

Effect of Hands Writing in Various Drug Addict Person

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Available online at: www.xournals.com

Received 22th June 2019 | Revised 26th August 2019 | Accepted 16th September 2019

Abstract:

The case study highlights the importance of observing the handwriting which was damaged due to drug abuse. Handwriting of a medication buyer introduces certain qualities that are helpful to be known and broke down by specific masters associated with research in both the Criminal and Medical field. Handwriting investigation can turn into a profitable therapeutic determination instrument for observing the advancement made by medication addicts under medicine; the ends uncover the qualities of harmed Handwriting because of medication misuse, subsequent to breaking down a few Handwriting of a multi-year people who are dependent on medications. The outcomes of drugs on the image gesture shapes can be quickly classified as: - inconstant pressure; - inconsistency and incoherence in keeping slant left/right; - performing person letters with different slants, - sloppiness and mistakes, sudden deviations, vertically - horizontally superficiality and ailment in the familiar corporation of writing in page; - variations in pressure between the upper and the decrease zones due to exhaustion and rest of muscle tone; - tendency to radically change the angular shapes into threaded movements. The frequent characteristics always are analyzed after taking into consideration the subject's medical history, intellectual illness or any other illnesses that can alter his normal fitness status, the age, and the type of drug used (narcotics, Alcohol, Cocaine or any medical drugs).

Keywords: Toxicology, Drug Abuse, Handwriting after Drug Addictions.

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Introduction

Certain visual signs are accepted by two or more fallow or group or person or individual of a town , city or country as a means of communication or informing once idea for a particular matter as understanding or sending message to the other is in a broad sense is known as handwriting.

Once in a while, document examiners are looked with handwriting styles composed by a person who is affected by liquor. In fact, liquor can cause detectable impacts upon a man's handwriting and an amnesic state may happen after liquor utilization, which rises inquiries of credibility practically speaking as Hilton inferred. On the opposite side, if a man joins liquor with drugs like triazolam, he may compose mysterious or non-unknown undermining notes and in this way deny initiation. Various research studies, articles and exchanges have focused on the impact of liquor on handwriting. Be that as it may, the outcomes are generally not founded on measurable information and thusly uninspiring. This investigation was done keeping in mind the end goal to figure out how liquor and liquor related neurological weakening influence handwriting styles.

They were analyzed when liquor utilization and assessed factually. The point of this exploration is to decide if past perceptions on announced impacts of liquor on handwriting are legitimate and to set up the consistency of watching particular impacts. Handwriting, this "fine seismograph", has a tendency to be touchy to outside operators. Medications and psychedelic drugs of different sorts, and also liquor, leave their blemish on the neuromuscular framework. Despite the fact that their belongings may differ, there are assurances about two or three issues. Elements which can make changes in the person's handwriting are: the handwriting's level of advancement, changes caused by composing with the "hand driven ", liquor, harming, tranquilize mishandle, drugs, dangerous substances, push; adjustment of handwriting because of physical specialists, for example, age, weariness, diminishing or loss of vision, removal of fingers or handle. Heroin, cocaine (and their assortments) addicts, same as drunkards, feel better at first subsequent to taking the medication, as the neuromuscular keenness and their execution is enhanced.

The contrary state is restraint or withdrawal. Studies have demonstrated that affected by drugs like LSD -

25 and BOL - 148 the handwriting and mark endure changes like those adjusted because of liquor utilization. Visit cases happen on written by hand wills or record marks, in a matter of seconds prior or after the ingestion of an overdose that in the end killed the casualty. Checks and receipts are some of the time marked affected by drugs, however in the wake of recouping to typical, the individual it was never again to recall all that they have marked.

Adjusted composition will depend principally on age and furthermore different components (inward and/or outside) that may change the person's handwriting. Inner components allude to the previous neuropsychiatric diseases -, for example, Multiple Sclerosis (MS), loss of motion of an appendage, significant dejection, schizophrenia, and so forth. Additionally, if blending liquor with medications or energizer prescription, an example of such written work will give an expanded level of harm. A comparable circumstance can happen if examining tests of letters from an elderly individual, is it just every so often expending stimulating substances. In such case, the weakening element (medicate) covers alternate factors beforehand happened and would advance the written work's harm degree. On the off chance that we allude to the purchasers' age, it ought to be noticed that the level of adjustment of the handwriting is relative to its security. We realize that written work is balanced out around the age of 18-20 years alongside accomplishing development of the individual; the composition ends up programmed and developments are disentangled. Likewise essential is the recurrence, on which an individual composes - as of late, because of the expanding part of PCs in regular daily existence, there are less and less occupations where workers are compelled to convey records close by.

Under such conditions, we infer that future realistic skill and handwriting examination will be performed on tests of as of now having a prior disintegration. These days, the utilization of medications has expanded altogether among Romanian youngsters. It ought to be seen that the procedure of detoxification isn't generally fruitful; examining the patient's handwriting amid the detoxification treatment and after its consummation will bit by bit uncover changes in letters' execution in extent to the advance made by the person. With respect to outside components, we allude to the conditions in which the manually written test was led: the presence of a

legitimate scriptural instrument, proper help, and other ideal conditions (remaining situated, nonappearance of aggravations, for example, uproarious clamors, and so on). With a specific end goal to finish the appraisal of the impacts of medications on the realistic example it would be required for each examined individual and every sort of medication substance, to break down handwriting into four unmistakable stages: 1. before sedate utilize, 2. Amid opiate organization 3. In withdrawal organize 4 during the time spent detoxification. Such research ought to be stretched out to countless, with a specific end goal to achieve indisputable outcomes, to be measurably critical for to have the capacity to utilize them in future practices.

HANDWRITING CHARACTERISTICS:-

Class and Individual Characteristics:- Every one of the components that recognize hand writing fall into two general and to some degree covering bunches class and individual characteristic. Class characteristic, as the name infers, are those regular to various scholars and may come about because of such impacts as the composition framework contemplated, family affiliation, exchange preparing, and instruction. Singular attributes are pretty much curious to a determine author. Class characteristic, obviously, have little weight in distinguishing an essayist, as it can be promptly be seen that there are others with these same composition characteristics. The most widely recognized mistakes of the unfit inspector is to portray a surprising qualities a being person when in truth it just has a place with a written work framework outside the circle of his experience. Individual characteristic, then again, constitute the foundation of a distinguishing proof, yet in the event that two example of composing were not set up by a similar essayist, this can be built up through huge contrasts in either individual or class characteristic.

1-Class Characteristics:-pictorial effect, rhythm, style, movement, Pen position, Line quality, skilled, trimmers.

2-Individual Characteristics:-pen pressure, pen lifts, size, slope or slant, shading, pen pause, starting and ending strokes, retouching.

HANDWRITING VARIATION DUE TO DRUGS AND ALCOHOL: Similarly as with any outside effect on one's capacity to either hold the

written work instruments or control the numerous arrangement of entangled neuromuscular developments engaged with the demonstration of penmanship the utilization of liquor or potentially medications can influence the capacity to compose. similarly as endeavoring to ride a bike or working a vehicle , liquor and medications that influence engine abilities exercises will make it "troublesome " to compose without deviation from ones typical penmanship qualities of liquor and medications affected handwriting incorporate however are not restricted to "SLOOPY " OR " SLURRED working ,tremors ,adjustment ,overwriting , poor pen arrangement and stray or deceptive pen checking.

Types of drugs which affect handwriting:-

Both legal and illegal drugs have chemicals that can change how your body and mind work. They can give you a pleasurable "high," ease your stress, or help you avoid problems in your life. These some drugs can affect the handwriting variation some of them are as follows:-

- 1. Inebriant:-** To exhilarate or stupefy as if by liquor .**Ex. Alcohol**
- 2. Depressant:-** An agent that reduces a bodily functional activity or an instinctive desire (such as appetite).**Ex. Heroin**
- 3. Stimulant:-**An agent (such as a drug) that produces a temporary increase of the functional activity or efficiency of an organism or any of its parts. **Ex. Cocaine**
- 4. Hallucinogen:-**A substance that induces hallucinations. **Ex Marijuana**
- 5. Cardiac: -** Temporary or permanent cessation of the heartbeat. **Ex. Smoking and tobacco.**

Review of Literature

Tripp et al., 1959. Measures of ballisticity have already been discovered touchy to Parkinson and indications. As perpetual liquor utilize may impact development, it was normal that the liquor ward may have slower, less effective penmanship, and display contrasts in the pen weights they utilize.

Medan 1969. He expressed that liquor abuse and medication dependence are hurtful for the person as well as for his family and the general public on the loose. There is an outstanding adage "Once a consumer dependably a consumer". In all actuality every single hard consumer begins with direct drinking and slowly increment the amount to end up addicts.

O. Hilton 1969. Once in a while, report inspectors are looked with handwriting styles composed by a person who is affected by liquor. To be sure, liquor can cause discernible impacts upon a man's handwriting.

Hallett & Khoshbin 1980. Developments of patients with cerebella disorders are related with delayed blasts of muscle action, while developments of patients with Parkinson's illness are described by numerous blasts of muscle action.

Beck, 1986 while handwriting is known to change under the impacts of alcohol, the system underlying the impedance are vague, and may vary as a function of dependence.

Maarse 1987. For example, measures of ballisticity are delicate to the Brady kinesis seen in basal ganglia issue, while ghostly measures are more helpful for tremors. The relative extents of the development dedicated to increasing speed and deceleration may reflect anomalies of power advancement.

Hiramani and Sharma 1988. has given three translations for the utilization of medications: One school deciphers it as 'hostile to social conduct' calling for suppressive measures against the clients marked as 'freaks'; the other school sees the issue as one of 'individual maladjustment of disturbed people's requiring therapeutic or mental treatment; and the third school considers the utilization of medications as the final result of working of social and social sub-frameworks that deliver status issues and intrigue clashes.

Phillips et al.1991. Various lists have been produced to assess handwriting proposed that particular records of handwriting quality may best assess particular side effects of mind harm.

Wann & Nimmo-Smith, 1991. In addition, the balances of pen weights might be imperative for the

exact control of composing strokes, and might be delicate to shortages in compel control. Unearthly investigation ought to be touchy to cerebella tremors that ordinarily happen in the lower recurrence go (e.g., 4– 5 Hz).

Berar dell et al., 1996. We included measures of ballisticity trying to confine work by exhibiting twofold separations. Both cerebella disorders and Parkinson and disorders are related with slower developments

Daschle et al.1998. The present investigation hence looked to describe the handwriting of inebriated people utilizing kinematic measures. On the off chance that cerebella manifestations are available, we would expect expanded power in the lower scope of the range (i.e., 4– 5 Hz) we would likewise expect anomalies in the sums and terms of the speeding up stage with respect to the deceleration stages. Also, diminishments in pen weight may be normal in inebriated people.

Manto et al., 1998. Gradualness and Dysmetria can be unabashedly evaluated by estimating stroke lengths and spans. Dysmetria is related with variations from the norm in the sum or term of the speeding up stage in respect to the deceleration period of development, and can be measured by asymmetry proportions. Hypo-tonic is an intense side effect of cerebella harm and might be demonstrated by lessened pen weights. Measures of handwriting proficiency were incorporated for two reasons.

Macionis 2001. States that re-socialization implies drastically changing a detainee's identity through precisely controlling the earth. Re socialization is a two-section process. In the first place, the staff's separates the new detainee's current character, utilizing what Goff man depicts as "abasements, corruptions, embarrassments, and profanations of self." In the second piece of the re-socialization process, the staff tries to fabricate another self in the prisoner through an arrangement of reward and disciplines. Re-socialization can realize impressive change in a detainee; however add up to foundations influence distinctive individuals in various ways. While a few prisoners are considered 'restored' or recuperated, other may change nearly nothing.

Parks et al., 2003 Initially, there has been some recommendation of wastefulness related with

dysdiadochokinesia announced heavy drinkers showed more cerebella initiation for a given tapping rate, and keeping in mind that measures of handwriting productivity appear to be identified with basal ganglia brokenness, the measure was incorporated for correlation purposes, as it may offer bits of knowledge into any gradualness of development.

Ahuja 2003. States that medication is a synthetic substance related with unmistakable physical as well as mental impacts. It modifies a man's typical substantial procedures or capacities. In any case, this definition is excessively wide. In therapeutic sense, a medication is a substance endorsed by a doctor or made explicitly to treat and averting ailment and affliction by its compound nature and its impact on the structure and elements of a living creature. In the mental and sociological settings, sedate is a term for propensity shaping substance which specifically influences the cerebrum or sensory system. All the more correctly, it alludes to "any concoction substance which influences real capacity, mind-set, observation, or awareness which has potential for abuse, and which might be unsafe to the individual or the general public".

Rao 2004. Sees socialization as a procedure whereby an individual turns into a working individual from the general public. The individual ends up associated by taking in the tenets and practices of social gatherings. By this procedure the individual builds up his very own identity. Dwindle Worley clarifies socialization as the procedure of "transmission of culture, the procedure whereby men take in the standards and practices of social gatherings".

Sailing & Phillips, 2007 Second, we included measures of ballisticity on the grounds that beforehand utilized a generally similar measure while surveying the handwriting of heavy drinkers.

D.E. Boatwright 2009 on the opposite side, if a man joins liquor with drugs like triazolam, he may compose mysterious or non-unknown undermining notes and in this way deny creation..

Material and Method:

The present study was carried out over a period from January 2018 to April 2018 at the Drug Rehabilitation Center Ambikapur, Surguja District,

(Chhattisgarh). Total numbers of 52 cases were collected. The study was conducted through interviewing all individuals aged 10 years to >60+ years and above using a pretested questionnaire containing information about drug use and their socio demographic factors followed by Hand writing samples to examine various physiological and neurological changes persist during addiction . Each individual is unique and as such needs to be approached by taking into account their personal experiences, mental, emotional and physical state, and cultural and family backgrounds when beginning a counselling session. Therefore, the purpose of this study was:

- In the present study certain characteristics of writing that are considered significant in determining the individual characteristics of the people giving handwriting samples was focused.
- Significant signs are: pressure, firmness, clarity of letters and connecting strokes, the writing on the page and line, size points (constancy or variation thereof), letter formation, continuity and slope points, spaces between lines and letters, etc. were taken on the account of consideration.
- The characteristics listed above highlight the typological features (Strength, mobility), psychosomatic features, mental (sensitivity, accuracy, aesthetic sense, will, intelligence, creativity) and even tensed trends, depression, vitality etc. were discussed.
- Standard samples were collected from healthy person keeping their age, gender, and education status as constant.
- Their handwriting samples were compared with those who are drug addicts following characteristics were studied: - line quality, pen pressure, speed, size, slant, rhythm, pictorial effect, tremors etc.
- The way of rehabilitation provided are as follows :- meditation, yoga, own work was done by him itself and also the way of talking and way of answering and how to respect the peoples at anywhere this things has been taught at the rehabilitation Centre.

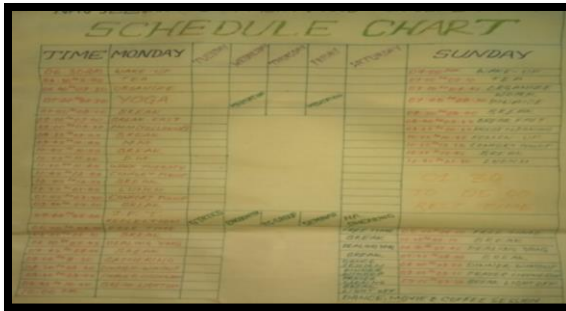


Fig.1- Shows description of chart adopted in rehabilitation Centre during full term treatment of the patient.

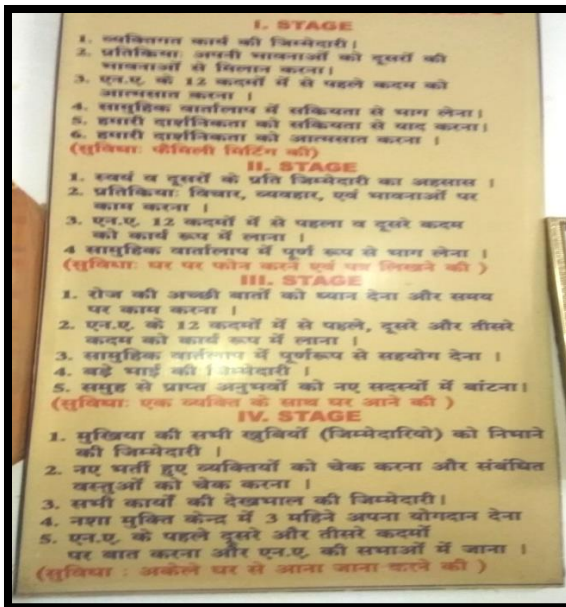


Fig 2-Shows description of all four stages adopted in rehabilitation centre during full term treatment of the patient.

Table-1: Shows Treatment Stages wise Distribution of the studied Subjects N=52

S. No.	Treatment Stages	No.	%
1.	Stage-I	11	21.15
2.	Stage-II	14	26.92
3.	Stage-III	13	25.00
4.	Stage-IV	14	26.92
Total		52	100

Table 1 Shows distribution of the studied subject according to the various stages of treatment at Drug Rehabilitation Center Ambikapur, Surguja District, (Chhattisgarh) at the time of collection of sample. it is observed that from stage 1 to stage 4 distribution of subject was found almost equal in number i.e. in each stage the studied subject were found between 21- 27 %.

Table-2: Shows Age wise Distribution of the studied Subjects N=52

S. No.	Age Groups	No.	%
1.	10-20Yrs	11	21.15
2.	20-30Yrs	21	40.38
3.	30-40Yrs	16	30.77
4.	50-60Yrs	3	5.77
5.	> 60 Yrs	1	1.92
Total		52	100

Table 2 Shows age wise distribution of the studied subjects. It was observed that most of the studied subjects were the age group of 20-40 years those were found 70% of the total studied subjects. Whereas the subjects belongs to the age group of either 50 years or greater than the 60 years were found minimum i.e.4 cases only.

Table-3: Shows Gender wise Distribution of the studied Subjects N=52

S. No.	Gender	No.	%
1.	Male	46	88.46
2.	Female	6	11.54
Total		52	100

Table 3 Shows sex wise distribution of the studied subject. It was observed those males were found maximum as compare to female i.e.88.46 % and 11.54 respectively.

Table-4: Shows Residence wise Distribution of the studied Subjects N=52

S. No.	Residence	No.	%
1.	Rural	20	38.46
2.	Urban	32	61.54
Total		52	100

Table 4 Shows residence wise distribution of the studied subjects. It was observe that among all four stages of the rehabilitation the maximum subjects were from urban areas as compare to rural areas those were found 32 and 20 in number respectively.

Table-5: Shows Educational Status of the studied Subjects N=52

S. No.	Educational Status	No.	%
1.	Illiterate	5	9.62
2.	Primary	5	9.62
3.	Middle	8	15.38
4.	Secondary	12	23.08
5.	Senior Secondary	14	26.92
6.	Graduate & Above	8	15.38
Total		52	100

Table5 Shows literacy among studied subjects. It was observed that the subject without education were found 9.62% , subjects having education from primary to middle were cumulatively 13 in number as compare to the subject having education of secondary , senior secondary and graduate level those were found 23.08% , 26.92% and 15.38%. Therefore it was found that most of the studied subjects were educated.

Table-6: Shows Occupational Status of the studied Subjects N=52

S. No.	Occupation	No.	%
1.	Employed	33	63.46
2.	Unemployed	19	36.54
Total		52	100

Table 6 Shows occupation status of the studied subject. It was observed that most of the studied subject were engaged in employment those were found 63.46% as compare to unemployed those were 19 in number.

Table-7: Shows Socio-economic Status of the studied Subjects N=52

S. No.	Socio-economic Status	No.	%
1.	Higher	27	51.92
2.	Middle	15	28.85
3.	Lower	10	19.23
Total		52	100

Table 7 shows socio-economic status of the studied subject. it was observed studied subject belongs to the higher income group were found almost 50 % of total studied subjects as compare to subjects belong to lower class those were found 19.23%.

Table-8: Shows Addiction wise Distribution of the studied Subjects N=52

S. No.	Occupation	No.	%
1.	Nicotine	6	11.54
2.	Alcohol	25	48.08
3.	Drug	21	40.38
4.	Nicotine + Alcohol	29	55.77
5.	Drug + Alcohol	37	71.15
6.	Nicotine + Drug + Alcohol	41	78.85

Table 8 Shows addiction wise distribution of the studied subject .It was observed that the subject having the combination of more than one addiction that is nicotine followed by either alcohol or drugs were found 55.77% and 71.15 % respectively .It was also observed that the subject with single addiction were least in number that is nicotine users, alcohol users and drug users those were found 11.54%, 48.08%, and 40.38%.

Table-9: Shows Duration of Addiction wise Distribution of the studied Subjects N=52

S. No.	Socio-economic Status	No.	%
1.	< 5Yrs	14	26.92
2.	5 – 10Yrs	29	55.77
3.	> 10 Yrs	09	17.31
Total		52	100

characteristics. These changes on handwriting depending upon the effect of alcohol and drugs present special problems to the document examiner in evaluating the authenticity of handwriting and in judging whether the writer was sober or intoxicated. Almost all authors agree with the increase in size, carelessness, casualness, deterioration, spacing of writing and decline in legibility at handwriting written under the effect of alcohol and drugs. These results are thought to reveal that persons under the effect of alcohol and drugs are writing faster, due to euphoria and increasing self-confidence; nevertheless, the increase in the amount of tremor and angularity, as well as impairment of alignment control suggests physical difficulties in manipulating the pen. If a limited document, which contains these signs, has been a problem of authenticity, one must be carefully with discriminative diagnoses like neurologic disorders, such as Parkinson and multiple

sclerosis. It must be looked over for the lack of fluency, slowness, careful and deliberate writing contrary to carelessness and casualness, also seen in handwriting under the effect of alcohol and drugs. One may say, that the intoxicated and the neurological ill persons' handwriting are different from each other; one represents loss of control due to relaxation, the other one loss of control due to tension. However, the presence of some alterations together is strongly suggestive that the person was under the influence of alcohol and drugs. First of all, the duty of handwriting examiner is to identify if the questioned and known sample are coming from the same source. Consequently, as this explanatory analysis suggests that differences between sober and intoxicated persons can be identified in handwriting, but the examiner's judgment must be proportionately cautious, keeping in mind the abnormally wide range of variation expected.



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REF-AGORA International Journal of Juridical Sciences, www.juridicaljournal.univagora.ro ISSN 1843-570X, E-ISSN 2067-7677 No. 1 (2014), pp. 1-6the pathology of handwriting as a result of drug abuse. a case study V. G. Băncilă.

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