

Gender differences in SIS-II percepts of College students

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Abstract

The present study was conducted to examine the gender differences in the SIS-II percepts of college students. The sample consisted of 250 males and 250 female college students. SIS-II was administered individually in self-administration mode avoiding the effect of gender the examiner. Means, Standard Deviation and t-ratios were computed to compare the two groups in terms of significance of mean score differences. Obtained results have revealed the college male students having significantly higher means scores on scales of Total Number of Responses, Most Typical responses, Typical Responses, Pathological Anatomy, Depression, Hostility & Aggression, and lower on Rejection of Images than female students.

Keywords: Gender differences, SIS-II, percepts

Introduction

Despite hot debates and criticisms of projective techniques within and outside Psychology, particularly inkblot techniques have contributed a lot in the assessment of personality, Psychopathology and clinical intervention (Durand *et al.* 1988; Watkins *et al.* 1995; Hansley and Bailey 1999; Lilenfield *et al.* 2000; Piotrowski (2017). Among the projective test inkblot tests have gained more popularity in clinical field. Inkblot technique in one of the most widely used projective method in which the subject is exposed to a relatively ambiguous stimulus situation (inkblot) to index individual differences in the perception which are because of individual differences in various cognitive mental processes (associative). Inkblot techniques are conceptually based on the process of projection in which a person (1) attributes one's thoughts, attitudes, emotions or characteristics to other persons or certain characteristics of objects in his environment; (2) one's own needs to other in his environment and (3) draws incorrect inferences from an experience. It is generally agreed that more ambiguous the inkblot, more it helps in accessing to the deeper levels of personality structure (unconscious).

At present the available inkblot techniques for psychological assessment are: (1) Rorschach Inkblots test developed by Herman Rorschach in 1921 consisting of 10 inkblots (5 black and white and 5 colored). In standard procedure of administration subjects is handed the cards one by one at a time and is asked to tell what the blot resembles or looks like? It usually takes about 45 minutes and additional 1.5 to 2 hours are required for scoring and interpretation (Ball *et al.* 1994; letendfield, 2014). Obtained protocols can be scored for more than 100 characteristics including three main categories (a) location, (b) content, and (c) determinants. Rorschach has been criticized for being deficient in psychometric properties i.e. reliability and validity (letendfield & proto whisky 2017) the second developed by Holtzman in 1956^[13] popularly

Known as Holtzman Inkblot Technique (HIT), mainly to overcome some of the limitations and deficiencies of the Rorschach by enriching it psychometrically through the development of objecting scoring for different variables. (Holtzman *et al.* 1961). It is constituted of two parallel set of inkblot with systematic variation in symmetry, form, color and shading better than Rorschach plates stop each form (A and B) contains 45 inkblots along with two trial blots which are common in both sets., and provides scores for 22 variables which most of the Rorschach variables plus some additional variables such as Pathgnomic verbalization, anxiety and hostility. In terms of psychometric standards, it is definitely superior over the Rorschach. (Gamble, 1972., Swartz, 1973., joshi, 1998).

Somatic inkblot series (SIS) is recent extensions of traditional inkblot techniques (Rorschach and Holtzman) mainly oriented to understand the manifestation of problems through somatization and to hear the inner cry of individuals. (Cassell and Dubey, 2003). Originally Cassell as an advocate of projective assessment being influenced by Fisher's concept of body perception thought of developing a newer test with notion in mind that body image projection through inkblots can be useful in diagnoses and treatment of psychopathological problems based on the literature pertaining to somatic imagery and body symbolism limitations of traditional inkblot test in the diagnostic of organic and psychosomatic problems, and observation of a women suffering from hirsutism. It leads to the development of first series of inkblots (SIS-I) based on the concept of body image perception (Cassell, 1960), and further collaborating with Hollander (1965). Backer, fisher and Cleveland (1968), Cassell justified the need for developing somatic inkblot series. Somatic Inkblot Series are conceptually are based on three theoretical postulates-somatic imagery, body symbolism and inner cry. Somatic imagery persist every individual has a unique and highly personalized system of attitudes both

conscious and unconscious that are projected onto the body. Body symbolism posits that an individual integrates once mental and physical phenomenon based on principle of mind-body relationship. The inner cry theory proposes that express behavior is the physical translation of somatic impression.

It is semi structured in terms of sequential presentation of inkblot like images, intentionally, designed, resembling to some organic structures not as incidental symmetrical forms. These images have the potential for generating both typical and atypical responses. These images as stimuli evoke symbolism and unique meaning to the subjects. So, SIS can be used for assessment for body percepts i.e. in depth assessment of somatic symptoms, conversion reactions, somatic delusions and sexual mal functions (Cassell, 1980) [4]. In psychoanalytic terminology, it can be used to assess the castration anxiety and aggressive impulses (Cassell, 1980) [4]. It can also be used to screen out the affected disorders, what Kulholz (1974) called "masked depression". It can also be used to reveal the body perceptual disturbances, cognitive defects, and death anxiety (Cassell, 1979). It can also be used in chalking out the treatment programs i.e. physical therapy (Lower, 1975), sensory feedback training (Peper & Peper, 1979), behavior therapy particularly systematic desensitization for psychosomatic procedures and psychoanalysis (Cassell, 1977). Somatic inkblot series (SIS), first developed in 1960 now has four forms: (1.) Card Form (SIS-I), Booklet Form SIS-II (62 images), Video Form (SIS-I & SIS-II) and Living Images. SIS-I published in 1960 consists of a set of 20 cards, each having a semi structured (ambiguous) visual stimulus (Inkblot image) depicting a specific anatomical structure to which the subject elicits a somatic percept. Somatic Inkblot Series-II (SIS-II) was developed in 1980 by Cassell after initial success of SIS-I but founding the SIS-I more close to traditional inkblot techniques in administration, scoring and interpretation. The underlining idea for the development of SIS-II was to construct the self-administered inkblot technique having potential to cover more wide area of both conscious and unconscious aspects of normative and pathological behavior. Based on clinical experience and research findings, Cassell (1980) [4] published SIS-II booklet Form as more improved and compressive somatic inkblot technique consisting of A and B series, each with 31 images with a combined set of 62 images along with sample image in the beginning, all being blue colored on grey background. There is no time limit that helps in reducing the test anxiety. With freedom in responding verbally and non- verbally to each inkblot, It does not require a high level of literacy, which makes it widely applicable across all age groups and cultural backgrounds, hence is cultural fair. After completion of the test (SIS-II), subject is asked to rate three most liked and three least liked images which help the suspect in discharging both the positive and negative effects, it provides significant diagnostic clues. With a view to decrease the test anxiety more, Cassell 1984 [4], developed video version of SIS-II in which attempts have been made to sustain subjects interest using light, soft music, floral presentation in the background and zoom-in and zoom-out impressions. Obtained protocols from SIS-II can be scored for eleven categories: (1) Total No of Responses; (2) Human Responses; (3) Annual Responses; (4) Anatomical Responses; (5) Sex Responses; (6) Movement

Responses; (7) Most Typical Responses; (8) Typical Responses; (9) Atypical Responses; (10) Rejection of images; and (11) Pathological Scales –(a) Pathological Anatomy (b) Depression (c) Hostility & Aggression and (d) paranoia. In all, 14 scores can be obtained and are interpreted in two ways- clinical and research. Clinical interpretation involves content analysis in terms of medical, Psychological, psychoanalytic, and spiritual perspectives. Research interpretation involves quantitative analysis in terms of mathematical and statistical techniques.

The literature on SIS reveals that SIS-II has attracted more research attention than the SIS-I card form. Various clinicians and researchers have reported the diagnostic and therapeutic utility of SIS-II posting that projection potential of inkblot images contribute more in the revelation of repressed material (somatic repression) from the inner self (cassell, 2001, 2002, 2010, 2013; Dosajh, 1998; 1999; Dubey, 2000, kumar, 2000; verma, 2000; Dubey and Cassell, 2014). the 62 images series range from structured to unstructured on a continuum, so these provide more opportunity to the examiner for in-depth and overall understanding of cognitive and affective processes of the subjects (Cassell and Dubey, 2003). Data obtained by clinicians and researchers testify the potentiality of SIS-II in discriminating different diagnostic categories to the statistical level of confidence (Cassell and Dubey, 2003; Cassell *et al.* 2015; mirth and mukhopadhyay, 2000, sachacher and jahan 2014; Singh and rani, 2014; bala *et al.* 2010; D.chaudhary *et al.*, 2001; dubey *et al.*, 2005; mishra *et al.* 2010; mohan *et al.* 2005; Mishra *et al.* 2010; mohan *et al.* 2002). Similarly, a number of clinicians and researchers have acknowledged the therapeutic utility of SIS-II (Cassell, 1999; Dosajh, 1999; Dubey and Cassell, 2000; Cassell and Dubey, 2007, 2010, 2017; Sanyal, 2013).

Review of literature pertaining to SIS reveals that most of the studies have been carried out on clinical samples mainly to ascertain its potentiality as a diagnostic instrument and as an adjunct to psychotherapy. Another aspect is the need for the use of inkblot techniques to explore the implicit personality. And inkblot correlates of various aspects of normal behavior and psychological processes. Since the inkblot percept are deeply related to the past experiences, impressions, perceptions, and cognitive organizational processes are significantly influenced by various factors such as socialization, family, environment, peer groups, age levels, gender, school environment and other contextual factors, So SIS- should also be used to examine various aspects of normal and abnormal behavior in relation to these factors.

Few researchers have studied gender differences in SIS-II percepts (Kandhari *et al.* 2011, Singh, 2007; Singh and Rani, 2014) and the findings are equivocal. These researches have been conducted mainly on clinical samples, so there is dearth of studies on gender differences in SIS-II percepts of normative samples. So, the present study is an attempt to examine the gender differences in SIS-II percepts of college students.

Method Sample

The sample consisted of 500 college students (250 males and 250 females) drawn from various colleges of Rohtak and

Sonepat Districts of Haryana. The sample included only those students who volunteered to participate in the study and were both rural and urban background. The age of participants ranged between 17 and 21 years with the mean age of 19 years.

Measures

Background information about the participants was taken through a personal information sheet prepared by the investigator to ascertain the similarity of sociocultural background of the participants.

SIS-II Booklet from (62 images, Cassell and Dubey, 1980) [4] was administered individually in self-administration mode after establishing the proper rapport with the subjects and making the instructions clear. SIS-II consists of A and B series of images containing 31 images each forming the total 62

images. Obtained protocols of all the subjects were scored for 14 categories strictly as per the scoring procedure prescribed by the authors (Cassell and Dubey, 2003).

Results and Discussion

Frequency distributions for all the 14 variables used in the study were set up separately for both the groups of subjects (male and female). Descriptive statistics, i.e., means, standard deviations, Skewness, and kurtoses were computed to ascertain the normality of data. Most of the distributions were found to be almost normal, except sex and paranoia scores in male's data and depression and paranoia in female's data. Two groups of subjects have been compared in terms of their mean scores on various variables. t-ratios were computed to ascertain the significance of mean differences.

Table 1: Comparison of mean scores of male and female college student

variables	Male (N=250)		Female (N=250)		t value	p
	M	SD	M	SD		
R	59.52	2.22	58.4	2.93	4.85	0
H	20.25	4.27	20.03	4.21	0.58	NS
A	8.47	3.8	7.94	4.63	1.41	NS
At	13.22	5.05	13.86	5.32	-1.4	NS
SEX	2.16	2.05	2.5	2.3	-1.74	NS
M	6.94	3.43	6.7	3.82	0.76	NS
MT	12.8	1.74	12.35	2.09	2.65	0
T	23.45	5.31	21.92	5.53	3.17	0.01
AT	23.43	5.56	24.25	6	-1.58	NS
Rej	2.48	2.23	3.68	3.11	-4.96	0
PAS	0.63	0.93	0.39	0.79	3.17	0
D	1.61	1.66	0.1	1.3	4.65	0
HAS	2.03	1.67	1.55	1.81	3.11	0
P	0.07	0.25	0.09	0.36	-0.72	NS

Perusal of table 1 reveals that there are significant differences in the SIS II percepts of male and female college students. Male college students have scored significantly high on the scales of Total Number of Responses (R), Most Typical Responses (MT), Typical Responses (T), Pathological Anatomy (PAS), Depression (D), and Hostility & Aggression and low on Rejection of Images than the female students.

Male students have scored significantly high on the scale of Total Number of Responses (M= 59.52, SD = 2.22; F Mean 58.40, SD 2.93; $t = 4.85$, $p < .01$) as compared to female students. According to Cassell and Dubey (2003) total numbers of responses are indicative of intellectual functioning and imaginative capacity. Significantly higher scores of males on Most Typical Responses (MM = 12.80, SD = 1.74; FM = 12.35 SD = 2.00; $t = 2.65$; $p < .01$) than the female students here depict that male students tend to be having higher level of coherent, logical thinking, ego strength and ability to keep up with the demands of society than the females.

Significantly high mean scores of male students on Typical Responses scale (MM 23.45, SD 5.31; FM = 21.92, SD = 5.53; $t = 3.17$, $p < .01$) than the female students here depict and mental health as compared to female students.

Male students have also scored significantly higher on Pathological Anatomy Scale (MM = 0.63, SD = 0.93; FM = 0.39 SD = 0.79; $t = 3.17$, $p < .01$) than the female students. It depicts

that male students tend to have high level of hypochondriatic sensitivity (Cassell and Dubey, 2003) than their counterpart female students. It maybe because of more appearance anxiety among the males.

Significantly higher scores on Depression scale by male students (MM = 1.61, SD 1.66; FM = 0.10 SD 1.30; $t = 4.65$, $p < .01$) than female by here depict that male having more conditioned suppression and helplessness. Since male students have also been found high on pathological anatomy scale so it posits that male students tend to have high level of masked depression as in on such cases subjects are also preoccupied with their bodies hypochondriacally and project their somatic repressions.

Significantly higher mean scores on Hostility and Aggression scale by male students (MM = 2.03 SD = 1.67; FM = 1.55 SD = 1.81; $t = 3.11$, $p < .01$) than female students here posits them to be having high level of assaultive body imagery, hostile attitudes, aggressive conflicts, and unexpressed hostile impulses than their counterpart female students. Combinedly, higher scores of males on Pathological Anatomy, Depression, and Hostility-Aggression scales are well understandable in terms of body symbolism, pathological somatic imagery, and repression (Castle and Dubey, 2003) [8].

Significantly low scores on Rejection of Images by male students (MM = 2.43 SD = 2.23; FM = 3.68 SD = 3.11; $t = -$

4.96, $p < .01$) than the female students here by portray them to be less inhibitive and more expressive than the females. It can be understood in terms of theory of inner cry

Conclusion

Overall findings of the present study portray that the male college students having high level of imaginative and Intellectual capacity, coherent and logical thinking, healthy and realistic perception, pathological projection of diseased body organs, hostile and aggression attitudes, impulses, and conflicts; and somatic expressions than their counterparts females. Though these findings provide important differentials of SIS II percept between male and female students, but these cannot be considered generalized which requires more large scale investigation across different samples in terms of age levels, educational level, domicile occupation family environment and socio cultural backgrounds.

References

1. Cassell WA. A Projective Index of Body Interior Awareness. *Psychosomatic Medicine*. 1964; 26:172-177.
2. Cassell WA. Body Perception and symptom Localization, *Psychosomatic Medicine*. 1965; 27:171-176.
3. Cassell WA. Desensitization Therapy for Body image Anxiety Canadian Psychiatric Association Journal, 22, 239-242.
4. Cassell WA. Body symbolism and Somatic Inkblot series, Anchorage, Alaska Aurora Publishing, 1980.
5. Cassell WA. Somatic Inkblot Series video. SIS center. Anchorage, Alaska (USA), 1984.
6. Cassell WA. The somatic Inkblot series continuing Rorschach's Conceptualization, SIS. *Journal of Projective Psychology & Mental Health*. 1994; 3:3-32.
7. Cassell WA. Assessing Suicidal Homicidal impulses with the SIS, *SIS Journal of Projective Psychology and Mental Health*. 2005; (1202):99-106.
8. Cassell WA. SIS cognitive Psychotherapy for spouse Induced PTSD. *SIS Journal of Projective Cassell and Dubey, BL Interpreting Inner World through Somatic imagery Manual of Somatic Inkblot Series. SIS, Centre, Anchorage: Alaska (USA), 2003-2006.*
9. Cassell WA, Dubey BL. tracing the roots of violence by associating Dream and SIS images: vicarious visit to an Adolescent's Birthday party *SIS Journal of Projective Psychology & Mental Health*. 2006; 13(2):87-106.
10. Cattell RB. *Personality and Motivation Structure and Measurement*. Chicago: World Book Co, 1957.
11. Cinzia S, Robesto F. The SIS-I and Body image Evaluation in subjects suffering from serious obesity *SIS Journal of Projective Psychology & Mental Health*. 1996; 5:105-113.
12. Dubey SN, Dubey BL. Effect of Psychological Intervention through SIS-I Images on Police Personnel *SIS Journal of Projective Psychology & Mental Health*. 2005; 12(2):153-158
13. Holtzman WH. *Inkblot Perception and Personality*. University of Texas Press, Texas, 1956.