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Original Research Article

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Profile of Juveniles Examined for Age Estimation: A Forensic Department Study

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Abstract

In India, according to Juvenile Justice Act 2000, a person below 18 years of age is a Juvenile. This law has been amended with time. As per the recent changes the age for a person to be considered Juvenile will depend on crime committed by Juvenile. If the individual does not have any valid proof of age, then he is brought for medical estimation of age. In Delhi, the age estimation is done in Forensic Medicine Department.

This paper aims to study the profile of Juveniles brought for age estimation in Forensic Department of a tertiary care centre in Delhiwith a focus on alleged offence committed, alleged age of these individuals, age estimated through medical examination and possible abuse of the legal provisions by perpetrators of crime with a critical note necessitating the requirement of recent amendment to the act.

Keywords: Juvenile Justice Act; Amendment; Juvenile; Crime.

Introduction

Juvenile justice act 1986[1] was enacted following the Beijing rules, to cater to the special development needs of the juveniles in conflict with law, providing them care and protection and helping them for smooth rehabilitation in the society. This law was amended by Juvenile Juvenile Justice Act 2000 (JJA 2000) which stated that Juveniles were individuals below the age of 18 years irrespective of gender.[2,3]

The proof of age as required under Juvenile Justice Act 2000 is the age proof or matriculation certificatefrom school and birth certificate issued by municipality or corporation. If thesedocuments are not available, thenthe juvenile in conflict with law is referred to a medical board of doctors for age determination. As per the Judgement of Delhi High court this medical board should comprise of specialists from Dental, Radiology/Forensic and Medicine departments.

According to NCRB data 2014, the total number of new cases reported under JJA 2000 were 1315 out of which 6 cases ended as mistake of fact or law. Total number of cases disposed of were 1149 with total pendency of 20%. Amongst the incidence of crime against children, Delhi constituted 10% of total all India percentage and the maximum amongst union territories. The percentage of cases of juveniles to total cognizable crimes in 2014 was 1.2 and the rate of crime under cases of juveniles in conflict with law in the same year was 2.7. According to NCRB data most of the juveniles committing crime belonged to the age group of 16–18 years followed by age group of 12–16 years and lastly below 12 years. In all age groups male dominance was seen over females for crime rate.[4]

This paper is an attempt to study theprofile of the Juveniles in conflict with law (JCL), brought for age estimation in Safdarjung hospital, Delhi with a focus on alleged offencecommitted, alleged age of these individuals, age estimated through medical examination and possible abuse of the legal

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provisions by perpetrators of crime. Recently, the Indian Cabinet has passed an Act that JCL would be tried according to the offence committed by them, rather than just by their age.[5] Hence here we would also try to analyse whether this resolution would have any effect on punishing heinous offenders.

Materials and Methods

The study was done in Department of Forensic Medicine, VMMC and Safdarjung Hospital, New Delhi. The retrospective data was collected from records of the age estimation cases done during the year 2014. The data was critically analysed and the results are as under.

Results

The total number of age estimation cases done were 387 during the year 2014. Out of these 113 were females and 274 were males. (Figure 1)

In most of cases the age estimation was done on the order of Child Welfare Committee (41.34%) followed by Juvenile Justice board 2 (31.26%) and Saket Court (22.73%). (Table 1, Figure 2)

In most of the cases the crime was done in the same year as age estimation (Table 2). However, age estimation was also done in cases where crime was done in year 1994 (1), 2003 (1) and 2007 (5).

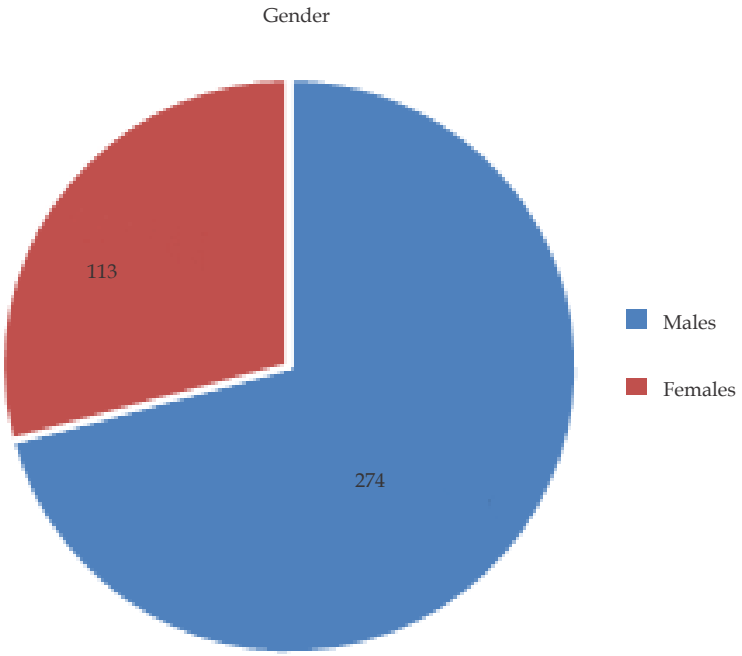

Fig. 1: Number of Cases as per gender

Table 1: Authority who ordered Age estimation

Authority	Number of cases
Child Welfare Committee	160 (41.34%)
Dwarka	1 (0.2%)
High Court, Delhi	1 (0.2%)
Juvenile Justice Board 2	121 (31.26%)
Patiala house	12 (3.1%)
Police	2 (0.4%)
Saket court	88 (22.73%)
Tis Hazari	2 (0.4%)

The alleged juveniles being brought for age estimation mostly belonged to Delhi (64%) and followed by the states of Bihar (16.5%) and Uttar Pradesh (9%). (Table 3, Figure 3)

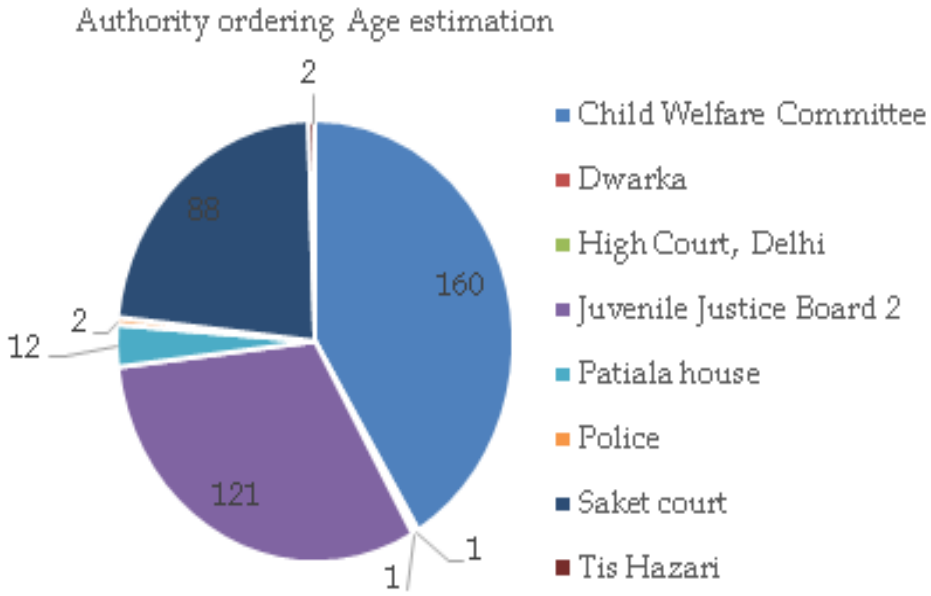

Fig. 2: Authority who ordered Age estimation

Table 2: Year of alleged crime

Year of Alleged Crime	Number of Cases
1994	1
2003	1
2007	5
2012	1
2013	30
2014	343
Not available	6

Table 3: Region from which the alleged juveniles belonged from

Region	Number of cases
Assam	04 (1%)
Bangladesh	01 (0.2%)
Bihar	64 (16.5%)
Haryana	05 (1.2%)
Jharkhand	08 (2%)
Manipur	01 (0.2%)
Myanmar	02 (0.5%)
Nepal	02 (0.5%)
New Delhi	248 (64%)
Uttar Pradesh	35 (9%)
West Bengal	13 (3%)
Original Address not available	04 (1%)

In maximum cases the juveniles were charged under Indian Penal Code (69.76%). (Table 4, Figure 4) they were also charged under Protection of Child against Sexual Offences Act 2012 (POCSO 2012), Juvenile Justice Act 2000 (JJA 2000) and Bonded Labour Act.

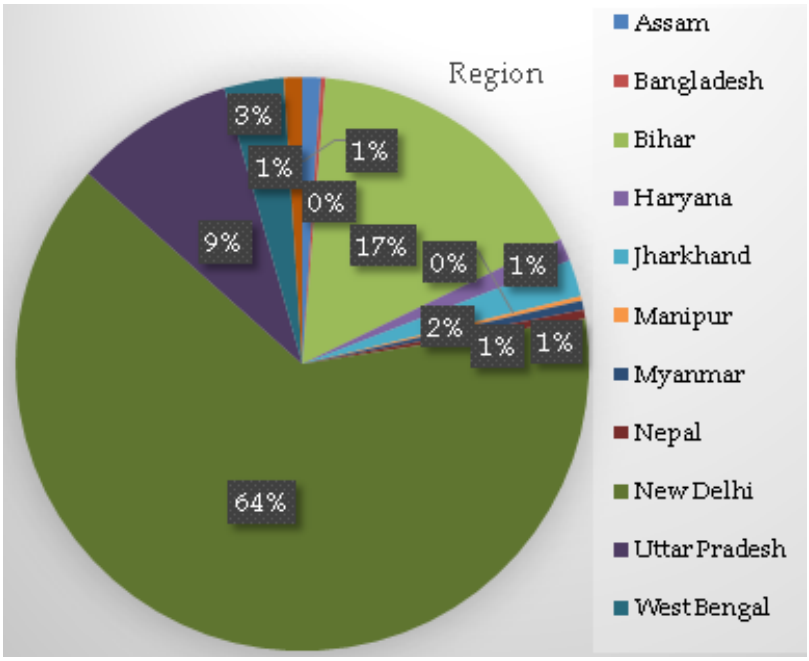

Fig. 3: Region from which the alleged juveniles belonged from

Table 4: Different Acts under which the Juveniles were charged

Acts	Number of Juveniles
Indian Penal Code 1860 [6]	270 (69.76%)
Protection of Child against Sexual Offences Act 2012[7]	52 (13.43%)
Juvenile Justice Act 2000	54 (13.95%)
ARMS act 1959[8]	03 (0.7%)
Passport act 1967[9]	02 (0.5%)
Bonded labour act 1976[10]	15 (3.8%)
Child labour act 1986[11]	07 (1.8%)
Prevention of Corruption act 1988[12]	01 (0.2%)
Delhi excise act 2009[13]	01 (0.2%)

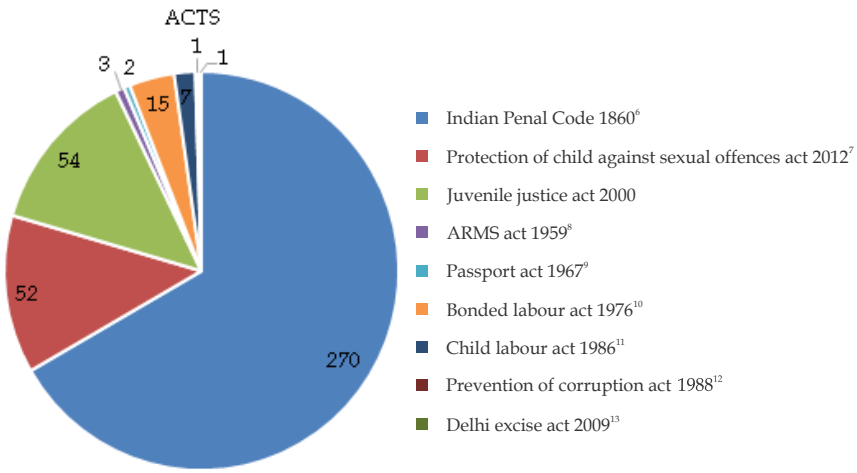

Fig. 4: Different Acts under which the Juveniles were charged

In most of the cases Juveniles brought for age estimation had committed some offence. However, there were other reasons also for determination of age especially in females (Table 5).

Most Juveniles had committed offences affecting human body and offences related to property. Usually juveniles worked together in groups since many juveniles were charged under Section 34 IPC (Table 6).

One Hundred seventy-three (44.7%) juveniles were charged for crimes where punishment under IPC was more than 7 years, 35 (9%) juveniles were charged for crimes where punishment under POCSO was more than 7 years and 1 juvenile were charged under Arms Act where the punishment was more than 7 years.

Maximum number of juveniles found to be committing the crime belonged to the age group

Table 5: Common reason for age determination besides offence

Reasons given for age determination	Number of cases
Abandoned	4
School Admission age not known	5
Marriage	1
Age not known	11
Different ages mentioned in different places	01
Ran with boy	06
Surrogate	02
Wants to go away from juvenile home	01
Single parent mother expired	02

Table 6: Nature of Crime in IPC committed by Juveniles

S. No.	Crime under IPC	Number of Juveniles
1.	Common intention (S. 34 IPC)	111
2.	Of abetment	3
3.	Of offences against public tranquility	1
4.	Of offences by or relating to public servant	1
5.	Of offences affecting public health, safety, convienience, decency and morals	2
6.	Of offences affecting human body	
6a.	Of offences affecting life	21
6b.	Of hurt	23
6c.	Of wrongful restraint and wrongful confinement	10
6d.	Of criminal force and assault	127
6e.	Sexual offences	50
7	Of offences against property	
7a.	Of theft	102
7b.	Of robbery and dacoity	29
7c.	Of receiving stolen property	95
7d.	Of cheating	3
7e.	Of criminal trespas	7
8	Of offences relating to documents and property marks	22
8a.	Of property and other marks	1
9.	Of offences related to marriage	1
10.	Of criminal intimidation, insult and annoyance	30
11.	Of attempt to commit offence	19

Table 7: Number of Juveniles charged for offences where punishment was 7 or more years

Crimes for which the punishment was 7 or more years	Number of Juveniles
IPC 1860	173 (44.7%)
POCSO 2012	35 (9%)
ARMS Act 1959	1

Table 8: Number of juveniles committing crime on the basis of age

Age group	Number of juveniles
Less than 12 years	29 (7.4%)
12–16 years	102 (26.35%)
Years	145 (37.46%)
More than 18 years	48 (12.40%)
Alleged age not mentioned	63 (16.27%)

Table 9: Number of Juveniles whose alleged age was within range or out of range from estimated age.

Number of juveniles – Estimated age and alleged age					
Within range		**Out of range 177 (45.73%)**			**Age not mentioned**
147 (37.98%)	Lower alleged age	140 (79.09%)	Higher alleged age	37 (20.9 %)	63 (16.27%)

Table 10: Difference (in years) in alleged age and estimated age amongst examined Individuals

Difference in alleged age and estimated age (years)	Number of juveniles with lower alleged age	Number of juveniles with higher alleged age
1	56	21
2	39	10
3	25	3
4	12	2
5	6	1
6	1	
8	1	

of 16–18 years followed by 12–16 years, with more males committing crimes as compared to females across all age groups (Table 8).

The alleged age of the examined individuals was not mentioned in about 63 cases of which 17 were females and 46 were males. Of the remaining cases, 147 (37.98%) individuals had correctly reported their age while 177 (45.73%) individuals had erred in reporting their age (Table 9). Out of the individuals who erred in reporting their age, 140 (79.09%) had reported age less than that inferred and in 43 (30.71%) cases this difference was 3 or more years. 37 (20.9 %) individuals had reported age more than that inferred on examination and in 6 (16.21%) cases this difference was 3 or more years (Table 10).

Discussion

As per Juvenile Justice Act 2000, Juveniles were individuals who were less than 18 years of age.[2] This act was amended in 2015 and after the amendment of 2015 the age of juvenile depended upon the crime committed.[5] The incidence of juvenile related crimes is on an increase as shown by the NCRB data wherein the percentage of cases of juveniles to total cognizable crimes increased from 1 in 2013 to 1.2 in 2014.[4]

Proof of age is required for the person to be tried as juvenile.[5] Most of the individuals in India have not attended school neither do they have a municipality birth certificate; hence they are routinely brought for medical age estimation. Medical age estimation in Safdarjung hospital is done as per the directions of Hon'ble Delhi High court by a board of doctors. Safdarjung hospital is situated in South Delhi and caters to south west district of Delhi. However, being a tertiary care centre and one of the most prominent hospitals of Delhi, cases are referred from all over Delhi. In our study period, maximum cases were performed at the order of Child welfare committee and Juvenile Justice Board 2.

Of the 387 cases examined for age estimation in 2014, 70.8% were males and 29.2% were females. Of these females, only one was accused while all others were examined for some other reason like being victims of some offence, running away with boy, issue of school admission etc.

Usually the examination of the accused was conducted in the same year as that of commission of offence. However, there were at least 08 cases where the crime was committed much earlier. It may be because the lawyer/accused did not

consider that the individual was a juvenile at the time of committing the offence. It is also possible that the lawyer/individual waited for some time to take the defence of individual being a juvenile at the time of committing the offence as the possibility of determining precise age by medical examination decreases with increase in age. Hence in many of these cases the age opined was between 22–40 years. This shows the wide range regarding the age opined thereby giving the benefit to the juvenile in the court of enquiry. What was supposed to benefit the young souls was used or rather misused by a stratum of society, citing their age at the time of commission of offence as a defence, so that they can be tried under the Juvenile Act. This results in a delay in criminal proceedings and many a times, due to limitation of medical science, an acquittal of the accused.

The examined individuals mostly belonged to Delhi followed by the states of Bihar and Uttar Pradesh. This may be because these are the neighbouring states and there is a greater influx of people from the state of Bihar and Uttar Pradesh into Delhi. Amongst the examined individuals very few were from the North-eastern part of the country like Manipur.

Since, Indian Penal Code is a central statutory law enlisting most of crimes, maximum individuals had been charged under this Act. Individuals were also charged under POCSO 2012, JJA 2000, Arms Act, Child Labour Act and some several other legislations. Most Juveniles had committed offences affecting human body and offences related to property. Usually juveniles worked together in groups since many juveniles were charged under Section 34 IPC.

A total of 209 individuals had committed crime for which punishment was more than 7 years. This shows the increasing prevalence of heinous crimewith the increase in age of individual. Moreover, most of these individuals were in the age group of 16–18 years. In 2015[5], Juvenile justice act had been amended to include the people above the age of 16 years who commit any crime for which the punishment is more than 7 years as having committed Heinous offence and then the punishment would be like an adult which will be commensurate with the punishment of the crime. Death sentence and imprisonment for life cannot be given to such individuals.

Data shows that many individuals erred in reporting their alleged age. 49 individuals had erred by 3 or more years in reporting their correct age. While some of these cases may be because they actually did not know their age, others may be attributed to a malafide intention on part of individuals to conceal their age. As shown previously in at least 08 cases the crime was done much before the year of examination. It is possible that even in these cases there was an attempt made by the accused to mislead the medical examiner and the police to gain benefit in judicial system. This shows that the age mentioned by the accused/individuals cannot be relied upon and the medical examiners should do a complete medical examination to determine the age. It also highlights the importance held with the individuals being found juveniles as then they will be let off with an easy punishment in a juvenile home rather than punishing them to prison.

Conclusion

The study found that that the most of the juveniles committed offences affecting human body and offences related to property. Most of the juveniles belonged to the age group 16–18 years. The medical examination for determining age has its own limitation and the possibility of abuse of such limitation by crime perpetrators cannot be ruled out. The amendment of Juvenile Justice Act 2015 correctly separates the age group of 16–18 years to be punished differently if committing a heinous offence. The incidence of crime committed by juveniles is rising and there is a greater need for stricter enforcement of existing laws to act as a deterrent for the offenders. Mostly the juveniles work collectively hence mass awareness campaign, social reformative actions, better education may result in improvement of the system as they affect the peers of the juvenile.

It will be advisable that in the absence of proof of age, the medical age determination is done as soon as an alleged juvenile is apprehended. This will result in speeding of the justice delivery system and prevent wasting of precious time of judiciary and will also avoid unnecessary issues arising during the course of trial.

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Original Research Article

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Personality Inventory and Its Association with Tattoo

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Abstract

Introduction: even though it is more roughly understood that getting a tattoo is for fashion. We wanted to understand the personality of these individuals; hence this study is taken up for the research activity.

Aim: To assess the personality of the tattooed individuals.

Materials and Methods: Individuals who were willing to be part of the study and those given consents were included in this study; from all the age group and gender. Eysenck Personality Inventory is used to categorize these subjects into different personality groups.

Results: The study has shown number of extroverts in the individuals having these tattoos, which is being depicted in the tables. Hindus, unmarried and urban population was more. Tattoo on the hands which is permanent in nature was more of neurotic.

Discussion: The study is comparable with most of the earlier research as well as contrasted. This type of categorization was not available in the literature search done by us. Hence it is pertaining to this part of the world.

Conclusion: More neurotic individuals have been found to have these tattoos. But it was not clear if the individual had the tattoos because of his personality trait.

Keywords: Tattoo; Personality; Neurotic.

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Introduction

In earlier days tattoos were used as the symbol of royalty and social status. More than one tattoo without any religious background or any reason on the exposed area insists any individual think about the possible psychopathology. Even some authors have mentioned this is the possibility of having a personality disorder.[1] Majority of these tattoos were used as a sign of non-verbal communication and lens for the outside world. Individualization or identity formation was considered as the major factor in teenagers to consider this tattoo being done on their body. As quoted in Atkinson's study[2] majority of the females use these tattoos to enhance their feminine image. This is appearing true as in earlier days the tattoo used to be in the smaller size and hidden areas, whereas now the size of the tattoo is increasing especially over the exposed parts with different colours. In a study by Brooks[3] conducted on adolescents indicated a relation between tattoos and risk-taking behaviour andimpulsivity. Lander[4] found in his study that the prevalence of tattoos is more in the psychiatric population than in the general population. Similarly, studies done by Ferguson[5] and Gittleson[1] have indicated a high prevalence of personality disorder in tattooed individuals.

Aims

To assess the personality in the tattooed individuals.

Materials and Methods

Here we have used the Eysenck Personality

Inventory (EPI) which measures two pervasive, independent dimensions of personality, Extraversion-Introversion, and Neuroticism-Stability. And these are the one which accounts for most of the variance in the personality domain. This contains 57 "Yes–No" items with no repetition of items. The inclusion of a falsification scale provides for the detection of response distortion. The traits measured are Extraversion-Introversion and Neuroticism. When you fill out Eysenck's Personality Inventory (EPI) you get three scores.

The 'lie score' is out of 9. It measures how socially desirable you are trying to be in your answers. Those who score 5 or more on this scale are probably trying to make themselves look good and are not being totally honest in their responses.

The 'E score' is out of 24 and measures how much of an extrovert you are.

The 'N score' is out of 24 and measures how neurotic you are.

Results

Table 1: Religion compared with personality

Religion * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Religion	Hindu	20	5	18	9	3	55
	Muslim	0	0	1	1	0	2
	Christian	1	0	0	0	0	1
	Jain	2	0	0	0	0	2
	Not answered	1	0	1	0	0	2
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 2: Residence compared with personality

Residence * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Residence	Urban	17	4	15	5	3	44
	Rural	6	1	5	4	0	16
	Not answered	1	0	0	1	0	2
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 3: Marital status compared with personality

Marital status * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Marital status	Unmarried	22	5	18	9	3	57
	Married	2	0	2	1	0	5
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 4: Education compared with personality

Education * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Education	Illiterate	1	0	1	0	0	2
	literate	1	0	0	0	1	2
	Primary/ secondary/SSLC	1	0	0	1	1	3
	PUC	9	3	8	3	0	23
	Graduate	10	2	10	2	1	25
	PG/PhD	2	0	1	2	0	5
	Not answered	0	0	0	2	0	2
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 5: Occupation compared with personality

Occupation * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Occupation	Semi-skilled	0	0	1	1	0	2
	Labour	1	0	0	0	0	1
	Professional	0	0	1	0	0	1
	Student	22	5	18	8	3	56
	Not answered	1	0	0	1	0	2
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 6: Tattoo no compared with personality

Tattoo no * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Tattoo no	1	15	4	12	6	1	38
	2	6	1	3	1	1	12
	3	2	0	3	3	0	8
	4	0	0	1	0	0	1
	5	0	0	0	0	1	1
	8	1	0	0	0	0	1
	61	0	0	1	0	0	1
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 7: Nature compared with personality

Nature * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Nature	Temporary	1	0	1	1	0	3
	Permanent	23	5	19	9	3	59
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 8: Tattooing method compared with personality

Tattooing method * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Tattooing method	Needling	21	5	19	9	3	57
	Sticker	3	0	1	1	0	5
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 9: Duration of Tattoo compared with personality

Duration of Tattoo * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Duration of Tattoo	1 to 6 month	7	0	5	2	0	14
	7 month to 1 year	2	2	1	0	1	6
	1.1 year to 3 year	4	0	6	2	1	13
	3.1 year to 5 year	1	1	1	0	0	3
	Above 5 year	3	1	4	1	1	10
	Not answered	7	1	3	5	0	16
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 10: Tattoo cost compared with personality

Tattoo cost * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Tattoo cost	Rs 1–1000	4	0	7	2	0	13
	Rs 1001–2000	9	1	5	4	0	19
	Rs 2001–3000	4	1	4	1	0	10
	Rs 3001–5000	3	0	2	2	1	8
	>Rs 5000	3	0	1	1	1	6
	Not answered	1	3	1	0	1	6
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 11: The site compared with personality

Site * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Site	Face	0	0	2	2	0	4
	Neck	2	0	2	0	0	4
	Shoulder	2	0	2	1	1	6
	Hands	19	4	13	7	2	45
	Legs	0	1	0	0	0	1
	Other parts	1	0	1	0	0	2
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 12: Colour compared with personality

Colour * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Colour	Single	21	4	14	10	1	50
	Multicolour	3	1	6	0	2	12
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 13: Tattoo size compared with personality

Tattoo size * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Tattoo size (in sq mm)	< 5	1	0	1	1	0	3
	6–10	1	0	0	0	0	1
	21–30	1	0	3	0	0	4
	31–50	4	2	3	1	0	10
	51–100	5	1	4	3	1	14
	>101	7	2	7	3	2	21
	NA	5	0	2	2	0	9
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 14: Tattoo reason compared with personality

Tattoo reason * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Tattoo reason	Individuality	2	0	0	1	0	3
	Fashion	6	1	9	1	1	18
	Memory	8	0	3	3	0	14
	No meaning	2	1	2	1	0	6
	Identification	0	0	1	0	0	1
	Religion	0	0	2	1	0	3
	Passion	5	3	1	1	2	12
	Expressing self	1	0	2	1	0	4
	NA	0	0	0	1	0	1
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 15: Tattoo done at compared with personality

Tattoo has done at * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Tattoo done at	Professional centre	21	5	14	7	3	50
	Amateur artists	3	0	5	3	0	11
	Self	0	0	1	0	0	1
Total		24	5	20	10	3	62

The personality score is as follows 0= normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 16: Complaints post tattooing compared with personality

Complaints post tattooing * personality Cross tabulation						
Complaints post tattooing	Personality					Total
	0	1	2	3	4	
Not answered	6	2	5	3	1	17
Big	1	0	0	0	0	1
No	14	1	10	6	1	32
Pain	1	0	0	0	0	1
Redness, burning sensation, itching	0	0	1	0	0	1
Redness for a week	0	0	1	0	0	1
Shaded	0	0	1	0	0	1
Swelling on the hand	1	0	0	0	0	1
Uncontrollable pain	0	1	0	0	0	1
Yes	0	0	1	0	0	1
Good	0	0	0	0	1	1
No	0	1	1	0	0	2
Small swelling	1	0	0	0	0	1
	24	5	20	10	3	62

The personality score is as follows 0= normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 17: Living with tattoo compared with personality

Living with tattoo * personality Cross tabulation						
Living with tattoo	Personality					Total
	0	1	2	3	4	
Not answered	10	3	5	4	2	24
Feels good	2	2	2	1	1	8
Mixed emotions	1	0	0	0	0	1
Normal to have	1	0	4	0	1	6
Very much upset	1	0	0	0	0	1
Upset	9	0	7	4	0	20
Irritated with memory	0	0	2	0	0	2
Total	24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 18: Thought of getting away with Tattoo compared with personality

Thought of getting away with Tattoo * personality Cross tabulation						
Thought of getting away with Tattoo	Personality					Total
	0	1	2	3	4	
Not answered	6	2	5	3	0	16
No	14	1	11	6	2	34
Not now	1	0	0	0	0	1
Yes	3	1	2	1	0	7
Not sure	0	1	2	0	1	4
Total	24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 19: Method of removal compared with personality

Method of removal * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Method of removal	Yes	9	3	8	4	1	25
	NA	0	1	0	0	0	1
	Laser	2	0	1	1	0	4
	No	13	1	11	5	2	32
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Table 20: Regret after tattooing compared with personality

Regret after tattooing * personality Cross tabulation							
		Personality					Total
		0	1	2	3	4	
Regret after tattooing	NA	6	2	7	2	0	17
	No	15	2	12	8	1	38
	Yes	2	0	1	0	1	4
	No	1	1	0	0	1	3
Total		24	5	20	10	3	62

The personality score is as follows 0 = normal; 1 = extrovert; 2 = neurotic; 3 = lie; 4 = both extrovert and neurotic

Discussion

The study included 62 subjects of which 24 were normal over Eysenck Personality Inventory, 5 were having extrovert, 20 were neurotic 10 were measured lie over the scale and 3 individuals were having both extrovert and introvert. Among the 20 neurotic 18 were from the Hindu religion. With respect to the area in which these individuals were living 15 neurotics were from Urban and 5 were from rural residing individuals. Similarly, 5 were measured lie in EPI scale from the urban population, whereas 4 were from the rural area. And 4 extrovert subjects from the urban area. Unmarried individuals were the majority in number (18) who were scoring the neurotic score in the category of the marital status of these individuals. And almost half (9) the unmarried individuals were scored lie on the EPI Scoring.

Graduates were almost equal in number compared to those who have passed pre-university college (PUC) who were having tattoos. And 10 subjects were neurotic from graduates group and 8 were from the PUC group. Since the students were consenting to participate in the study, the group of students is more here indicating 18 were neurotic and 8 were lying on the scorecard. Here 12 subjects having one tattoo turned to be neurotic and 6 were lying. With respect to the nature of tattoo 19 were categorized to have neurotic and 9 were lying. And tattooing was done in 19 subjects by using needling procedure and in this category 9 were scored lie on the EPI scale.

Coming to the category of the duration of tattoo 6 were having the tattoo for 3 years scoring in the neurotic category. And same neurotic subjects 7 have spent about 1000 rupees to get this tattoo done and 5 have spent about 2000 and 4 have spent up to 3000 rupees. 13 subjects had a tattoo on the hands in the neurotic subjects and 7 were lying. 14 individuals have used single coloured tattoo and 6 were using multicolour belonging to neurotic's category. Looking at the tattoo's size measuring more than 100 sq mm were 7 in number belonging to neurotics. And 9 individuals have answered that they got these tattoo done from the neurotic category. 14 individuals in the neurotic subjects have got these tattoos done at a professional center. Regarding complaints after the tattoo, 10 individuals from neurotics did not have any complaints were as 6 were scoring lie on the scale. 7 neurotic individuals were upset by having these tattoos done and 4 were lying. After having these tattoos being done 11 neurotic individuals did not get any thoughts to getting away these tattoos and 6 were scored lie on the scale. And 12 neurotic subjects did not have any regrets in getting these tattoos done and 8 were lying on the EPI scoring scale.

Swami[6] used the battery of inventories for assessing various personality traits and found that those with tattoos only scored higher on measures of extraversion, experience-seeking, and need for identity. And also effect sizes were small to moderate, these results highlight that, if personality differences do exist among those with tattoos compared to the general population, they may not necessarily be dysfunctional or pathological. He concluded this keeping in mind that with recent findings from the United States inwhich the Community Body Modification Checklist wasgiven adult subjects with and without tattoos or non-ear body piercings.[7] Giles-Gorniak[7] found that theonly significant difference in mental health history and behavioral choices between the two groups was that those with body modifications were more likely toengage in social and healthy behaviors. Similarly, Australian reported that employed the Loyola Generativity Scaleto assess "concern for and commitment to the next generation" among adult women and found that those with and without tattoos had equivalent levels of psychosocial health according to this measure.[8]

In contrast to the above-mentioned studies involving adults across the lifespan, much of the work to date on personality differences between tattooed and non-tattooed individuals has been performed in samples of college students, with limited generalizability. In order to avoid the methodological limitations of earlier studies, Tate and Shelton measured personality traits with validated scales that assessed for the Big Five Factors of personality (neuroticism, extraversion, openness toexperience, agreeableness, conscientiousness), the need for uniqueness, and the desire to be perceived favorablyby others.[9] Tattooed individuals, as compared to their non-tattooed counterparts, scored significantly loweron agreeableness and conscientiousness and higher on need for uniqueness. However, while these differences were statistically significant, effect sizes were small and personality scores found among tattooed individuals were, with a single exception among women, within published norms. The authors, therefore, concluded that"it is untenable to refer to tattoos, per se, as signs ofsocial deviance or personality and character flaws".[9]

Conclusion

This study is intended to identify if tattooed individuals are having any personality factors. Since this study was consisting more of student and graduate populations, the result is oriented more to this group only. Majority of the individuals were neurotic in EPI scale scoring. Hindus were more with the urban population in the category of neurotics. Unmarried and graduate individuals having single coloured tattoo were neurotics. Majority of the individuals were having more than one tattoo having on the hands. Few individuals also reported being upset for having these tattoo done. And these tattoos were basically got done for the purpose of fashioning done at the professional center by needling procedure and they are permanent in nature with multicolor. Some were regretting having these tattoos and wanted to get rid of these.

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Review Article

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Traumatic Brain Injury Premature Discharge: Negligence or Not?

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Abstract:

Saving the life of a patient is the top most priority for any surgeon, especially in cases of traumatic brain injury. In current scenario where cases of litigation against the doctors are on a sharp rise, the doctor should take utmost care during the course of treatment. Therefore it becomes essential for the treating doctor to follow the established guidelines.

A case where a Neurosurgeon was charged with negligence of premature discharge in a case of Traumatic Brain Injury came to us for review. A previous board of Doctors had ruled against the Neurosurgeon and held him guilty of premature discharge of the patient. On meticulously scrutinizing the case and all the relevant records, we came to the conclusion that the discharge was not suggestive of premature in nature and inadequate patient care.

All cases of traumatic brain injury should be assessed cautiously using the set guidelines. The conventional belief that GCS is sole criteria for discharging or admitting a patient is also not true. Multi-Organizational Consensus Recommendations for India in traumatic brain injury has laid down the guidelines for systemic approach to a patient of traumatic brain injury which should be strictly adhered to increases the chances of saving the life of the patient as well as reducing medical negligence charges.

Keywords: Traumatic Brain Injury; Negligence; Premature discharge of patient; GCS.

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Background and Importance

Head injury, a medical emergency, sometime may not present with obvious signs and symptoms except the history of head trauma especially in cases of closed head injuries. Therefore it becomes essential for the attending doctor to follow the established guidelines and treatment protocols. At the same time not all the patients can be admitted to the hospital just on the basis of a positive history of head trauma. According to guidelines, as discussed below, the patient can be discharged after initial assessment and satisfaction of the treating doctor. In such a case, though it becomes duty of the doctor to follow up the patient for further assessment.

Clinical Presentation

The deceased was brought to the casualty department in semi-conscious condition with alleged history of physical assault with E1V1M1 and bilateral subconjunctival hemorrhage with pupil dilated and fixed, pulse feeble, contusion bilaterally present over pelvis, swelling in left hand and left zygomatic area. He was intubated and kept on AMBU bag ventilation. He was visited by an orthopedic consultant for the said injuries. Later he was referred to neurosurgery department. On examination his GCS score was E4V5M6, pupils sensitive and reactive to light. NCCT head and USG abdomen reports were normal. It was decided that no active intervention was required. He was discharged on the same day. On 6th day he became unconscious and taken to a nearby hospital where he was declared as brought dead. In post mortem

examination a diffuse swelling was present on left temporo-parietal region with extravasations of blood underneath. The brain was edematous. No other relevant findings found. He was emaciated and a known drug addict. No definitive cause of death could be given, but it was opined that the possibility of death due to cerebral edema as a result of blunt force impact cannot be ruled out.

The case was referred to a medical board for gross negligence on the part of treating neurosurgeon for allegedly discharging the patient prematurely without considering the possibility of lucid interval which subsequently lead to his death. The board ruled that the neurosurgeon failed to keep the patient under observation for 24 hours and discharged him prematurely and didn't advise him to review after a stipulated time.

The case was again referred to us for further expert opinion. After going through all the documents and references guidelines, the board concluded that:

The patient was investigated in detail and discharged after regain of consciousness as suggested by GCS of 15/15 and normal investigations, and after clinical stability and supervision arrangements the discharge is not premature in nature and inadequate patient care.

Discussion

Traumatic Brain Injury is usually associated with loss of consciousness. The patient may awaken from this to achieve a good level of consciousness only to lose consciousness again from brain stem disorientation caused by the clot growth (lucid interval). The person may remain active for a period varying from a few hours to a week, happens in 30-40% of cases.[1,2] It is usually associated with Epidural hematoma and seen in 20-50 % cases.[1,2] It is also seen in cases of Subdural hematoma in cases of traumatic brain injury. There is no consensus on how long this period may span, it has been described by Ganz as lasting from a few hours to a few days.[3] Delayed cerebral edema, a very serious and potentially fatal condition may follow a lucid interval that occurs after a minor head trauma.[4] In this case though the board ruled considering the lucid interval, it appears to be a case of cerebral edema, a delayed complication of head trauma, as confirmed on autopsy. It is further strengthened by the fact that no intracranial bleeding or clot formation was present on autopsy.

The Glasgow Coma Scale (GCS) is the standard scoring system used globally in emergency departments as an objective indicator to assess the neurological status of patients with traumatic brain injury.[5] It has been frequently used as one of the most important predictors of outcome after traumatic brain injury. A score less than or equal to 8 is the traditional criterion for differentiating between severe and moderate to mild head injury, and patients' management is frequently dependent on this initial classification.[6]

The early prediction of outcome after traumatic brain injury (TBI) is important for several purposes, but no prognostic models have yet been developed with proven efficacy across different settings.[7] Although the GCS has been previously demonstrated to predict mortality, efficacy in prediction of functional outcome has not been established.[8] In our case GSC score returned to normal value of 15/15 before discharge. Also NCCT head and USG abdomen were normal.

As per Multi-Organizational Consensus Recommendations for India in traumatic brain injury:[9] criteria for admitting patients to hospital following a head injury includes deteriorating GCS, abnormal neurological signs, early post traumatic seizures, skull fracture, high risk mechanism of injury, patients whose GCS has not returned to 15 after imaging, regardless of the imaging results etc.

All patients with any degree of head injury should only be transferred to their home if it is certain that there is somebody suitable at home to supervise

Table 1: GCS Score

Score	1	2	3	4	5	6
Eye response	Do not open eyes	Open eyes in response to painful stimulus	Opens eyes in response to verbal command	Opens spontaneously		
Verbal response	Makes no sound	Incomprehensible sounds	Utters inappropriate words	Confused	Normal oriented conversation	
Motor response	Makes no movements	Extension to painful stimulus	Abnormal flexion to painful stimulus	Flexion/ withdrawal to painful stimulus	Localizes painful stimulus	Obeys commands

the patient or when the risk of late complications is deemed negligible.[9] The caretakers of those patients with mild trauma (conscious and stable) who are released from the hospital are frequently advised to rouse the patient several times during the next 12 to 24 hours to assess for worsening symptoms.[9]

It is not mandatory to admit a patient of head trauma with normal GCS score and no obvious investigatory and clinical findings unless there is no provision of his care being taken by his relatives or friends. He can be safely discharged with specific instructions to the care takers which were done in this case. Also all the guidelines were followed during treatment.

Conclusion

All cases of traumatic brain injury should be assessed cautiously using the set guidelines. The conventional belief that GCS is sole criteria for discharging or admitting a patient is also not true. Multi-Organizational Consensus Recommendations for India in traumatic brain injury has laid down the guidelines for systemic approach to a patient of traumatic brain injury which should be strictly adhered to increases the chances of saving the life of the patient as well as reducing medical negligence charges.

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Review Article

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Poisonings Are Avoidable: Prevent the Repent of Fatal Predictable Epidemics of Hooch Tragedies and Its Medicolegal Aspects

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Abstract:

Alcohol is the most commonly used intoxicating substance in India. It is a legal product but there is a minimum legal drinking age limit that varies from state to state (from 18–25 years). Alcohol prohibition is one of the Directive Principles of the Constitution of India (Article 47), but taxation on sales of alcohol is a major revenue-earner for most states. As alcohol is a state subject, the production, distribution, and sale of alcohol is a state responsibility. Different state ministries and departments regulate different aspects of alcohol. For example, the Ministry of Social Justice and Empowerment (MoSJE) looks after alcohol use prevention programs, developing networks and capacity building for alcohol prevention and control, and monitoring. The Ministry of Health and Family Welfare (MoHFW) runs de-addiction centres.

Keywords: Methanol; HOOCH tragedy; Toxicity; Fatality; Blindness; Country-liquor; Formaldehyde; alcoholics

Introduction

According to the Food Safety and Standards (FSS) Act 2006, Alcoholic Beverages come under the definition of "Food" and so the FSSAI has framed and notified the Food Safety and Standards (Alcoholic Beverages Standards) Regulation, 2018. These regulations have classified Alcoholic beverages in 2 types:

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1. Distilled Alcoholic Beverage: (Brandy, Country Liquor, Gin, Rum, Vodka and Whisky, Liquors or Alcoholic cordial. Distillation increases concentration and taste/ flavour of alcohol.
2. Fermented "un-distilled" alcoholic beverage: Wines (Grapes) and Beer (from Brewing any malted grain like Barley Malt).

Q. What can we do to protect ourselves from methanol related alcohol toxicity?

- Refrain from purchasing or producing illegal alcoholic drinks.
- Be suspicious about alcoholic drinks offered for sale in informal settings that are not licensed to sell alcohol, e.g. market stalls, and/or that are offered at a cheap price.
- Do not buy alcoholic drinks sold in unlabelled containers.
- Check branded products for labels that are poorly printed or with typographical errors, or bottles with broken seals. Do not buy these.
- Be aware of the symptoms of methanol poisoning and seek medical attention immediately.

Discussion

The Indian liquor industry comprises the Indian Made Foreign Liquor (IMFL), country liquor, foreign Liquor Bottled in Origin (BIO), illicit alcohol, beer and wine segments. Beer has become a popular beverage in the country only over the

last two decades and it's growing at a rate of about 17 per cent per year. The highest levels of beer consumption in India are observed in the southern states. South India dominates the alcohol market in India, with that region accounting for about 60 per cent of total IMFL sales and 45 per cent of total beer sales.

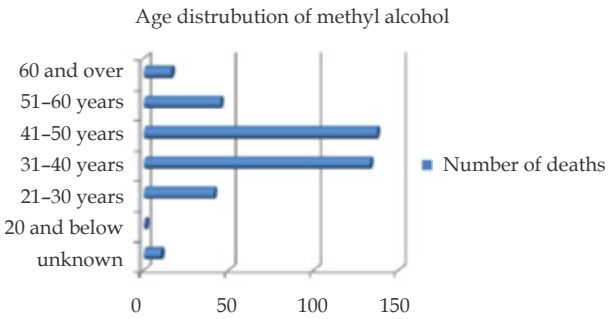

Fig. 1: Age Distribution of methyl alcohol death.
[Citation: Figure 3 Age Distribution of methyl alcohol death. (Ref: Kurtas, U. et al. The evaluation of deaths due to methyl alcohol intoxication. Biomedical Research (2017) Volume 28, Issue 8. Link: http://www.alliedacademies.org/articles/the-evaluation-of-deaths-due-to-methyl-alcohol-intoxication.html)]

Alcoholic Drinks are consumed in India to celebrate (at parties, official gatherings, social and even religious events) as well as to commiserate (to overcome stress and sadness, recession, to cope with financial or other losses). Hazardous drinking (binge drinking and solitary consumption to the point of intoxication) is the hallmark of chronic alcohol abusers. Alcohol abuse is a leading factor in many crimes, drinking behaviour and circumstances surrounding after-drinking (hip-flask) defence cases, drug facilitated sexual assault, and Drinking Driving accidents. The major individual harms related to alcohol are coronary heart disease, breast cancer, tuberculosis, motor vehicle accidents, liver cirrhosis and suicide. Heavy-drinking is associated with more frequent ill-health especially accidents and injuries, chest pain and heart problem followed by high blood pressure and poorer psychological well-being. For people aged 15–49 years, the leading risk factors for global disease burden worldwide are alcohol use, tobacco smoking including second hand smoke and high blood pressure.

Indian youth suffer frequent casualties after Methyl Alcohol poisoning from consuming Wines, Beer, Arrack, Country liquor, Indian made foreign liquor and different other branded alcoholic beverages Counterfeited for quick money illegally. The alcohol produced illegally is called illicit alcohol. They do not follow any set standards and thus have no quality control. The alcohol produced from these units is usually adulterated and may contain a highly fatal substance called methylated spirit or methanol. This added methylated spirit can lead to death or blindness. Illicit alcohol also evades all national and state-level taxes and duties, thus making it very cheap and affordable. Illicit alcohol is produced under unregulated circumstances and is often adulterated with chemicals like methanol, organophosphorus compounds and ethanol to save costs. This adulteration makes it absolutely unfit for human consumption and could lead to blindness or even be fatal to the consumer.

Incidence of fatal outcome of these HOOCH Tragedies by Methanol has some unique features: Uniquely in Males, Mostly on Weekends, as Adult Males have tendency to party with alcoholic beverages like beer, whisky, brandy, rum and arrack on weekends. HOOCH word is formed by rearranging by shifting C in the chemical formula of toxic metabolite formic acid (HCOOH) due to metabolism of methyl alcohol by liver causing toxicity by- formic acid chemical formula is CH_2O_2- which can also be written as HOOCH. HCOOH is Formic acid derived from ants and toxic in nature in body, methyl alcohol turns into formaldehyde, that causes blindness, and then to Formic acid, all are toxic to humans.Victims often only seek medical care after a significant delay, mainly because there is a latent period between ingestion and toxic effects. Late medical care contributes to the high level of morbidity and mortality seen in many methanol poisoning outbreak. Because patients with methanol poisoning often need intensive medical care, outbreaks of methanol poisoning can rapidly overwhelm medical facilities.

Q. What measures can our country take to prevent the epidemic of Blind drunks?

- Put in place a national strategy and legal framework to reduce the harmful use of alcohol (see below).
- Use public health campaigns to promote awareness of the dangers of informally produced and illicit alcoholic drinks. These can be targeted towards particular high-risk groups e.g. alcohol-dependent individuals, tourists.
- Since early recognition of an outbreak is vital to improve outcome, ensure that medical professionals are trained in the diagnosis and management of methanol poisoning.
- Where mass methanol poisonings recur establish a protocol for the management of these outbreaks.
- Ensure accessible and affordable treatment is available for all.

- Provide support to victims particularly those at risk of recurrent events e.g. alcohol dependent individuals.

Fatal Hangover in Blinding Drunks causes rampant Hooch Tragedies every month in different corners of India:-

- March 03, 2019: In Assam, which faced its worst liquor tragedy in which 160 people died and more than 500 were affected, many of those who survived have lost their eyesight and are dealing with major health complications.
- Feb 11, 2019: UP Hooch tragedy: At least 116 died in Saharanpur, Kushinagar, Meerut and Haridwar.

Table 1: Liquor Tragedies in 21st Century India - The Terrible Timeline

Date	Location	Deaths
Jan 2015	Uttar Pradesh	32
Oct 2013	Uttar Pradesh	40
Feb 2012	Odisha	35
Dec 2011	West Bengal	170
Oct 2010	Punjab	12
March 2010	Uttar Pradesh	35
Feb 2010	Uttar Pradesh	13
Jan 2010	Andhra Pradesh	14
Sept 2009	Uttar Pradesh	29
July 2009	Gujarat	136
May 2009	West Bengal	20
March 2009	Delhi	12
Jan 2009	West Bengal	27
May 2008	Karnataka	180
March 2006	Odisha	22
Dec 2004	Maharashtra	87
Oct 2001	Uttar Pradesh	18

(Table Ref: Pillay, VV. Textbook of Forensic Medicine and Toxicology. 19th Ed. 2019. p 639)

Q. How do you know if you are suffering methanol poisoning?

Methanol poisoning in its early stages might be difficult to distinguish from inebriation from normal ethanol consumption. Severe symptoms do not usually occur until 24–30 hours after consumption and can include: abdominal pain, nausea, vomiting, breathing difficulty, blindness, blurred vision, seizures, and/or coma.

The word "*Doctor*" literally means "to teach others how to remain healthy". So, to curb this fatal epidemic, Expert Doctors from Indian Society of Toxicology (IST), in association with Emergency Physicians of India, with Association of Physicians of India (API) and Indian Society of Critical Care Medicine (ISCCM) have jointly organised National Toxicology symposium in RMRC Auditorium, Institute of Life Sciences, Bhubaneswar, Odisha on 7th–8th September 2019 discussed these preventive and curative updates for clinical practitioners managing Methanol Poisonings, thus saving lives from knives of autopsy, where there is no toxicologist. It will be helpful in avoiding Terrible Toxic Tragedies on future Timeline of India.

Retrograde Extrapolation is the mathematical method by which a person's Blood Alcohol levels are estimated by projecting backwards from a later chemical test. But estimating blood methanol levels specifically is difficult to estimate, as the Widmark equation mentioned estimates serum alcohol levels, which includes alcohol congeners (methanol, propanlol, butanlol, butan-2-ol, isobutanol, 2-methylbutan-l-ol and 3-methylbutan-l-ol) along with ethanol circulating in blood of the patient who might be chronic abuser of commercial Alcohol. Minimum essential information necessary to make such estimations include the individual's body weight, percent of alcohol in the drink, the number of alcoholic beverages consumed, the length of drinking period, and a given individual's excretion rate based on his kidney and liver function status. Since it is often difficult to quantify the variables, extrapolation remains controversial.

Conclusion

Methanol is cheap and readily accessible; therefore, it is one of the most common adulterants found in commercially available alcoholic beverages, especially in developing countries. Alcohol related Poisonings are Avoidable, if we educate the public on its harms and can "Prevent the Repent" of Fatal Predictable Epidemics.

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Review Article

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Medical Record

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Abstract

Medical records are documents of a Health Institution and Medical Records department is the back bone of Health information system. Medical records can be used as a personal or impersonal document. Personal document is confidential and should not be released without the consent of the patient except in some specific situations. The impersonal documents have been used for research purposes as the identity of the patient is not revealed. As medical records form an important part of the management of a patient, so it is important for the doctors and medical establishments to properly maintain the records of patients. As we can see, medical record is an important component of the healthcare information system. As a patient, it is often time-consuming to complete intake forms, but they are very valuable pieces of information to hospital as well as for doctor. As a patient-focused approach, medical record is advantageous to both patients and providers; we must adopt problem oriented medical record (POMR) in present situation.

Keywords: Medical records; POMR.

Introduction

Medical record, health record, and medical chart are used somewhat interchangeably to describe the systematic documentation of history of medical illness and treatment what is given to patient by doctor.

Medical records are documents of a Health Institution and Medical Records department is the back bone of Health information system. Medical Record or health record or medical chart is a systematic documentation of a patient's medical history and treatment. Medical records speak volumes on and about, inception and progress of Hospital, retrospective and prospective statistical analysis, trends of cases admitted to the hospital etc. Medical Records must be meticulously and systematically compiled, preserved and protected for the benefit of hospital, doctor and patients. Good medical Records provide relevant data base of medical and scientific knowledge and help the Government while planning and allocation of budget for health care system of the country. The need of hour is to make uniformity in storing Medical Records by various Acts.

Medical records can be used as a personal or impersonal document. Personal document is confidential and should not be released without the consent of the patient except in some specific situations. Whereas impersonal document loses its identity as a personal document and patient permission is not required. These records could be used for research purposes by institution or by doctor. The hospital is legally bound to maintain the confidentiality of the personal medical records Confidentiality is an important component of the rights of the patient. So patient can claim negligence against the hospital or the doctor for a breach of confidentiality. The significance of documenting patient care accurately, comprehensively, concisely, objectively, contemporaneously or

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within reasonable time, and legibly cannot be overemphasized however; there are certain situations where it is legal for the authorities to give patient information like during referral, when demanded by the court or by the police on a written requisition, or when demanded by insurance companies as provided by the Insurance Act when the patient has relinquished his rights on taking the insurance, and when required for specific provisions of Workmen's Compensation cases, Consumer Protection cases, or for Income tax authorities. As medical records form an important part of the management of a patient, so it is important for the doctors and medical establishments to properly maintain the records of patients[1].

The impersonal documents have been used for research purposes as the identity of the patient is not revealed. Though the identity of the patient is not revealed, but research team must maintain privacy to patient records and a cause of concern about the confidentiality of information. Historically, such research has been exempted from an ethical committee and researchers have not been required to obtain informed consent from patients before using their records. There are no definite legal guidelines in India regarding how long to retain medical records in hospital or clinic. The hospitals follow their own pattern retaining the records for varied periods of time. Under the provisions of the Limitation Act 1963 and Section 24A of the Consumer Protection Act 1986, which dictates the time within which a complaint has to be filed, it is advisable to maintain records for 2 years for outpatient records and 3 years for inpatient and surgical cases

Categories of Medical Records

The different categories of medical records are as follows

- Certain records must be given to the patient as a matter of right and without charging any fee like discharge summary, referral notes, and death summary in case of natural death. Hence, these have to be given to patients who leave against medical advice. The hospital bill cannot be tied up with these sensitive documents that are necessary for continuing patient care. Thus, the above documents cannot be legally refused even by doctor when the hospital bill has not been paid.
- Certain records may be issued after the patient or authorized attendant fulfils the due requirements as fixed by a hospital. This requires a formal application to the hospital requesting for the records and it is necessary that the hospital bills are cleared and the necessary processing fee has been paid. Such documents include copies of inpatient files, records of diagnostic tests, operation notes, videos, medical certificates, and duplicate copies for lost documents. It is important that the duplicate copies should be marked appropriately.
- Certain records cannot be given to patients without the requisition of the Court or legal authority like outpatient file, inpatient file, and files of medico-legal cases including autopsy reports cannot be handed over to the patient or relatives without the direction of the Court. But if these medico-legal cases are being referred to another centre for management, copies of records could be given. However, X-rays are given only after a written undertaking by the patient or relatives that these will be produced in the Court as and when required.

Medical Council of India View on Medical Records

The issue of medical record keeping has been addressed in the Medical Council of India Regulations 2002 guidelines answering many questions regarding medical records. The important issues are as follow….

- Make indoor records in a standard proforma and maintain for 3 years from commencement of investigation and treatment.
- Medical records documents ask by patient or authorized attendant should be issued within 72 hours.
- Maintain a register of certificates with the full details of medical certificates issued with at least one identification mark of the patient and his signature. Efforts should be made to computerize medical records for quick access and issue under hospital information system.

How Long Medical Records should be preserved?

There are no definite legal guidelines in India regarding how long to retain medical records in hospital or clinic. The hospitals follow their own

pattern retaining the records for varied periods of time. Under the provisions of the Limitation Act 1963 and Section 24A of the Consumer Protection Act 1986, which dictates the time within which a complaint has to be filed, it is advisable to maintain records for 2 years for outpatient records and 3 years for inpatient and surgical cases. The Medical Council of India guidelines also insist on preserving the inpatient records in a standard proforma for 3 years from the commencement of investigation and treatment. The records that are the subject of medico-legal cases should be maintained until the final disposal of the case even though only a complaint or notice is received. It is necessary that the Government should frames legal guidelines for the duration for which medical records are preserved by the hospitals so that hospitals are protected from unnecessary litigation in issues of medical records.

The provisions of specific Acts like the Pre Conception Prenatal Diagnostic Test Act, 1994 (PNDT), Environmental Protection Act, etc. necessitate proper maintenance of records that have to be retained for periods as specified in the Act. Section 29 of the PNDT Act, 1994 requires that all the documents be maintained for a period of 2 years or until the disposal of the proceedings. The PNDT Rules, 1996 said that when the records are maintained on a computer, a printed copy of the record should be preserved after authentication by the person responsible for such record.

Ownership of Medical Records

An important issue of dispute between the patient and the treating hospital is about the ownership of the medical records. Medical records are the property of the hospitals and it is the responsibility of the hospitals to maintain it properly. The hospitals and the doctors have to be careful with medical records as these can be stolen, manipulated, and misused for malafide reasons by any interested parties. Hence, the records must be kept in safe custody. It is the primary responsibility of the hospital to maintain and produce patient records on demand by the patient or appropriate judicial authority. However, it is the primary duty of the treating doctor to see that all the documents with regard to management are written properly and signed. An unsigned medical record has no legal validity in court. The patient or their legal heirs can ask for copies of the treatment records that have to be provided within 72 hours. The hospitals can charge a reasonable amount for the administrative purposes including photocopying the documents[2]. Failure to provide medical records to patients on proper demand will amount to deficiency in service and negligence on part of hospital.

Whom to Release Medical Record Information

The major consideration bearing upon disclosure and release should be based on the nature of the information requested and the person or agencies requesting the information.

Majority of the request will come from

- The provider and the relatives.
- The member of the medical staff, other physicians and hospitals concerned with the management of illness of patients.
- The third party payers, government and other agencies.

In these cases the confidential information may be released with appropriate authorization. In this, consent generally may be given by the patient himself or by legal authority representatives. In minor, parent or guardian authorised by court can demand for medical record[3]. The consent of the patient is not required when a subpoena or an order of a court directs that records be produced.

Without the consent of the patient, the hospital may allow physicians to consult its medical records for purposes of study, statistical evaluation, research and education. If the records are requested for such purposes by persons other than the hospitals staff or an affiliated organization it is wise to obtain the approval of the administrator or of the medical record committee.

The hospital shall not disclose to an insurance company any patient identifiable medical record information maintained by the hospital unless the request in accompanied by the patients authorization for disclosure of information necessary to process the insurance claim.

Summoning Medical Records by Courts

Medical records are acceptable document as per Section 3 of the Indian Evidence Act, 1872 amended in 1961 in a court of law. These are considered useful evidence by the courts as it is accepted that documentation of facts during the course of treatment of a patient is genuine and unbiased. Medical Records that are written after the discharge or death of a patient do not have any

legal value or erasing of entries is not permitted and is questionable in Court. In the event of correction, the entire line should be mentioned and rewritten with the date and time and put signature after correction.

Medical records are usually summoned in a court of law in the following condition……

- Criminal cases for proving the nature, timing, and gravity of the injuries. It is considered important evidence to corroborate the nature of the weapon used and the cause of death.
- Road traffic accident cases under the motor vehicle act for deciding on the amount of compensation.
- Labour courts in relation to the Workmen's Compensation Act.
- Insurance claims to prove the cause and duration of illness and the cause of death.
- Medical negligence cases these can be in criminal courts when the charge against the doctor is for criminal negligence or under the Consumer Protection Act for deficiency in the doctor's or hospital's services.

It is usual to summon a doctor to appear in court to testify and to bring all the medical documents concern with patient or case. When the court issues summons for medical records, it has to be honoured and respected as it is a constitutional obligation to assist in the administration of justice. The records can also be produced in court by the medical records officer of the hospital. If the doctor is required to be present for giving evidence based on the medical records, he has to be present in the court to give evidence. However, if the records are required for continuation of the medical treatment of the patient, copies can be kept by the hospital.[4]

Legal Issues of Medical Records

There have been many judicial decisions pertaining to medical records from various courts in India and some of the important cases in general are discussed over here …..

Not producing medical records to the patient prevents the complainant from seeking an expert opinion. It is the duty of the person in possession of the medical records to produce it in the court and adverse inference could be drawn for not producing the records. The State Commission held that there was negligence as the case sheet did not contain a proper history, history of prior treatment and investigations, and even the consent papers were missing. The State Commission held that failure to deliver X-ray films is deficient service. The patient and his attendants were deprived of their right to be informed of the nature of injury sustained.

The National Commission had held that there was no question of negligence for failure to supply the medical records to patients unless there is a legal duty on part of hospital to give the records and alleged hospital had provided a detailed discharge summary to the patient. However, the Bombay High Court held that doctors cannot claim confidentiality when the patient or his relatives demand medical records. Under MCI Regulations 2002 bill it has been held without confusion that the patient has a right to claim medical records pertaining to his treatment and the hospitals are under legal obligation to maintain them and provide them to the patient on request.

The allegation of not informing the possibility of vocal cord palsy to patient or guardian was negated by the detailed written medical record showed that it was explained properly and consented before procedure and allegation of the patient regarding negligence of the doctor concern with information was rejected.

The hospital was held vicariously liable for the negligent action of the doctor on the basis of the bill showing the professional fees of the doctor and the discharge certificate under the letterhead of the hospital signed by the doctor. If medical record was manipulated or issuing tampered medical records need detailed examination in a civil as well as criminal court. The National Commission in another case held that the hospital was guilty of negligence on the ground that the name of the surgeon were not mentioned in the operation notes of patient though two surgeon were involved in operation procedure was said by attendant of died patient in court.

Conclusion

As we can see, medical record is an important component of the healthcare information system. As a patient, it is often time-consuming to complete intake forms, but they are very valuable pieces of information. Some are important for record-keeping, some are important for identification, but all can be potentially lifesaving in emergency situations. With the advent of computer technology, medical records can be updated easily and made

available nationwide further increasing their effectiveness. Medical Record will be problem oriented medical record (POMR). As a patient-focused approach, POMR is advantageous to both patients and providers. The problem is that many doctors avoid using it, arguing that it's too cumbersome, has many data synthesis restrictions and requires one to take a lot of notes. But we must adopt problem oriented medical record in present situation.

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Article in supplement or special issue

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Corporate (collective) author

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[9] National Statistics Online—Trends in suicide by method in England and Wales, 1979-2001. www.statistics.gov.uk/downloads/theme_health/HSQ20.pdf (accessed Jan 24, 2005): 7-18. Only verified references against the original documents should be cited. Authors are responsible for the accuracy and completeness of their references and for correct text citation. The number of reference should be kept limited to 20 in case of major communications and 10 for short communications.

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