

Scope of Forensic Audiology in India: An Overview

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ABSTRACT

Forensic audiology or audiological jurisprudence unlike medical jurisprudence and pharmaceutical jurisprudence is not recognised in many countries like India. Audiology is a growing field in various developing countries and is governed by rules and regulations in every country. Every nation has their own laws, rules and regulations which prevail in their territorial limits. The scope of forensic audiology, as per the prevailing laws, will not be restricted to the clinical practice but its applications will be useful in industrial setups, hospitals and law enforcement agencies in the administration of justice.

Keywords: Audiology; Law; Jurisprudence; Forensic

INTRODUCTION

A hearing loss is predicted to affect approximately 700 million individuals by the year 2050, or one in ten people. 432 million adults and 34 million children, or about 5% of the world's population, require rehabilitation to treat their incapacitating hearing loss. "Disabling" hearing loss is defined as being greater than 35 dB in the better hearing ear. People with disabling hearing loss make up over 80% of the population in low-and middle-income nations. Over 25% of those over 60 have a disabling hearing loss, as the prevalence of hearing loss rises with age [1]. According to a WHO estimate, there are about 63 million people in India suffering from significant auditory impairment [2]. Audiology (from Latin *audire*, "to hear"; and from Greek *-λογία*, *-logia*) is a branch of science that studies hearing, balance, and related disorders [3]. An audiologist is a medical professional who focuses on locating, detecting, treating, and keeping track of diseases of the auditory and vestibular systems. Audiologists are qualified to identify, manage, and/or resolve issues with balance, tinnitus, or hearing. They also evaluate candidates for and map hearing implants, such as cochlear implants, middle ear implants, and bone conduction implants, and they administer, manage, and rehab hearing devices. They assist in teaching coping and compensatory techniques to late-deafened people as well as counseling families through a new diagnosis of baby hearing loss [4].

LITERATURE REVIEW

Jurisprudence and negligence

The philosophy and theory of law is known as jurisprudence. It is mostly concerned with what the law is and should be. Questions about the values in and of law, as well as how people and social ties are viewed in legal terms, are included [5]. Beginning in the 18th century, modern jurisprudence was founded on the fundamental ideas of natural law, civil law, and the law of nations [6]. Medical malpractice is a legal cause of action that arises when a medical or health care professional violates professional standards by a careless act or omission, inflicting harm or resulting in patient death [7]. A doctor is not guilty of negligence if he has acted in accordance with the practice accepted as proper by a responsible body of medical men skilled in that particular art. According to Halsbury's laws of England, the definition of negligence duties owed to patient. A person who holds himself out as ready to give medical advice or treatment impliedly undertakes that he is possessed of skill and knowledge for the purpose. Such a person, whether he is a registered medical practitioner or not, who is consulted by a patient, owes him certain duties, namely, a duty of care in deciding whether to undertake the case; a duty of care in deciding what treatment to give; and a duty of care in his administration of that treatment. A breach of any of these duties will support an action for negligence by the patient [8].

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The specific professionals who might be the target of a medical malpractice action will vary depending on where the action is filed because local laws differ. Professionals who could potentially be held accountable for medical malpractice include physicians, surgeons, psychiatrists, dentists, nurses, midwives, nurse practitioners, and allied health professionals; including physiotherapists, occupational therapists, social workers, psychologists, pharmacists, optometrists and medical radiation practitioners etc. Forensic medicine is a broad term used to describe a group of medical specialties which deal with the examination and diagnosis of individuals who have been injured by or who have died because of external or unnatural causes such as poisoning, assault, suicide and other forms of violence, and apply findings to law (*i.e.*, court cases). The practice of forensic pathology, forensic psychiatry, forensic dentistry, forensic radiology, and forensic toxicology are all part of the multidisciplinary field of forensic medicine [9]. The application of drug sciences to legal matters is known as forensic pharmacy. Pharmacists who specialize in forensics work in the legal, regulatory, and criminal justice systems. Numerous other forensic areas and forensic pharmacy share similarities. There are many roles available for pharmacists in the local, state, and federal governments. Many pharmacists operate as forensic litigation consultants on a freelance basis. In legal matters involving malpractice, adverse drug responses, drunk and drugged driving, health care fraud, poisoning, and several other civil and criminal issues, a forensic pharmacist can be an invaluable resource [10].

Audiological jurisprudence

In forensic audiology, the expert is frequently opining on the relationship between hearing, hearing loss, tinnitus, hyperacusis, balance, and auditory processing to injury and causation, employment, access, disability, impairment, handicap, rehabilitation, and outcome. The opportunities to work in forensic audiology are many as subspecialties in medical audiology, industrial audiology, pediatric audiology, educational audiology, manufacturing, cochlear implants, and rehabilitation have their own audiences. The full spectrum of legal issues, including administrative law (government agencies), constitutional law (human rights and civil freedoms), workers' compensation, civil tort law (personal harm), and criminal law, are all covered by forensic audiology cases. A range of instances involving attacks, accidents, OSHA rules, ADA and discrimination, educational conflicts, fitness for duty, product liability, hearing aids and other equipment, malpractice, criminal proceedings, and more are discussed by audiology experts [11].

Legislations in India

Within the colonial-era legal framework, India's legal system is composed of civil law, common law, customary law, religious law, and corporate law. A number of British-introduced laws are still in force today in somewhat modified versions. Since the creation of the Indian constitution, Indian legislation have also complied with UN standards for environmental and human rights law [12]. To practice audiology in India, professionals need to have either a bachelor's or a master's degree in audiology

and be registered with Rehabilitation Council of India (R.C.I). The R.C.I was set up as a registered society in 1986. On September, 1992 the RCI Act was enacted by Parliament and it became a statutory body on 22 June 1993. The act was amended by Parliament in 2000 to make it more broad-based. The mandate given to RCI is to regulate and monitor services given to persons with disability, to standardise syllabi and to maintain a central rehabilitation register of all qualified professionals and personnel working in the field of rehabilitation and special education. The act also prescribes punitive action against unqualified persons delivering services to persons with disability. The section 13 of the rehabilitation council of India Act-1992 defines the rights of persons possessing qualifications included in the schedule to be enrolled which entitles the rehabilitation professionals which includes the audiologists to give any evidence in any court as an expert under section 45 of the Indian Evidence Act, 1872 (1 of 1872) on any matter relating to the handicapped [13].

DISCUSSION

Further section 45 of Indian Evidence Act defines the opinions of experts in which the court has to form an opinion upon a point of foreign law or of science or art, or as to identity of handwriting (or finger impressions), the opinions upon that point of persons specially skilled in such foreign law, science or art, (or in questions as to identity of handwriting) (or finger impressions) are relevant facts. Such persons are called experts [14]. The process of replacing the Persons with Disabilities Act, 1995 (PWD Act, 1995) with a new piece of legislation to bring it into compliance with the UNCRPD began in 2010 after India signed and approved the UNCRPD in 2007. After series of consultation meetings and drafting process, the Rights of PWD Act, 2016 (RPWD Act, 2016) was passed by both the houses of the Parliament. It was notified on December 28, 2016 after receiving the presidential assent [15]. Under criminal jurisprudence of India, the section 320 of the Indian Penal Code (I.P.C) 1860 defines the permanent privation of the hearing of either ear are designated as "grievous hurt". The section 322 of I.P.C defines the voluntarily causing grievous hurt and as per section 325 I.P.C there is a provision for the punishment for voluntarily causing grievous hurt which shall be punished with imprisonment of either description for a term which may extend to seven years, and shall also be liable to fine [16]. The forensic audiology also plays a vital role in industrial areas and for evaluating the noise induced hearing loss. The most pernicious industrial contaminant, noise affects every industry and results in significant hearing loss throughout the world. The primary reversible cause of irreversible hearing loss is exposure to high noise. Occupational noise is responsible for 7 to 21% of hearing loss in adults that is debilitating globally, depending on the sub-region. According to estimates, the cost of noise to wealthy nations is from 0.2% to 0.4% of their GDP. The lower frequencies (0.5 k, 1 k, or 2 k Hz) are typically first affected by Noise-Induced Hearing Loss (NIHL), which is bilateral and symmetrical and typically affects the higher frequencies (3 k, 4 k, or 6 k Hz). Lack of attention, irritability, exhaustion, headaches, disturbed sleep, etc. are some significant health impacts.

Textile, printing, sawmills, mining, etc. are some of the main industries that produce excessive noise and expose workers to risky noise levels. When engineering controls and work procedures cannot be employed to reduce noise exposure to safe levels, hearing protection should be used. The three major types of hearing protection are earplugs, earplugs with a cap, and earplugs [17]. The govt. of India framed rules 'noise pollution (regulation and control) rules, 2000 in which there is provision of making complaint to the authorities if the noise level exceeds the ambient noise by 10 db [18]. The Consumer Protection Act, 2019 is an act of the Parliament of India. It repeals and replaces the Consumer Protection Act, 1986 [19]. In terms of consumer protection, this act is recognized as India's "Magna Carta" for policing dishonest business practices, "defects in goods," and "deficiencies in services." As a result, there are now numerous consumer forums and appellate courts spread out across India. It has had a tremendous impact on how firms interact with customers and has given customers more power.

CONCLUSION

In the upcoming years, the field of forensic audiology in India will likely to expand. Under the existing provisions the role of the audiologists would not be ignored and would act as team member in the medical board for assessing the hearing disability and may testify as an 'expert' in the court of justice under Indian evidence act. The audiologists play a very important role in medical legal matters and their role is important for adjudicating the criminal charges of the grievous hurt caused to the victims. The scope of forensic audiology will also expand in dealing with the population suffering due noise induced hearing loss and is applicable for identifying, determining and management of the occupational health hazardous caused to the employees working in industrial setups. In case of malpractices and negligence, audiologists could not enjoy immunity as they, too, owed their duties towards their patients and clients in providing the quality of the health care services to their patients and clients.

REFERENCES

1. World Health Organization. Deafness and hearing loss. WHO. 2024.
2. World Health Organization. Lending voice to children with hearing impairment. WHO. 2023.
3. Gelfand SA. Essentials of audiology. 3rd ed. Thieme Medical Publishers, New York, USA. 2009.
4. Wikipedia. Audiology. Wikipedia, the Free Encyclopedia. 2023.
5. Wikipedia. Jurisprudence. Wikipedia, the Free Encyclopedia. 2023.
6. Garner BA. Black's law dictionary. 9th ed. West Publishing Co., Minnesota, United States. 2009.
7. Dr. MedLaw. Proving a Medical Malpractice Case I-Proving Negligence (Part II). Physician's Weekly. 2017.
8. Lord Mackay of Clashfern. Halsbury's Laws of England. 4th ed. Letterpart Ltd, England. 2013;26:17-18.
9. Wikipedia. Forensic medicine. Wikipedia, The Free Encyclopedia. 2023.
10. Anderson PD. The broad field of forensic pharmacy. J Pharm Pract. 2012;25(1):7-12.
11. Colucci DA. Becoming a forensic audiologist: What you need to know. Hear J. 2021;74(7):26-27.
12. Wikipedia. Law of India. Wikipedia, The Free Encyclopedia. 2023.
13. India Code. Indian Evidence Act-1872. National Informatics Centre, India.
14. Narayan CL, John T. The Rights of Persons with Disabilities Act, 2016: Does it address the needs of the persons with mental illness and their families. Indian J Psychiatry. 2017;59(1):17-20.
15. India Code. Indian Penal Code-1860. National Informatics Centre, India. 1860.
16. Nandi SS, Dhattrak SV. Occupational noise-induced hearing loss in India. Indian J Occup Environ Med. 2008;12(2):53-56.
17. EIACP Programme Centre. The Noise Pollution (Regulation and Control) Rules, 2000. National Informatics Centre, India.
18. Wikipedia. Consumer Protection Act, 2019. Wikipedia, The Free Encyclopedia. 2023.
19. Vineet K. An Analysis of Consumer Protection Laws in India. iPleaders. 2016.