Personality Profile Of Sero-Positive And Seronegative Pregnant Women Using Rorschach Test

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Abstracts: Introduction: Personality of sero-positive and sero-negative pregnant mothers was defined after considering factors like Total productivity, locations, determinants and contents. Seropositive personality shows low productivity, increased reaction time, rejection of more plates, lower number of human responses, higher number of animal responses, colour shock, high F+%, shading and narrow content categories on Rorschach ink-blot test. This suggests depressive tendencies. Method: Rorschach test was administered to sero-positive pregnant women (n=50) and sero-negative pregnant women (n=50) in this study. Result : Sero-negative personality also shows less productivity, increased reaction time and response, less whole response, more detailed responses which suggest anxiety and some sero-negative mothers showing depression. Rejection of plates was less as compared to sero-positive pregnant mothers, the human responses are less, high F+%, shading responses are not seen, and colour shock is absent, popular responses are expectedly more. [Dinkar A et al NJIRM 2012; 3(5) :77-83]

Key words: Rorschach, HIV, Sero-positive personality, sero-negative personality, pregnant mothers

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Introduction: The ability to become pregnant and to bear children is uniquely female. Physiology of pregnancy is mainly concerned with maternal adaptations to provide ideal atmosphere for fertilization, nutrition to growing fetus, safe childbirth, and thereafter to fulfill nutritional needs of newborn. Though mainly reproductive system is involved in pregnancy, but other body system also undergoes adjustments. As the pregnancy progresses various types of extra demands are imposed on the mother's body by growing fetus, which are met with by certain adaptations in almost all the organ systems of the body[1].

Women face an array of psychological issues, related not only to possible coexisting substance abuse, mental illness, domestic violence, and poverty, but also to the stresses of living with HIV disease and being the primary care provider for the family. Most HIV/AIDS-infected women are stigmatized even before HIV, infected by drug use, race, and poverty. Most of these women are burdened with the responsibility of young, dependent children, and, in general, lack a community of support. This situation affects the actual and perceived availability of supportive resources to respond to varied manifestations of HIV disease. Limited financial and emotional resources affect HIV-infected women's access to both psychological and medical services. Low self-esteem is the rule rather than the exception and plays a major role in ability to access and adhere to care.[2,3,10,11]

HIV/AIDS is first and foremost a sexually transmitted disease. Generally, women are more vulnerable to HIV infection because a larger surface is exposed, and semen contains higher concentration of HIV than vaginal or cervical fluids. AIDS is also transmitted by contaminated blood transfusion of whole blood cells, platelets and factors VIII and IX derived from human plasma. There is no evidence that transmission ever occurred through blood products such as albumin or hepatitis vaccines that meet WHO requirements[4]. HIV may pass from an infected mother to her foetus, through the placenta or to her infant during delivery or by breast – feeding. Transmission of HIV from mother to child can be prevented almost entirely by antiretroviral drug prophylaxis, elective caesarian section before onset of labour and by refraining from breast-feeding[5,6]. It may take few months to 10 years or even more to the development of AIDS from HIV infection however it is estimated that 75% of those infected with HIV will develop AIDS by the end of 10 years[7,8]. Current recommendations include: "Health – care providers should ensure that all pregnant women are counseled and encouraged to

be tested for HIV infection to allow women to know their infection status both for their own health and reduce the risk of perinatal HIV transmission" [9,10].

At the initial visit seropositive women is most vulnerable to a number of emotions such as shock, disbelief, guilt, anger, sadness, and even suicidal ideation.

The Rorschach test, also known as the Inkblot test, consists of ten white cards, 7" by 9", on each of which is printed an inkblot. By means of Rorschach's technique these images can be scored objectively and interpreted to furnish a picture of the individual's psychological tendencies in their relationships to themselves and to others in social environment. The Rorschach test reveals many aspects of personality, the inner assets and weaknesses, emotional reactions and methods of controlling them, ways in which thinking is organized, ways in which the individual sees himself and imagines others see him, and whether he is tense in his social relations-to name but a few of the personality aspects.[12,13,14,15,16]

Location score is classification of the response according to the area of the blot used for the concept: that is, the whole blot or part of it, and if a part, whether large or small, usual or unusual. This scoring for location of responses consists of classifying each response according to the area of blot used. There are five main categories to the area of location. Main categories are; **W**: The whole response, **D**: Detail, **Dd**: Rare Detail, **Ds and Dds**: The white space responses. Researcher has used the published list of D and Dd responses (beck et. Al. 1961); in which Ds and Dds responses are also listed for each Rorschach test figure separately.[17]

Determinants: After getting information about the location, the next objective in the inquiry was to find out as to 'what determined subject's percept?' For location the next question was 'WHERE'? For determinant the question is 'WHY'?'In Rorschach's scoring system there are four main determinants: (1).Experience of movement: M. (2) Color Nuances: C. (3) The variations in light: V, Y, and T. (4) Form Good and Poor: F+, F-. Scoring determinant is not very simple. Complexity enters in many associations and more often than not a multiple determinant is found in number of associations. For scoring such mixed feelings associations, once again Beck's instructions are followed in this study

Content : In Rorschach scoring system each scorable response should be scored for location, determinant and content. "Where" question leads to location score, 'why' question leads to determinant and the response itself is content, i.e., 'what' question indicates content. For each Rorschach figure certain responses are most popular; i.e., statistically they are most frequent. These responses occur more frequently than any other F+ responses. Such responses are scored P, i.e., popular percepts. List of such popular responses is available for each figure in Beck's work.

Material & Methods: Current cross sectional study was done on 50 seropositive and 50 seronegative pregnant women. Cases were selected from obstetrics and gynecology outpatient department at medical college. For the purpose of pre-test and post-test counseling a well designed medical Proforma was used. Pre-test counseling was done and the consent of the patient was taken. The Proforma denotes the history of the patient including Age, sex, marital status, educational status, risk behaviours, symptoms if any illness, dietary habits, menstrual history, obstetric history, previous history of any blood transfusion in the past. Tests were conducted in accordance with world medical declaration of Helsinki. Ethical clearance from institutional ethics committee was obtained.

After pre-test counseling blood sample was collected and sent to microbiology department for serological (HIV) test. The ELISA was used as the first screening procedure, and a single positive result on ELISA was followed with a second ELISA. If both results were positive, an immunoblot was

then conducted for final confirmation of HIV seroconversion[5].

The serological report confirmed status of the patient i.e. sero-positive or sero-negative. The report is given directly to the patients and Rorschach test was administered to the selected sero-negative and sero-positive patients.

Four major elements were scored for every response given by the subject. The first one was the location of the response or determination of the area of the inkblot used. The second considered the manner in which the response was seen, whether color or shading was used, or form only, or if movement of the object was present in the mind. The third dealt with the classification of the response into categories such as animals, humans, science, etc, while the fourth dealt with the originality of the response or its commonness. Inquiry of each patient who has participated in the study was done and the information obtained from Rorschach plates was utilized for scoring and interpretation, different numerical values and formulas were applied as per Rorschach test, so as to obtain the personality of sero-positive and seronegative pregnant women.

Observations: In the current study Rorschach ink-blot test was administered to100 pregnant women (50 sero-positive & 50 sero-negative). Total "R" observed in sero-positive pregnant women was 680 with mean of 13.6 $\pm$ 4.7; whereas in the sero-negative pregnant women it was 741 with mean of 14.82 $\pm$ 4.04. Table 1 shows location wise distribution of productivity. Table 2 shows comparison of determinants between both the groups. Table 3 shows content of both the groups.

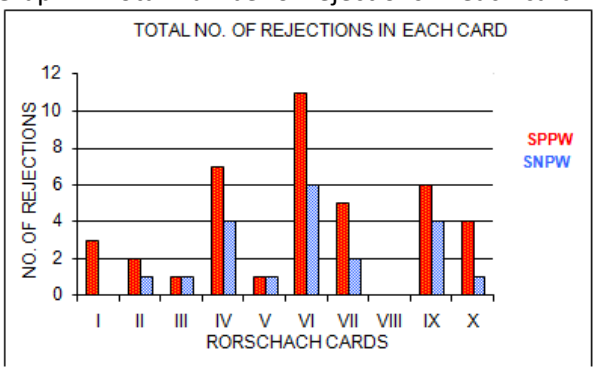
Total time duration recorded for conducting the Rorschach test by sero-positive pregnant women was 31 minutes whereas it was 27 minutes for sero-negative pregnant women.

Total "R" shows the intellectual functioning of the person, "More the total no. of response, better the intellectual functioning and lesser the total no. of responses poorer the intellectual functioning".

There will be no person who give less productivity accept in cases of depression and schizophrenia (Herman Rorschach 1981). In current study 33 (64%) sero-positive patients showed "R" less than 15 and 26 (52%) sero-negative patients showed "R" less than 15. The lowest "R" observed in sero-positive group of patients is 3. In the sero-negative pregnant women the factor for low "R" could be pregnancy itself. Hormonal changes occurring during pregnancy in the females is a well-known phenomenon; the psychological disturbances during the pregnancy have also been reported.

The time taken for each response "T/R" is more in the sero-positive pregnant women group than sero-negative pregnant women group. If a person takes more than 30"-40" it indicates depression. In the present study almost one-third sero-positive pregnant women showed methodical sequence; whereas two-third showed Irregular sequence & very few showed confused sequence. While in sero-negative group almost half (48%) of patients showed methodical sequence; whereas just less than half (46%) showed irregular sequence and very few (6%) showed confused sequence.

Graph 1: Total Number of rejections in each card



(Seropositive pregnant women-SPPW, Seronegative pregnant women-SNPW)

Discussion: In current study we observed a total "R" Mean difference of 1.22 in both the groups. In our study (33) 64% of sero-positive patients showed "R" less than 15 and (26) 52% sero-negative patients showed "R" less than 15. The

Table 1: Distribution Of Productivity – Location Wise

Group-I : Seropositive Pregnant Women (Sppw)					Group-Ii: Seronegative Pregnant Women (Snpw)				
N	R	W	D	Dd	N	R	W	D	Dd
50	680	126	520	14	50	741	139	573	9
MEAN	13.6	2.57	10.4	0.28	MEAN	14.82	2.78	11.46	0.18
%	----	18.52	76.47	2.05	%	----	18.75	77.32	1.21

Table 2: Comparision Of "Determinants"

DETERMINANT	SPPW			SNPW		
	TOTAL R =680			TOTALR=741		
	R	%	MEAN	R	%	MEAN
M	52	7.64	1.04	122	16.46	2.44
CF	85	12.5	1.7	79	10.66	1.58
FC	148	21.76	2.96	167	22.53	3.34
F+	303	44.55	6.06	261	35.22	5.22
F-	66	9.70	1.32	106	14.30	2.12
FY	8	1.17	0.16	1	0.13	0.02
FV	10	1.47	0.2	5	0.67	0.1
VF	2	0.29	0.04	-	-	-
TF	1	0.14	0.02	-	-	-

Table 3: Table Showing "Content" Of Sppw And Snpw

RESPONSES	SPPW			SNPW		
	TOTAL	MEAN	%	TOTAL	MEAN	%
A	318	6.36	46.76	386	7.72	52.09
Ad	10	0.2	1.47	-	-	-
An	34	0.68	5	68	1.36	9.17
Rl	5	0.1	0.73	-	-	-
Sex	78	1.56	11.47	80	1.6	10.79
H	140	2.8	20.58	147	2.94	19.83
Hd	4	0.08	0.58	-	-	-
Hh	2	0.04	0.29	-	-	-
Bl	3	0.06	0.44	-	-	-
Art	9	0.18	1.32	4	0.08	0.53
Na	60	1.47	8.82	83	1.66	11.20
Ls	2	0.04	0.29	-	-	-
Geog	2	0.04	0.29	2	0.04	0.26

(Seropositive pregnant women-SPPW, Seronegative pregnant women-SNPW)

lowest "R" observed in sero-positive group of patients is 3, whereas among sero-negative it is 5. After inquiry we came to know that they are afraid of talking and also having social withdrawal; they communicate less because of their sero-positive status as the social stigmas attached to it. The social and financial conditions of these women do not allow them to express themselves fully. Other

factor could be Fear about the child; having a defective or abnormal child, or that the child will die in the process of birth.

In the sero-negative pregnant women the factor for low "R" could be pregnancy itself. Hormonal changes occurring during pregnancy in the females is a well-known phenomenon; the psychological disturbances during the pregnancy are also reported.

We observed "T/R" in the sero-positive pregnant women 172 seconds and 126 seconds in sero-negative pregnant women. This shows that time taken for each response is more in the sero-positive pregnant women group than sero-negative pregnant women group. Expert's opinion is that if a person takes more than 30"- 40", which indicates depression.[17] In our study both groups showed depression. In seropositive pregnant women the reason for depression could be their sero-positive status and other contributing factors like financial status and responsibility of the family. In sero-negative pregnant women the causes for depression can be low education, low socio-economic conditions and the pregnancy itself could lead to anxiety and any pathological condition can lead to depression.

In seropositive group; **"M"** responses were 52 (7.64%) out of 680; whereas it was 122 (16.46%) out of 741 in sero-negative. The current study showed "M" responses below the normal value. Sero-negative pregnant women have given more "M" responses than sero-positive pregnant women. The difference between two groups is significant i.e. <0.05. In seropositive group **"FC"** responses were 148 (21.76%), whereas it was 167 (22.53%) in sero-negative group. The current study shows higher "FC" responses than the normal values. Thus, both 'M' and "FC" responses suggest depression in both the groups. Our findings are corroborative with Beck et al.[13]

In sero-positive group **"CF"** responses were 85 (12.5%) whereas it was 79 (10.66%) in seronegative group. Sero-positive pregnant women have given more "CF" responses than sero-negative pregnant women. This suggests poor impulse control & higher emotional excitability in sero-positive group of patients than sero-negative group.[13]

Out of total 680 responses observed in seropositive group; **"F+"** responses were 303 (44.55%), whereas 261 (35.22%) out of 741 were observed in sero-negative. "F+" responses were more in sero-positive pregnant women.

Out of total 680 responses observed in seropositive group; **"F-"** responses were 66 (9.70%), whereas 106 (14.30%) responses were observed in sero-negative group. The difference between two groups is significant i.e. P<0.05. "F-" responses are lower in sero-positive pregnant women than sero-negative pregnant women group this suggest depression in both the groups as it is higher than normal.[13]

In our study sero-positive pregnant women group of patients showed blood responses more than 2; and sero-negative pregnant women group failed to give any Blood response and blood response given by sero-positive pregnant women is 3 which is more than 2, suggesting hysterical symptoms. Seropositive pregnant women shows low productivity, increased reaction time and response, less whole responses, more detailed responses and rejection of more plates, absence of human responses, high F%, shading responses are seen, colour shock is also present, less popular responses, high animal responses and narrow width of content categories on Rorschach ink-blot test. This shows depressive illnesses. In some seropositive cases we have observed less organizational capacities. W is less than normal i.e. below 5, more CF responses and H is totally absent, these are cases of reactive schizophrenia and paranoid schizophrenia. In some cases C and CF responses are present, reaction time is average, shading responses are present, anatomical and sex responses are seen, blood responses are also seen which shows hysterical personalities.

Sero-negative pregnant women group also shows less productivity, increased reaction time and

Table 4**:** Synopsis of Rorschach test scorings and the test behaviors to which they refer

The Intellectual sphere		**The Affective sphere**	
R	Scored productivity	M	Percept as a movement
W	Whole	C	Undiluted color determinant
Z	Synthesized percept	CF	Color modulated by form
D	Isolated detail percept	FC	Form dominant over color
Dd	Rare detail	Y	Undiluted shading determinant
Ap	Selective approach	YF	Shading modulated by form
Seq	Selective sequence	FY	Form dominant over shading
F+ %	Perceptual accuracy	V	Undiluted vista determinant
A	Animal content	VF	Vista modulated by form
P	Most popular percept	FV	Form dominant over vista
L	Intellect-dominated percept	T	Undiluted texture determinant
T/R	Average time for response	TF	Texture modulated by form
T/ I R	Average time for first response	FT	Form dominant over texture
Fln R	Fluctuation of productivity between cards	F+	Accurate percepts
Fln T/ firstR	Fluctuation of time for first response	F-	Inaccurate percepts
		F	Accuracy not known
		Po	Position – determined response

response, less whole responses, more detailed responses which lead to anxiety and some patients showing depression. Rejection of plates are less, human responses are low, high F%, shading responses are not seen, colour shock is absent, popular responses are expectedly more, high animal responses and narrow width of content category. This shows depressive illness due to pregnant state. There are no signs of schizophrenia and hysterical tendencies.

Conclusion: To summarize we can say that sero-positive pregnant group has many indices confirming the diagnosis of depression. This group suggests that **R** is low, slow responding, and slow card turning and narrow content categories. This group feels discomfort on the plates requiring imagination and adaptation. They have rejected plate no. VI, which shows seized interpersonal relationship with their partner. This group shows low intellectual functioning and strives for support. Sero-negative pregnant group shows anxiety and depressive illness due to pregnant state. There are no signs of schizophrenia and hysterical tendencies in sero-negative pregnant women. Although current study highlighted personality structures in sero-positive and sero-negative pregnant state further studies with larger sample size are required to delineate the quantitative and qualitative differences in personality among these groups.

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