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Chief Guest with other dignitaries standing for the National Anthem at the 1stJoint Conference of SPIC &INPAFNUS at Gian Sagar Medical College, Ram Nagar, Rajpura, Punjab India

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Aims and scope

This journal is published to expand the academic activities and spread the knowledge, ideas and latest research in the field of ethics, trauma, and victimology. This journal publishes original research papers, review articles, case reports, letters to the editor and review of books on ethics, trauma, and victimology. This journal is supported by the Society for Prevention of Injuries and Corporal Punishment (SPIC) and Indo Pacific Academy of Forensic Nursing Science (INPAFNUS). This journal is supporting the aims of the Society and the Academy. This journal also highlights the achievements of the SPIC, INPAFNUS and their members.

This journal covers the various aspects of ethics, evidence-based medical ethics, ethical dilemmas and various dynamic issues related to ethics. It also covers the ethical issues related to Forensic Nursing Science, Forensic Odontology, and Forensic Psychiatry. It also covers the ethical aspects of Toxicology including Environmental Pollution. It covers issues related to all sorts of corporal punishment and their prevention, particularly in schools. It covers physical as well as psychological aspects of trauma and clinical forensic medicine related to all types of injuries and prevention of injuries. It covers all aspects of victimology including etiology, crime scene investigation, and prosecution.

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Dr. RK Gorea

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Dr. AD Aggarwal Dr. Anil Garg

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Dr. R. K. Gorea

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Dr. R. K. Gorea

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Online submission at

Email: editoretv@gmail.com

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From the Editor's Desk

With a lot of hope and enthusiasm the 5^{th} Volume of this journal is being presented to the readers for their evaluation and constructive criticism to achieve perfection in the history of publication of this journal. This time there is a delay due to unavoidable reasons for which I ask for forgiveness from my contributors and readers.

I convey my thanks to all the contributors, reviewers and editors for bringing this 9th issue of the journal and this journal is all due to their untiring efforts, criticism and support. I convey my thanks to the Society for Prevention of Injuries and Corporal Punishment [SPIC] and Indo pacific Academy of Forensic Nursing Science for their patronage to this journal and this journal takes pleasure in reporting their activities too. There is a special appreciation for Dr. Pardeep Singh, Professor and Head, Forensic Medicine, Pt. Jawaharlal Nehru Medical College, Chamba, HP, India for organizing the 4th conference of SPIC and 4th conference of INPAFNUS at Jaipur in a very grand and magnificent way and who is also organizing the 5th Conference of SPIC at Chamba in 2020.

Rakesh K Gorea

Awareness and sensitization of faculty and employees to the needs of differently-abled students in medical colleges and attached hospitals

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Abstract

There are sufficient good laws to take care of the needs of the students with disabilities in educational institutions in India but it does not mean that there are no problems to the students with disabilities in the medical colleges and hospitals. A question definitely arises that is the faculty and other employees of the medical colleges are aware of the needs of such students or there is a requirement to sensitize the faculty and employees about the rules, regulations, and rights of the disabled students so that such students do not face any problem in their day to day activities and requirements.

Keywords: Differently-abled students; physically handicapped students; sensitizations of medical teachers; physically challenged students.

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Introduction

Definition of the disability "is "a physical, mental, cognitive, or developmental condition that impairs, interferes with, or limits a person's ability to engage in certain tasks or actions or participate in typical daily activities and interactions" (1) or "an illness, injury, or condition that makes it difficult for someone to do the things that other people do (2). While WHO defines this as "covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations" (3).

In India disability under the Act includes low vision and blindness, impairment in hearing and deaf, locomotor disability, Leprosy cured person but is still having a loss of sensation or visible locomotor disability, mental retardness and mental illness (4).

The commitment of the Indian polices for persons with disabilities were there even in the 1980s in the form of Mental health Act 1987 and which further improved with the Persons with Disabilities Act 1992 and which was amended in 2000 and National Trust Act in 1999 (5).

Equality of disabled persons with other persons of the society has been advocated for a long time and was initiated in Asia and the Pacific region in China in 1992 and they should be enabled to participate and India was one of the signatories to this proclamation (4).

United Nations Convention on the Rights of the Disabled Person [CRDP] adopted a proclamation in 2006, India signed the same in 2007 for the rights of the disabled and this proclamation became effective from 2008 (6).

An Act has been passed by the parliament of India in 2016 to give the rights to the persons who are physically challenged as recommended by the United Nations Convention on the rights of persons with physical disabilities in 2006. This convention desired empowerment of the disabled persons so that there should be no discrimination, their dignity should be respected, and they should be able to have equal opportunities and should fully participate in the community by providing them accessibility and their rights should be respected under the Rights of Persons with Disabilities Act, 2016 (7).

In the educational institutions which are funded or recognized by the government bodies, it is essential that children with disabilities have inclusive education and should construct buildings and other facilities which can be accessed by physically handicapped children (7). This becomes applicable to the medical colleges as they are governed by the National Medical commission created by the Central government as per the gazette notification of 8th August 2019 (8).

The government should also provide them transport which can be used by them and their attendants (7). To make their transport comfortable facilities should be provided so that they can use all sorts of transport and get their tickets and use the toilets and parking facilities (7).

Under clause 39 (sub-clause e) of this Rights of Persons With Disability [RPWD] Act, 2016 orientation and sensitization to the teachers should be provided by the government regarding rights of the disabled persons and human conditions of disability (7) and their rights are included in the curriculum (sub-clause f).

To make it inclusive for people with disabilities government has given reservation 3% in 1995 in the educational institutions in Persons with Disabilities Act 1995 and provided a comprehensive educational policy of providing curriculum and examination system, transport and accessible public places and also to take financial care of the books and other educational expenses (5).

Keeping in view the Act MCI has allowed the admission of students with disabilities (9) and included many conditions which look controversial and are being considered unfair & discriminatory as per global practices and are being opposed due to which MCI has amended certain guidelines on the representation of the disabled doctors (10).

To create awareness in higher education centers reservation should be provided to the differently-abled students to get admission, they should be provided guidance and counseling, and awareness should be created for the requirements of such students and institution should try to get such graduates placements to settle them too in their lives (11).

To learn in a better way, the needs of the individual differently-abled persons should be assessed so that they can learn in a better way. Assessment of such students may be a difficult and challenging process. Teachers should be made aware of how to assess such differently-abled students(11).

All architectural structures should be made disabled persons friendly so that they can utilize all the services and there is no hindrance to their movements and they should be provided special equipment to enhance the educational services in the medical institutions including learning and assessment devices, computers with software to read the screens for visually handicapped persons and they may also be provided financial assistance in the form of scholarships. (11).

3% reservation in jobs and promotion has also been given to persons with disabilities and fresh orders have issued in 2016 to properly implement these orders (12). Some posts should be identified for the disabled persons and should be filled (4) and this applies even to the medical colleges.

Government budgets spent on this cause also was low in the nineties indicting that priority was low for such causes other than passing the laws (5).

There are good policies in India for the rights of persons with disabilities but different institutions implement it in different ways which may produce a good result or which sometimes leads to poor facilities for disabled persons (5).

While the policies are usually oriented towards the Public sector but private organizations also need to implement to make the non-discriminatory society (5).

Awareness of the laws and rights of the disabled students is low in a survey done in UP and Tamil Nadu households and poor in families with disabled persons (5).

Active use of the media plays an important role in creating awareness and sensitizing as has been displayed in Karnataka and the involvement of social organizations in this process improves the results (5).

A project has been carried out to make the studies inclusive and accessible (13).

UGC guidelines are also there to facilitate a better environment for studies of disabled students (14).

World Disabled Day should be celebrated so that the creativity and capabilities of the differently-abled persons can be highlighted (11).

Discussion

It has been observed that in spite of the laws and statutory requirements by the governing bodies (4) (7) many medical colleges still do not have the facilities for the disabled students for the unrestricted movement. Governing bodies should be stricter so that all the educational institutes provide these facilities required for the disabled persons. The reason may be the lack of awareness or shortage of funds or simply managements are not sensitized to the requirements of the disabled persons. All the administrators of the medical colleges need to be made aware of the laws and statutory requirements to provide facilities to the disabled persons so that they provide the mandatory facilities for the disabled students. The government should make more efforts to sensitize the administrators and the faculty of the medical colleges so that disabled students can get their rights.

As required by the law to provide jobs to the persons with disabilities (4) it will be better if jobs in the faculty and the offices are provided to the disabled person and everybody in the medical college will be more sensitized for the problem of the disabled students in the medical colleges.

Conclusion

Providing jobs to disabled persons in organizations is important so that people are sensitized towards working with disabled persons and it will go a long way to make a friendly atmosphere for the disabled person and empathy will be created towards disabled persons.

With increasing awareness levels better implementation of the laws about disabilities will be possible and such students will be able to enjoy their rights in a better way.

All the stakeholders in medical education should be made aware of the rights of the disabled students and the disabled students should also be involved in this process so that they do not face any difficulty in getting a proper education and there is no hindrance to their learning due to their disability.

Conflict of interest

None

Dr. R K Gorea MD, DNB, PhD Editor-in-Chief

References

- 1. Definition of DISABILITY [Internet]. [cited 2019 Sep 27]. Available from: https://www.merriam-webster.com/dictionary/disability
- 2. DISABILITY | meaning in the Cambridge English Dictionary [Internet]. [cited 2019 Sep 27]. Available from: https://dictionary.cambridge.org/dictionary/english/disability
- 3. WHO | Disabilities [Internet]. WHO. [cited 2019 Sep 27]. Available from: http://www.who.int/topics/disabilities/en/
- 4. India Persons with Disabilities ActDisability Rights Education & Defense Fund [Internet]. Disability Rights Education & Defense Fund. 2012 [cited 2019 May 29]. Available from: https://dredf.org/legal-advocacy/international-disability-rights/international-laws/india-persons-with-disabilities-act/
- 5. Chapter 7: Policies and institutions for persons with disabilities in india. [cited 2019 May 29]; Available from: http://web.worldbank.org/archive/website01291/WEB/IMAGES/CHAPTE-7.PDF
- 6. Convention on the rights of persons with disabilities (crpd) | united nations enable [Internet]. [cited 2019 May 29]. Available from: https://www.un.org/development/desa/disabilities/convention-on-the-rights-of-persons-with-disabilities.html

- 7. RPWD ACT 2016.pdf [Internet]. [cited 2019 May 29]. Available from: http://www.disabilityaffairs.gov.in/upload/uploadfiles/files/RPWD%20ACT%202016.pdf
- 8. THE NATIONAL MEDICAL COMMISSION ACT, 2019 NO. 30 OF 2019 [Internet]. [cited 2019 Sep 27]. Available from: http://egazette.nic.in/WriteReadData/2019/210357.pdf
- 9. ShowPdf.pdf [Internet]. [cited 2019 May 29]. Available from: https://mcc.nic.in/UGCounselling/home/ShowPdf?Type=50C9E8D5FC98727B4BBC93CF5D64A68DB647 F04F&ID=F6E1126CEDEBF23E1463AEE73F9DF08783640400
- 10. Medical Council of India's new guidelines on admission of persons with specified disabilities: Unfair, discriminatory and unlawful | Indian Journal of Medical Ethics [Internet]. [cited 2019 May 29]. Available from: https://ijme.in/articles/medical-council-of-indias-new-guidelines-on-admission-of-persons-with-specified-disabilities-unfair-discriminatory-and-unlawful/?galley=html
- 11. Facilities for Differently Abled | Government of India, All India Council for Technical Education [Internet]. [cited 2019 Sep 27]. Available from: https://www.aicte-india.org/opportunities/students/facilities-differently-abled
- 12. Ministry of human resource.pdf [Internet]. [cited 2019 May 29]. Available from: https://www.nitrkl.ac.in/OldWebsite/Institute/Documents/ExtDocs/Ministry%20of%20human%20resource.pdf
- 13. iaccess_report.pdf [Internet]. [cited 2019 May 29]. Available from: https://www.tiss.edu/uploads/files/iaccess_report.pdf
- 14. 1604485_person-with-disabilities-Uni.pdf [Internet]. [cited 2019 May 29]. Available from: https://www.ugc.ac.in/pdfnews/1604485_person-with-disabilities-Uni.pdf

Completeness and accuracy of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

Rosa Mutiara Mandasari, Faculty of Medicine, Public Health, and Nursing Universitas Gadjah Mada, Indonesia IBG Surya Putra Pidada, Department of Forensic Medicine and Medicolegal Universitas Gadjah Mada, Indonesia

Martiana Suciningtyas TA, Department of Forensic Medicine and Medicolegal Universitas Gadjah Mada, Indonesia

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Corresponding author

Rosa Mutiara Mandasari

Faculty of Medicine, Public Health, and Nursing Universitas Gadjah Mada

Jalan Farmako Sekip Utara 55281 Yogyakarta, Indonesia rosa.mutiara.m@mail.ugm.ac.id

Phone: +6282225312527

Email:

rosa.mutiara.m@mail.ugm.ac.id

Abstract

Background: Ludira Husada Tama Hospital is one of privately-owned hospitals in Yogyakarta. Being classified as a type D hospital, the author aims to observe the implementation of writing death certificate in terms of completeness and accuracy.

Objective: To know the completeness and the accuracy of death certificate on cause of clinical death at Ludira Husada Tama Hospital in 2015-2017

Method: This study is a descriptive-observational study using cross-sectional method. This study was taken place at Ludira Husada Tama Hospital, Yogyakarta by taking the medical record of the patient who die in this hospital which have death certificate on cause of clinical death in 2015-2017.

Result: The amount of medical record contains death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017 that met inclusion and exclusion criteria is 55 data. In the completeness of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017, 98% is classified as fair and 2% is classified as poor. In the accuracy of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017, the percentage of accuracy on the section I (a) is 62%, on the section I (b, c) is 22%, on the section I (d) is 20%, and on the part II is 11% accurate.

Conclusion: In the completeness of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017, 98% is classified as fair and 2% is classified as poor. In the accuracy of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017, the percentage of accuracy on the section I (a) is 62%, on the section I (b, c) is 22%, on the section I (d) is 20%, and on the part II is 11% accurate.

Keywords: Death Certificate on Cause of Clinical Death; Cause of Death.

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Introduction

Death is a process in which cellular metabolic processes in different tissues and organ ceases to function at different rates (1). There are two types of death — somatic and cellular death. Somatic death or clinical death is when the person irreversibly loses its sentient personality, being unconscious, unaware of (or to communicate with)

its environment, and unable to appreciate any sensory stimuli or initiate any voluntary movement or when three main systems which act as life support (circulatory, cardiovascular and respiratory system) are stopped permanently. Cellular death is when tissues and its constituent cells are no longer functioning or have any metabolic activity, primarily aerobic respiration (2).

Death certificate provides important personal information about the decedent, the circumstances and the cause of death (3). Accurate certification of death is essential. It acts a legal evidence of the facts and causes of death, thus enabling the death to be formally registered (4). It is important for physicians to understand how to complete a death certificate properly. Accurate completion of this legal document is necessary for the needs of registration compiling health statistics, person engaged in medicolegal work, hospital, or other health care personnel, and the family of the deceased. Prompt completion is crucial to ensure arrangements can proceed without delay, especially in countries which does not permit burial to take place without an official death certificate (5). Knowing the cause of death is also key in insurance and workers' compensation claims, as it will determine if the partner or the children are entitled to death benefits (6).

Ludira Husada Tama Hospital is one of privatelyowned hospitals in Yogyakarta. Being classified as a type D hospital, the author aims to observe the implementation of writing death certificate and how it differs from other type of hospital.

Ludira Husada Tama Hospital envision as a hospital that works based in humanity and prioritizes health service a whole. Their mission is to provide comprehensive, good quality care that are based on ethical principles to everyone in need.

To fulfill its vision and mission, a good support from the hospital itself is needed, one which is the proof of service done in the hospital. It is crucial for data to be complete and accurate so that the information is accountable, and be used further as an evaluation to improve performance, quality and service in the hospital. Thus, this study aims to identify the plenitude of death certificate so that future studies can identify the incidence of each lethal disease, all of which serves as inputs and proof to improve a better quality care in the hospital.

Materials and Methods

This study is a descriptive-observational study using cross-sectional method. This study design is chosen to fulfill the main objective, to know the completeness and the accuracy of death certificate on cause of clinical death at Ludira Husada Tama Hospital, Yogyakarta in 2015-2017.

The subject of this study is death certificate on cause of clinical death at Ludira Husada Tama Hospital in 2015-2017. The inclusion criteria of this

study were all medical record of patient who died at Ludira Husada Tama Hospital in 2015-2017 which has death certificate. Then, the exclusion criteria were medical record of patient who died at Ludira Husada Tama Hospital in 2015-2017 which has death certificate that was not written clearly so that it cannot be interpreted.

The materials needed in this study are ethical clearance which is used for permission to conduct study and death certificate on cause of clinical death at Ludira Husada Tama Hospital in 2015-2017. The equipment needed in this study are check list to facilitate data collection regarding the completeness and accuracy of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017.

Results

Amount of Death Certificate on Cause of Clinical Death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

The data of this study were obtained from the medial record which contains the death certificate or medical certification of death in 2015-2017 at Ludira Husada Tama Hospital Yogyakarta. Based on the observation, it is known that the death certificate in 2015-2017 were 90 data. After that, another selection was made so that 55 data that met the inclusion and exclusion criteria were obtained. From 55 data, 22 data were from 2015, 28 data were from 2016, and 5 data were from 2017.

The amount of data on death certificate that met the inclusion and exclusion criteria is as follows

Table 1. Amount of data on death certificate at Ludira Husada Tama Hospital in 2015-2017

Year	Amount of	%
	Data	
2015	22	40
2016	28	51
2017	5	9
Total	55	100

Completeness of Death Certificate on Cause of Clinical Death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

The completeness of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta was classified into poor (0-59% of all points in the death certificate were filled), fair (60-79% points in the death certificate were filled), and

good (80-100% points in the death certificate were filled). The result can be seen in Table 2

Table 2. Completeness of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

Year	Poor		Fair		Good	
	Amount	%	Amount	%	Amount	%
2015	1	2	21	38	0	0
2016	0	0	28	51	0	0
2017	0	0	5	9	0	0
Total	1	2	54	98	0	0

Based on 22 data from 2015, 1 data (2%) was classified as poor and 21 data (38%) were classified as fair. Then, based on 28 data from 2016, 28 data (51%) were classified as fair. While, based on 5 data from 2017, 5 data (9%) were classified as fair. Therefore, it can be said that no data was classified as good, 54 data (98%) were classified as fair and a data (2%) was classified as poor.

The completeness of data filling in death certificate based on its elements can be seen in Table 3.

Table 3. Completeness of data filling in death certificate based on its elements

Elements	Poo	r	Fair		Goo	d
	Amount	%	Amount	%	Amount	%
Death certificate Identity	0	0	0	0	55	100
Decedent's Identity	20	36	35	64	0	0
Cause of Death	27	49	26	47	2	4
Legal Aspect	55	100	0	0	0	0

Based on the table 3, in the death certificate identity 55 data (100%) were classified as good. In the decedent's identity, 20 data (36,4%) were classified as poor and 35 data (63,6%) were classified as fair. In the cause of death, 27 data (49%) were classified as poor, 26 data (47,2%) were classified as fair, and 2 data (3,8%) were classified as good. Then, in the legal aspect, 55 data (100%) were classified as poor.

Accuracy of Death Certificate on Cause of Clinical Death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

The accuracy of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta was classified into accurate (filled and appropriate) and inaccurate (not filled and/or written incorrectly or not related to the series of event in a disease). The accuracy of death certificate on cause of clinical

death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017 can be seen in Table 4.

Table 4. Accuracy of death certificate on cause of clinical death

	Ac	curacy of	Data	
	2015	2016	2017	Total
Part I (a)	12	17	5	34(62%
				0
Part I(b,c)	2	6	4	12(22%)
Part I(d)	5	5	1	11(20%)
Part II	4	2	0	6(11%)

Based on the data served in the table 4, the highest accuracy was found in the part I(a) (62%). While the lowest accuracy value was found in the part II (11%) because the large amount of data that is empty in this section.

Underlying Cause of Death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

Underlying cause of death can be seen in the part I (d) in the death certificate form. It is important to know the underlying cause of death, especially for the hospital itself, in order to make a program for prevention of the disease and management of patient to reduce mortality.

Table 5. Underlying cause of death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

2015-2017				
Category	Disease	Amount		
Diseases of	Congestive Heart	10		
Circulatory System	Failure			
	Hypertensive	4		
	Emergency			
	Hypertensive Heart	4		
	disease			
	Non traumatic	1		
	Intracranial			
	Hemorrhage			
Diseases of	Chronic Gastric	3		
Digestive system	Ulcer			
Diseases of Genito	Chronic Kidney	2		
urinary System	Disease			
	Renal failure	2		
	Urinary Tract	3		
	Infection			
Diseases of	Bronchitis	1		
Respiratory System	Chronic Obstructive	1		
	Pulmonary Disease			
	Pneumonia	10		
	Streptococcal	1		
	Pharngitis			
Endocrine,	Diabetes Mellitus	3		
Nutritional &				
Metabolic Diseases		4		
Infectious &	Acute Gastroentritis	4		
Parasitic diseases	F			
Injury, Poisoning &	Fracture of Costae	1		
Certain Other	Other Fracture	1		
consequences of				
external causes	D C	2		
Neoplasm	Breast Cancer	2		
	Lung Cancer	2		

The underlying cause of death at Ludira Husada Tama Hospital in 2015-2017 can be seen in the Table 5. Based on table 5, the leading cause of death at Ludira Husada Tama Hospital in 2015-2017 is the disease of circulatory system (35%) which consists of congestive heart failure (10 cases), hypertensive emergency (4 cases), hypertensive heart disease (4 cases), and non-traumatic intracranial hemorrhage (1 case), then followed by the disease of respiratory system (24%) which consists of bronchitis (1 case), chronic obstructive pulmonary disease (1 case), pneumonia (10 cases), and streptococcus pharyngitis (1 case).

Discussion

Amount of Death Certificate on Cause of Clinical Death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

The amount of medical record contains death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017 is 90 data consist of 35 data were from 2015, 46 data were from 2016 and 9 data were from 2017. Then the data was selected again based on inclusion and exclusion criteria so that the data could be read and interpreted. After the selection was made, 55 data were obtained because there were 27 data (13 data from 2015, 13 data from 2016, and 1 data from 2017) which was written as Dead on Arrival (DoA) and 8 data (5 data from 2016, 3 data from 2017) were not written clearly so that the cause of death cannot be interpreted.

Furthermore, the amount of sample that meet the inclusion and exclusion criteria (55 data) did not fulfilled target sample which is determined by Slovin's formula with 150 population within 3 years (66 data) because at Ludira Husada Tama Hospital, the doctor usually write the death certificate stating the cause of death - only if the person who died in this hospital owns an Identity Card that states his place of residence as Kota Yogyakarta. This is in line to the local health authority's regulation, who is responsible for recapitulating the data for evaluation purposes regularly.

Completeness of Death Certificate on Cause of Clinical Death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

Based on 55 data obtained, 1 data (2%) was classified as poor (less than 60% of all points in the death certificate were filled), 54 data (98%) were classified as fair (60-79% of all points in the death certificate were filled) and no data was classified as good (80-100% of all points in the death certificate were filled).

The completeness of death certificate on cause of clinical death was assessed from four elements in the research checklist, which consist of death certificate identity, decedent's identity, cause of death, and legal aspect of death certificate, then classified into poor (0-59% of all points in each element were filled), fair (60-79% of all points in each element were filled), and good (80-100% of all points in each element were filled).

Based on the research done by Rachmadhani at one of the public hospital in Surabaya, from 106 death certificate used in this research, 46 data (45,28%) were classified as incomplete, 24 data (22,64%) were classified as moderately-complete, and 34 data (32,08%) were classified as complete (7). If it's compared with research done at Ludira Husada Tama Hospital, it's known that the completeness of death certificate in one of public hospital in Surabaya from January until April 2017 is still higher than those at Ludira Husada Tama Hospital Yogyakarta in 2015-2017.

Death certificate identity element consist of certificate number, date when making death certificate, hospital's name, hospital's code, serial number of death record every month, and medical number. In this element, 55 data (100%) were classified as good which means that 80-100% of all points in this element were filled.

Decedent's identity element consist of name, identity card number, sex, place and date of birth, educational background, job, address, residence status, time and date of death, age when died, place of death, base of diagnosis, and modification plan. In this element, 20 data (36%) were classified as poor, which means that less than 60% of all points in this element were filled, and 35 data (64%) were classified as fair, which means that 60-79% of all points in the element were filled. The low level of completeness in filling of decedent's identity mostly happens because in 55 data (100%), the identity card number, residence status, and modification of plan were not filled. Moreover, job was not filled in 51 data (93%), educational background was not filled in 52 data (95%), place and date of birth was not filled in 13 data (24%), base of diagnosis was not filled in 5 data (9%), age when died was not filled in 3 data (5%), sex was not filled in 2 data (4%), and place of death was not filled in 1 data (2%).

Cause of death element consist of I(a) (disease or condition that led directly to death), I(b,c) (intermediate cause of death), I(d) (underlying cause of death), and II (disease or condition that

contributed to death but not lead to underlying cause of death). In this element, 27 data (49%) were classified as poor which means that less than 60% of all points in this element were filled, 26 data (47%) were classified as fair which means that 60-79% of all points in the element were filled, and 2 data (4%) were classified as good which means that 80-100% of all points in this element were filled. This value was obtained from the prevalence of filling the cause of death in death certificate which includes I(a), I(b,c), I(d), and II. Based on the observation, 53 data (96%) in point I(a) were filled, 49 data (89%) in point I(b,c) were filled, 29 data (53%) in point I(d) were filled, and 6 data (11%) in point II were filled.

Legal aspect of death certificate element consist of signature, name, and status of recipient and signature and name of author. In this element, 55 data (100%) were classified as poor which means that less than 60% of all points in this element were filled. It's happened because in 55 data (100%), the recipient of the death certificate (family or relatives of decedent) was not signed and written their name in this death certificate, but they usually signed in another document.

Incompleteness of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta is influenced by several things. First, it's because there are some patients who are hospitalized for only a few hours and then die, so that in-depth observation cannot be carried out. In addition, the data written in this death certificate was not directly written by attending-physician or doctor who diagnose the patient because the death certificate form is not distributed in each division in the hospital (for example, in emergency room and wards). Therefore, after the patient died, the medical record officer would see from the recapitulation data whether the deceased owns an identity card that states his place of residence as Kota Yogyakarta, then ask the doctor to fill the form based on the recapitulating data and medical record.

Based on the study done by Ni Wayan Eka Budhi Pahyuni (2018) at RSUP Dr. Sardjito in 2014-2016, from 103 death certificate used in this research, 90 data (87%) were completely filled. If it's seen from four categories (death certificate identity, decedent's identity, cause of death and legal aspect), 102 data (99%) from death certificate identity-section were filled, 92 data (89%) from decedent's identity-section were filled, 102 data (99%) from cause of death-section were filled, and 101 data (98%) from legal aspect-section were filled

(8). If it's compared with study done at Ludira Husada Tama Hospital, it's known that the completeness of death certificate at RSUP Dr. Sardjito in 2014-2016 is still higher than those at Ludira Husada Tama Hospital in 2015-2017.

Accuracy of Death Certificate on Cause of Clinical Death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

Based on the observation done on the 55 data of death certificate on cause of clinical death in 2015-2017, 34 data (62%) were classified as accurate in filling in the section I(a) (direct cause of death). In section I(b,c) (intermediate cause of death), 12 data (22%) were classified as accurate in filling in that section, which is approximately almost the same as the accuracy in the section I(d), which shows that 11 data (20%) were classified as accurate in the section Id. Then, in the part II, 6 data (11%) were classified as accurate or in another words, 89% of data in the section II were classified as inaccurate.

From the result above, it can be said that the filling in the section I (a) is said to be quite accurate (62%). However, the filling in the section I (b,c), I (d), and II is still less accurate. This happens because in filling in the section I (b,c) and I (d), a series of event (or disease) in that section is considered as less related. Even though, all conditions in the section I (a), I (b,c), and I (d) should be related. Besides that, only 29 data (53%) in the section I (d) were filled and affect the accuracy of I (d) section because in this study, the definition of inaccurate is when the data filled in the section written incorrectly or not related with the series of event in a disease) and when the data is not filled. While, in the section II, the accuracy of data is considered as low because from 55 data used in this research, only 6 data (11%) were filled in the section II.

Based on the research done at a tertiary care teaching institute in Bhubaneswar named Kalinga Institute of Medical Sciences, from 151 death certificate in the research, 111 data (73,51%) data from immediate cause of death were correctly filled, 116 data (76,82%) data from antecedent cause of death were correctly filled, and 67 data (44,37%) data from underlying cause of death were correctly filled (9). If it's compared with research done at Ludira Husada Tama Hospital, it's known that the accuracy of cause of death at Kalinga Institute of Medical Science in 2012 is still higher than those at Ludira Husada Tama Hospital Yogyakarta in 2015-2017.

Underlying Cause of Death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017

The most effective public health strategy to prevent death is to prevent the factor causing death. Therefore, the underlying cause of death is the most important factor to identify when reporting death statistics (10).

Based on the result of the analysis on the underlying cause of death, the leading cause of death in the Ludira Husada Tama Hospital Yogyakarta in 2015-2017 is the disease of circulatory system (35%), which consists of various diseases such as congestive heart failure, hypertensive emergency, hypertensive heart disease, and non-traumatic intracranial hemorrhage. Then, it's followed by the disease of respiratory system (24%), disease of genitourinary system (13%), neoplasm (7%), infectious and parasitic disease (7%), disease of digestive system (5%), endocrine, nutritional, and metabolic disease (5%), and injury, poisoning and other consequences of external cause (4%).

Based on the data from WHO, of the 15,6 million deaths worldwide in 2016, 54% were due to the top 10 causes, including ischemic heart disease (\pm 9,5 million), stroke (\pm 5,7 million), chronic obstructive pulmonary disease (\pm 3 million), lower respiratory infections (\pm 3 million), Alzheimer disease and other dementias (\pm 2 million), trachea, bronchus, lung cancer (\pm 1,8 million), diabetes mellitus (\pm 1,7 million), road injury (\pm 1,5 million), diarrheal disease (\pm 1,5 million), tuberculosis (\pm 1,4 million) (11).

Based on the data from WHO, the leading cause of disease in Indonesia in 2012 are stroke (21,2%), ischemic heart disease (8,9%), diabetes mellitus (6,5%), lower respiratory infections (5,2%), tuberculosis (4,3%), cirrhosis of the liver (3,2%), chronic obstructive pulmonary disease (3,1%), road injury (2,9%), hypertensive heart disease (2,7%), kidney diseases (2,6%) (12).

Conclusion

In the completeness of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017, 98% is classified as fair and 2% is classified as poor.

In the accuracy of death certificate on cause of clinical death at Ludira Husada Tama Hospital Yogyakarta in 2015-2017, the percentage of accuracy on the section I (a) is 62% accurate, on the section I (b,c) is 22% accurate, on the section I (d) is 20% accurate, and on the part II is 11% accurate.

The leading cause of death at Ludira Husada Tama Hospital in 2015-2017 are disease of circulatory system (35%) and disease of respiratory system (24%).

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Conflict of Interest

None

References

- Payne-James J, Jones R, Karch SB, Manlove J. Simpson's forensic medicine. CRC Press; 2011. 24–26 p.
- Saukko P. Knight Forensic Pathoogy. Kn Forensic Pathol 3rd Ed Lond Arnold. 2004;340:52–3.
- Statistics (US) NC for H. Medical examiners' and coroners' handbook on death registration and fetal death reporting. Department of Health and Human Services, Centers for Disease Control and ...; 2003.
- Kotabagi RB, Chaturvedi RK, Banerjee A. Medical certification of cause of death. Med J Armed Forces India. 2004;60(3):261–272.
- Klatt EC, Noguchi TT. Death certification. Purposes, procedures, and pitfalls. West J Med. 1989;151(3):345.
- Thornton, Russel G. Death Certificates. In: Proceedings, Baylor University Medical Center. 2006. p. 285–6.
- 7. Rachmadhani D. KELENGKAPAN PENDOKUMENTASIAN SERTIFIKAT MEDIS PENYEBAB KEMATIAN DAN AKURASI PENYEBAB DASAR KEMATIAN. J Manaj Inf Kesehat Indones JMIKI. 2018;6(1):41–45.
- Dash SK, Behera BK, Patro S. Accuracy in certification of cause of death in a tertiary care hospital—A retrospective analysis. J Forensic Leg Med. 2014;24:33—36.
- Brooke HL, Talbäck M, Hörnblad J, Johansson LA, Ludvigsson JF, Druid H, et al. The Swedish cause

- of death register. Eur J Epidemiol. 2017;32(9):765–773.
- 11. The top 10 causes of death [Internet]. [cited 2019 Oct 9]. Available from: https://www.who.int/en/news-room/fact-sheets/detail/the-top-10-causes-of-death
- 12. idn.pdf [Internet]. [cited 2019 Oct 9]. Available from: https://www.who.int/gho/countries/idn.pdf?ua=

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A prospective study of Knot, Ligature Pattern & other External Findings observed in various cases of Hanging in Allahabad; Uttar Pradesh

Dr. Virendra Kumar Sonkar, Junior Resident, Moti Lal Nehru Medical College, Allahabad, India.

Dr. Archana Kaul; Associate Professor & Head, Moti Lal Nehru Medical College, Allahabad, India.

Dr. Rajesh Kumar Rai; Assistant Professor, Moti Lal Nehru Medical College, Allahabad, India.

Dr. Alok Kumar, Professor and Head and Dean Uttar Pradesh University of Medical Sciences, Saifai, India.

Dr. Raj Kumar, Vice-chancellor and Prof. and Head (Neurosurgery) Uttar Pradesh University of Medical Sciences, Saifai, India

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Corresponding author

Dr. Archana Kaul

Associate Professor & Head, Moti Lal Nehru Medical College, Allahabad

Phone: +919415687077

Email:

drarchanakaulmln@gmail.com

Background: Hanging is caused by suspension of the body by a ligature encircling the neck. The person may use any article readily available for this purpose, like a rope, saree, belt, bed sheet etc. Most times, Ligature mark and material may be the only evidence available in deaths due to either hanging or strangulation. Their thorough examination and analysis is extremely helpful in differentiation and provide vital medicolegal information.

Material and Method: Present study was conducted among the dead bodies brought to the mortuary of Swaroop Rani Nehru hospital MLN Medical College Allahabad. Out of 2654 cases autopsied during the study period from 01/05/2016 to 30/4/2017; 184 cases (6.93%) were caused by violent asphyxial death. Out of that 120 (65.2%) cases including hanging (94) and strangulation (26) were taken for study.

Results and Conclusion: The young adults of the age group of 21-40 years contributed for majority of cases with 66(55%) of cases of hanging and 16(13.3%) of cases of strangulation. The position of knot was seen on the right side in 42(35%) cases. Duppatta was most commonly used ligature material 41(34.16%). The most common external finding was cyanosis seen in 84 (70%) and 26 (21.66%) cases of hanging and strangulation, respectively. Present study provides vital information for the Doctors, Police and concerned authorities in investigating cases of Hanging and strangulation.

Keywords: Asphyxia; ligature; strangulation; hanging; autopsy; India.

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Introduction

Violence in any form is intolerable and unacceptable. But the incidents of violence in both the forms; killing self or someone are recorded since the existence of human being for one or the other reason. An increasing death rate as a result of violence amounts to a large group in medicolegal autopsies particularly deaths caused by asphyxia, which is one of the most important cause in violent deaths (1).

Asphyxia is a condition caused by interference with respiration or lack of oxygen in inspired air due to which the organs and tissues become deprived of oxygen causing unconsciousness or death. The classical features of asphyxia are found

when the air passage is constricted by pressure to the neck or to the chest and when there has been struggle to breathe. In pathological asphyxia, the entry of oxygen to the lungs is prevented by diseases of the upper respiratory tract or of the lungs. In toxic asphyxia, poisonous substances prevent the use of oxygen and in the environmental asphyxia there is insufficiency of oxygen in inspired air. Conventionally, the term asphyxia has been applied to all conditions in which oxygen supply to blood and tissue has been reduced appreciably below the normal working level by any interference with respiration. Serious deprivation of oxygen for 5 to 10 minutes can result the permanent damage of CNS and CVS resulting death. Asphyxial deaths may be caused by different methods, such as hanging,

strangulations (manual and ligature), suffocations (environmental, smothering, choking, mechanical, and suffocating gases), chemical asphyxia (carbon monoxide, hydrogen cyanide, and hydrogen sulfide), and drowning (2) (3).

In forensic context, asphyxia is usually obstructive in nature, where some physical barrier prevents access of air to lung. This obstruction can occur at any point from the nose and mouth to the alveolar membranes.

Clinical and pathological features of different types of asphyxia vary up to a large extent. Nervous tissues are affected first by deficiency of oxygen and their functions are disturbed even by mild oxygen deficiency. Subnormal oxygen in the blood supply to the brain causes rapid unconsciousness. In all forms of asphyxia heart may continue to beat for several minutes after stoppage of respiration. The types of asphyxia may be mechanical, pathological, traumatic, environmental, positional and iatrogenic. Hanging is that form of asphyxia which is caused due to compression of the neck by means of ligature round the neck, constricting force being the weight of the body (complete hanging) or a part of the body weight (partial hanging). The various Medicolegal queries which arise in case of death due to hanging are whether death is caused due to hanging like in situations where allegations of postmortem suspension of body are made, whether it is suicidal, homicidal or accidental, what is time since death, how to differentiate it from ligature strangulation etc. To answer these queries and to arrive at conclusion, detailed external and internal postmortem examination of the dead body becomes essential. The typical external findings that should be observed in a case of hanging death are the ligature mark, mode of application of ligature, knot position, color of the face, glove and stocking pattern of post-mortem lividity, dribbling of saliva, tongue position, eye open or closed etc. The internal examination of neck structures is done to look for the appearance of subcutaneous tissue under the ligature mark which is usually dry, white and glistening, any damage to intima of carotid arteries usually around the region of the sinuses with extravasation of blood in their walls particularly in long drops, any fracture of hyoid bone or thyroid cartilage. A complete profile of such findings is helpful as in majority of cases partial examination or missing of some trivial but important finding leads to derivation of an inconclusive opinion.

medicolegal practice, wherein a detailed and meticulous autopsy plays a significant role to solve the case while the scene investigation and collection of samples have their own significance. Present study was undertaken to investigate features of asphyxial deaths in the Allahabad region of north India and to compare them with other studies.

Material and Methods

Cases for the present study were selected from dead bodies brought to the mortuary of Swaroop Rani Nehru Hospital MLN Medical College Allahabad, for medico legal autopsy examination, from the various police stations of Allahabad and surrounding areas. Total 2654 cases were autopsied during the study period from 01/05/2016 to 31/4/2017. 184 cases (6.93%) were of violent asphyxial death. Among them a total of 120 cases including hanging (94) and strangulation (26) were selected for study.

The present study comprises detailed observation and analysis of –

- 1. Epidemiological details.
- 2. Medico legal aspects.
- 3. Gross forensic pathological features of the cases of hanging and strangulation.

Result and Discussion

We studied a total number of 94 cases of deaths due to hanging; among them complete hanging was present in 78 (65%) cases and partial hanging was seen in 12 (10%) cases which is in accordance with the findings of the several other studies, conducted by Saisudheer (2012) (4), whereas Ballur (2016) (5) reported that atypical ligature marks with partial hanging outnumbered typical ligature mark with complete hanging in their study. Such a high incidence of complete hanging might be ascribed to firm motive of an individual to commit suicide. Similarly, Bhosle SH et al, (2015) in Maharashtra observed that 32(38.09%) victims were died due to partial hanging and in 34(40.47%) victims complete hanging was seen (6). Patel (2013) in Gujarat observed that only 4 (1.25%) victims were died in partial hanging, while complete hanging were present in 316 (98.75%) cases (1). Meera (2011) in Manipal observed that (88.10%) victims were died in complete hanging and 8.33% victims were in partial hanging (7). Bakkannavar SM (2015) in Manipal found that the 316(98.75%) victims were died in complete hanging. and 4 (1.25%) victims were in partial hanging (8). Wagmare (2014) in Mumbai study the pattern of ligature mark and found that it was completely encircling the neck in all cases; hanging was complete in almost all cases (9).

Most cases presented with atypical hanging; wherein the commonest position of knot was on the right side of neck in 42(35.0%) and on the left side in 22(18.33%) cases of complete hanging. Position of knot on occipital region was found in 11(9.16%) cases. The position of knot was on the front of neck in 5 (4.16%), while in 2 cases it could not be ascertained.

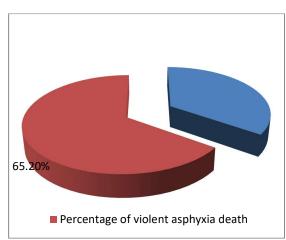


Fig. 1. Incidence of Hanging and Strangulation among total number of violent asphyxia death cases during period 1 year.

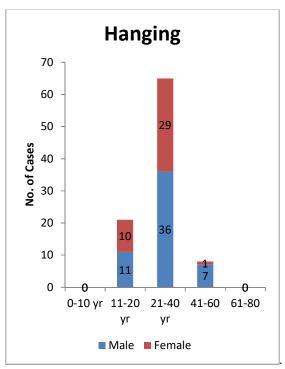


Fig. 2. Distribution of cases of hanging among various age Groups

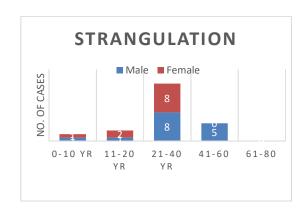


Fig. 3. Distribution of cases of strangulation among various age groups

Table 1: Distribution of cases of Hanging among their respective age groups.

Age		Hanging	
Groups	М	F	Total
0-10yr	0	0	0
11-20yr	11(9.16%)	10(.83%)	21(17.5%)
21-40yr	36(30%)	29(24.16%)	65(54.0%)
41-60yr	07(5.83%)	01(0.83%)	8(6.66%)
61-80yr	0	0	0
Total	54(45%)	40(33.33)	94(78.33%)

Table 2: Sex differentiation among cases of Hanging

THATISHIE)			
Sex	Hangin	Strangulati	Tota	Percentag
JEX	g	on	I	е
Male	54	15	69	57.5%
Femal	40	11	51	42.5%
е	40	11	31	42.576
Total	94	26	120	100%

Table 3: Distribution of cases of hanging on the basis of position of knot.

Positio	Comple	percenta	partial	percenta
n of	te	ge	hangi	ge
knot	hanging		ng	
Right	42%	35%	7%	5.83%
side				
Left	22%	18.33%	5%	4.16%
side				
Front	05%	4.16%	0%	0%
of				
neck				
Occipit	11%	9.16%	0%	0%
al				
region				
Not	02%	1.66%	0%	0%
known				
Total	82%	68.33%	12%	10%

Table 4: Distribution of cases of hanging on the basis of type of knot

ט פופשט	ype or kno	ι.		
Type of	Comple	Percenta	Partial	Percenta
knot	te	ge	Hangi	ge
	Hangin		ng	
	g			
Fixed	62	51.66%	12	10%
knot				
Runnin	13	10.83%	4	3.33%
g				
noose				
Unkno	3	2.5%	0	0%
wn				
Total	78	65%	16	13.33%

Table 5: Distribution of cases of Hanging the basis of Ligature material.

Of Lighter	c material.			
Ligature	Comple	Percenta	Parti	Percenta
Material	te	ge	al	ge
Rope/ra	7	5.83%	3	2.5%
ssi				
Dupatta	37	30.83%	4	3.33%
Sari	09	7.5%	4	3.33%
Gamcha	25	20.83%	5	4.16%
Other	0	0%	16	13.33%
Total	78	65%	16	13.33%

Table 6: Distribution of cases of Hanging on the basis of external finding.

basis of external finding.					
External finding	Hanging	Percentage			
Cyanosis	94	70%			
Bloody discharge	30	25%			
from mouth and					
nose					

Horner syndrome		07	5.83%
Dribbling of saliva		71	59.16%
Protrusion	of	35	29.16%
tongue			
Seminal		27	22.5%
ejaculation			
Fecal soiling		14	11.66%

Table 7: Distribution of cases of Hanging on the basis of characteristics of ligature mark.

External findings	Hanging (N=94)
Complete	2(2.13%)
Incomplete	92(97.87%)
Horizontal	1(1.06%)
Oblique	93(98.94%)
Faint mark	22(23.40%)
Prominent mark	72(76.60%)
On or below thyroid cartilage	0(0.0%)
Above thyroid Cartilage	94(100%)

Our study signifies that noose was fixed in 74 (62.28%) cases of hanging, while running noose was used in 17 (14.66%) cases and in 3(2.5%) cases the type of noose could not be determined. Similarly, Bhosle SH (2015) in Maharashtra found that fixed knot 30(35.71%) and running noose 29(34.52%) were present in his study (6).Patel (2013) in Gujarat observed that in hanging, the fixed knot were present in 148 (46.25%) cases and running knots were seen in 172(53.75%) cases. On the other hand; Bhausaheb NA (2015) in Indoor observed fixed knot in 68.25% cases and running noose in 31.15% cases (1).

In Manipal Meera (2011) observed 73.81% of the victims committed suicide indoor places and 57.14% of them used ropes as ligature material. Complete atypical hanging constituted 88.10% of the cases. 85.75% of the victims had fixed knots with a single turn and 10.71% had slip knots. (6) On the other hand Mukherjee (2016) observed slip knot in 22.73% cases in their study (13).

Considering the information gathered from the relatives of the deceased, from the police investigations and from examination of the ligature material, wherever it has been sent along with the dead body it was observed that the maximum people used soft ligature material like Dupatta, Saree, Muffler and Lungi (62.3%) whereas 37.64% cases used hard ligature materials like nylon rope, jute rope, and electric wire. In our study; Dupatta was most commonly used material

among soft ligatures and nylon rope among hard ligatures. The probable reason could be that Dupatta is a very common dress material used by Indian females in almost all families and Nylon rope is a cheap and easily available material due to common use for various domestic purposes. However, the ligature material used by the victim for hanging may be anything available at that moment, which includes any household article or belongings of the victim. This view is further strengthened by the findings in our study which showed that other ligature materials used for hanging were sari, bedsheet, lungi, jute rope, and electric wire. Contrary to this Sahoo et al mentioned that the most commonly employed material was hard ligatures as compared to soft ligatures but he also signifies that Dupatta was most commonly used material among soft ligatures (14).

In present study it was observed that the most common type of ligature material in both complete and partial hanging were Dupatta (n=41; 34.16%) followed by Gamcha ((n=30: 25%). Sari (n=13; 10.83%) and Rope/Rassi (n=10; 8.33%) cases. However, in Pondicherry, Udhayabanu (2015) found sari to be used for hanging (n=74; 47.74%) followed by nylon rope in 25 (16.12%) and dhoti in 21 (13.04%) cases. In Maharashtra (15); Bhosle (2015) observed that the commonest ligature material was nylon rope (53.01%), Handkerchief (6.03%) and Chunari (6.03%) (6). Meera (2011) in Manipal, observed that the ligature material were rope in 10 cases dupatta in 6 cases and sari in 5 cases and electric wire in 1 cases (7). Mukherjee (2016) observed that the ligature material was rope in 10 cases dupatta in 6 cases and sari in 5, electric wire in 1 case 2 (53.75%) were present in his study (13).

Similar to other studies; in present study also, majority cases used cloth material as a ligature; this could be because of the fact that clothes are usually the most easily available ligature material in a household at the material moment.

Among other features, cyanosis was present in 84(76.66) cases of hanging and bloody discharge from mouth was present in 30 (25%) cases. Dribbling of saliva was seen in 71 (59.6%) cases of hanging. Saiyed et al (2013) in Ahmadabad was found that Dribbling of saliva was present in (38.37%) of cases and Cyanosis was present in (34.88%) cases. Mukherjee (2016) oobserved that in 54 (70.12%) cases cyanosis were present, dribbling of saliva or dried salivary stains over cloths were present in 37 (48.05%) of cases (13).

As far as other features / external findings are concerned; it was observed that the complete ligature mark was present only in 2 (2.13%) cases, in maximum cases it was incomplete (n=92; 97.87%). Almost exclusively, the ligature mark was oblique, seen in 93(98.94%) cases and in only 1 incidence it was horizontal (n=1; 1.06%). Further in all 94 (100%) cases of hanging the ligature mark was present above the thyroid cartilage.

Conclusions

Our observations conclude that most of the victims are died due to hanging, 21- 40 years' age victims were most commonly involved group. In most cases knot was seen on the right side and fixed in nature, the ligature mark was oblique. Soft ligature material (Dupatta) was most commonly used. The most common external finding was cyanosis followed by Dribbling of Saliva.

Most of Asphyxial deaths were in young males and suicidal in manner which can be prevented by education, counseling, addressing the problems and improving the quality of life.

Conflict of interest

None declared.

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Ethical approval

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References

- Patel AP, Bhoot RR, Patel DJ, Patel KA. Study of violent asphyxial death. Int J Med Toxicol Forensic Med. 2013;3(2 (Spring)):48–57.
- Chaurasia N, Pandey SK, Mishra A. An epidemiological study of violent asphyxial death in Varanasi region (India) a killing tool. J Forensic Res. 2012;3(10):174.
- Singh A, Gorea RK, Dalal JS, Thind AS, Walia D. A study of demographic variables of violent asphyxial death. J Punjab Acad Forensic Med Toxicol. 2003;3:32–34.
- 4. Saisudheer T, Nagaraja TV. A study of ligature mark in cases of hanging deaths. Int J Pharm Biomed. 2012;3(3):80–4.
- Ballur MS, Dayananda R, Karthik SK, Murgod P, Sujathan G. Study of Ligature Mark in hanging cases in Bangalore East

- Region. J Indian Acad Forensic Med. 2016;38(1):18–20.
- 6. Bhosle SH, Batra AK, Kuchewar SV. Violent asphyxial death due to hanging: a prospective study. J Forensic Med Sci Law. 2014;23(1):1–8.
- 7. Meera T, Singh MBK. Pattern of neck findings in suicidal hanging-a study in Manipur. J Indian Acad Forensic Med. 2011;33(4):352–354.
- 8. Bakkannavar SM, Kumar GP, Nayak VC, Rajendiran G, Chhikara S, Sharma S. Victimo-epidemiological profile of violent asphyxial deaths in Manipal, Karnataka. Indian J Forensic Community Med. 2015;2(1):29–34.
- 9. Waghmare PB, Chikhalkar BG, Nanandkar SD. Analysis of asphyxial deaths due to hanging. J Indian Acad Forensic Med. 2014;36(4):343–345.
- Sreekumari K, Geetha O. Epidemiological profile of suicide by hanging in southern parts of Kerala: an autopsy based study. J Indian Acad Forensic Med. 2011;33(3):237–240.

- 11. Saiyed MZG, Modi KA. Retrospective Study of Postmortem Cases of 'Hanging-A Method of Suicide.' NHL J Med Sci. 2013;2(2):48–50.
- 12. Bhausaheb NA, Baburao CS, Banerjee KK, Kohli A. Pattern of external and internal findings in deaths owing to hanging-a study in northeast Delhi. Int J Med Sci Public Health. 2015;4(11):1536–9.
- 13. Medico-legal Study Of Hanging Deaths, IJSR International Journal of Scientific Research(IJSR), IJSR | World Wide Journals [Internet]. [cited 2019 May 1]. Available from:

 https://www.worldwidejournals.com/international-journal-of-scientific-research-(IJSR)/article/medicoandndash-legal-study-of-hanging-deaths/Nzg1Mg==/?is=1
- 14. Sahoo N. Significance of external findings in hanging cases during autopsy. Red. 2016;2:2–60.
- Udhayabanu R, Toshi S, Baskar R. Study of hanging cases in Pondicherry region. IOSR-JDMS. 2015;4(7):41–44.

Statistical relationship between knowledge levels and attitude toward liver transplantation from medical and Islamic perspective among faculty of medicine students: case Yarsi University

Rangga I. Hilmi, YARSI Faculty of Medicine, JI Letjen Soeprapto Jakarta Pusat 10510, Indonesia. Ferryal Basbeth, YARSI Faculty of Medicine, JI Letjen Soeprapto Jakarta Pusat 10510, Indonesia.

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Corresponding author

Rangga I. Hilmi,

YARSI Faculty of Medicine, Jl Letjen Soeprapto Jakarta Pusat 10510 Indonesia.

Phone: +

Email: ranggaih97@gmail.com

Abstract

Organ transplantation is considered as an alternative therapy as the best effort to help patients with organ failure. Many evidences showed that organ transplantation gives more satisfying results than most of conservative therapies. However, the organ transplant need some considerations from several non-medical aspects namely: religion, law, culture, ethics and morals. Islam religion perspective, in particular, requires people to make themselves knowledgeable before making any decision. At the same time, Islam religion teaching requires any decision should be guided and lead by sound knowledge. Although transplantation is considered haram from the Islamic, it is permissible in an emergency situation. This paper presents the study results on the relationship between two latent variables as construct: (1) the level of knowledge and (2) attitudes about liver transplantation from medical and Islamic perspective. The data for this study were collected from Faculty of Medicine students batch 2016 as respondents. This study used a quantitative non-experimental or analytical research method. The sample size was 70 which were selected using purposive sampling technique. That is, a sample was selected based on a particular assessment. Each observed variables were measured using Likert scale. The value of each latent variables was measured as an accumulated value of its observed variables. The study found the respondents' knowledge score ranged from 2 to 9 out of 0-10 score scale and attitude scores ranged from 17 to 26 out of 0-30 score range. The results of Chisquare statistical analysis between the two latent variables showed that there is no significant relationship between the two latent variables of interest. This results can be concluded that there is no significant relationship between knowledge and attitudes towards liver transplantation. In addition, the results of this study suggests that for further research to add more variables that influence attitude change.

Keywords: Knowledge; attitude; liver transplant.

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Introduction

The advent of medical science and technology in the past decade, such as various method to cure human diseases, has increased human life expectancy. In general, a disease can be broadly categorized into those that can be cured by only giving medicine and those that require special and complicated treatment. an advancement of the later medical treatment is transplanting organ from donors to recipients (1). According to the World Health Organization (WHO)

report in 2017, transplantation is a term refers to the engraftment of human cells, tissues or organs of the donor's body to the recipient with the aim of returning lost body functions. Organ transplantation in particular is one of the growing medical treatments in various countries including Indonesia. The statistics showed the increasing number of patient who need it and increasing variety of transplation techniques (1).

Currently the number of patients who need a liver transplant tends to exceed the supply of existing donor organs. As the result, many patients die due to waiting for a liver transplant (2).

Based on a study reported by Dutra in 2004 involving medical students of the Federal University of Bahia, Brazil, as respondents can be concluded as follows. Majority of medical school students had a positive attitude towards organ donation and transplantation but still need a lot of information and education about the problem. This fact was due to level of knowledge about organ transplants, death definitions, and legislation the laws governing transplants in Brazil are still low (3).

Islamic religion teaching requires its followers to be a knowledgeable individual and use the knowledge as guideline in any decision making (4).

In the Islamic religion perspectives organ transplantation is considered as an ijtihad or a term refers to situation where there is no explicit Hadist (the record of the words, actions, and the silent approval, supposedly of the Islamic prophet Muhammad pbuh) about organ transplation. Such condition caused many pros and cons opinions about organ transplantation among Islamic scholars especially related to hearth, liver and pancreas transplation which can only possible after the organ donor died (5).

Therefore, this research aims to study the relationship between knowledge level about liver transplantation and attitude toward hearth transplantation among college students of batch 2016 Faculty of Medicine, YARSI Universities. In this study, the research method used medical and Islamic religion perspectives.

Material & Methods

This research is non-experimentation quantitative or analytic research using cross-sectional data analysis method. Respondent population of this research is students of batch 2016 Medicine Faculty comprises of A and B classes in YARSI University. The size of the student population us 230.

The sample criteria for this research were as follows:

- (i) compliance with inclusion criteria: agree to volunteer as a respondent of this research
- (ii) agree to fill out a form informed consent
- (iii) enrolled/registered as an active student of the 4th semester student in year 2018. The samples were selected using purposive sampling technique.

In this research, data collecting technique used survey technique with self-administered questionnaires.

Having been quality checked, the fill out questionnaires were entered into computer readable form. The analysis data used univariate and bivariate statistical methods to assess relationship among dependent and independent variables.

Results

Data distribution of the independent variables is summarized in Table 4.1. As can be seen from the Table 1, the number of respondents for this research is 70 comprises of 18 (25.7 %) males and 52 (74.3 %) females. The age ranges from 17 to 22. The age modes are 19 and 20. Most of respondents have received information about transplantation (97.1 %), organ transplantation (98.6 %) and liver transplantation (85.7 %).

Table 2: showed that knowledge score ranges [0, 9] from the range [0, 10]. Whilst, attitude ranges [15, 26] from the range [0, 30].

Table 1: Data Distribution of the Independent Variables

Variable	Frequency (Percent)		
Gender	Male = 18 (25.7 %)		
	Female = 52 (74.3 %)		
Age	17 year = 1 (1.4 %)		
	18 year = 8 (11.4 %)		
	19 year = 29 (41.4 %)		
	20 year = 21 (30 %)		
	21 year = 10 (14.3 %)		
	22 year = 1 (1.4 %)		
Have received	Yes = 68 (97.1 %)		
information about	No = 2 (2.9 %)		
transplantation			
Have received	Yes = 69 (98.6 %)		
information about	No = 1 (1.4 %)		
organ			
transplantation			
Have received	Yes = 60 (85.7 %)		
information about	No = 10 (14.3 %)		
liver			
transplantation			

Table 2: Descriptive Statistics of the Dependent Variables

Variables		
Statistics	Knowledge	Attitude
N-samples	70	70
Min	2	15
Max	9	26
Mean	6.6	21.9
Standard Deviation	1.5	2.4

Mean score of knowledge and attitude is 6.6 and 21.9 respectively. Standard deviation of knowledge and attitude is 1.5 and 2.4 respectively.

Bivariate relationship analysis using Chi-square method was used to test the relationship between knowledge and attitude variables (see Table 4.3).

Table 3: Chi-square Test Result between Total Score of Knowledge and Total Score of Attitude Toward Liver Transplantation

Statistics	Value	df	P-value	
Pearson Chi-square	2.336	4	0.674	
Likelihood ratio	2.336	4	0.676	
Fisher Exact Test	0.864	1	0.353	
N valid cases	70			

Note df: degree of freedom

Consider the research Null Hypothesis (H_o) : "There is no relationship between knowledge and attitude toward liver transplantation" and Alternative Hypothesis (H_1) : "There is a relationship between knowledge and attitude toward liver transplantation." The results of Chi-square method showed that the data is unable to reject H_o (P value = 0.674 > 0.05). It can be interpreted that there is no significant relationship found from the samples about knowledge and attitude about organ transplantation.

Discussion

Statistical tests showed that, based on input dataset obtained from samples of student of batch 2016 Faculty of Medicine, YARSI University, there is no significant relationship between knowledge and attitude about liver transplantation. However, this results did not imply a causative relationship between the two variable of interest.

The insignificant relationship between level of knowledge and attitude about liver transplantation can be affected by one (some) mediating variable(s) which are beyond the scope of this research. It is suspected that the mediating variable connects two variable of interest in this research so that the level of knowledge about liver transplantation did not affect the attitude about liver transplantation. For that reason, it is proposed for the future research, the mediating variables should be included into the research scope.

Conclusion

Based on the research finding measured by Chi-square testing method, it can be concluded that there is no significant relationship between the level of knowledge and attitude toward level transplantation among student of batch 2016 Faculty of Medicine of YARSI

University. Liver transplantation can only be implemented if the donor has died. However, the existence of pro-cons opinions among Islamic scholars about liver transplantation has brought about this issue into one of ijtihad area.

Recommendations

In the past several years, the liver transplantation has gained an increasing interest among worldwide medical profession from both research and practitioner domains.

It is imperative for any medical workers to keep updating knowledge on liver transplantation through various information sources including reading books, academic papers and seminars. The updated knowledge is imperatively linked to good attitude toward liver transplantation.

The future researcher in this topic is suggested to explore more variables particularly those avriables that serve as mediating variables between knowledge and attitude.

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Conflict of Interest

None declared

References

- Cecep T. Etika dan Hukum Kesehatan. 1st ed. Yogyakarta: Nuha Medika; 2014.
- 2. Roach J. Split Liver Transplantation. 2017.
- 3. Dutra MMD, Bonfim TAS, Pereira IS, Figueiredo IC, Dutra AMD, Lopes AA. Knowledge about transplantation and attitudes toward organ donation: a survey among medical students in northeast Brazil. In: Transplantation proceedings. Elsevier; 2004. p. 818–820.
- 4. Ranuwijaya U. Pustaka Pengetahuan Al-Quran. Jakarta: PT Rehal Publika; 2007.
- Atighetchi D. Islamic Bioethics: Problems and Perspectives | SpringerLink [Internet]. 2007 [cited 2019 May 29]. Available from: https://link.springer.com/book/10.1007%2F978-1-4020-4962-0

Psychiatric assessment of child victims of sexual abuse by Ham A and D Scale: A Descriptive Study

Soumeek Chowdhuri, Tutor, Department of Forensic and State Medicine, Calcutta National Medical College, Kolkata, India.

Paramita Ray, Associate Professor, Institute of Psychiatry (Centre of excellence), IPGMER and SSKM hospital, Kolkata, India.

Parthapratim Mukhopadhayay, Professor & Head, Dept of FSM, Burdwan Medical College, Burdwan, India

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Corresponding author

Soumeek Chowdhuri

Tutor, Department of Forensic and State Medicine, Calcutta National Medical College, Kolkata, India.

Phone: +919007580064 **Email**: smk.kgp@gmail.com

Abstract

Background

In today's world man finds himself exposed to the temptations of (This entire sentence is not objective, scientific terminology) (These crimes are not limited to TODAY's world, the perpetrator is not always a man, and evil is not a scientific subject to be included in a scholarly paper, it is subjective to individual beliefs and laws).

A movement should have been augmented to fight against these (do not use dramatic subjective terms) societal crimes, which forms a sort of mental purge for those so inclined to take advantage of their positions of trust. Child abuse has historically been a common offence against children without sufficient social and legal sanctions throughout the world. To deal with child sexual abuse cases while treating the victims, it's necessary to assess the patient's psychiatric health. The victims were examined after obtaining informed consent from the child or from their guardian.

Results

The patient's psychiatric health was determined by the Hamilton Scale for depression and anxiety. The total number of cases was 52. Of the 52 cases 33 patients (i.e. 63.5 % of the cases) consented to undergo medical examination. 19 victims (36.5%) did not give their consent for their medical examination. The mean Hamilton A score for anxiety was 19.39 and mean Hamilton D score for depression was 28.81.

Conclusions

When the accused is known to the victim most cases are associated with severe or very severe degree of depression; and moderate or severe anxiety. After completing a detail study of the violations of minor girls it is concluded that it would be beneficial for the global society to take initiatives to minimize the incidence of such acts.

Keywords: Child abuse; Hamilton Scale; depression anxiety; forensic psychiatry.

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Introduction

Child sexual abuse is an alarming reality and is being increasingly reported globally. A universal preventative movement should have been augmented to fight against these destructive crimes against children throughout all societies. Those who commit these crimes often develop a type of mental purge to rationalize their actions while taking advantage of their positions of trust. Child sexual abuse has become a common detestable offence. To deal with child sexual abuse

cases, while treating the victims, it is necessary to assess their psychiatric health. The police personnel receiving a report of sexual abuse of a child are given the responsibility of making urgent arrangements for the care and protection of the while obtaining emergency medical treatment, and placing the child in a shelter home if necessary. Official police documentation provides guidelines for the Special Court to determine an appropriate amount compensation to be paid to a child who has been sexually abused. This money can be used for the patient's medical treatment and rehabilitation. Apart from the role of police and the court, the role of medical professionals is largely felt. Pediatricians and allied medical professionals are often the first point of contact with abused children and their families. Also, to give proper emergency medical treatment and provide rehabilitation, it is necessary to assess the patient's mental health. In this regard, the Hamilton study designed to assess the mental health of sexually abused children in a developing country was essential. Laws against child sexual abuse vary by country based on the legal definition of who is a child and what constitutes child sexual abuse. Most countries employ some form of age of consent with. Sexual contact with an underage person being criminally penalized. As the age of consent regarding sexual behavior varies from country to country, so too do definitions of child sexual abuse. An adult's sexual intercourse with a minor below the legal consent may sometimes be referred to as statutory rape, based on the principle that any apparent consent by a minor could not be considered legal consent (1).

The United Nations Convention on the Rights of the Child (CRC) is an international treaty that legally obligates nations to protect children's rights. Articles 34 and 35 of the CRC require states to protect children from all forms of sexual exploitation and sexual abuse. This includes outlawing the coercion of a child to perform sexual activity, the prostitution of children, and the exploitation of children in creating pornography. States are also required to prevent the abduction, sale, or trafficking of children. As of December 2014, 195 countries have ratified the Convention, including every member of the United Nations except the United States and South Sudan (2).

In the United States

Child sexual abuse has been recognized specifically as a type of child maltreatment in U.S. federal law since the initial Congressional hearings on child abuse in 1973. Child sexual abuse is illegal as

under federal and state law. Although the specifics of child sexual abuse laws vary throughout the states, but certain features are common to all states (3).

In India

The Protection of Children Against Sexual Offences Act, 2012 regarding child sexual abuse has been passed by the both the houses of the Indian Parliament (4) and came into force from 14 November 2012 (5).

In South Africa

The South African laws on sexual offences was codified in the 2007 Criminal Law (Sexual Offences and Related Matters) Amendment Act. Chapter 3 of the act deals with sexual offences against children. The act criminalizes:

- Acts of sexual penetration with a child (statutory rape)
- Other sexual acts with a child (statutory sexual assault)
- Exploitation of children in prostitution
- Sexual grooming of children
- Showing pornography to children
- Using children in child pornography
- Compelling children to witness sexual acts
- Indecent exposure to children

The act establishes a National Register for Sex Offenders which lists people convicted of sexual offences against children and the mentally disabled.

In the United Kingdom

The United Kingdom rewrote its criminal code in the Sexual Offences Act of 2003. This Act includes definitions and penalties for child sexual abuse offences, and (relating to offences) applies to England and Wales and Northern Ireland. The Scottish Law Commission published its review of rape and sexual offences in December 2007, which includes a similar consolidation and codification of child sexual abuse offences in Scotland.

In Zambia

A recent June 30, 2008 landmark decision by judge, Philip Musonda, of the Zambian High Court gave a minor girl-student 45 million Zambian Kwacha in awards after her teacher was charged and with statutory rape. This is the first case of its kind for a minor to win against a person of authority in the nation of Zambia. The Hamilton study examined the relationship between child sexual abuse (CSA) and subsequent onset of psychiatric disorders, accounting for other childhood adversities, CSA type, and chronicity of the abuse.

The study design was of cross-sectional type. The study included victims of sexual assault/abuse under 18 years of age who brought for examination. after age estimation Victims that are found to be over 18 years will be excluded for often it is seen that there is overstatement of age in these cases. Two standard psychiatric scales have been used for this study. This was done by using Hamilton D scale for depression and Hamilton A scale for anxiety.

The Hamilton Rating Scale for Depression (HRSD) has been considered the gold standard for assessing severity of depression and is widely used in research. The HRSD has several versions, with the number of items employed ranging from 17 to 28. The 17-item version is the most commonly used and contains somatic and suicidal ideation items. The questions are more likely understood by semiliterate populations and can be applied easily without an in-house psychiatrist.

The HAM-A was the first rating scale to be published and is available in the public domain (meaning anyone can download and use it). It is a 14-domain practitioner observation-based assessment has been shown and continues to serve as a useful tool within both a clinical and research setting. After several decades of minimal use, a significant resurgence of use of the HAM-A over the last twenty years provides over 900 references in total using a gross bibliometric method (6). The simple, one-page observation questionnaire includes fourteen different domains, which consist of distinctive phrases and feeling associated with each domain. Inasmuch, it provides an indexed score which can be tracked serially across visits and compared to others indicating good intra subject and inter subject reliability. These domains can be easily discussed with the patient and allow a natural conversation between practitioner and patient which is not necessarily a hallmark of similar tools.

Since the objective of this study is to provide a screening before the victim can be sent for specialist psychiatric treatment it was found that the above scales are easier to apply and effective in the study population. (do not refer to the authors in 1st person)

Hamilton Depression Rating Scale (HDRS)

The HDRS (also known as the Ham-D) is the most widely used clinician-administered depression assessment scale. The original version contains 17 items (HDRS17) pertaining to symptoms of depression experienced over the past week.

Although the scale was designed for completion after an unstructured clinical interview, there are now semi-structured interview guides available. The HDRS was originally developed for hospital inpatients, thus the emphasis on melancholic and physical symptoms of depression. A later 21-item version (HDRS21 included 4items intended to subtype the depression, but which are sometimes, incorrectly, used to rate severity.

Scoring

Methods for scoring varies by version. For the HDRS17, a score of 0–7 is generally accepted to be within the normal range (or in clinical remission), while a score of 20 or higher (indicating at least moderate severity) is usually required for entry into a clinical trial.

Versions The scale has been translated into a number of languages including French, German, Italian, Thai, and Turkish. There is an Interactive Voice Response version (IVR), a Seasonal Affective Disorder version (SIGH-SAD, seepage 55), and a Structured Interview Version (HDS-SIV). Numerous versions with varying lengths include theHDRS17, HDRS21, HDRS29, HDRS8, HDRS6, HDRS24, and HDRS7.

Hamilton Anxiety Rating Scale (HAM-A)

Rating Clinician-rated Administration time 10–15 minutes. The main purpose is to assess the severity of symptoms of anxiety in adult populations, adolescents and children.

Commentary

The HAM-A was one of the first rating scales developed to measure the severity of anxiety symptoms and is still widely used today in both clinical and research settings. The scale consists of 14 items, each defined by a series of symptoms, and measures both psychic anxiety (mental agitation and psychological distress) and somatic anxiety (physical complaints related to anxiety). Although the HAM-A remains widely used as an outcome measure in clinical trials and the reported levels of interrater integrated reliability for the scale to be acceptable. Scoring each item is scored on a scale of 0 (not present) to 4 (severe), with a total score range of 0-56. Consent was taken from the patients and their legal guardian for the use of their data for research purposes. Ethical committee clearance was taken from Institutional Ethics Committee.

Results

Total number of cases was 52. Of the 52 cases 33 (i.e. 63.5~% of the cases) consented to undergo

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medical examination. However, 19 victims (36.5%) did not give their consent for the medical examination. Amongst them the maximum age was 18 years. The minimum was 3 years of age and the mean age was 13.15 years. Majority (63.3%) cases belonged to low socioeconomic strata of the society, 33.33% of the victims were from middle socioeconomic strata of the society and only one case was reported from high socioeconomic status. The study population 23 (44.23%) were from the general caste whereas 29 i.e. 55.8 % (16 Scheduled castes, 8 scheduled tribes, 6 OBCs) and were from the backward castes. This is important in the context of our study because the backward caste is the most neglected group in our society. Majority of cases were from high school (11 cases, 37.93%) followed by 27.59 % who were school dropouts and 10.34% were from primary school.

The mean Hamilton A score for anxiety was 19.39 and the mean Hamilton D score for depression was 28.81 (shown in Table 1). When the accused is known to the victim, most cases are associated with severe or very severe degree of depression. The chi-square tests were used to show the p value for the association between relation with accused and degree of depression which is 0.579, which is not of high significance. However, this may be misleading due to the fact that a smaller number of study subjects were used and had there been a larger sample size, a higher significance would have resulted. Also, when the accused is known to the victim (i.e. either known or semiacquaintance or relative) it is associated with moderate or severe anxiety in 14 cases. The chisquare tests gave the p value for this correlation between anxiety and relationship with accused as 0.693, which could have been better with larger sample size.

Of the 33 victims who were examined, suicidal tendency was seen in 15.2% of the patients (Chart 1). Those who are victims of sexual assault (hymen tear) 48.39% were associated with severe degree of anxiety. The majority of cases reporting on first day for examination presented with moderate or severe anxiety. The maximum reporting was seen on the first day. (first day of assault or first day of examination?

(Chart 3) shows correlations between degrees of depression with socioeconomic status. This indicates that victims from a lower socio economic status showed a more severe degree of depression. In those whom hymen injury was absent the degree of anxiety (9.68%) was much less. The chi square test shows that in victims of

sexual assault the p value of association with anxiety was 0.006.

The p value of the chi square test showing correlation between depression and suicidal tendency is 0.104. Of this 15.2% of the victims, the majority of girls who had suicidal tendency were in the age group of 12-17 years (Chart 8). Suicidal tendency was associated in cases mostly in those in whom severe depression was demonstrated (chart 7). The majority with moderate and severe degree of anxiety were at higher risk for attempting suicide (Chart 9).

The degree of depression, the degree of anxiety, the age of the person and who the accused is and how is he related to the victim?

Discussion

The time interval between the incident and the examination varied widely in the sample making it difficult to comment on the temporal relationships of sexual assault and the severity of the post traumatic symptoms. This is in agreement with a study conducted earlier at this center (7). The findings of this study are congruent with previous studies. The refusal rate was higher in the backward portion of the society showing that they were more traumatized and afraid of exposure in the society (8) (9). Rapes by strangers have been shown to involve more violence and trauma (Katz and Mazur, 1979) and the study compares 21 rape attacks where the assailant was known to the victim with 30 attacks where the assailant was a stranger. As per the classification based on scores (Kaplan 10th edition) the total number of victims are classified as mild depression 1.9%, moderate depression 1.9% severe depression 3.8% very severe depression 55.8%. In an earlier study by Kanwar et al. in 2013 although anxiety has been proposed to be a potentially modifiable risk factor for suicide, research examining the relationship between anxiety and suicidal behaviours has demonstrated mixed results. As per Resnick 1999, for women, the odds of attempting suicide were 3 to 4 times greater when the first reported sexual assault occurred prior to age 16 years compared to 16 years or older (10). Curtis (1974) studied the various aspects of criminal violence and observed that violence against women remained as a disturbing trend worldwide(11) . This finding is also similar in our study.

According to a report of Los Angeles had the highest rate of rape (54.5 per 1 lakh population) among the standard and metropolitan areas of the United States (12). Rose (1974) has discussed the

various forms of urban violence Accordingly, urban areas minor girls are often the victims of violence like rape and kidnapping. In our study when the accused is known to the victim i.e. either known or semi-acquaintance or relative it is associated with moderate or severe anxiety in 14 cases (13). The chi-square tests gave the p value for this correlation between anxiety and relationship with accused as 0.693, which could have been better with larger sample size.

The purpose of the study was to determine if patients with a history of major depressive episode and co morbid posttraumatic stress disorder (PTSD) have a higher risk for suicide attempt and differ in other measures of suicidal behavior, compared to patients with major depressive episode but no PTSD. In addition, to explore how PTSD co morbidity might increase risk for suicidal behavior in major depressive episode, the authors investigated the relationship between PTSD, cluster B personality disorder, childhood sexual or physical abuse, and aggression/impulsivity.

As suggested by Fried 2015 the pervasive use of sum-scores to estimate depression severity has obfuscated crucial insights and contributed to the lack of progress in key research areas such as identifying biomarkers and more efficacious antidepressants. The analysis of individual symptoms and their causal associations offers a way forward (14).

It was observed in the present study that when the accused is known to the victim then most cases are associated with severe or very severe degree of depression. This finding is in variance to some degree with findings of Ullmaan et al in 2006 in western countries where it was seen that Positive social reactions do not vary according to the victim-offender relationship, but stranger victims report more negative social reactions from others than do victims of acquaintances or romantic partners (15). Assaults by strangers and relatives are associated with more posttraumatic stress disorder (PTSD) symptoms than assaults by acquaintances and romantic partners. expected, survivors' social cognitive responses to rape and social reactions from support providers are stronger correlates of PTSD symptoms than demographic or assault characteristics in general, but correlates vary across victim-offender relationship groups (15). This based on the findings of our study, we also hypothesize that knowing the accused increases the chances of social stigma and most likely leads to increased anxiety in the victims.

Ullman (1993) while analyzing the psychological symptoms measures showed that sexual distress was more common for women attacked by intimates, fear/anxiety was more common for women assaulted by strangers and depression did not vary according to the victim-offender relationship (16). The present study revealed that when the accused is known to the victim i.e. either known or semi acquaintance or relative it is associated with moderate or severe anxiety in 14 cases. This difference can be attributed to the difference in social and cultural values as well as family structure that is different in the Indian society in comparison to western countries where these studies were conducted. In an earlier study by Kanwar et al in 2013 although anxiety has been proposed to be a potentially modifiable risk factor for suicide, research examining the relationship between anxiety and suicidal behaviours has demonstrated mixed results (17). PTSD is frequently co morbid with major depressive episode, and their co-occurrence enhances the risk for suicidal behavior. A higher rate of co morbid cluster B personality disorder appears to be a salient factor contributing to greater risk for suicidal acts in patients with a history of major depressive episode who also have PTSD, compared to those with major depressive episode alone (18). During the past 20 years, researchers have documented the widespread problem of rape in American society. Approximately one in four women are raped in their adult lifetime, which causes severe psychological distress and long-term physical health problems. The impact of sexual assault extends far beyond rape survivors as their family, friends, and significant others are also negatively affected. Moreover, those who help rape victims, such as rape victim advocates, therapists, as well as sexual assault researchers, can experience vicarious trauma. Future research and advocacy should focus on improving the community response to rape and the prevention of sexual assault (19).

This study on the victims examined under POSCO 2012 act showed that suicidal tendency was associated in cases mostly in those in whom severe depression was demonstrated. The majority of girls who had suicidal tendency were in the age group of 12- 17 years. Analyzing the relationship between anxiety and suicidal tendency in the victims it was seen that Majority with moderate and severe degree of anxiety were at higher risk for attempting suicide. This finding is similar to an earlier study conducted in the western population(10). For women, the odds of attempting suicide was 3 to 4 times greater when

the first reported sexual assault occurred prior to age 16 years compared to 16 years or older. Sexual assault is associated with an increased lifetime rate of attempted suicide. In women, a history of sexual trauma before age 16 years is a particularly strong correlate of attempted suicide. (Jonathan et al 1996). Suicidal behavior to be significantly associated with the presence of insomnia, parasomnias, and sleep-related breathing disorders, but not hypersomnia. Another systematic review and meta-analysis suggested that in patients with psychiatric diagnoses, sleep disturbances are associated with the increased risk of suicidal behaviors (20). The present study showed a similar finding to the study. Bourque et al (1983) have discussed the attributes of suicide in females. They have noted that being of sensitive nature; the victims of violence are more prone to depression and other related problems of maladjustment (21).

Ladame (1982) reviewed the epidemiology of suicide in adolescents and noted that sexual violence is the major contributory factor towards the problem (22). Brodskyu and Walker (1976) were also the opinion that suicide and sexual assault are closely related. Contrary to the observations of earlier workers on consequence of rape, there was no case of acute stress related- disorder. Acute polymorphic psychosis, which is common with cases of sexual violence, was not found in this series. This may explained by the fact that majority of the victims were not subjected to any form of true violence (physical over experiencing phenomena, numbing, detachment, amnesia (dissociative experience) or panic disorder (23). Elklit (2013) in a study conducted in 2013 showed that Posttraumatic stress disorder (PTSD) is common in the aftermath of rape and other sexual assault, but the risk factors leading to PTSD following rape have been shown to differ from those related to PTSD following nonsexual assault. Regression analyses showed that relationship with the assailant, number of assailants, the nature of the assault, perceived positive social support, support satisfaction, feeling let down by others, and prior exposure to sexual trauma did not significantly predict PTSD severity at the final level of analysis (24). In accordance with suggestions by Dancu, Riggs, Hearst-Ikeda, and Shoyer (1996), it is suggested that this is partly caused by a very high degree of traumatization in the sample. Instead, previous nonsexual traumatic experiences and negative affectivity accounted for 30% of the variance in PTSD severity these findings suggest that although sexual assault is associated with a

high degree of PTSD severity, prior nonsexual victimization and high levels of negative affectivity appear to further increase the vulnerability toward developing symptoms of assault-related PTSD. Recovery from rape trauma is a deeply personal and highly individualized journey. As knowledge of the pathophysiology of PTSD improves, more effective medications are developed to treat and manage the biological aspects of this disorder. Psychological therapies are available to assist survivors in their recovery. The number of rape prevention centers and education programs are on the rise with aims to debunk rape myths, change victim-blaming attitudes and de stigmatize the subject. One of the most important aspects in assisting the recovery process is empowering the survivor and putting control back into their hands. The three-treatment modalities for the biological, psychological, and sociological impacts should Keeping in mind the shortcomings of this study, that we had a smaller number of study samples, we would recommend to conduct more studies in this area with a larger number of study subjects and the results of the study to be extrapolated to give a basic guideline to the training emergency physician in relation to the psychiatric condition of the victims (25).

The present study had its own limitations in that it was based on the interview with minor victim girls. It can be regarded as a descriptive study. The girls could not be verified. Some communication problems could not be avoided in these circumstances. Moreover, owing to small number of cases available during the stipulated period of study, conclusive interpretations could not be made. This study being the first of its kind being conducted at this centre, larger multi centric studies at regional and national level needs to be done to substantiate the hypothesis that that was generated by the present study.

Conclusion

After completing a detail study of sexual violations on minor girls it is concluded that it would be beneficial for the society to take initiative to minimize the incidence of such acts. Hence some recommendations are being suggested in this particular arena.

- Special drive should be made for further research and exploration of this grave problem and interrelated factors.
- Behavioural pattern of adolescents should be studied to reduce the number of such cases of sexual violence.

- A follow-up study of these cases needs to be undertaken to evaluate the long term effects on health.
- Social values and morality of people should be changed so that women are given due respect in our society.
- Continuous drive is to be made to promote literacy. By this the sufferer may have some opportunity to prepare for suitable livelihood in future. Proper stress should be laid on the efficacy of health education emphasizing prevention of sexually transmitted diseases.
- The socioeconomic standard of the families of the patients need to be uplifted by various integrated means to combat the ailments.
- 7. The role of the media cannot be ignored.
- Exemplary punishment should be awarded to the offenders of atrocities on minor girls. Law enforcing agencies should adopt ways and means of investigations which would be
- Blacks Law Dictionary 8th Edition by Bryan A Garner [Internet]. [cited 2019 Oct 30]. Available from: https://www.powells.com/book/blackslaw-dictionary-8th-edition-9780314151995
- 2. United Nations Treaty Collection. 2009.
- Child Abuse and Neglect, Children's Bureau,
 U.S. Department of Health and Human Services.).
- Parliament passes bill to protect children from sexual abuse. NDTV; 2012.
- The Hindu. 2012 Nov 15;
- Bruss GS, Gruenberg AM, Goldstein RD, Barber JP. Hamilton Anxiety Rating Scale Interview guide: joint interview and test-retest methods for interrater reliability. Psychiatry Res. 1994;53(2):191–202.
- Mukhopadhyay P, Singh O. Psychiatric assessment of victims of sexual assault:Burdwan Medical College, Burdwan. J IndianAcad Forensic Med. 2010;31(3).
- Mukhopadhyay P. Medico legal study of the victims of Sexual Assault. J Indian Acad Forensic Med. 2003;25(1):27–31.
- Mukhopadhyay PP, Karmakar RN, Sarkar D. Decadal change in patern and demography of female victims of sex offence examined at Burdwan Medical College, Burdwan, West Bengal, India: Myth versus reality. Indian J Forensic Med Toxicol. 2010;4(1).
- Resnick H, Acierno R, Holmes M, Kilpatrick DG, Jager N. Prevention of post-rape

- appropriate for the victims' age and mentality. This is because they are always expected to give evidence in a court of law and have to go through utter humiliation and stress involved in the legal procedure.
- After rescue proper rehabilitation must be assured.
- 10. Various organizations should increase efforts to motivate the public regarding the dangers of the child sexual abuse and the resultant health related problems.
- 11. The results of the study can be extrapolated to provide basic guidelines for training emergency physicians and nurses in relation to traumatic psychiatric conditions which must be documented.

References

- psychopathology: Preliminary findings of a controlled acute rape treatment study. J Anxiety Disord. 1999;13(4):359–370.
- Curtis L. Criminal violence. Toronto: Lexington Books D.C. Helath and Co.; 1974. 35–37 p.
- 12. Federal Bureau of Investigation; 1974.
- Rose DS. "Worse than death": Psychodynamics of rape victims and the need for psychotherapy. Am J Psychiatry. 1986;
- 14. Fried EI, Nesse RM. Depression sum-scores don't add up: why analyzing specific depression symptoms is essential. BMC Med. 2015;13(1):72.
- Ullman SE, Filipas HH, Townsend SM, Starzynski
 LL. The role of victim-offender relationship in women's sexual assault experiences. J Interpers Violence. 2006;21(6):798–819.
- Ullman SE, Siegel JM. Victim-offender relationship and sexual assault. Violence Vict. 1993;8(2):121.
- Kanwar A, Malik S, Prokop LJ, Sim LA, Feldstein D, Wang Z, et al. The association between anxiety disorders and suicidal behaviors: A systematic review and meta-analysis. Depress Anxiety. 2013;30(10):917–929.
- Oquendo M, Brent DA, Birmaher B, Greenhill L, Kolko D, Stanley B, et al. Posttraumatic stress disorder comorbid with major depression: factors mediating the association with suicidal behavior. Am J Psychiatry. 2005;162(3):560– 566.

- Campbell R, Sefl T, Barnes HE, Ahrens CE, Wasco SM, Zaragoza-Diesfeld Y. Community services for rape survivors: Enhancing psychological well-being or increasing trauma? J Consult Clin Psychol. 1999;67(6):847.
- 20. Malik S, Kanwar A, Sim LA, Prokop LJ, Wang Z, Benkhadra K, et al. The association between sleep disturbances and suicidal behaviors in patients with psychiatric diagnoses: a systematic review and meta-analysis. Syst Rev. 2014;3(1):18.
- 21. Bourque L. Attributes of suicide in females, Suicide, Life threat behave. Summer. 1983;13(2):123–38.
- 22. Ladame F, Jeanneret O. Suicide in adolescence: some comments on epidemiology and prevention. J Adolesc. 1982;5(4):355.
- 23. Brodsky S, Walker M. Sexual Assault. Toaronto: Lexinton Books; 1976. 92–98 p.
- Elklit A, Christiansen DM. Risk factors for posttraumatic stress disorder in female helpseeking victims of sexual assault. Violence Vict. 2013;28(3):552–568.
- Dancu CV, Riggs DS, Hearst-Ikeda D, Shoyer BG, Foa EB. Dissociative experiences and posttraumatic stress disorder among female victims of criminal assault and rape. J Trauma Stress. 1996;9(2):253–267.

Knowledge and attitude towards surrogacy in medical students of Yarsi university and its review in the views of Islam

Rangga I. Hilmi, YARSI Faculty of Medicine, JI Letjen Soeprapto Jakarta Pusat 10510, Indonesia.

Ferryal Basbeth, Teaching Staff of the Forensic Science Department of the Medical Faculty of YARSI University, Indonesia.

RS Qomariyah, Teaching Staff of the Department of Physiology, Medical Faculty, YARSI University, Indonesia. **Zuhroni,** Teaching Staff of the Department of Religion, Medical Faculty, YARSI University, Indonesia.

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Corresponding author

Ferryal Basbeth

Teaching Staff of the Forensic Science Department of the Medical Faculty of YARSI University

Phone: +62-21 4206676 ext. 3103 Email: basbethf@gmail.com

Abstract

Background: According to Clara Watson, surrogacy is the practice of a woman bearing a child for another woman with the aim of giving the baby to its biological mother on birth. One of the reasons for surrogacy is the person preferring to be single while wanting to have a baby of his/her own. The practice is prevalent abroad. Some countries have prohibited surrogacy while few others have legalized it. In the view of Islam, the practice is forbidden.

Purpose: To know the knowledge and attitude of Medical Students of YARSI University class of 2015 about surrogacy.

Method: The research method used was descriptive crosssectional study. Purposive sampling method was used for this purpose.

Result: A total of 180 students participated in the study. The results of knowledge regarding surrogate mother were good (27.2%), knowledgeable enough (51.1%), less knowledgeable (27.2%) and the majority (52.8%) had an attitude not approving of the practice of surrogate mother.

Conclusion: In this research the majority of students from the Medical Faculty, YARSI University class of 2015 had sufficient knowledge and an attitude that is not approving of the practice of surrogate mother. In the Islamic view, all forms of surrogate mother are forbidden. Surrogacy by sperm or ovum donation from another person or a husband who has died is forbidden because it will cause nasal (family lineage) mixing and will trigger a dispute that is not in accordance with Islamic law.

Keywords: Knowledge and attitude; YARSI Medical students; surrogacy; surrogate mother; Islamic views.

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Introduction

Surrogacy is often defined as the practice of a woman bearing a child for another woman with the aim of giving the baby to its biological mother on birth. This practice is carried out on the agreement of both parties through contracts including Surrogate mother, women who conceive and give birth to babies and other parties usually a woman who cannot get pregnant or a woman who is able to conceive but does not want to conceive

her own baby (1), career-oriented women with their professional constraints (e.g. actors, models) even single and homosexual couples can realize their dreams of becoming parents through surrogacy (2). To evaluate the attitude and knowledge of medical students towards surrogacy as an assisted reproductive instrument, an online survey was sent to medical students from universities in the UK, 185 anonymous replies were received. As many as 72.2% agreed with surrogacy

as an assisted reproductive tool; 43.9% thought mothers who intend to become parents are legitimate mothers at birth; 15.2% thought that surrogacy arrangements can be enforced by law; 29.2% did not have any opinion. There is no difference in knowledge about surrogacy among students who have studied midwifery and gynecology compared to those who did not study it. Medical students are generally tolerant in their attitude towards surrogacy (3).

There are still many cases of surrogate mother currently occurring overseas, such as India, Pakistan, Bangladesh and China. In some countries, especially America and Britain, surrogacy is legally enforceable but with agreement between the two parties (4).

Legislation in various countries is different. In Europe, surrogacy is not officially permitted in Austria, Bulgaria, Denmark, Finland, France, Germany, Italy, Malta, Norway, Portugal, Spain and Sweden. Altruistic or noncommercial surrogacy is allowed in Belgium, Greece, the Netherlands and England. Some European countries, such as Poland and the Czech Republic, currently do not have laws on surrogacy (5).

Indonesia does not have specific rules regarding surrogate mother therefore the implementation of surrogate mother relating to surrogacy agreements is not possible in Indonesian jurisdiction. Indonesia prohibits all actions related to surrogate mother because it is contrary to the norms of adat, religion and decency (6).

In the view of Islam, Assisted Reproductive Technologies (ART) can be used if done by a husband and wife. It is not justified by Islam if there is a "womb rental", that is, the embryo is implanted in the womb of a woman other than the legal wife of the couple. Islam is very guarding so that children who are born later do not have nasab (family lineage) mixing. Islam also forbids taking sperm or egg cells from a legitimate husband or wife, unless one of them has died (7).

With this background information, the authors were interested in conducting a study to evaluate the knowledge and attitudes of medical students of the class of 2015 of the YARSI University Medical Faculty towards surrogacy.

Material and Methods

This type of research is a descriptive observational research with a cross sectional research design. The study population of this research were Medical

Faculty students of YARSI University class of 2015 with a population of active female students consisting of 239 people. The sample taken was class A and Class B of Medical Faculty Students of YARSI University class of 2015 who met the inclusion criteria (students who were active in the Medical Faculty of YARSI University, were willing to be respondents, students class of 2015 semester VI, students who were passed Ethics Block) and exclusion criteria (not willing to be respondents, students class of 2015 who are not semester VI, attendance is not fulfilled the requirements). The technique used for sampling was purposive sampling. Data collection was done using a questionnaire. Analysis of univariate data using the SPSS version 22.0 program.

Result and Discussion

One hundred eighty medical students of the YARSI university of the 2015 batch participated in the study. Table 4.1. shows the participants' distribution based on age of the respondents. The maximum respondents were from the 21-25-year-old age group (n=99, 55%).

Table 1. Respondents' Frequency Distribution by

Age	N	%
18-20 Years old	81	45.0
24.25.V	00	FF 0
21-25 Years old	99	55.0
-		
Total	180	100.0

Table 2 shows the participants' distribution based on sex of the respondents. Majority of the respondents were of the female sex (n=141, 78.3%).

Table 2. Respondents' Distribution by Sex

Sex	N	%
Male	39	21.7
Female	141	78.3
Total	180	100.0

Table 3 shows the number of responses for each item of the questionnaire. Maximum figures for correct and incorrect responses were 172 (95.9%) for item no 3 and 152 (84.4%) for item number 10 respectively.

As seen from Table 3, 71.1% of respondents correctly answered the question of who is a surrogate mother as one who leases her womb for bearing the child of another woman. The incorrect responses to this question (28.9%) included borrowing the womb", "exchanging the womb"

Table 3: Respondents' Frequency Distribution by Knowledge Question Items

Kilowieuge	Question item	13		
Qomariyah RS,	Qomariyah RS, Zuhroni.		Qomariyah RS,	
Zuhroni.			Zuhi	oni.
Qomariyah	Qomariyah	Qomariyah	Ν	%
RS,	RS,	RS,		
Zuhroni.	Zuhroni.	Zuhroni.		
Qomariyah	Qomariyah	Qomariyah	52	28.9 %
RS,	RS,	RS,		
Zuhroni.	Zuhroni.	Zuhroni.		
Qomariyah	Qomariyah	Qomariyah	62	34.4 %
RS,	RS,	RS,		
Zuhroni.	Zuhroni.	Zuhroni.		
Qomariyah	Qomariyah	Qomariyah	8	4.4 %
RS,	RS,	RS,	-	,
Zuhroni.	Zuhroni.	Žuhroni.		
Qomariyah	Qomariyah	Qomariyah	94	52.2 %
RS,	RS,	RS,		
Zuhroni.	Zuhroni.	Zuhroni.		
Qomariyah	Qomariyah	Qomariyah	13	7.2 %
RS,	RS,	RS,		
Zuhroni.	Zuhroni.	Zuhroni.		
Qomariyah	Qomariyah	Qomariyah	73	40.6 %
RS,	RS,	RS,		
Zuhroni.	Zuhroni.	Zuhroni.		
Qomariyah	Qomariyah	Qomariyah	42	23.3 %
RS,	RS,	RS,		
Zuhroni.	Zuhroni.	Zuhroni.		
Qomariyah	Qomariyah	Qomariyah	58	32.2 %
RS,	RS,	RS,		
Zuhroni.	Zuhroni.	Zuhroni.		
Qomariyah	Qomariyah	Qomariyah	114	63.3 %
RS,	RS,	RS,		
Zuhroni.	Zuhroni.	Zuhroni.		
Qomariyah	Qomariyah	Qomariyah	152	84.4 %
RS,	RS,	RS,		
Zuhroni.	Zuhroni.	Zuhroni.		

and "leasing the mother". This was even though most of the respondents had studied and learned about the surrogate mother.

On the item question about the reason for doing surrogate mother, the respondents who answered correctly were 65.6% with the correct reasons given as infertility, same-sex couples, and the lady not wanting to bear her own child. This proves that

most respondents know why this can be done by the parties concerned. Majority (95.6%) of the respondents knew that surrogacy is achieved by using In Vitro Fertilization (IVF).

From the responses, it is evident that there is still a lack of knowledge of respondents regarding the countries where surrogacy is practiced.

On the question item about Islamic law regarding the surrogacy, 92.8% respondents correctly answered that Islam forbids surrogate mothers own practice. Further, a majority of the responses (76.7%) incorrectly pointed out that Islam forbids surrogacy even if the surrogate mother is also the wife of the man. The reason why Islam forbids conception in the womb of the wife using her late husband's sperm which has been preserved following his death, is because after death in syar'i there has been a divorce (death divorce) with his wife, and so their status is no longer that of a husband and wife. This reason was not known to a good number of respondents (67.8%).

As far as knowledge of Indonesian law regarding surrogacy is concerned, 76.7% of respondents answered correctly that Indonesia does not legally permit it as per regulations in Law number 36 of 2009 concerning Health in Article 27 (8).

Table 4 shows that the knowledge of the Medical Faculty Students of YARSI University class of 2015 regarding surrogacy is adequate in as many as 92 people (51.1%).

Table 4: Respondent's Frequency Distribution by Knowledge Category

Kilowieuge Categoly		
Knowledge Category	N	%
Less Knowledge	49	27.2
Enough Knowledge	92	51.1
Good Knowledge	39	21.7
Total	180	100.0

In this case the researcher wanted to find out the respondent's attitude towards the surrogate mother through several statements categorizing it into good and bad attitudes. Calculations for attitudinal variables were obtained that the provisions of the Mean set were 33.71. So for each respondent whose score was summed, it was found that the score of more than 33.72 had a

good attitude and a score that was less than 33.71 had a bad attitude.

The attitudinal statement for each item of the questionnaire is discussed in this research. In statement number two respondents strongly agree that surrogate mother is an act that violates Islamic law. In statement number four, respondents did not agree if in the case of Altruistic surrogacy (where surrogate does not get money for the pregnancy / release of the child) legally in the Australian Capital Territory can still be allowed. In statement number six, respondents are not very sure whether the practice of surrogacy is very popular in India for couples around the world because of the relatively lower cost. In attitude statement number eight, respondents strongly disagree that men with polygamy should be allowed to use surrogacy technique to bear a child with another wife. And finally in statement number ten, the respondents were unsure whether the embryo deposited in the womb of the surrogate mother of a legitimate husband and wife, genetically after birth became the biological child of the couple.

Statements number one, three, five, seven and nine displayed the negative attitude. In statement number one, respondents agree that surrogate mother is not the best choice for couples who have infertility. In statement number three, the respondent did not agree to conduct a surrogate mother to help a partner with infertility. In statement number five, respondents strongly agree that Indonesia should not allow surrogacy. In statement number seven, respondents strongly agree that similar couples may not conduct a surrogate mother. In statement number nine, the respondents strongly agreed that Jeremy Teti's statement was wrong about the deviant / homosexual sex offender still being able to get offspring by surrogate mother.

Table 5: Respondent Frequency Distribution by

Attitude Category		
Attitude Category	N	%
Good Attitude	95	52.8
Bad Attitude	85	47.2
Total	180	100.0

Table 5 shows that the attitude concerning surrogate mother in 180 Medical Faculty students of YARSI University class of 2015. More people have good attitudes (95, 52.8%).

Conclusion

Based on the results of the research that has been done, it can be concluded that: Knowledge and attitude towards the surrogate mother of the YARSI University Faculty of Medicine students of class of 2015 obtained a description of the results of knowledge about surrogate mother both (21.7%), sufficient knowledge (51.1%), and lack of knowledge (27.2%). In this study, it was also obtained a picture of the results of a good attitude disagreeing with the existence of a surrogate mother (52.8%) and a bad attitude including still doubting and agreeing to the surrogate mother (47.2%). Based on Islamic views, all forms of surrogate mother are forbidden. Conducting a surrogate mother by making a sperm or ovum donation from another person or from another wife - Nasab children born from surrogate mother disagree between the owner of the ovum or the owner of the uterus. But when viewed from a review of some of the Koran nasab the child is more to the owner of the womb.

Suggestion

Based on the results of the research that has been done, it is found that some things should be improved, namely the researchers are expected to understand more about surrogate mother and address all forms of surrogate mother practice so that coverage can be broader and reconsider the place of research thoroughly. Respondents are expected to be able to find out more about the surrogate mother and consider good attitudes to deal with this case.

Conflict of Interest

None Declared

References

- Watson C. Womb Rentals and Baby-Selling: Does Surrogacy Undermine the Human Dignity and Rights of the Surrogate Mother and Child? New Bioeth. 2016;22(3):212–228.
- Kaur J. Surrogate motherhood a socio legal study with special reference to state of Punjab and union territory Chandigarh. 2016:
- 3. Bruce-Hickman K, Kirkland L, Ba-Obeid T. The attitudes and knowledge of medical students towards surrogacy. J Obstet Gynaecol. 2009;29(3):229–232.

- 4. Desriza R. Surrogate Mother dalam Perspektif Etika dan Hukum: Bolehkah Sewa Rahim di Indonesia. Bogor: Gramedia; 2012.
- 5. Söderström-Anttila V, Wennerholm U-B, Loft A, Pinborg A, Aittomäki K, Romundstad LB, et al. Surrogacy: outcomes for surrogate mothers, children and the resulting families—a systematic review. Hum Reprod Update. 2016;22(2):260–276.
- 6. Judiasih SD, Dajaan SS. Aspek Hukum Surrogate Mother Dalam Perspektif Hukum Indonesia. J Bina Mulia Huk. 2017;1(2):141–150.
- 7. Oetarjo D, Qomariyah dan S. Isu Etika Dalam Penelitian di Bidang Kesehatan. Jakarta: Universitas YARSI; 2013.
- 8. Husni T. Hukum Sewa Rahim dalam Bayi Tabung.Yogyakarta: Aswaja Pressindo. Yogyakarta: Aswaja Pressindo; 2015.

Dermatoglyphics in dentistry: a review

Dr. Sonali Kadam, Associate professor, Department of Oral Medicine & Radiology, Government Dental College & Hospital, Mumbai, India

Dr. Debpriya Biswas, Clinical Assistant, Government Dental College & Hospital, Mumbai, India

Dr. Nimma Vijayalaxmi, Assistant professor, Department of Oral Medicine & Radiology, Government Dental College & Hospital, Mumbai, India

Dr. Bhagyashree Landge, PG Student, Department of Oral Medicine & Radiology, Government Dental College & Hospital, Mumbai, India

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Corresponding author

Dr. Sonali Kadam

Associate professor, Department of Oral Medicine & Radiology, Government Dental College & Hospital, Mumbai, India

Phone: +919869022323 Email: sonalikdm863@gmail.com Fingerprint analysis for personal identification is well known and is unique to all individuals and remains the same for a lifetime. The hand has become a powerful tool in the diagnosis of psychological, medical, genetic conditions. Dentistry is no exception has number of diseases which can be diagnosed using the study of finger prints described as dermatoglyphics. The present review describes peculiar changes in dental diseases and gives an insight to the supporting literature.

Keywords: Dentistry; dermatoglyphics; oral diseases.

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Introduction

Derived from Greek words "Dermatoglyphics" comes from derma which means skin and glyphe which means carve and refers to the epidermal skin ridge formations which appear on the fingers, palms of the hand and soles of the feet (1). The term was coined by Harold Cummins in 1926 who is known as the "Father of Dermatoglyphics" (2). During the 6th-7th week of embryonic life finger and palm prints are formed and completed after 10-20 weeks of gestation (3). They are unique for each person and is not even same in monozygotic twins, studying them can determine a number of parameters helpful in the diagnosis and treatment of examined individuals (4). Anatomically the ridge patterns are influenced by the blood vessel nerve pairs at the border between dermis and epidermis during prenatal development. Affected by the factors such as inadequate oxygen supply, unusual distribution of sweat glands and alteration of epithelial growths. The ridge pattern is considered sensitive because it originates from the fetal volar pads just like the teeth which also develop from the ectoderm at the 6th-7th week of intrauterine life.

Dermatoglyphics are utilized for the purpose because of following reasons (i) once fully developed and remain unchanged for life. (ii) Easy scanning and recording, rapid, inexpensive, and convenient without causing any trauma to the patient or hospitalization.

Methods of recording

The various methods that are employed are:

Ink method: The advantages of this method is that it is economical, easy technique, convenient. Disadvantages include improper prints, cannot be used in case of gross malformation of limbs.

Inkless method: This technique makes use of a commercially available patented solution and specially treated sensitized paper.

Transparent adhesive tape method: This technique involves using transparent adhesive tapes to obtain fingerprint patterns

Photographic method: This technique involves use of photographs.

Dermatoglyphic pattern configuration:

The three basic dermatoglyphic landmarks found are triradii, cores and radiants.

Triradii: Formed by confluence of 3 ridges which meet at 120 degrees.

Core: Approximate center of the pattern

Radiant: Emanate from triradii and enclose the pattern area.

Fingerprint patterns: There are 3 groups: Arches, loops, whorls.

Arches: It is the simplest pattern. It is formed by succession of more or less parallel ridges which traverse the pattern area and form a curve which is concave proximally. Sometimes curve is gentle, it may swing more sharply and can be a low or high arch. These are of 2 types:

Simple arch Tented arch

Loops: Most common pattern. A series of ridges enter the pattern area on one side of the digit, recurve abruptly, and leave the pattern on the same side. These are of 2 types:

Ulnar loop: loops open on the ulnar side. Radial loop: loops open on the radial side.

Whorls: Ridge pattern with 2 or more triradii. One is radial and the other 2 are ulnar. These are of the following types:

Plain: Arranged in form of concentric rings or ellipses.

Table 1: Dermatoglyphics in various dental diseases

Spiral: Spirals in clockwise or anticlockwise direction

Central Pocket: Loop within loop type of pattern

Lateral Pocket: Interlocking loops Accidental: Cannot be classified.

Palmar patterns:

The palm is divided anatomically into thenar, second, third and fourth interdigital areas and the hypothenar area.

Thenar and First interdigital area: These two are closely related anatomically and are considered one area.

Second, third and fourth interdigital area: Configurations seen are loops, whorls, vestiges and open fields.

Hypothenar area: Patterns seen are whorls, loops, tented arches.

Use of dermatoglyphics in dentistry

Recently recognition of changes in fingerprints among patients with various dental ailments like periodontitis, dental caries and certain types of congenital anomalies like cleft lip and palate has drawn attention of researchers in the field of dermatoglyphics and further encouraged them in knowing the role of dermatoglyphics in various dental diseases.

Author	Study	Observation
Zarakauskite et.al (5)	Case control study	 Patterns on thenar eminence rarer then controls More arches, double loops ,ulnar loops
Scott et al (6)	460 Non syndromic cleft lip and palate patients and 254 unaffected relatives from Philippines and China were studied	 Increase in number of radial and ulnar loops.
Matthew et al (7)	Dermatoglyphic patterns of 100 children between 5-15 years of which 50 consisted of study group and 50 controls	 Increased number of ulnar loops compared to control.
Balgir et al (8)	Dermatoglyphic patterns of 69 cases of cleft lip and palate and 28 isolated cleft palate cases were studied.	 Patient groups showed wider atd angle (more than 30 degrees) and dermatoglyphics asymmetry. Significant increase in ulnar loop and arch patterns
Saxena et al (9)	Studied dermatoglyphic patterns of 294 subjects	 Increased frequency of loops and arches Low mean total ridge count in cleft subjects Increased frequency of loops and arches with decreased frequency of whorls, mean total ridge count and atd angle of right hand was found in parents of cleft group as compared to parents of controls.

Cleft Lip and Palate

Cleft lip and palate cause's problems in speech, feeding, hearing and may cause frequent ear Different fingerprint patterns determine the predisposition of cleft lip and palate.

Dental Caries

Dental caries is one of the most common oral health diseases which affect millions of people worldwide. Dermatoglyphics can help determine the susceptibility to dental caries.

Table 2: Different studies for Dental Caries

Author	Studies	Observation
Atasu et al (10)	Studied dermatoglyphic patterns in caries free students and students with extensive caries	 Caries free students had more ulnar loops and students with extensive caries had more whorls.
Sharma et al (11)	90 subjects were evaluated to determine the relation between salivary bacteria interactions, dental caries and dermatoglyphics.	 Subject groups had positive correlation with loops and Streptococcus mutans growth and likened to control group which had negative correlation of both.
Padma et al (12)	Studied caries and dermatoglyphic peculiarities in deaf and mute children	 Increase in whorl patterns in study groups and increase in loops in control groups.
Periodontal Disease	abscess. Derma	ease leads to loss of tooth and atoglyphics patterns can help acidence of periodontal disease.

Table 3: Studies of Periodontal diseases and pattern of fingerprints

Author Studies	Observation
Atasu et al (13) Conducted study with finding fingertip patters to help identify patient periodontal disease	type and transversal ulnar loops on all
	worldwide and is seen most commonly in Asian

Potentially malignant diseases and carcinomas especially oral cancer is affecting people determine the genetic predisposition to such carcinomas and potentially malignant diseases.

Table 4: Dermatoglyphics of Gutka chewers

Author	Studies	Observation
Tamgire et al (14)	Carried out prospective study by collecting dermatoglyphic prints of gutka chewers with or without osmf.200 subjects divided into 2 groups. Group A -100 gutka chewers without osmf .Group B-100 gutka chewers with osmf.	 Highly significant decrease in simple whorl pattern and increase in composite whorl pattern on left little finger in Group B as compared to Group A. Decrease in composite whorl pattern of right index finger in Group B compared to Group A, increase in simple whorl pattern on right thumb in Group B when compared with Group A Decrease in radial loop on left index finger in Group B when compared to Group A.
Elluru Venkatesh (15)	Carried out study to determine whether specific dermatoglyphic patterns exist which help in predicting the occurrence of oral squamous cell carcinoma and oral leukoplakia.30 subjects were studied with oscc,30 with leukoplakia and 30 as controls	 Arches and loops more common in cases than in controls. Whorls more common in controls. Loops more frequent in interdigital areas than in controls No correlation between atd angle ab ridge count and total ridge count in oral squamous cell carcinoma and leukoplakia.

Malocclusion

Most common orthodontic problem suffered by millionS worldwide is malocclusion. Malocclusion hampers speech, esthetics, swallowing and may cause dental caries and periodontal disease due to disharmony between teeth, bone and soft tissues. Dermatoglyphics helps in determining the genetic predisposition of certain malocclusions.

Table 5: Dermatoglyphic studies of Malocclusion

Author	Studies	Observation
Reddy et al (16)	Conducted dermtatoglyphic study to compare class I,II,III, malocclusions.96 subjects divided into 3 groups: Class I – control ,Class II div 1,2 and class III –experimental group .Age group-12-14 years	 Class II div 2 showed increased frequency of arches and ulnar loops and decreased frequency of whorls. Class III showed increased frequency of arches and radial loops and decreased frequency of ulnar loops. Sensitivity values of Class III more than Class II div 1 and 2.
Tikare et al (17)	Conducted study to assess the relationship between dermatoglyphics and malocclusion among high school children.696 high school children aged 12-14 years were randomly selected.	 Statistical association between whorl patterns and Class I and Class II malocclusion was found.
Bruxism	Bruxism le muscles o	ads to attrition of teeth and soreness of f mastication. Certain dermatoglyphics

patterns help determine incidence of bruxism.

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Table 6: Dermatoglyphic studies in Bruxism

Author	Studies	Observation
Polat et al (18)	Examined dermatoglyphics patterns of 38 patients of which 18 were females.	 Increase in whorls, I loops, and triradii. Decrease in frequency of ulnar loops, atd angle, triradii than the controls.
Oral Tumors	odontogenic t	include odontogenic and non- cumors and dermatoglyphic patterns to the incidence of such tumors.

Table 7: Studies with oral tumors

Author	Studies		Observation	ıs
Polat et al (19)	Investigated patterns of patie	dermatoglyphics nts with or without		frequency of arch
	tumors			

Dental Arch Forms

Dental arch forms are very important in orthodontics and prosthodontics. In orthodontic treatment it is very important for diagnosis and

treatment planning and to preserve it throughout the treatment to achieve a higher stability. In prosthodontic treatment it determines the treatment of edentulous and partial edentulism.

Table 8: studies of Dermatoglyphics relationship with arch forms

Author	Studies	Observation
Sachdeva et al (20)	Studied to identify relation between dermatoglyphics and arch forms. 90 subjects were divided into 3 groups –square, tapering, ovoid.	 Subjects with square arch had high frequency of loops and large atd angle Subjects with tapering arches showed high frequency of whorls and small atd angle. Ovoid arch subjects had loops.

limitations

- Difficult to use as a diagnostic tool if patient has gross malformation of limbs
- Atd angle can have several disadvantages regarding its use as a parameter. One shortcoming is the size of atd angle that is affected by the amount of spreading of the fingers when the patterns are recorded. Pressure exerted also affect atd angle.
- A thick or thin application of ink can result in light or dark improper prints.

Conclusion

Dermatoglyphics is an upcoming integral part of medicine and forensic science. The correlation of dermatoglyphics with dental abnormalities is still in its nascent stage and presently it is safe to say that various finger print patterns can be considered as an indicator for occurrence of congenital abnormalities. Dermatoglyphics has moved from obscurity to acceptability as a diagnostic tool. It may serve as an important tool that can predict the future health of a person.

Conflict of Interest

None declared

References

- Sharma A, Kapoor D. Dermatoglyphics, dentistry and diagnosis-A review. Baba Farid Univ Dent J. 2010;1(2):45–48.
- 2. Bhat GM, Mukhdoomi MA, Shah BA, Ittoo MS. Dermatoglyphics: in health and disease-a review. Int J Res Med Sci. 2014;2(1):31–37.
- 3. Sharma R, Sharma R. Anthropology. Atlantic Publishers & Dist.; 1997. 90 p.

- Ahmed RH, Aref MI, Hassan RM, Mohammed NR. Dermatoglyphic study on patients with dental caries who wearing dental fillings and its correlation to apoptosis that induced by using dental fillings. Nat Sci. 2010;8:54–7.
- 5. Zarakauskaitė E, Matulevičienė A, Utkus A, Kučinskas V, Linkevičienė L. Orofacial clefts with associated anomalies in Lithuania. Acta Medica Litu. 2007;17–23.
- Scott NM, Weinberg SM, Neiswanger K, Brandon CA, Daack-Hirsch S, Murray JC, et al. Dermatoglyphic fingerprint heterogeneity among individuals with nonsyndromic cleft lip with or without cleft palate and their unaffected relatives in China and the Philippines. Hum Biol. 2005;77(2):257–266.
- 7. Mathew L, Hegde AM, Rai K. Dermatoglyphic peculiarities in children with oral clefts. J Indian Soc Pedod Prev Dent. 2005;23(4):179.
- 8. Balgir RS. Dermatoglyphics in cleft lip and cleft palate anomalies. Indian Pediatr. 1993;30(3):341–346.
- Saxena RS, David MP, Indira AP. Dermatoglyphic evaluation in subjects and parents of cleft lip with and without cleft palate. Cleft Palate Craniofac J. 2013;50(6):105–110.
- Atasu M. Dermatoglyphic findings in dental caries: a preliminary report. J Clin Pediatr Dent. 1998;22(2):147–149.
- 11. Sharma A, Somani R. Dermatoglyphic interpretation of dental caries and its correlation to salivary bacteria interactions: An in vivo study. J Indian Soc Pedod Prev Dent. 2009;27(1):17.
- Bhat PK, Badiyani BK, Chengappa S, Bhaskar NN. Dermatoglyphics-A new

- diagnostic tool in detection of dental caries among deaf and mute children. Int J Clin Dent Sci. 2012;2(4).
- 13. Atasu M, Kuru B, Firatli E, Meriç H. Dermatoglyphic findings in periodontal diseases. Int J Anthropol. 2005;20(1–2):63–75.
- Vk C, Ss R, Ar S. Qualitative dermatoglyphic analysis of finger tip patterns in patients of oral sub mucous fibrosis. IOSR J Dent Med Sci IOSR-JDMS E-ISSN. 2013;2279–0853.
- Venkatesh E. Palmar dermatoglyphics in oral leukoplanka and oral squamous cell carcinoma patients [PhD Thesis]. RGUHS; 2006.
- 16. Reddy S, Prabhakar AR, Reddy VV. A dermatoglyphic predictive and comparative study of Class I, Class II, div. 1, div. 2 and Class III malocclusions. J Indian Soc Pedod Prev Dent. 1997;15(1):13–19.
- 17. Tikare S, Rajesh G, Prasad KVV, Thippeswamy V, Javali SB. Dermatoglyphics—A marker for malocclusion? Int Dent J. 2010;60(4):300—304.
- 18. Polat MH, Azak A, Evlioglu G, Malkondu OK, Atasu M. The relation of bruxism and dermatoglyphics. J Clin Pediatr Dent. 2000;24(3):191–194.
- Polat MH, Gululmser P, Banu K. Dermatoglyphic findings in patients with oral cancers. Balk J Stomatol. 2004;8:105– 108.
- Sachdeva S, Tripathi A, Kapoor P.
 Dermatoglyphic assessment in subjects
 with different dental arch forms: an
 appraisal. J Indian Prosthodont Soc.
 2014;14(3):281–288.

Persistent Metopic Suture: a case reported from North East India

Dr Raktim Pratim Tamuli. Demonstrator, department of Forensic Medicine and Toxicology, Gauhati Medical College, Guwahati, Assam, India – 781032

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Corresponding author

Dr Raktim Pratim Tamuli. Demonstrator, department of Forensic Medicine and Toxicology, Gauhati Medical College, Guwahati, Assam, India – 781032

Phone: +919435164455 Email: raktimt81@gmail.com

Abstract

Metopic suture is a kind of dentate suture extending from the nasion to the anterior angle of the bregma. Metopism is the condition where, persistence of metopic suture completely extends from nasion to bregma. Metopic suture usually obliterates by 2 years, but it has been reported to take up to seven years to fuse.

Examination of skeletal remains of a twelve-year-old girl shows obliteration two halves of the frontal bone in the skull. Dental examination shows presence of total 14 teeth in the upper jaw, including two 2nd molars on each side.

Metopism at times may confusing during radiological examination of skull, as it may be misdiagnosed as fracture of skull bone.

Keywords: Death Certificate on Cause of Clinical Death; Cause of Death.

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Introduction

Metopic suture is a kind of dentate suture extending from the nasion to the anterior angle of the bregma. Metopism is the condition where, persistence of metopic suture completely extends from nasion to bregma (1). Metopic suture usually obliterates by 2 years (2), but it has been reported to take up to seven years to fuse (3).

A twelve-year-old girl was missing for 2-3 months and skeletal remains were found in a pond in the village where she was residing. Relatives identified the dead body from remaining wearing garments attached to the body. Examination of the skull bone shows non obliteration two halves of the frontal bone (Image I). Dental examination shows presence of total 14 teeth in the upper jaw, including two 2nd molars, one on each side (Image II).

Discussion

Dental examination of this case shows that her age is more than 12 years (second molar is appeared, age of appearance 12-14 years) (4), and Metopic suture is not yet obliterated. From the findings it can be opined that, it is a case persistent Metopic suture or metopism.

Presence of metopism was once believed as a sign of intelligence because its presence related to growth of frontal lobes of brain as incidence was more in superior races and, rare in inferior races (5)



Fig.1. Persistent Metopic suture

Del Sol suggested that metopism can be related to abnormal growth of the cranial bones, hydrocephalus, heredity, or atavism (6). The genetic factor is the one currently accepted by most scientists (7). Metopism is found in approximately 5% of Asians and 9% of European Caucasians and 1% of Blacks (8) (9). Bergman reported the persistence of the metopic suture in approximately 1-12% of skulls (9). Krogman in his book on "The Human Skeleton in Forensic Medicine" stated that, metopism is more frequent among whites and Mongoloids (about 10%) than among Negroids (about2%) (2).



Fig.2.: Eruption of 2nd molar teeth

Medico-legal importance: metopism can be confused with fracture of the skull during radiological examination of skull. It also helps at times in estimation of age.

Conflict of Interest

None declared

References

 Bilodi AK, Agrawal BK, Mane S, Kumar A. A study of metopic sutures in human skulls.

- Kathmandu Univ Med J KUMJ. 2004;2(2):96–9.
- Krogman W. The Human Skeleton in Forensic Medicine. Illinois USA: Spingfield; 1962. 87–88 p.
- 3. Hamilton W. Metopic sutures in the skull. In: Textbook of Human Anatomy. 2nd ed. London: Macmillan & Co; 1976. p. 60.
- 4. Kannan K, Modi MK. A textbook of medical jurisprudence and toxicology. Nagpur: LexisNexis; 2012. 280 p.
- Vu HL, Panchal J, Parker EE, Levine NS, Francel P. The timing of physiologic closure of the metopic suture: a review of 159 patients using reconstructed 3D CT scans of the craniofacial region. J Craniofac Surg. 2001;12(6):527–532.
- Falk D, Zollikofer CP, Morimoto N, de León MSP. Metopic suture of Taung (Australopithecus africanus) and its implications for hominin brain evolution. Proc Natl Acad Sci. 2012;109(22):8467– 8470.
- 7. Castilho SMA, Oda YJ, Santana GDM.

 Metopism in adult skulls from Southern
 Brazil. Int J Morphol. 2006;24(1):61–66.
- 8. Verma P, Mahajan A. Human skull with complete metopic suture and multiple sutural bones at lambdoid suture—a case report. Int J Anat Var. 2014;7(1).
- Bergman RA, Thompson SA, Afifi AK, Saadeh FA. Compendium of human anatomic variation: text. Atlas World Lit Baltim. 1988;

Letters to the Editor

To,
The Editor in Chief
International Journal of Ethics, Trauma and
Victimology.

Dear Sir,

Through your Journal, I wish to inform about the "Deteriorating standards of documentation in Medical Records".

The medical record of the patient is the only documentary evidence of a patient's interaction with his doctor. The record sheet tells us the history given by the patient, the result of the general physical examination and/ or systemic examination by the doctor, further investigations requisitioned, their results, the probable and the final diagnosis, the treatment procedure initiated, the consent taken, the progress during stay, the final outcome, etc. It also tells us about the consultations sought, the advice given etc., in a sequential manner, giving the date and time, as well as the name of the person documenting it and / or the name of the consultant dictating the same. In other words, it is a complete record of the patient's ailment / condition to be used by and the quality of the care given).

Medical records are said to be the mirrors of the standard of medical care of an institute.

presently, there is However, complete deterioration in the standards of documentation in medical records. In majority of the cases, records are not maintained at all. In most of the government institutions, the observation files are usually blank. One cannot say anything from the file, whether the patient had been given any treatment or not; and if so, what treatment was given. The author, being the Chairperson of Emergency Services of his institute, has seen blank files, even after blood transfusion, dialysis, injectible medicines, etc. On perusal of the case file of the individual, one cannot retrieve any information.

There is an age old saying in the medical field: "If you have not documented it, you have not done it." It is what the Court believes. We have to see that our medical record is complete, accurate, concise, signed, timed and dated.

Again, the handwriting of the doctors is illegible. One cannot fathom, what has been recorded. It was the illegible handwriting of a doctor only, that had forced the Hon'ble Punjab & Haryana High Court to issue instructions for computer generation of all medicolegal records through the online MED LEaPR software.

Many a times, abbreviations are used, which are not universally accepted and only the doctor or his near colleagues can decipher; and the doctor himself would forget what abbreviation meant, if he was to read his notes after, say a span of 3 to 4 years

There is no date or time mentioned in most of the times. As such, if the case goes to court, the concerned doctor will not be able to prove whether he intervened at the correct time or after the patient expired.

There are quite a few decisions by the various Consumer Redressal fora regarding this:

- Failure of the doctor to note down all the relevant data of the patient in his / her case file is Negligence (deviation from standard care protocol) (1).
- 2. Failure to record proper history and consequently failure to get the essential tests based on the history is Negligence (2).

In a study conducted in 19 hospitals of Mazandaran University of Medical Sciences, it was found that about 62% of the medical records were of the "Poor" category (3).

One forgets that a patient's case file, where proper documentation of each and every event was done in a proper, legible manner, is the only exact proof of the care given as the case file evolves over a period of time from the time of 1st contact with the physician for that particular ailment. Further, while writing notes in the medical records, the doctor must understand who all are the end users of the record. They would not only be clinical people – other doctors / nurses/ pharmacist's/ lab personnel, etc but also non-clinical people patient / relatives; insurance companies, law agencies, courts, police personnel, etc. Hence, as far as possible, the language should be simple, no abbreviations should be used. This should always be kept in mind.

All corrections and alterations should be done in a proper manner. The sentence intended to be struck off / corrected / altered should be cut in such a way that what has been struck off should also be legible. Each correction should be initialed and should also have the date (and if possible – the time) of altering the sentence. This prevents a lot of accusations of negligence / record tampering and also brings down litigations of mal practice. Inserting / over writing / writing in a small hand in a corner of the page / using a different ink – all are pointers to malafide intention of the doctor.

The Hon'ble Supreme Court has now decreed that oral instructions should not be given by administrative supervisors and public executives as this would defeat the provisions of RTI. The same applies to the Medical Record. The Court clarified that every decision taken for the purpose of treatment of a patient or instructions issued by a senior doctor must be put in writing on the case file, indicating the name of the doctor and the date and time, the instructions were given (4).

As per a study by advocate Bajpai, in the recent years, there has been 110% increase in negligence litigations per year in the country. most of these are because of improper consent or documentation (5).

So, in conclusion, it is suggested that doctors document properly in the medical records. This should be done in a precise, objective, simple language; clear, legible handwriting; giving the date and time and sign every entry. They should make entries immediately/ soon after care given. Only approved abbreviations should be used and if notes being dictated, both names be written - the person dictating and the person taking the dictation. All this will go a long way in bringing down the cases of litigation against doctors.

References

- Smt. Namita Chatterjee vs Dr. Mousami Banerjee & Others on 31 May, 2013 [Internet]. Available from: https://indiankanoon.org/doc/44938324/
- Dr. K.K. Kakkar & Others v Neetu Singh & Others on 12 August 2014 Judgement LawyerServices [Internet]. [cited 2019 Sep 10]. Available from: https://www.lawyerservices.in/Dr-KK-Kakkar-and-Others-Versus-Neetu-Singh-and-Others-2014-08-12
- Documentation of Medical Records in Hospitals of... - Google Scholar [Internet]. [cited 2019 Nov 2]. Available from: https://scholar.google.com/scholar?hl=en &as_sdt=0%2C5&q=Documentation+of+M edical+Records+in+Hospitals+of+Mazandar an+University+of+Medical+Sciences+in+20 14%3A+a+Quantitative+Study&btnG=
- 4. 93Order Dated 12-09-2014.pdf [Internet]. [cited 2019 Nov 2]. Available from: http://updgme.in/docs/93Order%20Dated %2012-09-2014.pdf
- Alarming rise in medical negligence litigation: Study | Nagpur News - Times of India [Internet]. [cited 2019 Sep 10]. Available from: https://timesofindia.indiatimes.com/city/nagpur/Alarming-rise-in-medical-negligence-litigation-Study/articleshow/55484635.cms

Dr. Dasari Harish

Professor & Head
Department of Forensic Medicine &
Toxicology
Government Medical College & Hospital,
Chandigarh

Instructions to authors

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The journal accepts a range of articles of interest, under several feature sections as follows:

- Original Papers: Includes conventional observational and experimental research.
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Letter to the Editor

Designed to be an avenue for dialogue between the authors of the papers published in the journal and the readers restricted to the options expressing reviews, criticisms etc. It could also publish letters on behalf of the current affairs in the field of Ethics, Trauma & Victimology

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This so-called "IMRAD" structure is not an arbitrary publication format but rather a direct reflection of the process of scientific discovery. Long articles may need subheadings within some sections (especially Results and Discussion) to clarify their content. Other types of articles, such as case reports, reviews, and editorials, probably need to be formatted differently. Electronic formats have created opportunities for adding details or whole sections, layering information, cross-linking or extracting portions of articles, and the like only in the electronic version. Double spacing all portions of the manuscript— including the title page, abstract, text, acknowledgments, references, individual tables, and legends—and generous margins make it possible for editors and reviewers to edit the text line by line and add comments and queries directly on the paper copy. If manuscripts are submitted electronically, the files should be double-spaced to facilitate printing for reviewing and editing. Authors should number all of the pages of the manuscript consecutively, beginning with the title page, to facilitate the editorial process.

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Lamp Lighting Ceremony at the 3rd Conference of INPAFNUS at Govt. Medical College, Patiala, Punjab, India

At the Valedictory function of the 3rd conference of INPAFNUS at Govt. Medical College, Patiala, Punjab, India





Lamp Lighting ceremony at the 4th conference of INPAFNUS at the Nightingale Nursing College at Narangwal, Punjab, India

Dr. Pardeep Singh,
Organizing Secretary,
Welcoming the guests at the
5th conference of INPAFNUS
& 4th Conference of SPIC at
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