RESEARCH ARTICLE

A typology framework for unethical medical practices under public health insurance schemes in India: Analysis of evidence over the past 12 years

PARUL NAIB

Abstract

Background: Unethical provider practices in public healthcare schemes adversely impact beneficiaries' health, result in the loss of public funds, and also bring disrepute to the schemes. There is extensive literature on the typologies of unethical practices in healthcare in developed countries. This study aims to develop a typology framework which is applicable in the Indian context.

Methods: In this study, 25 media reports and research studies were analysed on unethical provider practices under public health insurance schemes in India over the past 12 years from 2010 to 2022. The reports were collated from de-empanelment orders issued by state health authorities against various erring entities, and research studies conducted on the abuse of these schemes.

Results: Based on the analysis and classification of the cases reported, an "Unethical Provider Practices" typology for healthcare fraud has been defined. Additional fraud typologies are found to be prevalent in India in addition to those captured by existing frameworks. These include patient harm, ID theft of beneficiary data to create cards for non-beneficiaries, and collusion between providers and different entities.

Conclusion: Fraud control mechanisms leveraging technology such as AI–enabled digital apps for medical audits, biometric technology at the point of care and rigourous checks of ID documents before beneficiary cards are issued as well as having more specific legal provisions in place for healthcare fraud will enable enhanced prevention, detection and deterrence of healthcare fraud.

Keywords: healthcare fraud, medical ethics, unethical practices

Author: **Parul Naib** (parulnaib@gmail.com, https://orcid.org/0000-0002-3497-8838), Research Scholar, Indian Institute of Health Management Research University, 1, Prabhudayal Marg, Sanganer, Jaipur, Rajasthan, INDIA.

Introduction

Health systems globally are susceptible to unethical provider practices. Such practices cause financial harm to the payer and lead to inefficiency and inequity in resource allocation [1]. Unethical medical practices also constitute a breach of trust for patients who believe that the doctor is acting in their best interest, and this may adversely impact patient health [2]. The nature of healthcare treatments and the uncertainties and personalisation of the care involved also make it difficult to be absolutely confident about when the care is medically necessary and when it may be a waste of resources. This difficulty in proving the intent behind the provider's actions makes healthcare fraud difficult to identify [3, 4]. In the case of public health insurance schemes, fraud and abuse increase the costs of healthcare, making it difficult to cover healthcare costs of the most vulnerable and poor. Fraud leads to a diversion of limited public healthcare outlays. As the costs of care escalate, states may not be able to reimburse providers in a timely and efficient manner. This may then lead to denial of care for the poor and vulnerable, leading to higher healthcare costs and further impoverishing them.

In India, the need for state-provisioned healthcare was recognised as early as 1954, with the Bhore Committee's recommendations to set up a strong public healthcare system comprising primary healthcare centres (PHCs), community health centres for secondary care, and district hospitals at the tertiary level, providing comprehensive healthcare [5]. The system was supposed to cater to the healthcare needs of the Indian population and provide free healthcare to all. However, the current public health system has fallen short of expectations and suffers from several deficiencies, including poor infrastructural facilities, and a shortage of medical doctors and staff. From 2008 onwards, various states started introducing health coverage schemes for the poor to provide secondary and tertiary care in private hospitals. These state-sponsored schemes were limited in scope and fragmented, with limited coverage of procedures, and funded entirely by the state. There was a lack of standardisation of benefits covered by different states. Following this, the Central government launched the Rashtriya Swasthya Bima Yojana (RSBY) in 2008. The scheme provided an inpatient benefit cover of up to Rs 30,000 annually on a family floater basis. The RSBY was implemented in states through a contractual arrangement between insurance companies and state governments. The

Table 1: State-wise utilisation and card issuance metrics as of June 30, 2022

State Name	No. of Ayushman Cards issued	Population eligible under PM-JAY	Percentage cards issued	No of Claims submitted	Claims per 100,000 beneficiaries
Andaman & Nicobar Islands	39,980	96,296	41.52%	1,535	1594
Andhra Pradesh	1,40,01,384	6,51,58,007	21.49%	25,76,139	3954
Arunachal Pradesh	56,957	11,70,977	4.86%	1,837	157
Assam	4,70,361	1,21,36,482	3.88%	4,49,964	3708
Bihar	76,12,889	4,86,49,568	15.65%	4,22,765	869
Chandigarh	70,742	1,06,551	66.39%	20,167	18927
Chhattisgarh	1,56,13,079	2,50,69,136	62.28%	25,88,661	10326
D&D and D&NH	4,24,569	878,710	48.3%	87,824	10012
Goa	23,927	1,63,940	14.60%	10,488	6397
Gujarat	1,36,10,604	3,41,48,417	39.86%	30,55,969	8949
Haryana	28,58,958	69,56,712	41.10%	4,90,767	7055
Himachal Pradesh	11,19,250	21,55,433	51.93%	1,49,949	6957
Jammu & Kashmir	70,66,128	92,44,341	76.44%	4,96,108	5367
Jharkhand	94,28,423	2,56,99,199	36.69%	12,28,434	4780
Karnataka	97,82,602	5,17,50,000	18.90%	30,46,409	5887
Kerala	69,07,145	1,87,02,500	36.93%	41,29,931	22082
Ladakh	1,12,283	1,77,939	63.10%	1,246	700
Lakshadweep	18,679	55,440	33.69%	129	232
Madhya Pradesh	2,76,61,675	4,88,77,439	56.59%	17,39,027	3558
Maharashtra	74,70,349	3,76,36,488	19.85%	5,79,944	1541
Manipur	4,25,365	12,29,625	34.59%	64,436	5240
Meghalaya	17,21,478	24,93,590	69.04%	4,47,381	17941
Mizoram	3,73,898	8,76,866	42.64%	70,978	8095
Nagaland	2,81,306	10,49,976	26.79%	26,081	2484
Puducherry	3,89,253	4,65,453	83.63%	21,211	4557
Punjab	78,89,985	1,78,07,423	44.31%	12,54,169	7043
Rajasthan	NA	6,02,90,266	NA	13,72,888	2277
Sikkim	48,498	1,78,821	27.12%	7,369	4121
Tamil Nadu	1,57,24,432	6,61,50,000	23.77%	73,59,704	11126
Tripura	12,81,523	22,09,338	58.00%	1,53,276	6938
Uttar Pradesh	1,87,89,318	5,63,77,481	33.33%	13,49,749	2394
Uttarakhand	47,23,056	70,62,606	66.87%	5,14,352	7283
Total	**17,59,98,096**	**60,50,25,020**	**29.09%**	**3,37,18,887**	**2,02,551**

Source: PM-JAY public Dashboard and States at a Glance from PM-JAY website

Excludes the states of Delhi, Telangana, Odisha and West Bengal as the PM-JAY scheme has not been implemented in these states. Card issuance numbers for Rajasthan were not available.

scheme covered 1,516 treatment packages, more than those covered under previous state schemes. The scheme was funded jointly by the Central and state governments in the ratio of 60:40. As of the year 2018-19, the RSBY had been implemented in states and union territories (UTs). However, as the money provided for inpatient care cover was limited, and the scheme was not portable across states, it had limited success in reducing out-of-pocket payments in healthcare [6].

In 2018, most state schemes were subsumed under the umbrella of the centrally launched Ayushman Bharat Pradhan

Mantri Jan Arogya Yojana (PM-JAY) to provide free health coverage to the poorest in India. The scheme covers inpatient treatment up to Rs 5 lakh annually per family and is portable across states. The scheme is operational in 33 states, that is, except for West Bengal, Telangana, Delhi and Odisha. More than 3 crore treatments have been provided under PM-JAY and over 18 crore beneficiary cards had been issued as of June 30, 2022 [7]. At the Central level, the National Health Authority (NHA) has been set up to oversee the implementation of the scheme along with the state health agencies (SHA). The state-wise utilisation of care under PM-JAY as of June 30, 2022, is shown in Table 1.

Among the larger states, Jammu and Kashmir and Chhattisgarh had the highest penetration in issuance of beneficiary cards, with more than 70% of the eligible beneficiary population possessing an Ayushman card. Amongst the smaller states and UTs, Puducherry, Meghalaya, Uttarakhand, Chandigarh and Ladakh had higher rates of beneficiary enrolment.

Rationale for the study

Several studies have looked at the unique characteristics of the healthcare market which make it vulnerable to unethical practices by providers [1,3,8]. Informational asymmetry between the seller (healthcare provider) and purchaser (insurance company/payer) on the patient's actual health problems, combined with the patients' complete trust in the healthcare provider, creates the ideal conditions for malpractices. The incentive incompatibility of the fee-for-service payment model and the inelastic demand for healthcare services further exacerbate this. The fee-for-service model implies that payments are directly linked to the medical procedures irrespective of the need and impact on patient health. Thus, providers are incentivised to perform more procedures in order to increase their payments. At the same time the demand for healthcare is fairly inelastic so that even if the cost of treatment is high, the patient is forced to incur it since it has a direct impact on their health and life even at the cost of selling assets or cutting down expenditure on other essential items. Unethical practices not only lead to financial leakages but also adversely impact patient health outcomes, including increasing patient mortality rates, and lead to inequity in access to quality healthcare services, eg in case, money is charged to poor beneficiaries who might find it difficult to pay and thus are denied care [1,2,9]. They also result in a breach of trust, both between provider and payer — whether government or insurance company — due to the payer's financial losses; and between providers and patients (especially when medically unnecessary and harmful procedures are performed). In developing countries such as India, which are striving to achieve universal health coverage, it is imperative to ensure that such unethical malpractices are curbed.

The different instances of malpractices detected can be classified into different types of unethical practices. By grouping these instances on the basis of common features, a typology framework or systematic classification, is defined. It is important to define an India-specific framework given the differences in its healthcare system vis-à-vis those of developed countries such as coexistence of both public and private hospitals, differences in the demographic characteristics of beneficiaries in terms of low income and education levels, and differences in the level of monitoring by the authorities. Most of the existing literature and typology frameworks pertaining to unethical medical practices in healthcare (fraud, waste, abuse and corruption) address the context of developed countries [4,10,11]. The typology frameworks defined by the European Healthcare Fraud and Corruption Network (EHFCN) Waste Typology [11] and Transparency International's 5-Actor Framework for Corruption [1], or the World Health Organization (WHO) (Red Flags Frameworks) [12] and the US Center for Medicaid and Medicare Services (CMS) (Fraud, Abuse, Errors, Waste) [13] may not adequately cover the various types of malpractices in India, given the vast differences in health systems and the disease burden.

Fraud detection mechanisms leveraged by insurance companies or other payers typically include medical review and audits of claims by doctors (referred to as claim processing doctors) and medical auditors. This is done prior to payment of the claim to determine the medical necessity and veracity of the treatment and confirm that it was indeed given. It may also be done through data analysis to identify irregular trends or patterns [14,15]. Claims confirmed as fraudulent based on a desk review of submitted documents will be denied. Suspect claims may be investigated in the field, and medical audits followed up at the hospital to collect additional evidence.

Given that in the Indian system there is a strong presence of both public and private providers with different financial incentives, the types of malpractices that occur in India need to be analysed further. Legal provisions in cases of healthcare fraud are also poorly defined in the Indian Penal Code, which makes it difficult to take deterrent action against errant hospitals [16, 17]. The intended beneficiaries of schemes are the poor and vulnerable who lack the ability to organise and seek justice even in cases of patient harm, though incidents of patient harm have been reported in studies [18,19,20]. Further, healthcare providers in public schemes in India play a dual role — they provide care and also enrol beneficiaries. To the best of my knowledge, there has not been any comprehensive study to document the various types of unethical practices under public healthcare schemes in India and to define a typology framework relevant to the Indian context. This study analyses data on healthcare malpractices in public health insurance schemes in India, synthesising evidence over the past 12 years, to define the typology of these malpractices. Through this study, I seek to comprehensively study the types of malpractices which have been identified under government-funded health insurance

schemes and define a typology of these practices which is suitable to the Indian context.

Methods

The study was conducted as part of the author's PhD research titled "Assessment and analysis of factors impacting provider fraud under Ayushman Bharat PM-JAY" approved by the Institutional Review Board of Indian Institute of Health Management Research (IIHMR) University, vide approval number IORG0007355. An analysis of media reports and de-empanelment orders issued against hospitals by various SHAs was conducted to collate case studies of frauds detected so far by SHAs. Audit reports of the Comptroller and Auditor General of India were also reviewed for adverse observations pertaining to fraud in those government-funded health insurance schemes which were later merged into PM-JAY. The media reports were identified from online repositories and archives of Indian media news reports in English. The Print, Deccan Herald, The Financial Express, Business Standard, The Hindu BusinessLine, India Today, Google News Search and The Indian Express were searched.

The following search criteria were used: ('unethical medical practices' AND 'India') OR ('unethical treatment' AND 'India') OR ('abuse in medical practices' AND 'India') OR ('patient harm' AND 'India') OR ('violation of patient rights' AND 'India') OR ('fraud PM-JAY') OR ('fraud RSBY') OR ('unethical practices' AND 'Arogyashree') OR ('Unethical practices' AND 'Bhamashah').

Secondary data were also collected from the PM-JAY public dashboard and the PM-JAY state fact-sheets on the PM-JAY website (www.pmjay.gov.in), and various press releases of the Ministry of Health and Family Welfare. De-empanelment orders were retrieved from the websites of Karnataka and Uttarakhand SHA, which were available in the public domain.

Based on this review, 93 articles or studies were found to be relevant for the current study as shown in the PRISMA flowchart in Figure 1 (available online only).

A comprehensive review of each of the media reports and articles was conducted to analyse the cases of unethical medical practices reported and separate them according to the type of unethical medical practice, the entities engaging in them, and the stages at which they occur. Each report was then classified as per the typology it represented.

Results

A total of 3.37 crore claims had been submitted under PM-JAY as of June 30, 2022. As can be seen in Table 1, the highest utilisation per 100,000 beneficiaries was observed in Kerala, followed by Chandigarh, and then Meghalaya. Of the 3.37 crore claims, 1.45 crore (43%) claims were contributed by the South Indian states of Tamilnadu, Kerala and Karnataka.

A total of 22,874 non-genuine cases were reported under PM-JAY across various states as on Jan 31, 2022 [21]. The state-wise analysis of these claims indicates significant variations as observed in Table 2. The highest ratio of fraudulent claims to total claims was in Punjab (437 per 1,00,000 claims submitted in the state) followed by Haryana and Chhattisgarh. Significantly lower levels of fraudulent claims were reported in the North-Eastern states and in Kerala. The state-wise details of fraud claims reported by the NHA under the PM-JAY scheme is given in Table 2. A total of 210 hospitals have been de-empanelled under PM-JAY [22], with penalties levied amounting to Rs 16.8 crore as of August 30, 2021 [23].

Based on the analysis, the following types of unethical practices committed by providers under government-funded health insurance schemes were identified:

Performing medically harmful procedures

It was found that under the government-funded health insurance schemes in Rajasthan, Bihar, Andhra Pradesh and Chhattisgarh, private hospitals were performing hysterectomies (removal of the uterus) without any medical indication [18]. A study in Andhra Pradesh found that 87% of the hysterectomies performed under the Aarogyashree scheme in the state had no medical indication [20]. In Bihar, over 16,000 such surgeries were found to have been performed without being medically necessary [24]. In most cases, providers were found to have lied to the patient that she would die or become disabled unless she underwent the procedure. This malpractice not only led to undue financial losses for the scheme, but also harmed the patient's health — several studies have established that hysterectomies increase women's risk of cardiac diseases and certain cancers as a result of early menopause [25].

Ghost billing

Across states such as Punjab, Karnataka, Chhattisgarh and UP, several cases of fake transactions were detected under PM-JAY, wherein providers submitted fake bills in the name of patients without providing any service. This was particularly seen in the case of daycare packages such as cataract surgeries, since the patient can be shown to be discharged on the same day. Conducting a medical audit in such cases would be difficult since a medical audit may only be possible on the day following the treatment, by when the beneficiary is not present at the hospital, making it difficult to ascertain the treatment provided [19, 26, 27].

Upcoding

In this case, providers submitted inflated claims indicating that higher-priced packages were provided instead of the procedures that were actually performed. In Rajasthan, widespread instances of fraud were found under the Bhamashah scheme, particularly of unnecessary ICU care, which is priced at more than three times the charges for the general ward [28]. Similarly, in Karnataka, cases of upcoding in surgeries, combining various procedures instead of just the package performed, were detected. For example, a claim would be made for the "adhesiolysis ovarian cystectomy"

Table 2: State-wise fraud claims as of January 31st 2022

State	No. of confirmed fraud cases under PM-JAY (as on 31 January, 2022)	Total Claims	Fraud claims per 100,000 claims submitted
Assam	2	4,49,964	0.44
Bihar	50	4,22,765	11.83
Chhattisgarh	6,785	25,88,661	262.1
Gujarat	16	30,55,969	0.52
Haryana	1,403	4,90,767	285.88
Himachal Pradesh	22	1,49,949	14.67
Jammu & Kashmir	1,011	4,96,108	203.79
Jharkhand	2,783	12,28,434	226.55
Kerala	904	41,29,931	21.89
Madhya Pradesh	2,627	17,39,027	151.06
Meghalaya	96	4,47,381	21.46
Mizoram	2	70,978	2.82
Nagaland	38	26,081	145.7
Puducherry	1	21,211	4.71
Punjab	5,487	12,54,169	437.5
Tripura	1	1,53,276	0.65
Uttarakhand	128	5,14,352	24.89
Uttar Pradesh	1,518	13,49,749	112.47
Total	**22,874**	**1,85,88,772**	**1,929**

Source: Ministry of Health and Family Welfare Press Release, February 4, 2022, Available from: https://pib.gov.in/PressReleasePage.aspx?PRID=1795419 Cited on May 12, 2022.

State-wise total claims metrics as of June 30, 2022. Available from: PM-JAY Public Dashboard

(Excludes the states of Delhi, Telangana, Odisha and West Bengal as the PM-JAY scheme has not been implemented in these states. Data from Maharashtra, Karnataka, Rajasthan, Goa, Tamil Nadu and Andhra Pradesh were not available.)

Table 3: State-wise Covid-19 claims normalised

State/UT	Covid Treatments under PM-JAY from FY 2020-22	Total Claims submitted	Covid claims per 1,000 admissions
Andaman & Nicobar Islands	7	1535	4.56
Andhra Pradesh	213426	2576139	82.85
Assam	1080	449964	2.40
Bihar	27	422765	0.06
Chandigarh	8	20167	0.40
Chhattisgarh	44940	2588661	17.36
Goa	1	10488	0.10
Haryana	808	490767	1.65
Himachal Pradesh	56	149949	0.37
Jammu and Kashmir	837	496108	1.69
Jharkhand	1554	1228434	1.27
Karnataka	186031	3046409	61.07
Kerala	139895	4129931	33.87
Madhya Pradesh	19115	1739027	10.99
Maharashtra	174173	579944	300.33
Manipur	788	64436	12.23
Meghalaya	4261	447381	9.52
Mizoram	651	70978	9.17
Nagaland	11	26081	0.42
Puducherry	360	21211	16.97
Sikkim	38	7369	5.16
Tamil Nadu	30547	7359704	4.15
Tripura	56	153276	0.37
Uttar Pradesh	2043	1349749	1.51
Uttarakhand	2996	514352	5.82

Source: Ministry of Health and Family Welfare Press Release, February 4, 2022: Available from: https://pib.gov.in/PressReleasePage.aspx?PRID=1795419 Cited on May 12, 2022.

State-wise total claims submitted as of June 30, 2022. Available from: PM-JAY Public Dashboard

(Excludes the states of Delhi, Telangana, Odisha and West Bengal as the PM-JAY scheme has not been implemented in these states)

package which costs Rs 15,000 instead of the "ovarian cystectomy" package (costing Rs 8,000) which had actually been performed [29]. It was also found that a few hospitals were submitting hundreds of claims for admission under Covid-19 [30]. These cases included cases of ordinary fever and common cold for which outpatient treatment could have been given. Since these hospitals had in-house testing facilities, they were able to manipulate the reports to show that the infection was present [30]. At the same time, it was

difficult to physically audit these cases at the hospital to verify the medical necessity, as investigating officials would be at risk of infection. The number of Covid-19 admissions per 1,000 admissions under PM-JAY is given in Table 3. It shows that in the financial years 2020-22, Maharashtra had the highest percentage of Covid-19 claims, which may be indicative of this overuse.

Unnecessary extension of hospital stays or ICU admission

In this case, hospitals would extend patients' stay even if not required, or keep patients in the ICU till their discharge, when they should have been given step-down treatment in the general ward [31,32].

Creating cards for non-beneficiaries

The list of families eligible for PM-JAY comes from the Socioeconomic and Caste Census database which was developed in 2011. PM-JAY permits hospitals to create cards for new beneficiaries in a family due to birth, marriage, adoption etc, after verification of identification documents. This facility was misused by hospitals to add non-eligible beneficiaries to families eligible under PM-JAY [33]. This was detected in several states such as Uttar Pradesh, Madhya Pradesh and Kerala. In Uttar Pradesh, 49 hospitals created more than 1,400 Ayushman cards adding the names of ineligible persons posing as family members of eligible Ayushman Bharat families [34]. The hospitals colluded with the local Pradhan Mantri Arogya Mitra and ineligible persons who provided fake documents, by adding their names to the beneficiaries' original ration cards. These cards were then utilised to avail of care in the same hospital. One hospital in Chhattisgarh added eight unrelated pregnant women to the card of a single eligible family [27]. In another case, a hospital in Jammu and Kashmir linked several ineligible patients to the same beneficiary family to perform laparoscopic cholecystectomy (removal of gall stones) [27]. In Gujarat, common service centres (CSCs) — which deliver Government of India e-services to rural and remote locations and are responsible for enrolling beneficiaries under PM-JAY— were also found to be creating cards for non-beneficiaries [35]. As the benefit is limited to Rs 5 lakh per family, fraudulent use of the card affects genuine beneficiaries when they need healthcare, as they may find the amount available is reduced or exhausted. They may be forced into out-of-pocket expenditure to receive care, or have to forego the treatment. As many as 16,755 Pradhan Mantri Arogya Mitra (PMAM)/ CSC IDs were deactivated for issuing cards to the non-eligible, as of August 2021 [23].

False or ghost referrals for kickbacks

Public hospital physicians were found to be engaging in fraudulent practices. In several hospitals of Jharkhand and Uttarakhand, public hospital doctors who also had private practices, referred patients from the government facility to their own private practice, though the procedure could have been done in the government facility itself [36, 37]. Further, in Uttarakhand, cases of false referrals were detected. PHCs in Uttarakhand referred patients to private hospitals though they could have been treated at the PHC itself. The audit found the handwriting on the medical notes of the private hospital and on the public hospital referral forms to be identical. Audits revealed that the pharmacist of the public facility had colluded with the treating doctor of the private hospital and was giving false referrals to the hospitals in exchange for kickbacks [38].

Private hospitals providing treatment under government-reserved packages claiming "emergency" or other package category

Under various government-funded health insurance schemes, certain high-risk packages are reserved for public hospitals. These may be conducted by private hospitals only with a referral from the public hospital, or in emergency cases. However, it was found that private hospitals were submitting claims for packages such as cataract surgery — a planned procedure — as emergency procedures [39].

Dual practice by government doctors and self-referrals

Doctors were found to be serving at both a public hospital and a private hospital, with an overlap in working hours [36], indicating absence from their public hospital duties.

Collusion between provider and beneficiary

Instances of collusion between beneficiary and hospital were also observed. Given that beneficiaries of the scheme are poor, they may be lured to allow their card to be booked for expensive treatments in exchange for bribes or other benefits by the hospital. In one instance in Uttarakhand, a patient had been admitted for an emergency hip replacement surgery but when the audit team visited the hospital, the patient had not been admitted to the hospital at the scheduled time of the surgery. The patient was then called by the hospital and it was apparent during the medical investigation that there had been no need for a hip replacement in this case. By booking the patient as an "emergency" case, the hospital had obviated the need for a referral from a public hospital which may have found the hip replacement unnecessary. On further investigation, the patient, a beneficiary under outdated census data, was himself found to be a dealer of medical instruments used in hip transplants, which raised more suspicion of collusion between the provider and beneficiary [39].

Overuse of implants

One study found that cardiac stents were being implanted in heart patients in India without any medical need [40].

Providing poor quality care

Instances of poor-quality care being provided to patients were also observed. Cases were found wherein patients were not given the required treatment but only given partial treatment and discharged early [41].

Treatment by unqualified medical personnel

In several cases, medical treatment was performed by unqualified medical personnel. A WHO report in 2016 found that, of those claiming to be modern medicine doctors in India in 2001, a third were educated only until secondary school and 57% did not possess medical qualifications. In rural areas, just 18.8% of doctors practising modern medicine were found to be qualified to do so [42]. In one case, it was found that an unqualified doctor had performed more than 1,000 surgeries over a period of three years [43].

Hospitals getting empanelled without requisite infrastructure and medical personnel

It was found that some hospitals provided incorrect information on their accreditation status and size, as these were linked to higher incentives. Incorrect information on the size of the hospital, size of the ICU, accreditation status, presence of specialists, and pathologists were also detected [41,44].

Demanding additional payments from patients for services already covered in package

The PM-JAY package covers all costs associated with the treatment — diagnostics, medical and surgical treatment, and medicines. Hospitals demanded additional payments from patients, over and above the PM-JAY rates or denied their treatment by misinforming them that certain services were not covered in the package [26,45].

Collusion with insurance companies for approvals

Cases of collusion between hospitals and the insurance company were also discovered. In Punjab, an insurance company approved fake claims of several private hospitals in Jalandhar and Hoshiarpur, while denying genuine claims made by public hospitals. The insurance firm also rejected approximately 1,015 claims of 35 government hospitals, amounting to Rs 52 lakhs [46].

Overuse or incorrect use of procedure leading to patient's death

In one case in Karnataka, the mortality audit committee found that the patient's death could have been prevented if the hospital had not performed a second cycle of chemotherapy. The patient in this case had died due to overuse of the procedure [47].

Defining the Unethical Medical Practices Typology Framework

Based on the data analysis, we list the following types of fraud which can occur in PM-JAY, according to the entities and the stage of occurrence. We summarise the various types of fraud by proposing the "Unethical Medical Practices Typology Framework" (Table 4). The framework defines 7 key typologies of unethical practices: abuse, collusion, corruption, fraud, identity theft, patient harm and waste. Each of these can be further analysed as per the stage of the treatment/claim cycle where they may be committed — from card generation to pre-authorisation, claims referral, claims submission and its adjudication.

In addition to the previously documented typologies of fraud in the existing literature, we identified the following types of fraud in the context of India:

1. ID theft: Under public healthcare schemes, since the PMAM is involved in card creation, it is possible to create cards for non-beneficiaries by misusing genuine beneficiary information.

2. Collusion between beneficiary and provider to allow for submission of fake claims on the card.

3. Self-referrals: Referrals by public hospital doctors to their private practices.

4. Patient harm: Uneducated poor beneficiaries of the scheme are fooled by private providers into undergoing inappropriate and harmful treatment.

5. Private hospitals perform treatments reserved for public hospitals and include them under approved treatments.

Given the lack of strict healthcare regulation and legal provisions to deal with these unethical practices, it is difficult to ensure that such frauds are adequately punished.

Discussion

In order to control healthcare fraud, government authorities must be vigilant and aware of the different types of fraud which can occur under public-funded schemes. The existing anti-fraud guidelines of PM-JAY contain several anti-fraud practices. These include setting up of institutional structures such as the National Anti-Fraud Unit and State Anti-Fraud Units, regular analysis of claims data to identify suspicious patterns, medical audit of claims to check their authenticity and identify any abuse and levying penalties, and taking disciplinary action when fraud and abuse are detected.

To address the challenge of limited availability of specialist doctors at remote locations, leveraging mobile apps with video conferencing facilities for medical audit will enable better control of fraud/ abuse. In order to avoid private hospitals booking procedures which are reserved for public hospitals except in emergencies, the IT system must be enabled to monitor emergency bookings in private hospitals. To prevent unnecessary and inappropriate procedures which may cause patient harm, pre-authorisation applications must verify the medical necessity of each procedure, and request appropriate investigations, etc. Identity documents must be checked properly before beneficiary cards are issued. The use of a biometrics-based identification system at the point of care would help prevent cases of ID theft. An electronic health records-based system would allow for automated

Table 4: The Unethical Medical Practices Typology Framework

Typology of Unethical Practice	Stage of treatment/ claim cycle	Entity Committing Malpractice	Type of Entity	Unethical Practice
Abuse (Rule Bending)	Pre-Authorisation Submission	Provider	Private Provider	Denial of care for specialities which are present in hospital
	Referral		Public Provider	Referrals to provider's own private practice
Collusion	Card Creation	Provider, Beneficiary and Non-Beneficiary	Private Provider and Beneficiary	Collusion with beneficiary to use their card to book high value packages in exchange for bribes
	Referral	Provider	Public and Private Provider	Fee splitting- referrals for kickbacks
			Public and Private Provider	Fake referrals made by PHC to private hospitals for non-existent patients in exchange for bribes
	Claim Adjudication	Provider, TPA	Private Provider	Kickbacks to get approval for claims which are unauthorised
				Denial of genuine claims from hospitals which did not pay bribes
Corruption	Claim Submission	Provider	Public Provider	Absenteeism but not reporting the same
			Private or Public Providers	Demanding money from patients to provide services which are already covered
Fraud	Empanelment	Provider	Private Provider	Submitting false information pertaining to facilities/ medical personnel to get empanelled
	Pre-Authorisation Submission	Provider	Private Providers	Ghost billing- submitting claims without performing any service
	Claim Submission	Provider		Upcoding- charging for higher value service
				Extending the Length of Stay in case of medical packages/ extending stay in ICU
				Unbundling- charging for a service already covered in the package
				Performing a package reserved for public hospitals and masking them under a different package name
Identity Theft	Card Creation	Provider and Non-beneficiary	Private Provider	Creating fake cards for a non-beneficiary using a true beneficiary's identity without their knowledge
Patient Harm including patient mortality	Pre-authorisation submission	Provider	Private Provider	Performing medically inappropriate procedures, overuse of implants, overuse of procedures
	Claim submission			Poor Quality of Care such as Early discharge, using cheap quality implants
				Performing treatment without having the mandatory medical qualifications, using name of more qualified doctor
Waste	Pre-authorisation submission	Provider	Private Provider	Performing medically unnecessary investigations
	Claims submission			Performing medically unnecessary procedures or implants not required
				Using high end drugs / branded consumables when the treatment could be managed with generics

Source: Author

scanning of electronic documents, to help reduce upcoding and medically unnecessary procedures. This has been envisaged to be part of the recently launched Ayushman Bharat Digital Mission (ABDM) which creates a unique health record for each beneficiary [48]. In order to ensure maximum enrolment, awareness must be generated of the ABDM and its benefits for citizens, such as easy online access to all medical investigations, and clinical history. It would also be beneficial to make use of telemedicine, providing patients online consultations with a physician or surgeon from a public hospital who can then issue a prescription according to the medical indications. This process of prescription validation by a public hospital doctor should be made mandatory in case of organ removal procedures and major surgeries, which are more likely to be abused.

Further, specific legal provisions to deal with cases of violation of medical ethics and patients' rights need to be defined in the context of public schemes. This is especially important in cases of fraud or inappropriate procedures, leading to the patient's impairment or death. One example is unnecessary procedures for organ removal because they are covered by a government package. Most developed countries have legal provisions for this purpose [49, 50]. However, such laws are missing in India, and even the Clinical Establishments Act, 2010, has been adopted by only four states so far. In India, a national health insurance law is needed, with specific provisions for action against ethical violations. This was one of the recommendations of the NHA-IRDAI (Insurance Regulatory and Development Authority of India) Subcommittee, but is yet to be implemented [16].

In this study, various types of unethical medical practices prevalent in public healthcare schemes in India were discussed, and a typology framework was defined for their classification. This framework is more suitable to understand and analyse these practices in the context of India and other developing countries with similar healthcare systems. The recommendations provided would help ensure that unethical medical practices are prevented, detected and deterred more effectively and efficiently.

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