

## Exploring Psyche in Sexual Orientations with Human Figure Drawings: Revisiting the Minority Stress Model

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### Abstract

The study aimed to understand the present scenario in terms of relationship and difference between sexual orientation and personality characteristics exploring possible patterns of personality characteristics through Human figure drawings. 88 homosexual and 90 heterosexual individuals aged 18-25 years were selected for the study. Percentages, Chi-square and Fisher Exact test were used for statistical analysis. In consistency with the assumptions of the minority stress model, the results showed that individuals with different sexual orientations differ in certain aspects of personality. Significant features of anxiety, aggression and sexual disturbance were disclosed in the drawings. However, contrary to the assumptions of the minority stress model, the homosexual population had a significantly positive self-concept reflected through the drawings. Further, there was no significant difference found in features of negative self-concept and developmental impairment/regression among the study populations. The findings are discussed in detail in the text and theoretical implications are suggested.

**Keywords:** sexual orientation; personality characteristics; minority stress model.

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### Introduction

We can gain a better understanding of the lived experiences of members of oppressed communities by using the Minority Stress paradigm (Meyer, 2003), a social research and public health paradigm. According to the model, racial, sexual, gender, and disability-based minority stress (in the form of prejudice and discrimination) is more common among specific (oppressed) groups within the social framework of a given culture or civilization. Members of marginalized communities suffer more detrimental mental health consequences than members of majority groups as a result of their experiences. This results in significant differences in mental health outcomes.

According to this paradigm, the homosexual population is predisposed to poor mental health at all developmental stages being a minority. Studies with adult populations show higher rates of psychiatric comorbidity (Gilman et al., 2001), PTSD (Hatzenbuehler, 2009), alcohol use and abuse (Burgard et al., 2005), anxiety disorders (Cochran et al., 2003), and suicidal ideation and attempts as well as depression and mood disorders (Bostwick et al., 2010).

Adolescent studies uncover the adolescent years as the genesis of these adult sexual orientation mental health disparities: There is evidence from numerous research studies that homosexual youth experience disproportionately high rates of distress, symptomatology, and behaviors associated with these disorders before reaching adulthood (Fish & Pasley 2015). When compared to heterosexual, homosexual youth consistently report higher rates of emotional distress, symptoms of mood and anxiety disorders, self-harm, suicidal ideation, and suicidal behavior (Fergusson et al., 2005; Marshal et al., 2011). Additionally, studies conducted in the recent past have consistently found that compromised mental health is a fundamental predictor of a host of behavioral health disparities evident among homosexual youth (e.g., substance use, abuse, and dependence; Marshal et al., 2008).

This wealth of literature calls for an analysis of the psyche of the youth from the sexual minority communities and its comparison with the majority cohort to check for the preliminary indications of disturbances. Hypothetically, a projective method with least of alarming enquiry should prove to be the best for this purpose. The psychoanalytic basis for the use

of projective tests is the idea that projective drawings can shed light on aspects of the personality that are not accessible through conscious thought processes, thereby revealing information about the subject's inner reality. According to Lilienfeld et al. (2000), this inner world is typically described as the individual's intrapersonal themes, conflicts, psychological and emotional defenses, and signs of a psychological disturbance.

The projective technique called "Human Figure drawing" (HFD) includes giving someone instructions or prompts to sketch a human figure. The figure's size, shape, details, and proportions are then examined, along with the presence and absence of specific features like clothing, accessories, and facial expressions (Cosden and Morrison, 1995). According to Mitchell et al. (1993), the test, when paired with additional clinical information and assessment data, will disclose the client's "general conflicts and concerns." The HFDT has been used in numerous investigations to diagnose psychoses (Strumfer, 1963), anxiety and depressive symptoms (Holmes & Wiederholt, 1982), organic disorders and cognitive or mental impairment (Wang et al., 1998; Maserati et al, 2018).

While Human Figure Drawings (HFD) have been widely used as a projective technique in clinical and research settings, the scientific status of projective methods continues to be debated in psychological literature. Critics have raised concerns regarding their psychometric robustness, particularly with respect to reliability, validity, and the potential for subjective interpretation (Lilienfeld et al., 2000). At the same time, several researchers have argued that when used cautiously, alongside a clear theoretical framework and standardized interpretative guidelines, projective drawings may provide valuable exploratory insights into latent emotional themes, conflicts, and self-perceptions. In the present study, HFD was employed as an exploratory projective tool to understand possible personality-related patterns

associated with sexual orientation, rather than as a stand-alone diagnostic instrument.

By comparing the homosexual and heterosexual population in terms of the human figure drawings, this study is intended to be a scientific enquiry into the postulates of Minority Stress Model.

## **Materials and methods**

### ***Participants***

The sample consisted of 225 adults (125 Homo and 100 Heterosexuals) aged between 18 and 25 years. Homosexual participants were recruited through groups related to LGBTQIA+ issues and identities. Heterosexual individuals were recruited through advertisements that targeted the general population. Participants were screened for eligibility based on their self-reported sexual orientation assessed through the Kinsey Scale. Out of the 125 LGBTQ participants, 102 participants who identified as Homosexuals were recruited keeping the study objectives in mind.

Of the 202 participants who started the study, 178 completed it (88 Homosexuals and 90 Heterosexuals). Twenty-four participants (14 Homosexuals and 10 Heterosexuals) dropped out before completion. The technical issues primarily included incomplete submission of response sheets, interruption during the drawing task, inability to complete the second drawing, and loss of data due to procedural or recording errors during administration. In some cases, participants discontinued the task midway because the response sheets could not be retained in analyzable form. Additionally, a few participants withdrew due to loss of interest or unwillingness to continue with the task. Only complete datasets were included in the final analyses. There were 39 male and 49 female participants in the Homosexual group. Similarly, there were 42 male and 46 female participants in the Heterosexual group. All participants provided informed consent before starting the study and were debriefed about the purpose and hypotheses of the study. This study was part of the research work carried out for partial fulfilment of degree of Masters in Psychology and was approved by

the Departmental Research Committee of the concerned School of University.

### **Materials**

#### *Socio-demographic Data Sheet*

A socio-demographic data sheet was designed for the purpose of this study. It required the participants to provide information about study relevant variables like level of education, age, gender, socio-economic status and residential background, family structure, Birth order and number of siblings.

#### *The Kinsey Scale*

Alfred Kinsey, Wardell Pomeroy, and Clyde Martin developed the Heterosexual-Homosexual Rating Scale (1948)—known as “The Kinsey Scale.” This scale is a self-report measure that allows participants to provide a single rating for their sexual behaviors and interests. Scores for this scale range from 0 (exclusively Heterosexual) to 6 (exclusively homosexual). Scores 1 through 5 identify individuals with varying levels of same- and other-sex attraction and sexual behavior. For this study we utilized a version of the Kinsey Scale that includes an additional “X” category for those who do not fit within the 0 to 6 continuums. This “X” category was intended to describe “asexuality” or individuals who identify as “nonsexual”.

#### *Human Figure Drawing Test*

The Human Figure Drawing Test is a projective method based on analyzing drawings of human figures (Mitchell, Trent, & McArthur, 1993). Given a sheet of blank paper, the participant is instructed to sketch a person in their entirety without providing any details about their age, sex, attire, or other characteristics. They are then asked to sketch another person, with the only requirement being that it be the opposite sex from the first. The examiner then develops a description of the subject's personality and recognizes symptoms of psychological disturbance by interpreting the drawings and any verbalizations the participant made while generating them, based on clinical experience. The sequence of sex (whether a male or female is drawn first), the order in which body parts are

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portrayed, distortions, omissions, size, and clothes, in addition to more structural characteristics like location, line quality, and shading, are among the features of the drawings that are evaluated.

### **Procedure**

The study sample consisted of 88 Homosexual and 90 Heterosexual individuals. As the participants were recruited through convenience sampling, the sample may not be fully representative of the wider population, which may limit the generalizability of the findings. Initially, socio-demographic details were obtained from each of the participants with the help of the socio-demographic data sheet developed specifically for this study. Then, each participant, individually, was asked to draw a person. On completion, they were asked to draw a person of the opposite gender from the person that was drawn first. The responses on the human figure drawing test were scored as per the test manual and study objectives.

### **Statistical Analysis**

The statistical analyses were conducted to examine both the comparability of the study groups on socio-demographic variables and the differences in qualitative signs obtained from the Human Figure Drawings. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were first computed for all relevant variables. To assess group equivalence on socio-demographic characteristics, independent samples t-test was used for the continuous variable (age), while Chi-square tests of independence were employed for categorical variables such as gender, education, socio-economic status, residential background, family structure, birth order, and number of siblings.

For the Human Figure Drawing data, each qualitative sign was coded dichotomously as present (Yes = 1) or absent (No = 0) according to the test manual and study objectives. Frequencies and percentages of each qualitative sign were then calculated separately for the homosexual and heterosexual groups. Group differences for each qualitative sign were examined using the Chi-

square test; however, in cases where the expected cell frequencies were small, the Fisher’s Exact Test was applied to ensure statistical accuracy and robustness. A significance level of  $p < .05$  was adopted for all analyses. This analytical approach was selected to appropriately examine differences in the distribution of categorical indicators across the two study groups.

**Results**

The results have been presented in terms of personality characteristics i.e. anxiety, positive self-concept, negative self-concept, aggression, sexual disturbance and developmental impairment, which further include their respective qualitative signs observed in the participants’ drawings.

**Table 1. Sociodemographic Characteristics of Participants**

Variables	Homosexuals	Heterosexuals	$\chi^2$	$p$
Gender			0.22	.64
Male	39	42		
Female	49	46		
Socio-economic status			0.86	.35
Upper	53	48		
Middle	35	42		
Education			0.95	.33
Undergraduate	29	36		
Postgraduate	59	54		
Residence			0.86	.35
Semi-urban	53	48		
Urban	35	42		
Family structure			1.10	.30
Joint	23	30		
Nuclear	65	60		
Birth order			0.90	.63
First	38	45		
Second	32	30		
Third	18	15		
Number of siblings			1.28	.53
None	20	24		
One	41	45		
Two	27	21		

Note.  $N = 188$ ;  $n = 88$  for homosexuals and  $n = 90$  for Heterosexuals.

Table 1 shows the socio-demographic characteristics of the study sample. The mean age of the Homosexual group was  $22.02 \pm 2.96$  years. Similarly, the mean age of the Heterosexual group was  $21.39 \pm 2.46$  years. It shows that the Sarika Alreja, Deepak Mishra, Ravjot Kaur

study groups were matched on all socio-demographic variables i.e. education,  $\chi^2 (1, N=178) = .95, p = .33$ ; age,  $t (176) = 1.55, p = .124$ ; gender,  $\chi^2 (1, N=178) = .22, p = .64$ ; socio-economic status,  $\chi^2 (1, N=178) = .86, p = .35$ ;

residential background,  $\chi^2 (1, N=178) = .86, p = .35$ ; family structure,  $\chi^2 (1, N=178) = 1.10, p = .30$ ; Birth order,  $\chi^2 (2, N=178) = .90, p = .63$ ; and number of siblings,  $\chi^2 (2, N=178) = 1.28, p = .53$ . The socio-demographic variables were selected

according to cultural practices of the area where the study was conducted. The analysis suggests that participants of both the study groups were evenly distributed in the concerned categories of socio-demographic variables.

**Table 2. Study Groups' Comparison on Personality Characteristics and their Qualitative Signs**

Qualitative Signs	Homosexuals				Heterosexuals				p
	Yes		No		Yes		No		
	N	%	N	%	n	%	n	%	
Anxiety									
Extreme Asymmetry	21	24	67	76	8	9	82	91	.008
Sketching	62	70	26	30	21	23	69	77	<.001
Shading (other than Hair)	18	20	70	80	13	14	77	86	.33
Aggression									
Spiked fingers	20	23	68	77	9	10	81	90	.026
Nostrils showing	17	19	71	81	6	7	84	93	.014
Large Size	23	26	65	74	11	12	79	88	.022
Clenched Fists	15	17	73	83	12	13	78	87	.54
Sexual Disturbance									
Disheveled hair	17	19	71	81	7	8	83	92	.029
Waist emphasis	47	53	41	47	24	27	66	73	<.001
Nose omitted	20	23	68	77	10	11	80	89	.046
Effeminate Male drawn	17	19	71	81	9	10	81	90	.092
Masculine Female drawn	15	17	73	83	8	9	82	91	.12

Note. N = 188; n = 88 for homosexuals and n = 90 for Heterosexuals.

Table 2 reveals observable difference between the Homosexual and Heterosexual groups in terms of anxiety, positive self-concept, aggression and sexual disturbance. Significant differences were found between the study groups on anxiety indicative feature of extreme asymmetry ( $p = [.008]$ ), and sketching ( $p = [<.001]$ ) supporting the hypothesis that Homosexual individuals experience significantly higher levels of anxiety. Table 2 also shows significant differences on Aggression indicative

features of spiked fingers ( $p = [.026]$ ), nostrils showing ( $p = [.014]$ ), and Large Size ( $p = [.022]$ ) denoting Homosexual individuals experience significantly higher levels of aggression. Further, significant differences were found on Sexual disturbance indicative features of disheveled hair ( $p = [.029]$ ), waist emphasis ( $p = [<.001]$ ), and nose omitted ( $p = [.046]$ ) denoting that Homosexual individuals experience significantly higher levels of Sexual Disturbance in comparison to heterosexuals.

**Table 3. Study Groups' Comparison on Personality Characteristics and their Qualitative Signs**

Qualitative Signs	Homosexuals		Heterosexuals		p
	Yes	No	Yes	No	

	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%	
Positive Self-Concept									
Large size	23	26	65	74	11	12	79	88	.022
Addition of extraneous objects	17	19	71	81	7	8	83	92	.029
Larger, Dominant Male	16	18	72	82	12	13	78	87	.41
Negative Self-Concept									
Small size	20	23	68	77	33	37	57	63	.26
Effeminate Male drawn	17	19	71	81	9	10	81	90	.092
Masculine Female drawn	15	17	73	83	8	9	82	91	.12
Larger, Dominant Male	16	18	72	82	12	13	78	87	.41
Light Lines	13	15	75	85	10	11	80	89	.51
Developmental Impairment/Regression									
Petal-like fingers	7	8	81	92	10	11	80	89	.61
Genderless	9	10	79	90	4	4	86	96	.16
Childlike	6	7	82	93	9	10	81	90	.59
Developmentally indistinguishable	11	12	77	88	8	9	82	91	.47
Naked without genitalia	8	9	80	91	4	4	86	96	.25
Partially clothed	17	19	71	81	7	8	83	92	.029
Pupils omitted	11	12	77	88	16	18	84	82	.40
Mouth omitted	13	15	75	85	10	11	80	89	.51
Hands omitted	5	6	83	94	8	9	82	91	.57
Fingers omitted	11	12	77	88	15	17	75	83	.53

Note. *N* = 188; *n* = 88 for homosexuals and *n* = 90 for Heterosexuals.

However, as shown in table-3 and Contrary to popular belief, significant differences were found on Positive Self-concept indicative features of Large Size ( $p = [.022]$ ), and addition of extraneous objects ( $p = [.029]$ ), denoting Homosexual individuals exhibited significantly higher levels of Positive Self-concept. The table also shows that there was no significant difference found on negative self-concept indicative features of small size ( $p = [.26]$ ), Effeminate Male ( $p = [.092]$ ), and Masculine Female drawn ( $p = [.12]$ ). Further, no significant difference was found on most of the indicative features of Developmental Impairment/Regression except one i.e. partially clothed ( $p = [.029]$ ). The indicator “partially clothed” may be interpreted as suggestive of developmental tension, vulnerability, body-image conflict, or unresolved identity-related concerns. Rather than indicating developmental impairment in a strict clinical sense, this feature may symbolically reflect areas of self-representational conflict and emotional discomfort. In conclusion, it reflects that the study groups were similar in their psycho-sexual development.

**Discussion**

Some of the results found in this study are in favor of assumptions deduced from the Minority Stress Model by previous studies. For example, a

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clothed ( $p = [.029]$ ). The indicator “partially clothed” may be interpreted as suggestive of developmental tension, vulnerability, body-image conflict, or unresolved identity-related concerns. Rather than indicating developmental impairment in a strict clinical sense, this feature may symbolically reflect areas of self-representational conflict and emotional discomfort. In conclusion, it reflects that the study groups were similar in their psycho-sexual development.

**Discussion**

Some of the results found in this study are in favor of assumptions deduced from the Minority Stress Model by previous studies. For example, a

significantly higher number of homosexual individuals had drawn figures containing extreme asymmetry and sketching. Within the Human Figure Drawing framework, extreme asymmetry is often interpreted as reflecting internal disequilibrium, emotional instability, and difficulty in impulse regulation, whereas sketching or repeated redrawing of lines may symbolically indicate indecisiveness, apprehension, and heightened internal tension. These indicators together suggest elevated anxiety-related cognitive and emotional processing among the homosexual participants. Homosexual individuals' experience of higher levels of anxiety seems to be due to their experience as a minority group that faces frequent discrimination and prejudice. Homosexual population seems to experience more threats, assaults, or traumatic events which further leads to increased levels of anxiety (Hatzenbuehler, 2009)

Also, a significantly higher number of homosexual individuals had drawn figures depicting spiked fingers and nostrils. From a projective interpretative perspective, spiked fingers are commonly linked with aggressive impulses, hostility, or suppressed anger, while prominent nostrils may reflect irritability, heightened reactivity, and externalized tension. These features may represent symbolic expressions of frustration arising from experiences of social stigma and discrimination. In society, homosexuals tend to be conscious about themselves, which at times can lead them to have aggressive outbursts in situations of being unheard and facing discrimination or when being victimized (Sergeant et al., 2006). Similarly, a significantly higher number of homosexual individuals had drawn figures with disheveled hair, waist emphasis and omitted nose. More specifically, disheveled hair may reflect emotional unrest, concerns related to self-presentation, or preoccupation with identity-related issues. Waist emphasis is often interpreted as symbolic of heightened body awareness and conflict surrounding sexual identity or self-*Sarika Alreja, Deepak Mishra, Ravjot Kaur*

display, while omission of the nose has historically been viewed as suggestive of inhibition, self-image conflict, and, in certain projective traditions, symbolic sexual concerns. People of nonconforming sexual orientation face issues relating to their sexual identity and often face societal rejection after coming out with their sexual identities. They tend to face the hypothesized minority stress which results in heightened levels of anxiety, mood, and depressive conditions. Such conditions have been linked with sexual issues among individuals (Herder et al., 2023).

However, contrary to the assumptions of the Minority Stress Model, only a few homosexuals had drawn figures indicative of emotional regression or sexual conflicts. Also, very few Homosexual individuals had drawn figures indicative of withdrawal tendencies, feelings of inadequacy, and paranoia. American Psychological Association's Task Force Report (2009) on Appropriate Therapeutic Responses to Sexual Orientation stated that the consensus of scientific research and clinical literature demonstrates that same-sex attractions, feelings, and behaviors are normal and positive variations of human sexuality. This implies that the homosexual individuals' functioning is no different from the general population and justifies the findings of the present study revealing no developmental impairment and negative self-concept in the Homosexual population.

However, in surprising contrast to the assumptions of minority stress theory, a significantly higher number of homosexual individuals had drawn figures with features like large size and the addition of extraneous objects. Within the projective framework, larger figure size is often associated with stronger self-presence, confidence, and positive self-regard, whereas the addition of extraneous objects may reflect psychological expansiveness, imaginative elaboration, and a richer sense of identity expression. These indicators may therefore suggest a relatively integrated and positive self-concept in the homosexual group. Supporting the

findings of the present study, Savin-Williams (1995) has found that the incorporation of one's homosexual identity eventually leads to high self-esteem. The majority of studies show that acknowledging one's sexual orientation has a positive overall influence on psychological well-being. Furthermore, self-disclosure of one's homosexual identity has been linked to increased self-esteem (Swann & Spivey, 2004).

The presence of a significantly positive self-concept in the Homosexual population provides crucial evidence of psychological strength and adaptability within this group. This positive self-perception may reflect the influence of protective factors such as robust social support networks, affirmative community connections, successful identity integration, and the development of effective coping strategies in the face of societal stigma. These factors potentially serve as buffers that mitigate the negative psychological effects typically associated with minority stress. Moreover, this resilience challenges the assumption of uniform psychological vulnerability across all sexual minorities. Instead, it highlights the variability within these populations, where individual, social, and cultural resources can contribute to positive psychological outcomes despite exposure to systemic stress.

Taken together, the findings present both confirmatory and disconfirmatory evidence in relation to the Minority Stress Model. On the one hand, the significantly higher indicators of anxiety, aggression, and sexual conflict among homosexual participants support the model's assumption that minority-related stigma and discrimination may contribute to heightened psychological distress. On the other hand, the finding of significantly higher positive self-concept and the absence of significant differences in negative self-concept and most indicators of developmental tension suggest that the psychological experiences of sexual minority individuals are not uniformly deficit-oriented. These disconfirmatory findings indicate the presence of resilience, adaptive coping, and *Sarika Alreja, Deepak Mishra, Ravjot Kaur*

positive identity integration alongside experiences of minority stress. Therefore, the present findings are best understood as reflecting a complex psychological profile in which distress-related indicators coexist with markers of strength and self-acceptance.

These findings suggest a more complex and subtle understanding of psychological resilience among sexual minorities, moving beyond the traditional deficit-focused narratives often emphasized in the Minority Stress Model. The study underscores the necessity of revising and expanding the Minority Stress Model to incorporate the potential for growth, resilience, and positive self-concept among sexual minorities. Rather than viewing minority identity solely through the lens of vulnerability and deficit, future research and theoretical frameworks should recognize the dynamic interplay between stressors, resilience factors, and psychological well-being, allowing for a more holistic and accurate understanding of sexual minority mental health.

Thus, the present study supports a more integrative Minority Stress framework that incorporates both distress and resilience pathways. While the model traditionally emphasizes the pathways through which stigma, prejudice, and discrimination contribute to adverse mental health outcomes, the current results indicate that these pathways may coexist with processes of resilience, adaptive coping, and psychological growth. Specifically, the presence of positive self-concept alongside elevated anxiety and aggression suggests that minority stress may not lead exclusively to vulnerability but may also activate protective mechanisms such as identity affirmation, community connectedness, meaning-making, and resilience-building. In this sense, resilience and growth may be conceptualized as moderating or buffering processes within the Minority Stress framework, shaping how individuals respond to chronic social stressors. Integrating these dimensions would allow the model to better capture both risk

and strength-based trajectories in sexual minority mental health.

The socio-demographic variables and the interpretation of qualitative indicators in the present study must also be understood within the specific socio-cultural context in which the research was conducted. Variables such as family structure, birth order, residential background, and socio-economic status were selected in line with the cultural and social practices relevant to the study setting. Similarly, certain qualitative indicators derived from Human Figure Drawings may be influenced by culturally shaped norms related to body representation, gender roles, self-presentation, and identity expression. Therefore, the meaning and psychological interpretation of these indicators may not be uniformly applicable across different cultural contexts. As a result, caution must be exercised in extending the findings to populations from different socio-cultural, geographic, or institutional settings. Future research should examine the cross-cultural validity of these indicators and replicate the findings in more diverse populations.

A key limitation of the present study is the use of convenience sampling, which may restrict the generalizability of the findings beyond the sampled population. Participants were recruited through LGBTQIA+ groups and general advertisements, which may have resulted in a sample that does not fully represent the broader population of individuals with diverse sexual orientations, particularly those from varied socio-cultural, educational, and geographic backgrounds. Individuals who are more willing to participate in research related to sexual orientation may differ systematically from those who choose not to participate, potentially introducing selection bias. Therefore, the findings should be interpreted with caution and should not be generalized to all homosexual and heterosexual young adults. Future research should employ probability-based or stratified sampling techniques, include larger and more diverse samples, and recruit participants across multiple regions and socio-cultural contexts to Sarika Alreja, Deepak Mishra, Ravjot Kaur

enhance the external validity and representativeness of the results.

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