

Review Article

The Faces of Deceptive Healers: A Scoping Review of Titles and Traits Associated with Quacks across Regions

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Abstract: Background: The progress in medical science and the increased accessibility of digital resources have enhanced the convenience for individuals in accessing appropriate treatments. Despite these advancements, quackery continues to persist as a global concern. Throughout history, people have been intrigued by miraculous treatments rooted in faith and trust theories. In ancient times, distinguishing between scientifically approved and unapproved medical practices posed challenges. Ever since medical practices have been taking place, service providers took advantage of people's unawareness, exploiting patients for personal gain. Over time, in certain cultures and societies, their intentions became apparent, and they earned a reputation as deceivers in the medical field. The current research seeks to uncover the various traits utilized by quacks across different times and locations worldwide, aiming to expose their fraudulent practices.

Methodology: In this scoping review, the focus was on investigating various characteristics displayed by quacks during their practices. The study involved a comprehensive examination of 3740 published research articles and 400 pieces of gray literature such as websites of regulatory authorities, Acts, Laws, News items and reports which encompassed regulatory authority websites, news articles, and reports. From this extensive pool of sources, 45 articles and 4 excerpts were carefully chosen for in-depth analysis.

Result: The current study highlighted 90 terms used for quacks to define their characteristics. The data was analyzed and developed five different themes defining various traits according to the near association. The main theme covered the moral values of these practitioners followed by Modern quackery under complementary and alternative healthcare services, sorcery and mystic, ignorant of science, and contract to law.

Conclusion: Quackery, with its long-standing history, remains an ongoing health threat. Embracing modern technology, it utilizes the Internet and social media to propagate deceptive claims. Gaining insights into the traits of quacks is crucial for policymakers to address this issue effectively. Combating quackery necessitates heightened awareness, robust regulations, dissemination of authentic information and evidence-based healthcare involving all stakeholders.

Keywords: Health threat, Medical fraud, Healthcare, Quackery, Quack, Drug.

INTRODUCTION

Quackery, with its long-standing history, remains an ongoing health threat to people. The term quack is associated with the archaic term quacksalver, from the Dutch word kwakzalver commonly known as a hawker of slaves, who shouts and sells their slaves in the market [1]. The word quackery is derived from the word Quack and defines the activities or methods of an unqualified person who claims to have adequate medical knowledge [2].

Quackery practices have not only endured throughout history but have also evolved to adopt modern techniques, driven by the pursuit of financial gain. Under deceptive slogans, quacks have infiltrated diverse cultures and healthcare professions worldwide. The rise of modern advertising and Internet communication has given rise to an unregulated market for quack treat-

ments, characterized by aggressive and unnecessary marketing campaigns. Weight loss, fair skin, obesity, diabetes, sexual enhancement, and other promises flood email inboxes, while social media platforms are utilized to target specific consumer segments, including the chronically ill or those facing mental or sexual issues. The quackery industry now presents a more organized façade, falsely claiming registration and approval from drug regulatory authorities across different countries. Such assertions include references to well-known institutions like the Federal Drug Authority (FDA) in the USA, Health Canada, the Medicine and Healthcare Regulatory Authority (MHRA) in the UK, the Drug Regulatory Authority of Pakistan (DRAP), and Healthcare Commissions in Pakistan. Quackery has embraced a sophisticated approach in the contemporary era, leveraging global connectivity and targeting consumers worldwide. These exploitative practices continue to prey on vulnerable individuals in search of viable healthcare solutions. As recently as the early months of 2023, a case was reported in the USA, involving an ongoing stem cell treatment for blindness. Patients from various parts of the world were lured there, only to suffer significant

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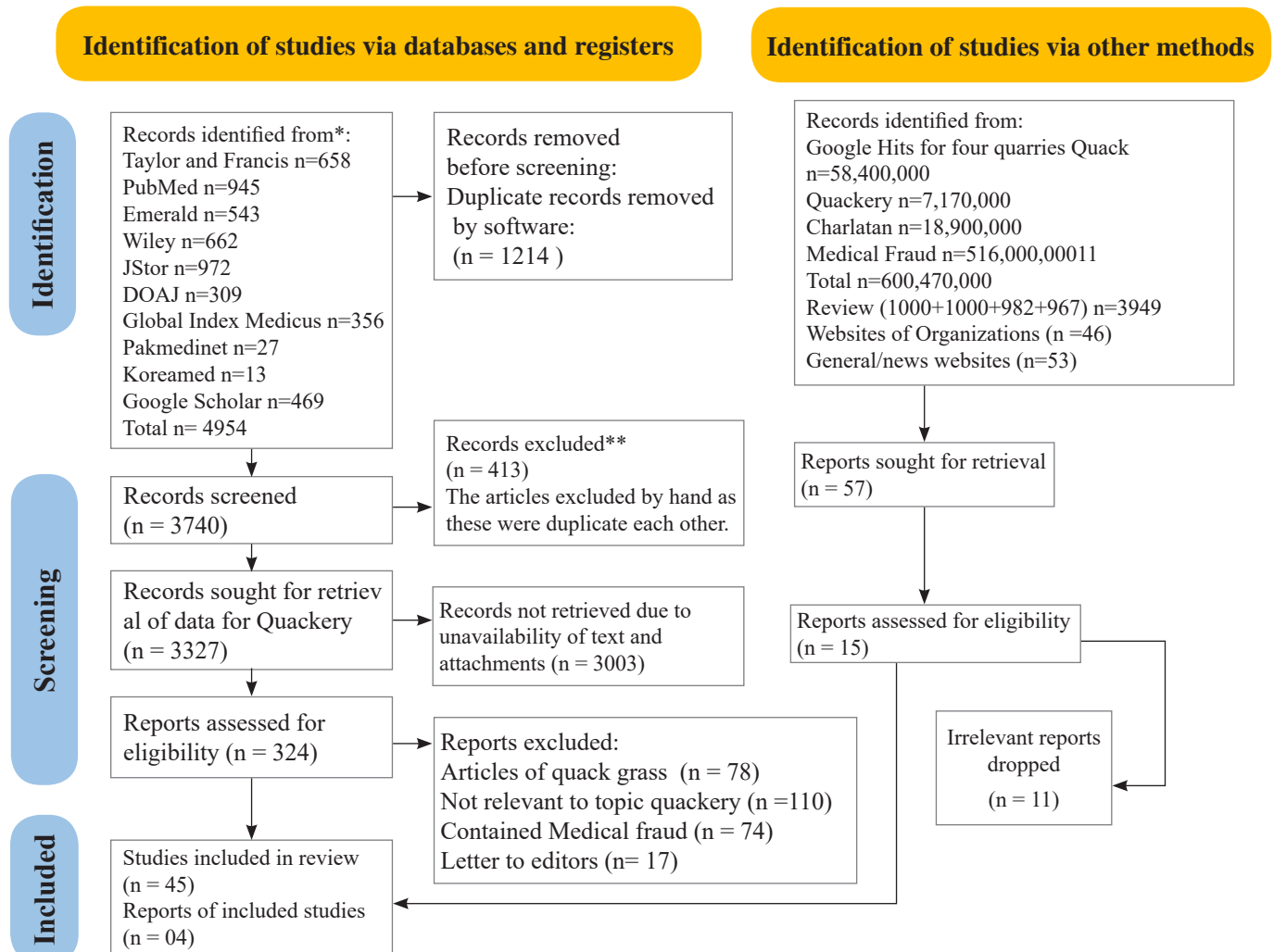
financial losses due to the deceptive nature of the treatment being provided [3]. Exploiting people’s lack of awareness, service providers manipulate patients for their own gain. The present research aims to reveal the diverse traits employed by quacks in different times and locations globally, with the goal of shedding light on their deceitful practices.

METHODOLOGY

In the study, we followed the steps of scoping review as guided by Arksey and O Malley [4] and A. C. Tricco [5]. In this process, we incorporated published research, and gray literature, including reports, laws, regulatory authority websites, and news reports, to explore the complex intersection of quackery and allied healthcare practices. The details of the selection of studies were presented in the PRISMA diagram (Fig. 1) and the identification and recruitment of studies are explained annexure in Fig.(2).

ANALYSIS

In the study, we used quacks and quackery and its synonyms Charlatan, Medical Fraud as keywords for searches. Researchers gathered relevant data by following the list of medical databases provided by Trivedi [6]. The study utilized databases such as Taylor and Francis, PubMed, Emerald, Wiley, JStor, DOAJ, Global Index Medicus, Pakmedinet, Koreamed, and Google Scholar. The collected articles and gray literature were carefully scrutinized to align with the study’s objectives and achieve a comprehensive understanding of quackery practices. Various aspects of quackery, including methods, contextual factors (such as publication dates, geographical presentations, terminology, and cultural context), were systematically segregated and examined. Summarized findings from the academic and gray literature search were presented as annexed in Table 1 and 2. Ghulam Yaseen developed the charting framework, which was reviewed and refined by Ather Akhlaq and Ahson Qavi before data analysis commenced. Thematic analysis was employed, considering the relevance, associations, and similarities between the traits.



*Consider, if feasible to do so, reporting the number of records identified from each database or register searched (rather than the total number across all databases/register).

**If automation tools were used, indicate how many records were excluded by a human and how many were excluded by automation tools.

Fig. (1). PRISMA Diagram.

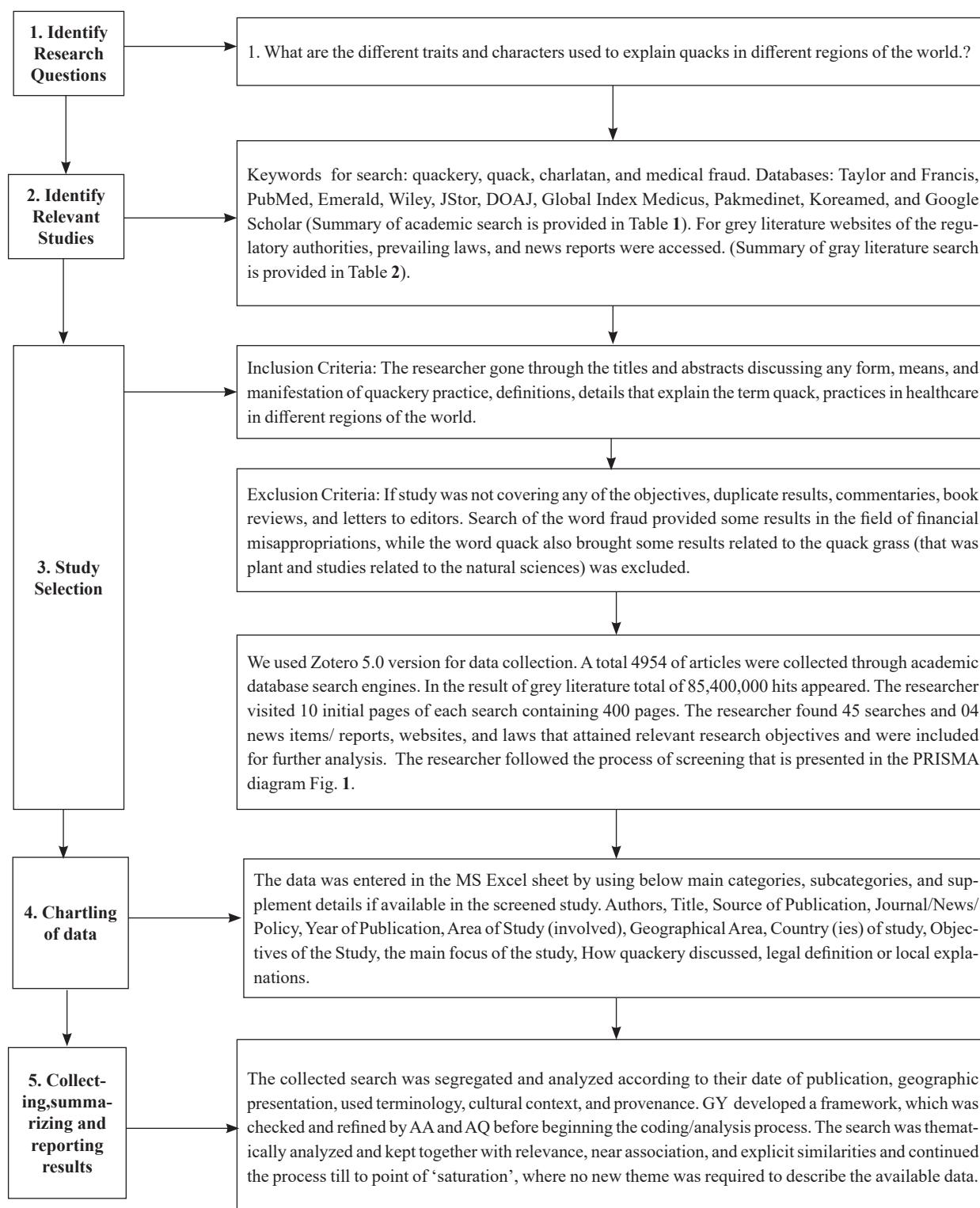


Fig. (2). Stage of Scoping Review under Guidelines of Arksey and O Malley.

RESULT

The study found that there are more than 90 terms which were used for these fake healers in different parts of the world. Char-

latan was the most repeated term used for quacks almost in every part of the region including Asia. There are other common titles specifically related to quacks like Quacksalver, mountebanks [7], vagabonds, swindlers [8], pretender [9], Flamboyant [10], Healers [11], Folk Medicine provider [12], Untrained/ Self-trained professionals [13], Yong-yi (China) [14], and Unorthodox [15]. We have enlisted and segregated the frequent and

common terms/ titles used for quacks in different countries across the world and annexed as Table 3.

Table 1. Summary of Academic Database Searches.

S No	Name of Search Engine	Results for Charlatan Quack*	Results for Quackery	Results for Medical Fraud	Total
1	Taylor and Francis	240	232	186	658
2	PubMed	563	364	18	945
3	Emerald	443	89	11	543
4	Wiley	566	92	04	662
5	JStor	695	259	18	972
6	DOAJ	110	43	156	309

7	Global Index Medicus	154	77	125	356
8	Pakmedinet	20	06	01	27
9	Koreamed	04	04	05	13
10	Google Scholar	193	147	129	469
Grand Total					4954

Keywords for Search: Quack*, Charlatan, Quackery, and Medical Fraud

Table 2. Summary of Gray Literature Searches.

S No.	Queries	Total Hits	Reviewed	Included for data
1	Quack	58,400,000	1000	11
2	Quackery	7,170,000	1000	7
3	Charlatan	18,900,000	1000	05
4	Medical Fraud	516,000,000	1000	09

Table 3. Details of Titles uses for Quacks.

S N.	Name of country	Term/Title Used for Quacks in Selected Countries
1	Africa	Bone-setters, Traditional or Islamic Medicine/Healers, Unskilled Health Professionals, Homeopath, Non-medical healers.
2	Australia	Fraud- Fraudster.
3	Bosnia and Herzegovina	Franciscans, Religion amid, Spiritual healers.
4	Canada	Chiropractic (a spinal specialist), Unscrupulous healers, Thugs, Osteopaths.
5	China	Yong-Yi, zeal, lower robe, and siui (time, In English, itinerant doctors, midwives, and shaman doctors were regarded as “Yong-yi”).
6	France	Empiric, Illicit practitioners, Popular and unlicensed healers, Witchdoctor, Swindlers, Charlatan, Vagabonds, Apothecary, Pseudo medicine.
7	Germany	Charlatan, a Non-medical healer.
8	Greece	Empeirikos or praktikos [empirical, someone who learns his/her art empirically], Giatrina or Giatrissa [female ‘doctor’], Magos [magician], Agyrtes, Kompogiannites.
9	Georgia	Advertising professors, Hustlers.
10	Ireland	Non/Un-orthodox, Apothecary, Wise women.
11	India	Hathi Doctors, Voids, Dental technicians, Working as assistants, Flamboyant, Uncertified rural practitioners (URPs), Rural Medical Practitioners (RMPs), Informal providers, Indigenous and folk practitioners, Electrohomeopathist, Charlatan, Bone-setters, Herbalists.
12	Iran	Medical fraudster, Traditional or Islamic Medicine/ Healer.
13	Kenya	Witchcraft and black magician.
14	Korai	Apothecary, Untrained or self-trained practitioners, Unlicensed medical practitioners, Half doctor, Quasi-doctor.
15	Netherland	Non/Un-orthodox, Folk medicine provider.
16	Nepal	Untrained or self-trained practitioners.
17	New Zealand	Irregular practitioners, Faith healers, Itinerant hawkers, Traditional Maori.
18	Norway	Greedy, dishonest, Cheeky and heartless, Unscrupulous healers, Thugs, Thieves in the medicine market, Arcane (mysterious or secret).

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19	Pakistan	Pretender, Unqualified healthcare providers, Unani (Greco–Arab) healers (Hakeem), Drug Seller, Charlatan, Non- Qualified practitioner, Beyond the scope practitioner, Attai doctor, Irregular practitioners, Faith healers, Peer/ Baba Religion and Spiritual healers, Bone-setters, Herbalists, Traditional or Islamic Medicine/ Healer.
20	Spain	Healers, Protomedico (In Spain, the prestigious protomedicato served the king directly), Boticarios (professional who dispenses prescription drugs, and often functioned as primary providers of health care).
21	Russia	Clairvoyants, Criminal Doctors.
22	UK	Necklace men, Great Traveler, Indian Oculists, Street-doctor, Quacksalvers, Mountebanks, Workers of false miracles, Experimental ‘scientists’, Ritualist, Lier, Fanatic, Ignoramus, Mesmeric performers, Charlatan, Irregular practitioners, Faith healers, Medical electricians or Galvanists, Non/Un-orthodox, Pseudo medicine, Fraud- Fraudster, Bone-setters, Nostrum.
23	USA	Hucksterism, Greedy, dishonest, Cheeky and heartless Pernicious practitioner Unconventional therapist Acupuncturist, Chinese herbal drugs Seller, Indigenous health service provider, Oriental medicine provider, Charlatan Amygdalin (Laetrile), Primitive (later traditional) provider, Naturopaths, Non/Un-orthodox, Pseudo medicine, Fraud- Fraudster, Chiropractic (a spinal specialist), Herbalists, Nostrum, Osteopaths.
24	Vietnam	Secret remedies provider.

ATTRIBUTES OF UNAUTHORIZED HEALTHCARE PRACTITIONERS

The study explains and presents the details of characteristics, traits and behaviors which were explaining the unauthorized practitioners across the globe. We have grouped the near-associated terms/codes and discussed each explicitly as sub-theme in below boxes for easy understanding of the readers.

THIEVES OF MEDICAL PROFESSION

The analysis presented a vivid picture of quacks as ethical culprits of medical science, who are cheating innocent and sick people for their personal gains. The details of all related characteristics were presented in Box 1.

Box 1. Traits associated with their Character as Thieves of Medical Profession.

Dishonest, Clever and unscrupulous fraud, Cheeky, Thugs, Oblivious, Medical Fraudster [10,12,14,16-24], who practice to gain more power and money[12,14,16,25], Thieves in the market of medicine [20], Who cheats in the art of medicine [20], Scavengers[23], Practitioner with criminal intent [26], Morally and Ethically unfit to practice medicine [27,28], Culprit of medical ethics [16], Practitioner of fake medical treatment [29], Fraudulently misrepresents his ability and experience in the diagnosis and treatment of disease [30], Anyone who promotes medical schemes or remedies known to be false, or that are unproven, for a profit [31], Unethical practitioner of promising health-related benefits for which there is little or no scientific basis [32].

MODERN QUACKERY UNDER COMPLEMENTARY AND ALTERNATIVE HEALTHCARE SERVICES

Quacks were using various supports to strengthen their fake practices. The debate and division of acceptance for complementary and alternative healthcare services across the globe

helped quacks. For instance Chiropractic treatment was controversial healthcare service, where some countries accord it as legal while other claims it is quackery[33-35]. Similarly in the case of Homeopathy[25,36], Greece/ Perso-Arabic traditional medicine/ Ayurvedic [9,37] have different legal status in various regions of the world. Quacks are using modern means to attract their clients and offer some lucrative services and titles to catch attention of clients. These fake claims covered under the natural, organic treatment and some new prerogatives, which were still not cleared or approved by the medical community for practices. The details of modern, complementary and alternative claims were grouped in Box 2.

Box 2. Traits Discuss Modern Means of Quackery.

Who were providing bogus treatments through stem cell to people facing blindness [3], doing exaggerated promotions as “positive,” “reliable,” “speedy,” “safe,” “guaranteed.”[26], selling Metbeds as treatment [38], who scan urine for diagnosis [8], Herbalist [9], Hakeem [9], provider of alternative and complementary medicine [17] Osteopaths [23], Anyone who promotes medical schemes or remedies known to be false, or unproven [31], Chiropractic [33], Homeopath [36], Pharmacist [9,39], Naturopath [40], who provide treatment by electricity” ‘Medical galvanism’ [41], who treat through Faradism (applying interrupted current through batteries [41], who promoted vitamin products, special dietary foods, and food supplements with false and unproven claims [42], who do false Claims of providing right treatment [43] who commercialized medical practice [44].

SORCERY AND MYSTICS

There were practitioners, who claimed to treat the ailment with their divine and magical powers were also defined as quacks. These healers used different tricks and practices under a claim of spiritual and religious treatment of sickness in various parts of world. These all traits and definitions were grouped in Box 3.

Box 3. Traits which Covered Sorcery and Mystic Treatment.

Healing with divination [8], Magic incantations [18,45], Baba-users of Black magic and spiritual [46], Peer-Use Islamic Scriptures, Show miracles [47], Mysterious practitioners [48], Healing, by “pure” women after menopause, Saint who are expected to help with the expelling of the disease [49], Local occult healer (magical powers) [8], Shamanistic (religious) practices [50], Sorcery, Rituals endowed with anti-sorcery and anti-envy functions, Use of amulets containing verses of the Koraan (Moslem holy book), Fumigation of incense, visits to tombs of religious sheikhs, Purification (Mahaya) that involve drinking or bathing in water that is washed off Koraanic verses written on a plate [51], Spiritualism, Divination [52].

IGNORANT TO SCIENCE

The characteristics of quacks who were unwilling to consider new information or evidence that challenges their established beliefs. These practitioners were found ignorant and annoyed to the scientific evidence. These practitioners were promoted the ideas and services that have the lacked genuine scientific support. These practitioners can be called the opponents of orthodox practices. These practices were grouped together in Box 4.

Box 4. Traits describe their Ignorance to Science.

Traditional Healer [9], user of certain drugs, diets, devices, food supplements, and techniques not approved by the medical community [15], user of Pseudo-Medicine [17], who has no interest or understanding of orthodox [25], who used stories, tricks, juggling [7,43], someone who learnt his/her art empirically [45], who avoid modern medicine [48], Half doctor, Self-approved medical practitioner [50] Bone setter [52], who does not practice evidence-based healthcare [53], who once went to Medical School [54], Untrained practitioner [9,14,54], Ignorant to a degree [55], Treatment with apparatus has a therapeutic effect [56], follow empiricism [57], have Folk Belief, Folk medicine provider [12,50,58] Itinerant (travelers), Hawkers [59].

CONTRARY TO LAW

The quacks were not authorized by the land laws and their practices were deemed illegal. We have found some traits that define and associated legal standing of these fake practitioners. All these characteristics were grouped in Box 5.

DISCUSSION

The primary objective of this research was to identify the traits associated with individuals commonly known as “quacks,” engaging in unauthorized medical practices. The findings exposed the true character of these pretenders, who deceive the vulnerable by portraying themselves as benefactors, seemingly helping the impoverished. A multitude of names were used to describe untrained practitioners. While various definitions exist across regions for unauthorized medical practices, there is a unanimous agreement that those who engage in deceit within

Box 5. Traits defined Quacks Contrary to Law.

Self-taught- self approved health practitioner [13,14], Uncertified Rural Practitioners [37], who overstate their abilities [48], a boastful pretender to skill which he does not possess, especially medical skill [56], Who are providing treatment without required qualification [9,18,27,47,50,60,61], who pretend to have knowledge and skills that he does not possess [10,62,63], who were qualified but immoral practices, [27,64,65], unofficial Healers [66], Unlicensed midwives [8,65], a Rent seeker (renting name of qualified practitioner) [65], Assistant under qualified practitioner [65], who were not registered in medical register or government authorities [37,39,66,67], Rural Medical Practitioner [68], Practicing medicine without license [69].

the field of medicine shall be labeled as “Quacks.” There is a strong consensus that these imposters are showing good faith, offering services with displaying sympathy to their patients but actually, these are brutes relying on the draining money from the pockets of ignorant and oppressed persons for their personal benefits. They advertise their services, collect fame and fortune by using various media platforms [42]. Everywhere now, these fraudsters are known as parasites to the medical community. They always falsely pose themselves as qualified, registered, licensed, and authorized healthcare services providers and swindle the hopeless and the despondent, who failed to find any relief from the available approved methods of treatment or away from the scientific ways to cure ailments.

In the Western context, mesmeric healers’ services were once associated with science; however, any practitioner offering treatments without authentic evidence is considered unauthorized. Those who abuse this practice, a group deemed morally and professionally unfit to engage in medicine, and deceitfully provide services or sell false hope, are seen as violating medical ethics [14]. In Eastern countries, quacks take advantage of the region’s rich religious and cultural dynamics by connecting their services to customs and Holy Scriptures. They serve as both faith healers and healthcare providers, focusing on spiritual healing through prayers, rituals, sorcery, and amulets. There is a strong belief in malevolent forces like the evil eye, bad luck, and Jinn possessions, leading these practitioners to offer remedies to counter these influences. The controversy also noticed that some countries such as Bangladesh, India, Pakistan, and Iran legally allowing Homeopathic System of Medicine, Veda, Hakeem (Greece/ Arabic way of treatment) are legally allowed to provide healthcare services within their scope of registration and discouraged in western countries [47,51,65].

Quackery is not a closed chapter, it continues in different shapes, forms, and manifestations across the world. It was presumed that developed countries overcome the challenges of medical fraud and quackery but it is not the case. At the end of the year 2022, BBC reported false claims of miracles by use of metbeds “The truth about ‘medbeds’ - a miracle cure that doesn’t exist” [38]. In January 2023 it was reported that doctors are selling bogus treatment for blindness in the United States of America. The

report “The doctors selling bogus treatments to people facing blindness” [3] revealed the fraudulent claims of unproven treatment of blindness through stem cell technology. The service providers of the above two exemplified cases are getting the advantages of weak policies against quackery and medical fraud. The methods of quackery changed with time, but intentions remained the same. The widespread reach of the internet and information access is full of false and fabricated traps by a quack with the introduction of new claims.

Literature on quackery has been dominant in the United States of America and Europe due to their historical actions against it. Limited literature is available in other regions of Asia, Oceania and African on unauthorized services and medical fraud. The current study effectively covers the characteristics of quacks, providing valuable insights for policymakers and implementers to take appropriate actions. It brings attention to the evolving nature of quackery, particularly in the age of the internet, where false claims can easily proliferate. However, the traits covered in the study sometime sounds duplicates with the services of quacks, though there is difference between titles used for quacks and treatment provided by quacks. The study focuses on the prevalence of quackery and its deceptive practices but does not provide a detailed exploration of potential harm to patients or the consequences of quackery practices. While the study provides valuable insights into quackery in various regions, there is a need for more extensive research and information about these unauthorized services in these areas. It is also required to find the flaws and loopholes in the anti-quackery and medical fraud policies in respective countries.

CONCLUSION

The above study extensively explored the characteristics associated with quacks. It revealed that quacks engage in health service fraud by deceiving their true qualifications. They misrepresent themselves, exploiting the vulnerable for personal gain, showing false goodwill, and draining money from the ignorant and oppressed. Such individuals are recognized globally as fraudsters and parasites in the medical community. Quackery takes various forms worldwide and continues to persist. Even in developed countries, the challenges of medical fraud and quackery remain, as methods evolve while intentions remain the same. With the internet’s widespread reach and information access, quacks use new claims to lure unsuspecting victims into false and fabricated traps. More research and information on quackery services are needed to assess and address the flaws and loopholes in anti-quackery and medical fraud policies within respective countries.

CONFLICT OF INTEREST

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