional and Relationships
25	The Pregnancy Experience Scale – Brief Version	Di Pietro et al (2008)	2	Uplifts, Hassels
26	Pregnant Women Empowerment Scale	Kameda et al (2008)	5	Self-efficacy, Self-esteem, Future image, Support and assurance from others, Joy of an addition to the family

Response Format and Rating Scales

All scale articles were found to be self-report scales. 23 scales are rating scales (4 to 7 points scales), whereas 3 scales did not mention their types.

Domains of the Scale:

The factors were spread from unidimensional to 8 dimensions. The number of scale domains are subdivided into 7 categories. 2 scales (7.69%) reported 8 domains, 1 scale (3.84) 6 domains, 4 scales (15.38%) 5 domains, 8 scales (30.76) 4 domains, 5 sales (19.23%) 3 domains, 4 scales (15.38%) 2 domains, and only 2 scales (15.38%) reported unidimensional.

Country of Study:

The 3 scale studies (11.53%) are conducted in two countries(USA and India). 2 scale studies conducted in five countries (UK, Netherlands, Japan, Iran, and Turkey) and 1 scale studies conducted in 10 countries (Canada, Australia, Czech, Bangladesh, Korea, Malaysia, Sri Lanka, Saudi Arab, Korea, and Pakistan).

Specific Issues Covered by Scales:

Six (6) scales emphasise on pregnancy related anxiety (23.7%), 6 scales on maternal stress (23.7%), 3 scales on quality of life (11.53%), 2 scales on depression (7.69%), 2 scales on women empowerment (7.69%) and one scale deals on family support (3.84%), self-evaluation (3.84%), awareness (3.84%), body understanding (3.84%), social capital (3.84%), pregnancy experience (3.84%), and pre- post bonding (3.84%). The maximum number of scales are developed to deal the issues like anxiety and stress.

Discussion:

Development of psychological health scales are designed to assess a particular construct and get it valuable and relevant for specific culture. Many scales are validated on various languages and country specific samples. It is a well-known phenomenon that the pregnancy period is crucial for both mother and her baby. Biaggi et al (2016) wrote that psychosocial stressor and hormonal changes trigger mental health. Untreated mental health issues could have an adverse effect on mother and baby. Initially, the objective of this study was to find out the published scales on pregnant women and examine its psychometric properties. These scales provide 12 specific mental health areas and tightly adhere to issues like anxiety, stress, depression, fear, family support, body understanding, social capital, women empowerment, bonding, and pregnancy experience.

Psychometric Properties of the Scale

The findings indicate that the number of scales developed during last decade increased comparatively to the earlier decades. These elevated numbers justify the awareness and consciousness of societies towards maternal mental health globally. Out of these scales, a wide range of sample size have been used. It ranged between sample size 20 (Jonnah et al 2025) to 1144 (Huizink et al 2016) pregnant women. The scale items are ranged between 5 to 70 items. Pre and post bonding scale are reported 5 items (Cuijilts et al2016), and questionnaire for measuring pregnancy anxiety, sleep quality, knowledge level, and birth readiness mentioned 70 items (Jonnah et al 2025). All scales are recognized as self-reported and diverse rating point scales like 3-point scale to 7-point scale. Most scales used a 4 and 5-point rating point scale. Apart from that, 24 scales reported internal consistency Cronbach alpha, 12 scales mentioned exploratory and confirmatory factor analysis, 7 scale studies performed only exploratory factor analysis. To screen mental health issue, cut off scores to determine the severity of issues, 5 scales, 2 scales for depression (Aydogan Gedik S et al, 2015; Kitamur et al 2025), 2 scales or anxiety (Bayrampour et al 2023; Somerville et al 2014), and 1 scale related to self-evaluation (Afulani et al, 2021) are mentioned area under curve sensitivity and specificity. Besides these, variety of statistics to achieve psychometric properties are performed in scales like content validity (3 scales), construct validity (5 scales), concurrent validity (4 scales), cross cultural validity (1 scale), convergent validity (4 scales), divergent and criterion validity (2 scales), and finally 2 scales used multidimensional scaling.

Domains of Published Scales:

The published scales prominently emphasise on anxiety, stress, quality of life, depression, etc. Out of these scales, 6 scales concentrated on anxiety, 6 scales on stress, 3 scales on quality of life and others on specific area such as self-evaluation, social capital, pregnancy experience, bonding, and family support. If we take a glance, in the last one decade 2016-2025 four scales are included whereas 2 scales in the second decade 2005-2014. Anxiety scales assess various conditions of anxiety like self-related, family related,

society related and others of pregnancy specific concerns. Jonnah et al (2024) mentioned in his scale about general anxiety, sleep quality, knowledge level anxiety and birth readiness. Durat et al (2018) extracted a domain motherhood constellation. Apart from that, self-centred fear, fear of childbirth, fear of change (Purkhajuee et al 2016), concerned about appearance (Huinzik et al 2016), acute anxiety and adjustment. General worry, specific fear, perfectionism, control and trauma (Somerville et al 2014) are mentioned in these scales. Moreover, family level anxiety issues are concentrated to birth process, baby health and wellbeing, during pregnancy wellbeing, postpartum issues, marital relationship, and worries about bearing a handicapper child (Bayrampour et al 2023; Durat et al 2018; Pukhajuee et al 2026; Huinzik et al 2016). Societal level anxiety in pregnant women can be seen towards career, finance, and support (Bayrampour et al, 2023), social anxiety (Somerville et al 2014). There are various concern areas explored by respective authors which originate from various cultural and different settings. Jannah et al (2024) extracted a domain of knowledge level in his scale, whereas birth readiness and support (Bayrampour et al, 2023), control and trauma (Somerville et al, 2014) domains are classified into other domains. Nevertheless, extracted and identified domains in anxiety scales represent culture and region-specific anxiety issues.

The second objective of the study was to examine the number of domains included in the study. Most of the scales included stress scale on pregnant women. The number of domains is ranged from 2 -8, identified as general and specific stress. General stress reflects non targeted concern experience during pregnancy such as daily coping, general health or social environment. General stress is discovered in scales as general pregnancy stress, relationship strain (Frazier et al 2018), stress related to physical and psychological changes, coping in daily life, health of mother and baby, maternal role, family support health care services, social atmosphere and work life reconciliation (Kin et al 2018), general health, confinement and delivery (Pop et al 2011). On the other hand, specific stress is known as concern about perceived social support, pregnancy specific concern, intimate partner relationship, financial concern. Another domain identified as specific stress is pregnancy related, hospital provider related, work related, spouse related (Diversee et al 2018), concern about baby and birth, physical symptoms, body image, emotional and relationship (Kazi et al 2009).

Two scales are contained to assess depression. A recent scale developed by Aydogan depression screening scale assesses 4 domains namely low energy, pessimism, worthlessness-guilt, depressed mood (Aydogan Gedik et al 2025). Whereas, another published scale is mental health screening questionnaire compass five domains i.e., antenatal depression, tokophobia, fetal bonding disorder, suicidality, and emesis (Kitamur et al 2025). Furthermore, three scales comprise quality of life. Out of the three, two scales assess quality of life of pregnant women, and specific quality of life questionnaire for physiological pregnancy characterized with four domains. First one is exposed to 4 domains i.e., physical activities of daily living, social and psychological (Yogeshwar al 2025). However, a specific quality of life scale pointed out 4 domains, physical, psychological, social relationship and environmental (Vachova et al 2013). The third scale that measures quality of life in pregnancy scaly extracted five domains perception of general satisfaction, emotional domains, physical domains, social support system, and social domains (Esraoze et al 2024). Overall, except one or two domains, mostly assess the same domains. Two empowerment scales for pregnant women are included, first is pregnant women empowerment scale designed with five extracted domains i.e., self-efficacy, self-esteem, future image, support and assurance from others, joy of an addition to the family (Kameda et al 2008). The second scale is developed by Borghei et al (2016) extracted domains for Iranian pregnant women empowerment with three domains educational empowerment, autonomy and socio-political.

The rest of the seven included scales measure scattered areas in the welfare of pregnant women and their mental health. So, these scales are not categorized specifically. These scales cover the specific context like interoceptive awareness, self-evolution, family support, social capital, body understanding, bonding and pregnancy experience. In recent years, multidimensional assessment of interoceptive awareness scale developed in 2025 with 8 domains namely noticing, not distracting, not worrying, attention regulation, emotional awareness, self-regulation, body listening, and trusting. (Crossland et al 2025).

Afulani et al (2021) developed Prenatal Care Scale for people of colour, and identified three domains dignity and respect, communication and autonomy, responsive and supportive care. In addition, developed scale extracted unidimensional scale of family support for newly pregnant women (Uuddin et al 2021), 4 domains i.e., structural bonding, structural bridging, social contribution and cognitive boding in social capital assessment tool in pregnancy maternal health (Agampodi et al 2019), 3 domains related to appearance, weight, and physical in body understanding measure for pregnancy scale (Kirk et al 2019). Unidimensional scale of pre- and post-natal bonding scale (Cuijlits et al 2016), and in last 2 domains uplifts and hassles in pregnancy experience scale brief version.

Conclusion:

Psychometric properties and scale domains are the most important subject matter of any measurement scale. This study reviews the published scale development articles with terms of inclusion and exclusion criteria. In addition, current decade (2016 to 2015) is more concentrated to development of maternal mental health scales globally with more than 12 domains of anxiety, depression, maternal stress, and pregnancy experience, prenatal care, family support, body understanding, women empowerment, bonding, quality of life and social capital with robust psychometric properties. This comprehensive review on a developed scale provides a platform to investigators working in the field of women mental health. Classified domains in self, family social and occupation level encompasses the actual scene of pregnancy period and support to investigators study concepts during respective period.

References:

Afulani, P. A., Altman, M. R., Castillo, E., Bernal, N., Jones, L., Camara, T. L., Carrasco, Z., Williams, S., Sudhinaraset, M., & Kuppermann, M. (2021). Development of the person-centered prenatal care scale for people of color. *American journal of obstetrics and gynecology*, 225(4), 427.e1–427.e13. https://doi.org/10.1016/j.ajog.2021.04.216

Agampodi, T. C., Agampodi, S. B. & Siribaddana, S. (2019). Development and validation of the Social Capital Assessment Tool in pregnancy for Maternal Health in Low- and middle-income countries. *BMJ open*, 9(7), e027781. https://doi.org/10.1136/bmjopen-2018-027781

Aydoğan Gedik, S., Arslantaş, D., Ünsal, A., Velipaşaoğlu, M. (2025). Development of the Aydoğan-Depression Screening Scale for Pregnant and Determination of Depression Risks of Pregnant Women. *Konuralp Medical Journal*, 17(1), 75-83.

Bayrampour, H., Hohn, R. E., & Joseph, K. S. (2023). Pregnancy-Specific Anxiety Tool (PSAT): Instrument Development and Psychometric Evaluation. *The Journal of clinical psychiatry*, 84(3), 22m14696. https://doi.org/10.4088/JCP.22m14696

Biaggi, A., Conroy, S., Pawlby, S., & Pariante, C. M. (2016). Identifying the women at risk of antenatal anxiety and depression: A systematic review. *Journal of affective disorders*, *191*, 62–77. https://doi.org/10.1016/j.jad.2015.11.014

Borghei, N. S., Taghipour, A., Roudsari, R. L., & Keramat, A. (2016). Development and validation of a new tool to measure Iranian pregnant women's empowerment. *Eastern Mediterranean Health Journal = la revue de sante de la Mediterranee Orientale =* al-Majallah al-sihhiyah li-sharq al-mutawassit, 21(12), 897–905. https://doi.org/10.26719/2015.21.12.897

Crossland, A. E., Munns, L.B., Preston, C. E. J. (2025). Analysing the factor structure of the MAIA scale for pregnant women: Development of the MAIA-Preg. *PLoS One* 20(5): e0322499. https://doi.org/10.1371/journal.pone.0322499

Cuijlits, I., Wetering A.P., V. D., Potharst, E. S., Truijens, S. E. M., van Baar, A. L., & Vjm, P. (2016). Development of a Pre- and Postnatal Bonding Scale (PPBS). *Journal of Psychology & Psychotherapy*, 6(5), Article 1000282. https://doi.org/10.4172/2161-0487.1000282

Dennis, C. L., Falah-Hassani, K., & Shiri, R. (2017). Prevalence of antenatal and postnatal anxiety: systematic review and meta-analysis. *The British journal of psychiatry: the journal of mental science*, *210*(5), 315–323. https://doi.org/10.1192/bjp.bp.116.187179

Devisree, R., Nirmala, C., Indu, P. S., & Remadevi, S. (2018). Development of antenatal psychosocial stress scale for pregnant women in Kerala, India. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 7(4), 1473–1479. https://doi.org/10.18203/2320-1770.ijrcog20181338

DiPietro, J. A., Christensen, A. L., & Costigan, K. A. (2008). The pregnancy experience scale-brief version. *Journal of Psychosomatic Obstetrics And Gynaecology*, 29(4), 262–267. https://doi.org/10.1080/01674820802546220

Durat, G., Çulhacik, G. D., Doğu, Ö., Turan, Z., Atasoy, I., Toker, E. (2018). The development of an anxiety assessment scale for pregnant women in labor. *Saudi Med J*. 39(6):609-614. https://doi.org/10.15537/smj.2018.6.2226

Fisher, J., Cabral de Mello, M. & Holmes, W. (2012). Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middle-income countries: a systematic review. *Bulletin of the World Health Organization*, *90*(2), 139G–149G.

Frazier T, Hogue CJ, Yount KM.(2018). The Development of the Healthy Pregnancy Stress Scale, and Validation in a Sample of Low-Income African American Women. *Matern Child Health J.* Feb;22(2):247-254. https://doi.org/10.1007/s10995-017-2396-7

Gangadharan, P. S., & Jena, S. P. K. (2019). Development of perceived prenatal maternal stress scale. *Indian journal of public health,* 63(3), 209–214. https://doi.org/10.4103/ijph.IJPH_29_18

Gelaye, B., Rondon, M. B., Araya, R., & Williams, M. A. (2016). Epidemiology of maternal depression, risk factors, and child outcomes in low-income and middle-income countries. *The lancet. Psychiatry*, *3*(10), 973–982. https://doi.org/10.1016/S2215-0366(16)30284-X

Glover, V. (2014). Maternal depression, anxiety and stress during pregnancy and child outcome; what needs to be done. *Best practice & research. Clinical obstetrics & gynaecology*, *28*(1), 25–35. https://doi.org/10.1016/j.bpobgyn.2013.08.017

Huizink, A. C., Delforterie, M. J., Scheinin, N. M., Tolvanen, M., Karlsson, L., & Karlsson, H. (2016). Adaptation of Pregnancy Anxiety Questionnaire–Revised for all pregnant women regardless of parity: PRAQ-R2. *Archives of Women's Mental Health*, 19(1), 125–132. https://doi.org/10.1007/s00737-015-0531-2

Jannah, N., & Selvarajh, G. (2024). Development of Questionnaires for Measuring Pregnancy Anxiety, Sleep Quality, Knowledge Level, and Birth Readiness. *International Journal of Nursing Information*, 3(1), 16–24. https://doi.org/10.58418/ijni.v3i1.61

Kameda, Y., & Shimada, K. (2008). Development of an empowerment scale for pregnant women. *Journal of the Tsuruma Health Science Society Kanazawa University,* 32(1), 39–48. http://hdl.handle.net/2297/10997

Kazi, A., Fatmi, Z., Hatcher, J., Niaz, U., & Aziz, A. (2009). Development of a stress scale for pregnant women in the South Asian context: the A-Z Stress Scale. *Eastern Mediterranean health journal*, 15(2), 353–361.

Kim, Y., & Chung, C. W. (2018). Development of the Korean Pregnancy Stress Scale. *Japan journal of nursing science*: *JJNS*, 15(2), 113–124. https://doi.org/10.1111/jjns.12175

Kingston, D., Heaman, M., Fell, D. & Chalmers, B. (2012)., & Maternity Experiences Study Group of the Canadian Perinatal Surveillance System, Public Health Agency of Canada. Comparison of adolescent, young adult, and adult women's maternity experiences and practices. *Paediatrics*, *129*(5), e1228–e1237. https://doi.org/10.1542/peds.2011-1447

Kirk, E., & Preston, C. (2019). Development and validation of the Body Understanding Measure for Pregnancy Scale (BUMPS) and its role in antenatal attachment. *Psychological assessment*, 31(9), 1092–1106. https://doi.org/10.1037/pas0000736

Kirmayer L. J. (2001). Cultural variations in the clinical presentation of depression and anxiety: implications for diagnosis and treatment. *The Journal of clinical psychiatry*, *62 Suppl 13*, 22–30.

Kitamura T, Yamamoto M, Saito T, Usui Y, et al. (2025).Development and validation of a multidimensional mental health screening questionnaire for pregnant women. *Psychiatry Clin Neurosci Rep*. 2025;4:e70053. https://doi.org/10.1002/pcn5.70053

Lebel, C., MacKinnon, A., Bagshawe, M., Tomfohr-Madsen, L., & Giesbrecht, G. (2020). Elevated depression and anxiety symptoms among pregnant individuals during the COVID-19 pandemic. *Journal of affective disorders*, *277*, 5–13.

Uddin, M.A., Khatun, M and Hua, Y.(2021) Development of the Family Support Scale for Newly Pregnant Women. *Arch Neurol & Neurosci.* 10 (4) DOI: 10.33552/ANN.2021.10.000743

Özer, E., Güvenç, G. (2024). Developing the quality of life in pregnancy scale (PREG-QOL). *BMC Pregnancy Childbirth* 24, 587. https://doi.org/10.1186/s12884-024-06771-x

Pop, V. J., Pommer, A. M., Pop-Purceleanu, M., Wijnen, H. A., Bergink, V., & Pouwer, F. (2011). Development of the Tilburg Pregnancy Distress Scale: the TPDS. *BMC pregnancy and childbirth*, 11, 80. https://doi.org/10.1186/1471-2393-11-80

Purkhajuee, P., Behroozy, N., & Karamozian, M. (2016). Pregnancy-Related Anxiety Questionnaire: Reliability, validity, and factor analysis. *Ambient Science*, 3(Sp1). https://doi.org/10.21276/ambi.2016.03.sp1.ra10

Somerville, S., Dedman, K., Hagan, R., Oxnam, E., Wettinger, M., Byrne, S., Coo, S., Doherty, D., & Page, A. C. (2014). The Perinatal Anxiety Screening Scale: development and preliminary validation. *Archives of women's mental health*, 17(5), 443–454. https://doi.org/10.1007/s00737-014-0425-8

Upadhyay, R. P., Chowdhury, R. & Kumar, A. (2017). Postpartum depression in India: a systematic review and meta-analysis. *Bulletin of the World Health Organization*, *95*(10), 706–717C. https://doi.org/10.2471/BLT.17.192237

Vachkova, E., Jezek, S., Mares, J., & Moravcova, M. (2013). The evaluation of the psychometric properties of a specific quality of life questionnaire for physiological pregnancy. *Health and quality of life outcomes*, 11, 214. https://doi.org/10.1186/1477-7525-11-214

WHO (2022). *Improving early childhood development: WHO guideline*. https://www.who.int/publications/i/item/9789240059145

Yildiz, P. D., Ayers, S., & Phillips, L. (2017). The prevalence of posttraumatic stress disorder in pregnancy and after birth: A systematic review and meta-analysis. *Journal of affective disorders*, *208*, 634–645. https://doi.org/10.1016/j.jad.2016.10.009

Yogeshwar, D., Singh, J. & Saharan, A.K.(2025). The Indian Pregnant Women Quality of Life Index (IPW-QOLI): development and validation of scale to evaluate the quality of life of pregnant females across India—a mixed method study. *Bull Fac Phys Ther 30, 16. https://doi.org/10.1186/s43161-025-00275*

Somatic Inkblot Society

Office Bearers:

President: B.L. Dubey, Ph.D.
Editor-In-Chief: Naveen Gupta, Ph.D.
Vice President: Anand Dubey, MBA
Gen. Secretary: Satyadhar Dwivedi, Ph.D.
Treasurer: Padma Dwivedi, M.A.
Jt Secretary: Dr. Vijay Pathak, M.D.

Executive Members:

Dr. Anand P. Singh, apsingh.cp@gmail.com
Dr. Garima Gupta, grm.gupta2@gmail.com
Dr. Masroor Jahan, masroorjahan@yahoo.com
Dr. Ranjeet Kumar, ran_psy@yahoo.co.in
Dr. Anindita Mukherjee, aninditamukherjee403@gmail.com
Dr. Vikas Sharma, vikasdelhi83@hotmail.com
Dr. M.P. Singh, mpsingh1329@gmail.com
Dr. Amool Ranjan Singh, sisamool@yahoo.com
Dr. Krishan K. Sony, keshusony@rediffmail.com

Past Editors-in-Chief:

B.L. Dubey, Ph.D.
Global Director, Dubay Healing Center,7490 Coon Club Road, Medina, OH 44256 (USA)
Email: bldubey@gmail.com
(1994-2005)

Amool R. Singh, Ph.D.,
Prof. Dept of Clin. Psy, RINPAS, Kanke, Ranchi-834006 (India)
E-ail:sisamool@yahoo.com
(2006-2012)

Rakesh Pandey, Ph.D.
Prof. Dept of Psy,Banaras Hindu University,Varanasi-221005
Email: rpan_in@yahoo.com
(2013-2015)

Statement Showing Ownership and Other Particulars About Somatic Inkblot Society's Journal of Projective Psychology & Mental Health

Place of Publication:	**Mathura-281122**
Periodicity of Publication:	**Half Yearly**
Editor:	**Dr. Abhilasha Singh Raghav**
Nationality:	**Indian**
Address:	Hindustan Institute of Management and Computer Studies, Farah, Mathura-281122, U.P.
Owner:	**Somatic Inkblot Society**
Printer's/Publisher's Name:	**Mr. Shiva**

I, Abhilasha Singh Raghav, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Sd/
Dr. Abhilasha Singh Raghav, Editor
SIS Journal of Projective Psychology & Mental Health

Published by Dr. Abhilasha Singh Raghav, on behalf of Somatic Inkblot Society at Shiva Printers and Photo State Centre, Shop No. 1/43, C/5/30 Mahatma Gandhi Road,Hiraparwat, Agra, U.P.- 282002

SOMATIC INKBLOT SOCIETY

Membership Application Form

Membership Type:		Affix Your Photograph
Full Name:		
Mailing Address with PIN/ZIP:		
Email:		
Cell with Country Code:		
Date of Birth		
Education: (Degree, Year, Institution)		
Employment: Current position..		
Training and Experience in Personality Assessment		
Sponsor (Name Address cell and Email)		
Types of Memberships and Fee Details	Individual Annual Membership (Foreign)	US $60
	Individual Life Membership (Foreign)	US $300
	Fellow Member- After 10 Years Life Membership (Foreign)	US $150
	Institutional Annual Membership (Foreign)	US $100
	Individual Annual Membership (Indian)	Rs. 1000/-
	Individual Life Membership (Indian)	Rs. 5000/-
	Fellow Member-After 10 Years Life Membership (Indian)	Rs. 2500/
	Institutional Annual Membership (Indian) with postage	Rs.2600/-
	Institutional Life Membership (Indian)	Rs. 15,000/-
Online Annual Membership (Soft Copy)	Institutional Annual Membership (Foreign)	US $70.
	Individual Annual Membership (Foreign)	US $50.
	Institutional Annual Membership (Indian)	Rs. 2000/-
	Individual Annual Membership (Indian)	Rs. 1000/-
Pay Membership Fee through Bank Deposit	**Bank Name and Address**: State Bank of India, Property No.4, Block-A, Sector-23, Dwarka, New Delhi-110077. **Name of Account**: SIS Journal of Projective Psychology & Mental Health **Account Number**. 32297525238 **IFS Code**: SBIN0032182 **Type of Bank Account**: Saving Bank	
Pay Membership Fee through Cheque payable to	SIS Journal of Projective Psychology and Mental Health	
Submit Membership Application Form through Email	Dr. B.L. Dubey, Ph.D. Editor Emeritus, Email:bldubey@gmail.com Copy to Dr. Abhilasha Singh Raghav, Ph.D; Director. Editor, Email: director.himcs@sgei.org	
Mention Fee Deposit Details:		
Declaration by Applicant: I certify that the information provided above is accurate and correct.		
Signature of the Applicant with Date:		

Application of Somatic Inkblot Test

The Somatic Inkblot test (SIT) is a semi-structured, projective, diagnostic instrument and an adjunct to psychotherapy. The **SIT** is available at *www.dubayhealingcenter.com*, with 30 images, was released for quick assessment, after 30 years of intense data collection on clinical, organizational, and normal groups. Researchers have reported **high reliability and validity** of the test (Dubey et al, 2019) The papers published in the international journal, "SIS Journal of Projective Psychology and Mental Health"(www.somaticinkblots.com) clearly show the advantages of the SIT both in the "individual" as well as "group administration" settings. The SIT automates the entire "psychological test life cycle" including administration, scoring, interpretation, reporting and diagnostic collaboration. In addition to quantitative analysis, the SIT facilitates and emphasizes content analysis, psychoanalytic interpretation, and symbolic interpretation via a database of research made available as "hints", "Artificial Intelligence" and case studies. The help of "Artificial Intelligence" in the assimilation and interpretation of data has worked in a big way. The mental health professionals using SIT will have the advantage of AI and Symbolic Interpretation while scoring and interpreting the responses given by the client. Inkblot-evoked images can highlight otherwise hidden aspects of the inner emotional world of the clients. These may reveal to the professional past traumatic events and unexpressed distressing emotions, which might otherwise only surface in disguised symbolic dreams. It takes about 30 minutes to complete the test (Dubey & Dubey, 2021).

The test has been administered to different clinical groups – Anxiety, Depression, PTSD, Marital conflict and maladjustments, addictions, Schizophrenia, Sex perpetuators, Criminals, Neurotics, and the findings were very encouraging. The images have pulling power to bring on the surface suppressed and repressed desires now lying down in the storage of unconscious mind. The images also take the client back in time and help to verbalize the repressed material. Such verbalization is very useful during therapeutic intervention.

Application of SIT in different Field:

Application in Industry and Business Organizations:

The SIT application empowers the selection processes by more rapidly screening a person with desirable traits such as an individual who is mature, confident, is a visionary, a good team-maker etc. It also brings to the surface information which the individual failed to report in a standard interview. The SIT is also administered to executives in various private and public sector organizations in India for personality assessment during selection and promotion interviews. The findings have been very encouraging. The SIT was found to be a dependable test in assessing certain important traits such as "Interpersonal Relationship, Healthy Mind-Body Imagery, Team Building, Creativity, Imaginative ability, Controlled hostility and aggression, Erotic disturbances, and Ego strength", which are much required among successful business executives.

Application in Clinics:

The SIT images can highlight otherwise hidden aspects of the inner emotional world of individuals taking the test. These may reveal to the professional certain past traumatic events and unexpressed distressing emotions which might, otherwise, only surface in disguised symbolic dreams. During clinical interviews, a lot of unprocessed unconscious materials are brought out to the surface. Such material is very useful during therapeutic intervention and many clients commented that the "test is particularly designed for me". The purpose of psychotherapy is "to make the client conscious of the underpinnings of exhibited

mental states" and the SIT responses are found to be an effective intervention procedure. Many clinical cases are reported in a SAGE publication *Inkblot Personality Test - Understanding the Unconscious Mind*, http://dx.doi.org/10.4135/9789353287771 (Dubey et al, 2019 and in 63 issues of the SIS Journal of Projective Psychology and Mental Health (www.somaticinkblots.com).

Application in Schools to have safe employees:

The schools must be safe for children. The administration should also protect and keep children safe from abuse, assault, bullying, and other traumatic events. In most cases, the perpetrator runs away from the school and is often not punished. Keeping the above facts in view, the school system must hire employees who are safe for children. They should be mature, have smooth interpersonal relationships and adjustment, be reality-oriented and have awareness of surroundings, with a non-hostile attitude and have no erotic conflict. People with such positive traits are expected to be a good fit in the school system. The SIT images are found helpful in detecting people having undesirable personality traits.

Application in Matchmaking:

Parity among couples is the most important factor, which must be ascertained before marriage. Most couples say that they like each other, she/he looks presentable and is a very caring person. However, even after staying together for years, they are not aware of the inner motivating unconscious forces of their partners. Knowing about their family, education, income, and social status is not enough. The Somatic images help in understanding the total personality profile (level of self, interpersonal relationship with different sets of people, awareness of surroundings and contact with reality, level of erotic desire, expression of hostility and aggression, level of team-making and expression of feelings). These traits must be matched to ensure compatibility among the couple.

Please visit our website: http://www.dubayhealingcenter.com and take the test to see its simple administration, scoring and interpretation. Please see the Manual of the Test and book "Inkblot Personality Test -Understanding the Unconscious Mind, Dubey, B.L., Banerjee, P. & Dubey Anand (2019) Sage Publications Inc.

Please feel free to write for more information and help on our email
(ad@dubay.bz OR bldubey@gmail.com).
Dubay Healing Center,
7490 Coon Club Road,
Medina. OH-44256 (USA)

SIS JOURNAL OF PROJECTIVE PSYCHOLOGY AND MENTAL HEALTH: ACHIEVEMENTS

Journal in WHO's Listing

Members of Somatic Inkblot Society will be glad to know that SIS Journal of Projective Psychology and Mental Health has been listed by World Health Organization (Global Forum for Health Research) among 25 indexed journals that have published the highest number of articles on mental health from LMICs in Latin America, Africa and Asia (Medline and PsycINFO). Extract from table-6 of "Research Capacity for Mental Health in Low - and Middle - Income Countries: Results of a Mapping Project "(www.globalforumhealth.org) is given below:

Rank	Journal	Country	Language
1	Revista de Psicoanalisis	Argentina	Spanish
2	Revista de Neurologia	Spain	Spanish
3	Revista Brasileria de Psiquiatria	Brazil	Eng.,Spani.,Portuguese
4	Arquivos de Neuro-psiquiatria	Brazil	Portuguese
5	Acta Psiquiatrica y psicologica de Amercia Laina	Argentina	Spanish
6	Journal of the Medical Association of Thailand	Thailand	English, Thai
7	British Journal of Psychiatry	UK	English
8	Acta Psychiatrica Scandinavica	Denmark	English
9	Salud Mentale	Mexico	Spanish
10	Vertex	Argentina	Spanish
11	Journal of Personality and Clinical Studies	India	English
12	Social Psychiatry and Psychiatric Epidemiology	Germany	English
13	Revista Medica de Chile	Chile	Spanish
14	South African Journal of Psychology	South Africa	Afrikaans, English
15	Psychological Reports	USA	English
16	South African Medical Journal	South Africa	Afrikaans, English
17	The Australian & New Zealand Jr. of Psychiatry	Australia	English
18	International Journal of Social Psychiatry	U. K.	English
19	Psychiatry Research	Ireland	English
20	Social Science & Medicine	U. K.	English
21	Revista De Saude Publica	Brazil	Portuguese
22	International Journal of Geriatric Psychiatry	U. K.	English
23	**SIS Journal of Projective Psychology and Mental Health**	**India**	**English**
24	Journal Brasilerio de Psiquiatria	Brazil	Portuguese
25	Psychiatry and Clinical Neurosciences	Australia	English

Journal in ProQuest Listing:

We are glad to inform you that SIS Journal of Projective Psychology & Mental Health has been listed in academic research database ProQuest Psychology Journals™. ProQuest is a company in Michigan, United States. It is a leading provider of electronic databases for academic libraries. Databases are used in over 20,000 academic libraries around the country and around the world including some of the most prestigious higher education institutions such as Harvard, Yale, Princeton, Oxford etc. ProQuest provides abstracts and indexing for more than 640 titles, with over 540 titles available in full text. Users get access to charts, diagrams, graphs, tables, photos, and other graphical elements essential to psychological research.

Abstracted in "APA" Psyc INFO
Regd. No. 71632/99, RNI Delhi

SIS JOURNAL OF PROJECTIVE PSYCHOLOGY AND MENTAL HEALTH

Volume: 33 **Number: 01** **Jan 2026**

EDITOR EMERITUS:

Bankey L. Dubey, PhD.
Director Dubay Healing Centre,
7490 Coon Club Rd, Medina,
OH 44256 (USA),
E-mail: bldubey@gmail.com

Christopher Piotrowski, PhD.
Research Consultant,
University of West Florida (USA)
Email: piotrowskichris@hotmail.com

EDITOR-IN-CHIEF:

Naveen Gupta, PhD,
Behavioral Scientist & Life Coach
201, Surya Apartment, Lawyer's Colony, Agra
Email: dr_naveengupta@yahoo.com

EXECUTIVE EDITOR:

Padmakali Banerjee, PhD.
Vice Chancellor, IILM University, Sec 53,
Gurugram-122001
Email: bpadmakali@gmail.com

EDITORS:

Abhilasha Singh Raghav, PhD.
Director, Hindustan Institute of Management
& Computer Studies, Farah,
Mathura-281122 (India),
Email: director.himcs@sgei.org

Anand Dubey, MBA,
CEO, Dubay Healing Center,
7490 Coon Club Rd, Medina,
OH 44256 (USA),
Email: ad@dubay.bz

Vijay Pathak, MD.
Senior Consultant Psychiatrist,
The Mind Studio, J1-162 Rajouri Garden,
New Delhi-110027,
Email drvijaypathak@gmail.com)

Satyadhar Dwivedi, PhD.
Institute of Mental Health & Hospital
Agra-282002
Email: satyadhardwivedi@gmail.com

EDITORIAL CONSULTANTS

Ailo Uhinki, PsD.

Amool R. Singh, PhD.

Antonio Cervigni, PhD.

Ashok K. Patel, MPhil.

Carina Coulacoglou, PhD.

Carl B. Gacono, PhD.

Dharmendra Jain, DM.

Jayanti Basu, PhD.

Manisha Dasgupta, PhD.

Masroor Jahan, PhD.

Nilanjana Sanyal, PhD.

Padma Dwivedi, MA.

Radhe Shyam, PhD.

Robert B. Williams, PhD.

Sakshi Kaul, PhD.

Brig. D. Saldanha, MD.

Sanjukta Das, PhD.

S. Chaudhury, M.D., PhD.

Vikas Sharma, PhD.

PUBLICATION MANAGER:

Brijesh. K. Gupta,
MBA. HIMCS, Farah, Mathura-281122