



ANALYSIS OF HANDWRITING CHARACTERISTICS IN RELATION TO CHILD ABUSE

Vishav Jyoti Bajaj¹ and Dr. Renu Verma²

¹ Panjab University, Chandigarh, India

² Panjab University, Chandigarh, India

ABSTRACT

The present study aimed to examine the handwriting in relation to child abuse. Handwriting and its Relationship to Mohammadkhani's Child abuse scale were calculated by using the data obtained from 150 high school students. Scores of handwriting scale and child abuse scale was co-related to the handwriting characteristics of slants to the right, left or upright ; size of handwriting; formulation of angle, the sharp points; space between lines and words; final stroke of letter 'e'; t-bars cross the t stem ; loops of lower parts of y and g. Findings were determined by using t-test and Coefficients of Correlation were calculated as required. No significant correlations between the handwriting measures and Psychological abuse were found but the handwriting had a significant influence on Physical abuse and Neglect of the at 0.01 level of significance, sexual abuse at 0.05 level of significance high school students This means that three of the four child abuse dimensions are more in the behavior of the high school students of school, may be due to the environment or the social set up.

Keywords: handwriting analysis, child abuse, physical abuse, sexual abuse, psychological abuse, neglect

1 INTRODUCTION

Today everybody is developing technologically but has shown deterioration in a value system. The society is wallowing in a moral crisis, of which abuse is just one of the symptoms. The ultimate disease of the time is valuelessness (Maslow, 1959). People are mad for materialistic a thing, which has lead to the degeneration of humanity as well as of social values. This social situation appears to be a case of mental violation, emotional contagion, ethical defiance, and moral pollution. Every second of the day comes with its own horror story.



The mythology glorifies the forbearance of a Bhakta Prahalad, who was saved by Lord Narayana from Prahalad's father, King Hiranyakashipu, who used to abuse him in a variety of ways, but in the real world, there is no God to whom a child can call in distress. In the recent past, Haryana police IG Rathore molested Ruchika Girhotra, a 14-year-old tennis player in Panchkula in 1990. Whenever she used to go out, she was chased and abused by Rathore's accomplice and three years later, Ruchika committed suicide.

Take for example the recent incident near Moga where a young thirteen-year-old girl, Arshdeep Kaur was molested and murdered after she was allegedly pushed from a moving Orbit bus

Child abuse according to Campbell (2002) is a crosshatch in the human character. It unsurprisingly frightens all who is insightful, ne plus ultra, magnificent, and synchronized. It traumatizes not only the child but also the deeper and finer feeling of civilization. Child sexual abuse seems to be much worse, distressing, and less tolerable, pervading all sections of every society. This hostility and brutality towards children are damaging their budding consciousness and affect the child's personality largely. It is in a way the nastiest of criminal offenses as children have a spontaneous belief that spring from the soul. To tear down this innocent belief, to use brutality against one that is feeble to shield oneself is to distort the future before it is born.

From an educational standpoint, child abuse has long-term effects on the personality development of the children (Oates, 1984). The child-victim of abuse often suffers serious psychological and physical difficulties in adolescence and adulthood and is unable to contribute to his Nation. Accepting these broken bits of their life is not everybody's cup of tea. In reality, these people look normal and behave normally in front of the outside world but inside they are totally broken. The early detection of abuse in the victim is, therefore, an essential part of overall adjustment in life. The investigators tried for a possible solution to the problem of an under-reported child abuse by using handwriting as a too.

1.1 HANDWRITING ANALYSIS

Actually handwriting analysis is a very ancient and precious science. The study and analysis of personality through it was first developed by the Chinese 3,000 years ago.

Significant advances have been made in understanding the connection between the brain and handwriting production (Harralson and Miller, 2013). The researchers believed that a person's handwriting - the script and its placing on the page express the unique impulses of the individual logically. The graph on page reflects the subconscious of personality traits. The written words reveal the frame of mind and the emotional state of the writer. People can say whatever they want... but handwriting never lies (Dresbold, 2008).



Desvignes (2013) adds two people are different but can easily produce the same result in a personality test. However, no two people will ever have the same handwriting.

1.2 CHILD ABUSE

Child abuse means harming a child by putting it in danger or risk his life. It is a causing or permitting any harmful or offensive contact on a child's body; and, neglect or negligent treatment or commercial or other exploitation. This will result in humiliation, potential harm to the child's health, its survival, development, or frightens the child.

WHO (1998) defines child abuse or maltreatment consists of all forms of physical, emotional ill-treatment, sexual abuse, neglect or negligent action or commercial or another mistreatment, resulting in actual or potential harm to the child's health, endurance, development, or self-esteem in the context of a relationship of responsibility, faith or power.

According to Child Abuse Prevention and Treatment Act- CAPTA (2010) , child abuse and neglect as “any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act which presents an imminent risk of serious harm”.

Mainly there are four types of child abuse: physical abuse, sexual abuse, emotional/ psychological abuse, and neglect abuse. Physical abuse is the inflicting of physical injury upon the child by hitting (with a hand or any material), punching, kicking, biting, shaking, throwing, stabbing, burning, choking, or beating the child (Goldman, Salus, Wolcott, & Kennedy, 2003).

India has the second-largest child population in the world, 42% of India's total population is below eighteen years. Results of a Government commissioned survey disclosed shocking data that more than 53% of Indian children are subjected to sexual abuse. Distrust, rejection, and cover-up to maintain family reputation, child sexual abuse has become an invisible crime in India. According to WHO, one in every four girls, and one in every seven boys in the world are sexually abused.

Neglect means the failures of the caregiver particularly the parents to give good vigor, schooling, emotional development, nourishment, protection, and secure livelihood for the child (WHO, 1999). It means parents failed to provide the child with basic needs.

Therefore, child abuse has several impacts on the overall development, and well- being of the child includes short term and long-term effects. Hides sign of abuse reflects in the form of anger, withdrawal, fear, and sadness, which can impair the immune system.

1.3 HANDWRITING ANALYSIS AND CHILD ABUSE

Handwriting analysis is a scientific tool blessed with an ingrained capacity to penetrate the depths of

human emotions. Dimensions like slant, height, the width can be measured physically; the other kind like style, form of the letters, the diffusion, or sharpness of the borders of the strokes, etc, evaluated only qualitatively or descriptively.

Thus, child abuse is associated with personality disorders out of which child sexual abuse seems much worse and not too pleasant. It is the nastiest of criminal offenses as children have a spontaneous belief that spring from the soul.

Following are the handwriting indicators which suggest that an individual is experiencing some type of abuse or neglect include -

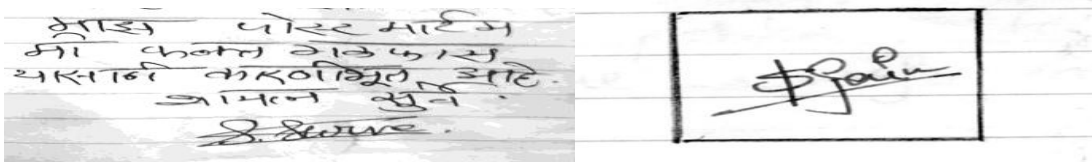
1. Extremely Heavy Pressured t Bars especially when written downward or on the right side of the t stem, with an extra flow of ink from the pen at the end of a stroke: it indicates frustration and anger inside.
2. Show mental health problems, such as having low self-esteem, depression, or thoughts of suicide.
 - a) Low self-esteem is revealed by low t-bar show inferiority complex in a writer.



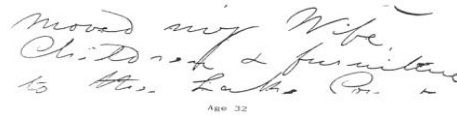
- b) Depression and lack of confidence revealed by a downward angle and slanted handwriting

I should not take up this work seriously I do appreciate you telling me so that I would be sure unless time and expense. However I'll

- c) Thoughts of suicide depicted by strike-through lines in signatures. These straight lines pierce through the signature, indicating the writers' utter unhappiness with his situation.



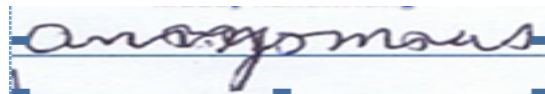
Secondly, sudden drop of a word at the end of a sentence accompanied by a low t-bar.



d) Anxiety is depicted by slow, narrow, small, disconnected, upright, and often left slanted handwriting in Arcade forms with very light or very heavy pressure and usually narrow, upper Zone.



3. Muddiness: Writing which looks thick or has filled ovals (such as an 'a,' 'e,' 'o,' etc.) will indicate the writer's five senses are fully active. This indicates Guilt, anxiety.



4. Claws: Like a hook, the claw shows that the writer holding on frustration, embarrassment and past grievances. The claw-like letters indicate bitterness, bad instincts.



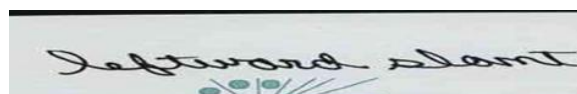
6. Heavily Hooked Writing means writer stuck to his past. It is a hard time to letting go. The first letter in a word refers to the writer, the last to his relations with others.

7. Twisted Letters in the lower zone is concerned with a person's basic needs. It shows distorted emotions and reflects sentiments.

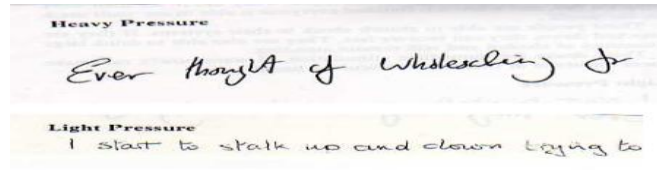
8. Very Angular Writing (and no round letters) indicates heavy aggression, high energy, resistance to others' ideas or wishes, tenseness, hardness and sharpness, cruelty, lack of compromise, and sadism.

9. Page Margins represents time. The blank spaces on the left, right, top, and bottom on a page comprises of the margin. Left and top margins linked with the past whereas the right and bottom margins are linked with the future. Narrow left margin, unbalanced left margin, and increasing right margin in handwriting indicated abuse.

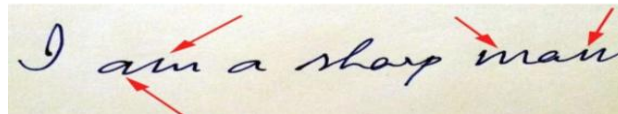
10. Slant towards Left indicates emotionally withdrawn repressed childhood, which he carries forward into the future. The child develops a cold attitude. He is afraid of expressing the pain he has experienced when every time he was rejected by his parents.



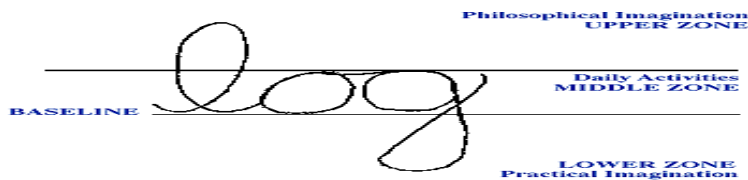
11. Pressure, measures the writers' vitality, intensity, or determination. Extremely heavy pressure reveals poorly channelled energy, ill or secretiveness. If this pressure is combined with slow writing, it may indicate an inhibition without outlets, depression or frustration.



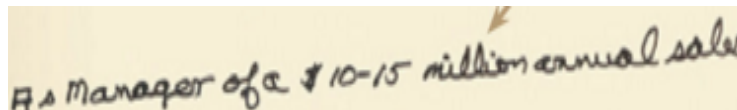
11. Angle in handwriting indicates stress, discomfort, or some past programme in mind.



12. Zones: There are three zones to examine in handwriting. These zones reflect imagination and desires. The upper zone reveals intellectual thought, abstract thinking, daydreaming, psychic abilities, and philosophical imagination. The middle zone deals with the day-to-day aspects of life, like home, family, work, and social concerns. The lower zone emphasizes physical and material drives and the desire for material wealth.



If the abuse is present, it is indicated through flames in the upper or lower zone, excessive upper or lower zone, nonexistent upper zone, the middle zone is varying in height and lower zone stopping below the baseline.



13. Letters with a circle in them, like o's or a's reveal communications. The person with open loops is likely to be open easily or vice a versa. Twisted circles may indicate deliberate deceit, and intrusions into the circles may indicate past abuse.





1.4 STATEMENT OF THE PROBLEM

Hence the study title is stated as:

ANALYSIS OF HANDWRITING CHARACTERISTICS IN RELATION TO CHILD ABUSE.

1.5 OBJECTIVES OF THE STUDY

The objectives of the study are as follows:

1. To study the relationship of handwriting analysis with the child abuse of high class school students.
2. To study the relationship between handwriting analysis with physical abuse.
3. To study the relationship between handwriting analysis with Psychological abuse
4. To study the relationship between handwriting analysis with sexual abuse.
5. To study the relationship between handwriting analysis with neglect.
6. To compare physical abuse, emotional abuse, sexual abuse, and neglect based on gender.

1.6 HYPOTHESES OF THE STUDY

The present study was conducted to test the following hypotheses:

1. There exists no significant relationship between the handwriting and child abuse of high class students.
2. There exists no significant relationship between handwriting with physical abuse.
3. There exists no significant relationship between handwriting with Psychological abuse
4. There exists no significant relationship between handwriting with sexual abuse.
5. There exists no significant relationship between handwriting with neglect.
6. There exist no significant differences in physical abuse, emotional abuse, sexual abuse, and neglect based on gender.

1.7 DELIMITATIONS OF THE STUDY

- 1) The present study was confined to the analysis of Handwriting in English only.
- 2) A few handwriting traits were taken up. These are:
 - (i) Handwriting slant
 - (ii) Handwriting size
 - (iii) Handwriting having spacing in words
 - (iv) Handwriting having spacing in lines
 - (v) Handwriting having variations in slant
 - (vi) Handwritings having variation in size
 - (vii) Angular handwriting
 - (viii) Handwriting baseline



- (ix) Handwriting margins
- (x) Type of e, y and, t bars
- (xi) Signature and
- (xii) I

1.8 DESIGN OF THE STUDY

The research studies should be distinguished based on their purposes and approaches. The appropriate method of selection was employed, however, always depends upon the nature of the problem. A random sampling method was employed to study the relationship of handwriting analysis with child abuse of high-class school students.

The practical design of the study is set under the following broad headings.

- (i) Sample
- (ii) Tools
- (iii) Data collection
- (iv) Statistical techniques

1.9 SAMPLE

The population of the study was high-class school students. A sample of 150 high school students was selected through random sampling technique from Government senior secondary schools, of Bhedwal district of Punjab.

1.10 TOOLS USED

In the present study, the following tools were used to collect the data.

1. Handwriting Analysis Scale: Self-constructed Handwriting Analysis Scale was used to collect the data. The tool to collect and interpret handwriting samples was developed by the supervisor and the investigator.
2. Mohammadkhani's Child abuse scale (2003).

1.11 DATA COLLECTION

The investigator herself collected the data. It was difficult first to make the children understand about the term, 'Abuse'. Finally, after a while they understood and filled the questionnaires.

1.12 STATISTICAL TECHNIQUES

- a) Pearson product moment correlation used to measure the strength and direction of association between two variables.
- b) t- test used to compare the means of two variables.



II. ANALYSIS AND INTERPRETATION OF DATA

In order to draw inferences, coefficient of correlation and t- test was calculated. The results of the analysis are as follows:

Table 1 Table of correlation

S.no.	Variables	Value of 'r'
1.	Handwriting with Child abuse in total	0.160**
2.	Handwriting with Physical abuse	0.166**
3.	Handwriting with Psychological abuse	0.105
4.	Handwriting with Sexual abuse	0.206*
5.	Handwriting with Neglect	-0.187**

*t-value is significant at 0.05 Level ** t-value is significant at 0.01 Level

Table 2 Table of Mean Standard deviation and t-test

S.no.	Variables	Gender	Mean	Std. Dev.	Value of 't'
1	Child abuse in total	Male	39.10	5.0	2.07*
		Female	40.71	4.5	
2	Physical abuse	Male	7.83	2.32	2.11*
		Female	9.18	4.5	
3	Psychological abuse	Male	10.92	1.78	3.03**
		Female	9.45	2.4	
4	Sexual abuse	Male	1.45	1.8	2.73*
		Female	2.30	2.0	
5	Neglect	Male	19.45	2..3	0.78
		Female	19.78	2.9	

*t-value is significant at 0.05 Level ** t-value is significant at 0.01 Level

III. TESTING OF HYPOTHESES

1. case of psychological abuse male students are more at risk, as their mean value is 10.92The coefficient of correlation between handwriting and child abuse of high school students was found to be 0.160, which is significant at 0.01 level. Therefore, the Hypothesis I, “There exists no significant relationship between the handwriting and child abuse of high class students” is not retained. This means that there is a significant relation between Handwriting analysis and child abuse. The different characteristics in the handwriting of the children show the particular type of abuse in children.



2. The coefficient of correlation between handwriting and child abuse of high school students was found to be 0.166, which is significant at 0.01 level. Therefore, the Hypothesis II, "There exists no significant relationship between handwriting analysis with physical abuse" is not retained. It means that physical abuse is strongly reflected through handwriting.
3. The coefficient of correlation between handwriting and child abuse of high school students was found to be 0.105, which is not significant at any level of significance. Therefore, Hypothesis III, "There exists no significant relationship between handwriting analysis with Psychological abuse" is accepted and retained. It means that Psychological abuse does not depicted through handwriting.
4. The coefficient of correlation between handwriting and sexual abuse of high school students was found to be 0.206, which is significant at 0.05 level of significance. Therefore, Hypothesis IV, "There exists no significant relationship between handwriting analysis with sexual abuse" is not retained. It means that Sexual abuse is strongly reflected through handwriting.
5. The coefficient of correlation between handwriting and child abuse of high school students was found to be -0.187, which is significant at 0.01 level. Therefore, Hypothesis V, "There exists no significant relationship between handwriting analysis with neglect" is not retained. It means that neglect is strongly reflected through handwriting.
6. The t-value for significance of difference between the means of high school students on the variable of child abuse in total is 2.07. The Physical abuse (Dimension of child abuse) was found to be 2.11, 3.03 on emotional abuse, 2.73 on sexual abuse, and 0.78 on Neglect. This is quite evident that Physical Abuse and Sexual abuse is significant at 0.05 level of significance and Psychological abuse at 0.01 level of significance, but Neglect dimension of abuse is not significant at either level of confidence. This shows that students do differ in Physical , Psychological and sexual abuse dimensions but do not differ in Neglect abuse dimension. Hence the Hypothesis, "There exists no significant difference in physical, emotional, sexual, and neglect abuse dimensions based on gender" is partially accepted. This means that three of the four-child abuse dimensions are more in the behavior of the high school students and this may be due to the environment or the social set up of the society or the school. Hence, it can be stated that there lies a significant difference in the physical abuse of male and female students. The Mean value of both the samples also indicate towards this difference. Mean value came out to be 7.83 in case of male students and 9.18 in case of female students. The corresponding Mean value further clarifies that female students have higher physical abuse as compared to male students. Similarly female students face more risk in sexual abuse as compared to their male counterparts as the mean value is more in case of female students i.e., 2.30. However, in as compared to female students.



IV. DISCUSSION OF RESULTS

The findings of the present study showed no significant correlations found between the handwriting measures and Psychological abuse but the handwriting had a significant influence on Physical abuse, sexual abuse, and Neglect. It shows that children are not getting much attention in their families. They were physically and sexually harassed and *neglected* which is displayed in their handwriting. They fail to establish safe environment with other family members. Their believes are shattered that their needs for security are not met as most of them have heavy t bars, disconnected writing and put line under their signature. The entire sample almost detected with these traits.

According to the statistics shown in table two shows Child maltreatment including physical abuse, sexual abuse, neglect are more in girls as compare to boys. It is proved that girls are more victimized physically, sexually and neglected than boys. Further, Psychological abuse was more in boys as compare to girls. They were more emotionally abused as compare to girls.

V CONCLUSION

This research provides an innovative and different way of looking at growing children. In- depth study will reveal more of the characteristics, which can surprise us all. It not only widened the horizons of our understanding, but also has answered some of the questions pertinent to this particular stage of human development. Children of tender age cannot handle abuses especially sexual abuse resulting in committing of suicides by them.

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