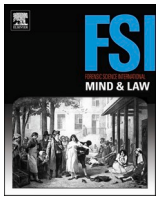
Forensic Science International: Mind and Law 3 (2022) 100074

Contents lists available at ScienceDirect

Forensic Science International: Mind and Law

journal homepage: www.sciencedirect.com/journal/forensic-science-international-mind-and-law



Forensic Psychiatry and Psychology

Situational analysis of Forensic Mental Health in Bangladesh

Sayedul Ashraf (Kushal), Yahia Md Amin, Md Shafikuzzaman Sajib, Zunayed Al Azdi *

LifeSpring Consultancy Limited, Bangladesh

ARTICLE INFO

Keywords:
Forensic
Mental health
Bangladesh
Medico-legal
Health system
Law
Prisoner
Criminology

ABSTRACT

Forensic Mental Health in Bangladesh is an unattended domain of mental health services. With about 17% of the population suffering from mental disorders per year and more than 80 thousand prisoners in the country, there have not been any studies to look into forensic mental health situations. This research has given an overview of the health and legal systems through qualitative research focusing on a desk review and key informant interviews. Findings show that though there are guidelines in the law and regulatory codes in the judicial systems, implementing those guidelines is not seen in many cases. There are several areas in the health system in terms of capacity, service and resources which needs to be addressed by the government for supporting the healthcare providers, lawyers, judges and mentally ill or disabled people. Our study also portrayed the current referral mechanisms connecting both legal and health systems while addressing different cases of forensic mental health. Finally, discussing the implications of the findings, we presented recommendations from our study and other literature.

1. Introduction

Bangladesh, the most densely populated country in Southern Asia, has achieved several achievements in health outcomes, such as increasing family planning, vaccination rates, and sanitation and decreasing maternal and neonatal mortality and deaths from communicable diseases (Directorate General of Health Services, 2018). However, mental health and related systems in the country are yet to progress further to ensure health and promote wellbeing for its 162 million population (8th largest in the world). While currently, 16.8% of adults suffer from mental disorders (Directorate General of Health Services, 2019), which is about 6% higher than the global prevalence (Dattani et al., 2021), Bangladesh is spending approximately 0.08 USD per capita on mental health, which is only 0.05% of its health budget (Directorate General of Health Services, 2018; World Health Organization, 2020).

With an estimated 260 psychiatrists (0.16 per 100,000 population), 700 nurses (0.4 per 100,000), and 565 psychologists (0.34 per 100,000), the mental health services are concentrated in major urban areas and highly dependent on a few hospitals in Dhaka - the capital city of the country. Moreover, with a widespread stigma among the people (Ahmed et al., 2015; Hossain, 2018; Islam & Biswas, 2015) and professionals (Barn, 2008) in the country, the accessibility to mental healthcare is low in general people (Firoz et al., 2006; Nuri et al., 2018). The situation is much worse for prisoners whose healthcare facility is often overlooked (Rahman & Ali, 2018). There are 67 prisons in Bangladesh in which the number of central jails and district jails are 13 and 55, respectively. The central jails are located in the divisional cities, and the capital city has four of those. The capacity of the jails in the country is about 42,450 prisoners, and the estimated incarceration rate is 48 (*World Prison Brief*, 2021). An estimate shows that about 80–90 thousand prisoners live in jails (Ferdousi Annual report of Ain O Salish Kendra, 2016).

With a pluralistic health system in Bangladesh (World Health Organization, 2015), all healthcare services are managed and supervised by the Directorate General of Health Services (DGHS) under the Ministry of Health and Family Welfare (MoHFW). The well-organized court system is a replica of the British judicial system, which was widely accepted in the original constitution of Bangladesh (Panday & Hossain Mollah, 2011), although it got freed from the British Empire more than six decades ago. Several laws, codes, and regulations address the health and wellbeing of the prisoners (The Bangladesh Jail Code; Bangladesh mental health act 2018; The penal code; The code of criminal procedure; The police Ordinace, 2007). However, very few studies (Every-Palmer et al., 2014; Mullick et al., 1998; Rahman & Ali, 2018) focused on the health situation of the prisoners in the country, and none focused on forensic mental health. Also, the communication mechanism for such cases between health care providers and judicial professionals has not been documented. The need to improve forensic mental health has been

* Corresponding author. LifeSpring Consultancy Limited, Union Heights, Level 6 and 14, 55 Panthapath, Dhaka, Bangladesh.
E-mail address: zunayedazdi@gmail.com (Z. Al Azdi).

https://doi.org/10.1016/j.fsiml.2022.100074
Received 3 August 2021; Received in revised form 31 January 2022; Accepted 11 March 2022
Available online 19 March 2022

long recognized in high-income countries (Cohen & Eastman, 2000; Nakatani, 2011). Forensic mental health is defined from legal and health perspectives. It is an area that addresses both assessment and outcomes of the mental illness and disorders with the help of the health system among the offenders identified by the legal system and ultimately determines the legal outcome based on the health outcomes of the individuals (Mullen, 2000).

Understanding the situation of forensic mental health in the country can benefit both health and legal systems to enhance the services, practice, and roles of the actors related to the systems. Our study thus aimed to capture the current situation of forensic mental health in Bangladesh, focusing on the rules, regulations, practice, gaps, and opportunities in both health and legal systems.

2. Methods

The study was a multi-method study comprising a desk review (Jesson et al., 2011) and a qualitative research method. For the desk review, we adopted a two-fold approach:

1) we searched a local online database named Bangladesh Journal Online, and two international databases called PubMed and Google Scholar,
2) we searched local websites for relevant laws, legal acts, and guidelines.

We found a few keywords repeatedly used the legal documents and literature. Therefore, the keywords we used for rigorous searching were 'forensic', 'mental health', 'psychiatric', 'prisoner', 'lunatics', 'jail', 'medico-legal' and 'Bangladesh'.

We followed the COREQ guidelines (Booth et al., 2014) to collect the qualitative data. Two of the authors (ZA and SS) interviewed five key informants: three from the health system and two from the judicial system. One of the interviewers was a full-time researcher at LifeSpring Consultancy Limited, trained in Public Health research, and the other was a Psychologist by training; both were male.

The respondents were selected purposively based on their relevant background, affiliation with the topic of interest, experience, and availability. They were contacted over the phone to communicate the research objectives and rationale and schedule the interview time. We used a semi-structured guideline as a tool for the interviews; the desk review informed the questions in the guideline, and we piloted the guideline with one psychiatrist. Three interviews were done face-to-face at the respondents' offices, and two were conducted over the Zoom platform. No repeat interviews were carried out. All interviews were digitally audio-recorded with the prior consent of respondents, transcribed, and coded. The characteristics of the participants are as follows:

RESPONDENT NUMBER	GENDER	AGE	WORK STATION	DURATION OF INTERVIEWS (IN MINUTES)
KII-1	Female	40	National Institute of Mental Health (NIMH)	56
KII-2	Male	45	Supreme Court	30
KII-3	Male	53	NIMH	55
KII-4	Male	39	District Judge Court, Bangladesh Judicial Service	45
KII-5	Female	35	Bangabandhu Sheikh Mujib Medical University (BSMMU)	30

We reviewed a total of 15 research articles and five legal documents for the desk review and extracted relevant data for analysis. The legal documents were as follows:

1. The Mental Health Act, 2018
2. The Code of Criminal Procedure, 1898
3. The Bangladesh Jail Code, Revised Edition, 2006
4. Penal Code, 1860
5. The Police Ordinance, 2008 Draft

We used the framework approach method (Pope et al., 2000) to analyze qualitative data from the interviews and conducted a thematic content analysis (ZA). After coding and developing themes (ZA, SK) from the transcripts, we moved towards the interpretation (ZA, YA).

3. Results

We presented the results based on the points that emerged from the desk review and the themes obtained from the qualitative data analysis. Existing laws and regulations and the classification of cases are described based on the review of the legal documents. Academic learning and studies or projects on forensic mental health are portrayed based on both desk review and thematic analysis. The major themes identified from the qualitative data analysis are public organizations and services, treatment procedures, cost of treatment, referral and reporting systems, security of cases, gaps, and recommendations regarding forensic mental health.

3.1. Existing laws and regulations

Several acts in Bangladesh address and mention cases related to forensic mental health. Different acts and rules mentioned forensic mental health cases in different terms. To present the findings from the review of legal documents, we have mentioned the terms precisely as they were used in the relevant document. For the rest, we referred to the cases as 'forensic mental health patients' while describing our findings from the interviews. A summarised view of the laws and regulations highlighting the key points is presented in Table 1 and described later in

Table 1
Laws and regulations in Bangladesh addressing forensic mental health.

Name of the law/ act	Addressed topic	Key points
Mental Health Act, 2018	Management of mental health patients and services	- Definition of corresponding terminologies - Precedence over other laws on related issues - Healthcare management, review and monitoring - Rights of mentally ill patients, admission procedure of them and those accused with a criminal offense, judicial inquiry, rehabilitation, guardianship and protection - Regulations for healthcare centers, fine, and penalty
The Penal Code, 1860	Consent of forensic mental health patients	- General rules for people with mental illness - Actions for harming people with mental illness
The Code of Criminal Procedure, 1898	Procedures for forensic mental health patients	- Judgment of acquittal on the ground of mental illness - Incapability of defense - Care of forensic mental health patients
The Bangladesh Jail Code	Detention, referral, care and protection of forensic mental health patients	- Management and referral procedure of forensic mental health patients in the jail - Reporting of such cases to the authorities
The Police Ordinance, 2008 Draft	Duties of police officers	- Regarding taking charges of people with mental illness

this section.

The latest law, namely Mental Health Act, 2018, was enacted by repealing the Lunacy Act, 1912 (Act No. IV of 1912). Lunacy Act was first introduced in England as The Lunacy Act 1845 (8 & 9 Vict., c. 100), and the County Asylums Act 1845 formed mental health law in England and Wales from 1845 to 1890. The Lunacy Act's most important provision was a change in the status of mentally ill people to patients; previously, they were prosecuted and usually treated as prisoners. In the act, "lunatic" meant a person of unsound mind. After more than a century, the latest act in Bangladesh addressed the duties and responsibilities of relevant actors for mentally ill and mentally disabled people befitting the current need as much as possible and mentioned them as 'nonprotesting patients' instead of 'lunatics'. According to the act, a nonprotesting patient would be the one who cannot give an opinion regarding treatment or admission due to mental illness or disability. It ensured health care, protection of dignity, property rights, rehabilitation, and overall welfare of persons suffering from mental health problems.

The penal code, which is the main criminal code of Bangladesh, is based on the penal code of the British Indian Empire enacted in 1860 by the Governor General-in-Council in the Bengal Presidency. No person within Bangladesh is punishable without the provisions under the penal code. Section 84 of the penal code, where general exceptions of punishments are mentioned, said that if a person cannot understand the nature of his/her act due to 'unsound mind', it would not be considered an offense. A similar rule is also mentioned in the Code of Criminal Procedure, which lays down the procedure for hearing, punishing, or acquitting an accused. It came into force on the first day of July 1898. However, regarding defense, section 98 mentions that any person has the same right of private defense against a person of an unsound mind, which he would have if the offender were someone with a sound mind. If any person abets in committing suicide of an insane or delirious person, the act is punishable with death or imprisonment of life, or imprisonment for a term not exceeding ten years, and shall also be liable to fine. Also, consent from any person with mental illness are not considered as per the code.

The Jail Code contains the rules for the superintendence and management of jails in Bangladesh. Its acts and regulations regulate the establishment and management of jails, the confinement and treatment of persons therein, including the mentally ill ones and the like, and the maintenance of discipline. When a mentally ill person is accused of criminal activity and detained, the rights of such persons will be followed as per the provisions mentioned in the jail code after detainment by authority or court.

Rules and regulations related to forensic mental health patients in the abovementioned documents are portrayed below:

3.1.1. Rights of mentally ill citizens

The mental health act states that the law requires the state to ensure the rights of treatment, property, dignity, and education for the people affected by mental illness. Also, the penal code says that nothing is an offense done by a person who, at the time of doing it, because of the unsound mind, is incapable of knowing the nature of the act unless the outcome of the act is causing grievous hurt or death. The penal code also mentions that anyone abetting the suicide of an insane person shall be punished with death or life imprisonment. The Code of Criminal Procedure states that if an accused person is found to have an unsound mind and incapable of making his defense, s/he can be released by the court or magistrate, ensuring proper security of the person and others and his/her appearance when required.

> "*If an accused person is seen to become unsound for a transitory period, then the court may direct to recover his soundness, and till that time the trial shall be postponed.*" [KII-4]

3.1.2. Treatment for mentally ill citizens

The mental health act also dictates that the government can build hospitals or units in the district hospitals to treat mentally ill people. It notably stated that there should be separate arrangements in such facilities for mentally ill persons who are addicted, under trial, or convicted. All health facilities in Bangladesh are built with permission from the Directorate General of Health Services (DGHS) under the Ministry of Health and Family Welfare (MoHFW), and they are responsible for monitoring those as well.

During treatment, any of the mentally ill person's parents is considered a guardian by the law. However, in the absence of parents, a relative can apply to be a guardian to the court, and the court will appoint the relative to be a guardian only if that is not considered harmful to the mentally ill person. The mental health act also says that a 'nonprotesting patient' can be admitted to a hospital with the permission of his/her guardian or relative. The act stated that the rationale of such a patient's admission would be reviewed by the mental health review and monitoring committee after every 28 days of the admission. After admission, a designated medical officer must decide within 24 h after assessing the patient's mental health.

The mental health monitoring and review committee is responsible for implementing the mental health act, 2018 in every district. The committee is formed with the District Commissioner (DC), Deputy Director of District Social Services Office, District Women Affairs Officer, a Psychiatrist or Psychologist designated by the DC and Civil Surgeon. Civil surgeons are doctors having the administrative authority to monitor and supervise the healthcare services of a district. Practically, it is the civil surgeon on whose authority the treatment or assessment of a forensic mental health patient is initiated; this is aligned with section 464 of the criminal procedure code. The court can also authorize a specific doctor or psychiatrist for the evaluation; this was evident by the following statement:

> "*When an accused person is said to have an unsound mind, then the court refers the case to the civil surgeon to assess whether the person has an unsound mind or if he is incapable of taking any defense to protect himself from the legal system. The court can also authorize a doctor or psychiatrist. Usually, where there is a medical college with a department of psychiatry, then a board is formed containing three members. They determine if the accused is of unsound mind. Then we call the doctor who assessed him or the board chairman to the court to testify how they assessed. The judges may not all understand the technical matters, but we get an explanation and analytical view to understand how severe the unsoundness is in the accused and if he is totally incapable of taking defense in any case. If the doctor confirms that he is incapable, then we either release the accused or postpone the trial so that after his recovery, we can re-trial.*" [KII-4]

One of the doctors involved in the process for a long time was asked about the assessment process during interviews, and he shared that a group of experts always decided the process, although the final decision was signed by the most senior, usually the head of the team. The doctor explained:

> "*We keep the patient under observation for some days, if needed, and go through their history, observe their behavior and ask them questions. We also check with the attendants or relatives, whoever is present. We get to be careful before we share an opinion. That is why a stay at the hospital is recommended most of the time.*" [KII-3]

For the admission of an unwilling patient (whose treatment is warranted but the patient denies receiving the treatment) to the health facility, permission to initiate the treatment can be obtained from either the patient's guardian or relative or a designated police officer, or a designated medical officer. Such a patient can be admitted for 72 h in an emergency ward of the facility under the recommendation of a designated medical officer. If a psychiatrist recommends, the patient can be

admitted for up to 28 days for treatment or assessment. A more extended stay will require permission from the review and monitoring committee. The law states that for immediate and prolonged treatment of unwilling patients, designated medical officers or psychiatrists or the committee must consider the health and security risks of the patient and the public along with considering suicidal tendency, the tendency of wandering around on the road and being violent.

A mentally ill patient accused of a criminal offense can be admitted to a hospital upon the order issued by a magistrate, called 'Reception order.' The rest of the rules for treatment and stay will be the same as mentioned above.

If a mentally ill patient is homeless or has no guardian or relative available, s/he can be transferred or sent to a nearby public mental hospital by a local government representative or a police officer of the local jurisdiction. The hospital will be responsible for treating the patient and sending relevant documents to the local government or police station office as soon as possible.

Any person who is a relative or guardian of a mentally ill person can apply to the court to assess the psychological status. The court then issues an order for a designated medical officer to assess and report the mental disability of the person within a designated period. When found mentally disabled, the court will issue an order for the person's treatment and maintenance of his/her belongings. In the absence of parents, the court can appoint a manager for maintaining the person's property who will be responsible for handing over the properties to either the owner released from the mental hospital or to his/her successors.

3.1.3. Punishment for negligence in treatment

Government can enter, visit, cease, fine and punish if the hospitals break any laws. However, any document related to a patient's illness cannot be ceased or published without the patient's or guardian's prior consent. If the license of any private hospital is canceled due to any offense otherwise not resolved, the hospital's authority will be responsible for transferring the patients to another hospital. After the treatment, the hospital is responsible for sending the person to the nearest social welfare center or rehabilitation center and follow-up treatment.

3.1.4. Punishment for falsification

Any health professional who has been responsible for treating a mentally ill patient is punishable by the law for intentionally falsifying any report.

3.1.5. Designated officers to handle forensic mental health patients

Jail code says that each of the central jails (n = 13) and district jails (n = 55) should have one Welfare Officer and one Psychologist, and a central jail should have an additional Sociologist appointed by the government. A sociologist should investigate the background of the prisoners, circumstances, and reasons for their misconduct, the success of rehabilitation and reformative programs in the post-release period. In addition, the psychologists must assist the prisons administration in classifying the prisoners that will help prison officials draw up training and customized treatment programs for individual prisoners for their recovery. Though the code does not mention who should recruit these professionals, usually, a welfare officer and a sociologist are recruited by the Ministry of Social Welfare, and psychologists are recruited by the Ministry of Health and Family Welfare (MoHFW). However, from our interviews with relevant officials, we did not find any evidence of jails having psychologists or sociologists or any classification mechanism; these findings are supported by a published research article on analyzing the barriers in prison administration in Bangladesh in 2018 (Rahman & Ali, 2018).

In reality, an appointed medical officer, appointed by the MoHFW, handles all the cases in jails. When the cases are referred to public hospitals or a particular mental hospital, the designated psychiatrists, psychologists, and nurses take care of the cases. If the court finds that the accused does not have any guardian during the treatment, it can refer the patient to a bigger mental hospital, ensuring the patient's safety and accommodation for as long as needed. After completing treatment, a designated social welfare officer is responsible for placing the person in a government rehabilitation center for cases without any parent or relatives.

> "*If there is any accused, who has no one to take his custody, then the court may order to continue his treatment in a hospital such as Pabna Mental Hospital, and the government will bear the cost. When the person gets well, they will let the court know.*" [KII-4]

The Pabna mental hospital, established in 1957, is the largest treatment facility for mental health patients, with about 80 acres of land and 500 inpatient beds.

3.2. Classification of cases in the documents

The jail code is the only document that classifies forensic mental health cases among all legal documents. The jail code, still in practice for the superintendence and management of jails and subsidiary jails, has a dedicated chapter (no. 33) that only talks about such cases, which were mentioned as 'lunatics', a term adopted from the previous British act in Bangladesh. It divided them into five classes under rule no. 1024 (mentioned as it is in the act):

I. **Class 1:** Persons who have not committed a crime and are supposed to be 'lunatics' placed under medical observation.
II. **Class 2:** Persons accused of a crime and supposed to be of unsound mind placed under the observation of the Civil Surgeon.
III. **Class 3:** Persons accused of a crime and found incapable of making their defense owing to unsoundness of mind and detained, pending government orders.
IV. **Class 4:** Persons who had committed a crime and have been acquitted on the ground of being insane when the crime was committed, detained, pending the orders of, or at the pleasure of, government.
V. **Class 5:** Prisoners who have become insane after their conviction and admission into jail.

Persons of class (1) are called in the jail code as non-criminal 'lunatics'. Others are called 'criminal lunatics' in the jail code. Class 1 to class 3 and class 5 'lunatics' can be either nonprotesting, unwilling, or mentally disabled. Class 4 'lunatics' are considered mentally disabled until they get better after treatment.

3.3. Academic learning on forensic mental health

There are no separate courses for learning forensic mental health in the country. However, according to the psychiatrists we interviewed, forensic psychiatry is taught in the curriculum for the degrees of Doctor of Medicine (MD), Fellow of the college of physicians & surgeons (FCPS), and Master of Philosophy (MPhil). In our desk review, we found that forensic psychiatry has been listed for teaching in the forensic medicine course in the Bachelor of Medicine, Bachelor of Surgery (MBBS) curriculum. However, only 3 h were allocated for teaching it in the curriculum published in 2002, which later increased to 4 h in the updated curriculum in 2012. Topics included in the MBBS curriculum are "Types of Mental disorders, lucid interval, testamentary capacity, Criminal responsibility of an insane person, Diminished responsibility, True insanity and feigned insanity". Later in 2012, 'Important terms of Forensic Psychiatry' and 'Civil & Social responsibilities' were included as teaching topics.

> "*To make a separate course, some efforts are being seen to start a short course such as a six-month or one-year long course by any foreign institution. But, at the moment, there is no such course in the country managed by the government.*" *[KII-1]*

On further investigation, we found that a local NGO worked with some foreign organizations to introduce an online course on forensic mental health for psychiatrists and lawyers. In addition, a few meetings had been organized with the psychiatrists working on forensic psychiatry before the COVID-19 pandemic.

In the MD course, students learn about forensic mental health from the book '*Shorter Oxford Textbook of Psychiatry*' in which there is a chapter on Forensic Psychiatry. The chapter covers general criminology, causes of crime, the association between mental disorder, specific offender groups, psychiatric aspects of specific crimes, psychiatric aspects of being a victim of crime, the role of the psychiatrist in the criminal courts, the treatment of offenders with mental disorders, the management of violence in health care settings, risk assessment, and psychiatric reports. However, one of the respondents mentioned that they did not emphasize the chapter.

"*We had a chapter on this topic during the MD course, and there would be a question in the exam form that chapter which we would have to answer to pass. That is all we had to do about forensic psychiatry.*" [KII-5]

Although there has been no regular formal training in the judicial system, before joining, the judges and magistrates receive classes from the psychiatry professors that cover mental health topics rather than forensic psychiatry. For example, one official from the National Institute of Mental Health (NIMH) mentioned:

"*Our professors sometimes take classes of magistrates and judges before joining the judicial system. They have 'mental health' on their curriculum.*" [KII-1]

A member of the supreme court of Bangladesh mentioned that a few judges were selected to go to Australia for training on forensic evidence as a part of judicial capacity building; however, he could not confirm that forensic mental health was included in the training.

3.4. Studies or projects on forensic mental health

From our review and the responses from the interviews, we did not find any research work focused on forensic mental healthcare services or care in Bangladesh. However, we found references of a few research works on forensic psychiatry cases in the prison population and those referred to mental hospitals, mainly focusing on their psychiatric disorders, profile, and morbidity. Most of those studies were published in a local journal named Bangladesh Journal of Psychiatry and are not publicly available. One study published in 1998 found that 91% of the referred prisoners had psychiatric disorders, and patients with severe psychiatric disorders were found to be accused of severe crimes (Mullick et al., 1998). The study did not mention the treatment or referral history.

A situation analysis of mental health and the health systems in Bangladesh in 2015 mentioned the number of inpatient beds available for forensic mental health patients in the country which was only 15 (Islam & Biswas, 2015). A correspondence on Necrophilia in a forensic morgue staff in Bangladesh published in July 2021 (Bose et al., 2021) referred to the gaps between mental health assessment of the rare cases and the trial process. According to the authors, in this particular case, the accused was not referred to be assessed for having an 'unsound mind' before sending him to jail, indicating disapproval of the mental disorder he had.

We could not find any projects done on forensic mental health in the country; this was also reflected by the statement of one professional from the judicial system:

"*To my knowledge, there is not much work done on forensic mental health in the country. In the present legal system, the practice on it is very scarce. I mean, it is not institutionalized anywhere; this is a new topic to many.*" [KII-2]

3.5. Public organizations and services on forensic mental health

Only one hospital in Bangladesh, named the National Institute of Mental Health (NIMH), has a dedicated forensic psychiatry department delivering inpatient and outpatient services. It is a tertiary care hospital located in the country's capital city. Another one named Bangabandhu Sheikh Mujib Medical University (BSMMU) Hospital also provides extensive services to forensic mental health patients though it does not have any dedicated department for the service. Also, 36 public medical colleges in the country have a Psychiatry Department and can provide services under forensic mental health. However, some cannot provide assessment reports due to not having any professors in Psychiatry or enough resources on their premises to form a medical board which was evident by the statement of one academician and practitioner of NIMH:

"*But in some places, due to not having a professor or enough number of Psychiatrists, sometimes the service … I mean, giving the reports becomes difficult. Nonetheless, treatment is provided at every medical college as most have psychiatrists, so patients of forensic psychiatry get the treatment.*" [KII-1]

Therefore, it indicated that reports or decisions on a forensic mental health case were preferred to be made by a formal board of experts or a professor for presenting in the court. With the cases referred from the country's judicial system, the forensic psychiatry department of NIMH also takes care of mental health patients referred by the corresponding authorities from other public service organizations such as fire services, law enforcement agencies, educational institutions, and banks. It also deals with mental disability and mental illness cases, especially when an authority or government asks for an assessment of the ability to work and evaluate their need of receiving a pension or public allowance. One of the respondents shared that the police sometimes refer homeless wanderers to the forensic psychiatry department of NIMH for psychological evaluation and reporting. In addition, many homeless wanderers who are mentally ill or disabled are referred to Pabna mental hospital, a 500-bed hospital to treat mentally ill cases.

"*There are medical college hospitals with psychiatry departments where they can be treated, but when we consider rehabilitation or residence for such cases, then there is only the one in Pabna.*" [KII-4]

Besides the mental hospitals under the Ministry of Health and Family Welfare (MoHFW), there are six Shelter Homes, six Safe Homes and Centers for Homeless wanderers for adults, 13 Children's Training and Rehabilitation Centers, and three Children Development Centers for children and adolescents under Social Welfare Ministry to which forensic mental health patients are often referred. A mentally ill or disabled person is referred to these centers in three cases: 1) when there is none to take care of the person, such as homeless people, 2) when their punishment period is over, and they have no parents or relatives to go to, and 3) when they are minor (a boy or girl below 18 years old) and in contact of law.

3.6. Treatment procedures

At the public medical colleges and NIMH outpatient department, psychiatrists can provide treatment to forensic mental health patients. However, only 15 forensic inpatient beds were available in NIMH for admitting such cases; this number has reduced to ten – eight for males and only two for female patients during the pandemic. The respondent from there mentioned:

"*The beds are always full. Usually, a patient stays in the wards for about two weeks on average. Thus, we are serving 16 male patients and about four female patients each month. Besides these, every day, we see five to ten cases at the outdoor (*outpatient department*)*." *[KII-3]*

Treatment usually starts after a patient is referred to the mental

hospital. According to the jail code, medical observation can be done in the cells by the medical officers. A case can only be transferred to a mental hospital when the Medical Officer certifies that s/he is mentally and physically fit to travel safely. Every precaution should be taken to secure that the patient is cared for while in transit to the Mental Hospital. According to NIMH officials, patients are referred from jails without in-depth investigation.

"*In these cases, they usually refer when they find any abnormal behavior in the prisoner. We consider the observation notes. However, the quality of those observation notes is not satisfactory. We find similar observations for most of the patients such as 'patient is depressed', 'patient does not eat' etc.*" [KII-3]

At NIMH, after receiving a patient, the patient is first assessed by an assistant professor or associate professor, then kept under observation for one or two days; if the diagnosis cannot be confirmed, then a board is formed to assess and discuss and diagnose the case. Rarely, the court or the Directorate General of Health Services suggest having someone particular on the board.

"*An external board sometimes creates difficulties such as the patient may have to stay longer. It also gets difficult for us because we have a lack of psychiatrists.*" [KII-3]

Before releasing an inpatient from the mental hospitals, doctors write on the discharge paper about the medications, treatment rules, pieces of advice, and follow-up schedules in the native language. Patients are interviewed by the doctors when they come to follow-up to know about their adherence to the treatment. From the interviews, it was evident that a case can be referred to the mental hospital multiple times because of relapse, which may occur for various reasons.

"*We cannot keep a patient admitted for a longer period because the numbers of beds are limited, and patients are always coming for admission … Sometimes there are treatment-resistant cases that may not be improved, and also, we do not know how the patients are taken care of in jails, and if s/he receives the medication properly, that may also be a cause for relapse.*" [KII-1]

The treatment depends on the condition or disorder of patients in all cases; however, their destination after successful treatment differs. Such as, a convicted criminal will be continued on trial or be imprisoned or receive capital punishment (death or life sentence) after successful treatment. For the cases of not being guilty because of mental illness, treatment may continue with the consent of the parents or caregivers. Mentally disabled cases, nonprotesting and unwilling patients with no criminal records are either handed over to their parents and relatives after the treatment or transferred to a rehabilitation center in case of their absence.

3.7. Cost of treatment

Every service available at the public hospitals for forensic psychiatry patients is delivered free of cost. The inpatient beds are also non-paying services in NIMH.

3.8. Referral and reporting system

Patients of forensic psychiatry are referred to the public hospitals in four ways:

1) the court or magistrate directly sends patients who are not fit for trial to the hospitals and issues orders for treatment,
2) the jail authority refers an offender who is on trial or detained in the jail to the hospital,
3) the central police hospital and hospitals outside the capital city refer patients to the public medical college hospitals in Dhaka or NIMH via the magistrates, and
4) the local administration, police, or court can refer patients directly to mental hospitals (see Fig. 1).

A referral and service flow mechanism is shown in Fig. 2, depicting all major actors in both judicial and health systems. The jails refer patients to mental hospitals for two purposes: receiving treatment or getting assessed if they are fit to testify.

Patients outside the capital city are referred to the public hospitals in Dhaka when local medical college hospitals do not have any psychiatry professor or cannot form a board to decide about the patient. Also, the hospitals might not always have an appropriate security system for the offenders or accused prisoners, making them refer cases to the capital city as per one of the respondents.

"*The old medical colleges did not have any professor on Psychiatry until recently; the associate professor was the highest position.*" [KII-3]

The jail authority also refers the patients via the medical officer of jail, a government-appointed physician responsible for overseeing the health issues of the imprisoned population. No psychiatrist or psychologist is appointed to the jail, which is evident by the following statement:

"*Those who work there are, of course, government officers; some may be BCS officers, and some may work under a project, also sometimes, the home ministry of the government appoints medical officers there. However, as far as I know, there is no psychiatrist there, nor do those medical officers have any psychiatry training.*" [KII-1]

"*There is a high possibility that the medical officer recruited in the Jails are not experts in psychology or psychiatry; they may be a general physician or expert in other health problems, but not on mental health.*" [KII-2]

According to the Jail Code, magistrates, an official entrusted with the administration of the laws, can order medical officers of jails to report the state of mind of a supposed mental health case sent to jail for observation. The Superintendent of the jail ascertains from the medical officers whether, in their opinion, it is necessary to take any special precautions to prevent the supposed case from doing injury to himself or others. The Superintendent will then ensure that necessary precautions are taken (Rule 1025, Jail Code). Detention of a non-criminal supposed mental health case cannot exceed ten days and is supposed to be under medical observation. However, if the medical officer certifies the necessity of further detention, then a Magistrate or the Commissioner of Police can authorize the extension of the detention up to a maximum period of thirty days from the date of the first order of detention. After the authorized period, the Jail Superintendent (key position in Jail administration whose principal duties are custody and guarding of the prisoners) is responsible for informing the magistrate and asking for a release order or order to transfer to the mental hospital. If the order is delayed for more than seven days, the Superintendent is responsible for reporting the issue to the Inspector General of Prisons for necessary action (Rule 1026, Jail Code). This rule also applies to the criminal forensic mental health cases of class (1) and class (3) (Rule 1028).

Non-criminal forensic mental health cases are not included in any statistical records relating to jails. The court under whose warrant they are received should provide all the relevant costs (maintenance and clothing, transfer to a Mental Hospital) (Rule 1027, Jail Code). However, twice a year, the Superintendent needs to forward a report to the Inspector General, in respect of each of the forensic mental health cases in his custody, showing the states of their physical and mental health at that time and during the interval since the previous report was submitted (Rule 1045, Jail Code).

If any prisoner without mental disorder begins to show symptoms of

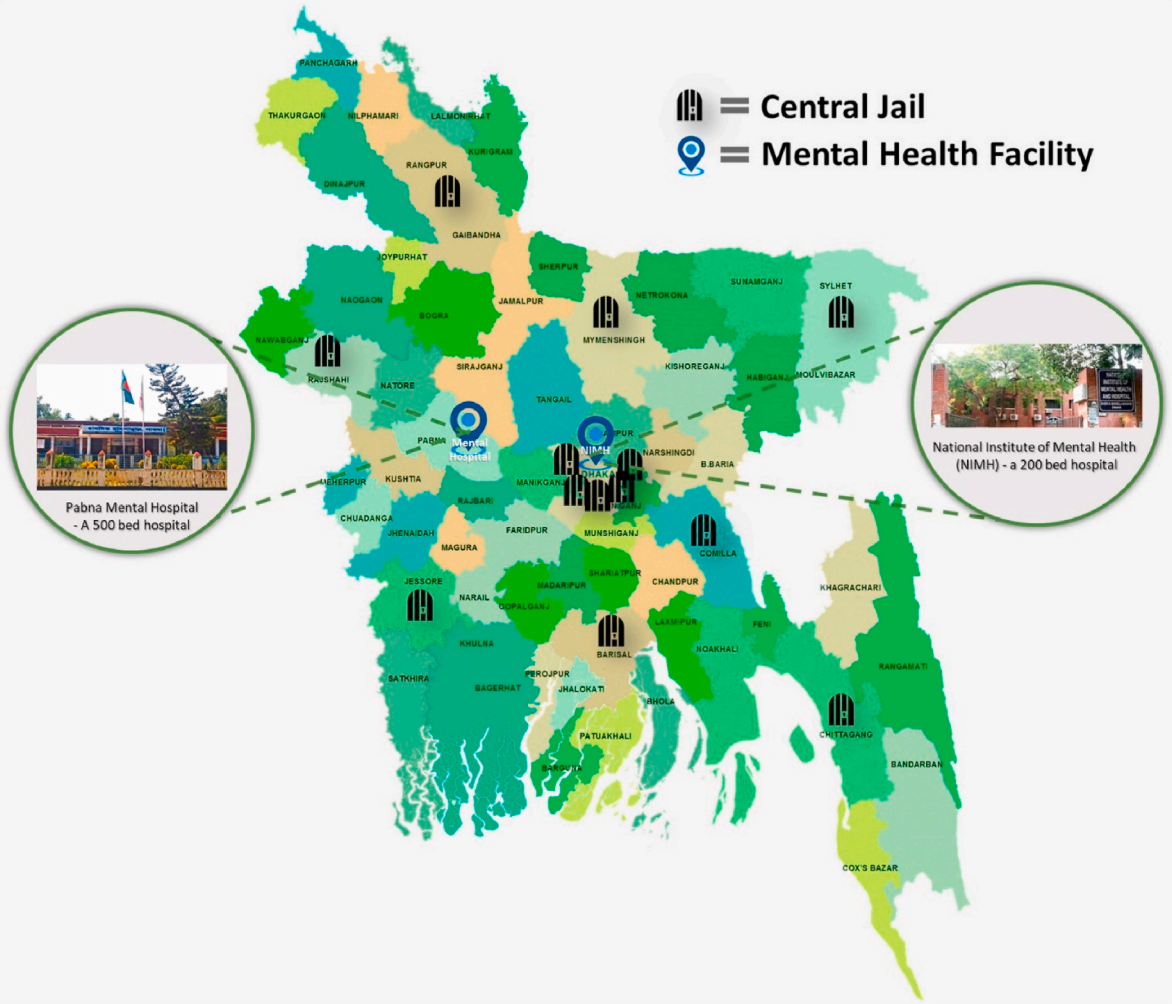


Fig. 1. Mental health facilities and central jails in Bangladesh.

mental health distress which, in the opinion of the Medical Officer, are not feigned, the Superintendent of the jail can put the prisoner in a separate cell for medical observation (Rule 1029, Jail Code). If not found to be harmful to own or others, then the cases of classes (1) to (4) may be detained either in the jail hospital or in the under-trial prisoners' ward at the discretion of the Medical Officer. Upon confirming the disorder, the Superintendent submits a report to the Inspector General, with the view of obtaining the orders of government for his transfer to a Mental Hospital (Rule 1030, Jail Code). The Jail authority is responsible for taking every precaution to properly care for the mentally ill prisoner while in transit to the medical hospital. Before dispatch, a medical officer must certify that the person is mentally and physically fit to travel safely (Rule 1031, Jail Code). The procedure of the assessment is not mentioned in any case. However, in Rule 1035, it was mentioned that while the assessment, the medical officer should carefully record any disability or marks of violence exhibited by such a person. Female forensic mental health cases must always be accompanied by a female warden or attendant (Rule 1033, Jail Code). With every case transferred from a Mental Hospital to jail, or vice versa, full details of his medical history up to date shall be forwarded (Rule 1043, Jail Code).

In our exploration, it was unclear if the referral system mentioned in the jail code is practically followed and when the cases are referred to the mental hospital from the jails. This was affirmed by the following statement of the senior psychiatrist in the National Institute of Mental Health when the rules of the jail code were mentioned:

"*The examples you are giving are probably from the other countries or any developed country, that they can assess or decide whether the treatment of such cases will continue there or in mental hospitals and whether in the outpatient or inpatient setting. However, in our country, they do not have such training to my knowledge. Although we regularly train some of the doctors from different sub-districts on mental health with the help of DG health (Directorate General of Health Services - DGHS), those at the primary healthcare setting. So, if anyone reaches them, they can assess and refer appropriately. Such training sessions are conducted with the initiatives from DG Health; some of those are for three days, some for six days, and some last longer than that. We orient them on mental health. Now, among the trainees, there may be doctors from the jail. Otherwise, jail doctors may have received such training when they worked in the sub-district level. But those who deal with such cases from there, I mean those who work in the jail hospitals or police hospital, we have not got them in our training sessions on mental health or forensic psychiatry.*" [KII-1]

Besides, the jail hospitals are usually primary treatment facilities located inside the jail where inmates are taken when required and mostly equipped with nurses and pharmacists. There are only 11 jail hospitals in the country (Banu et al., 2010), and reportedly, a total of 9 doctors are available for almost 90,000 inmates (Khan & Mollah, 2019). Sixty prisons with no doctors refer all types of patients to the central jail in the capital city, a 172-bed hospital equipped with only 2 doctors. It was known from the interviews that forensic mental health patients are commonly referred to the mental hospitals by the central police hospital, which is a discrepancy to what is stated in the jail code. However, it is

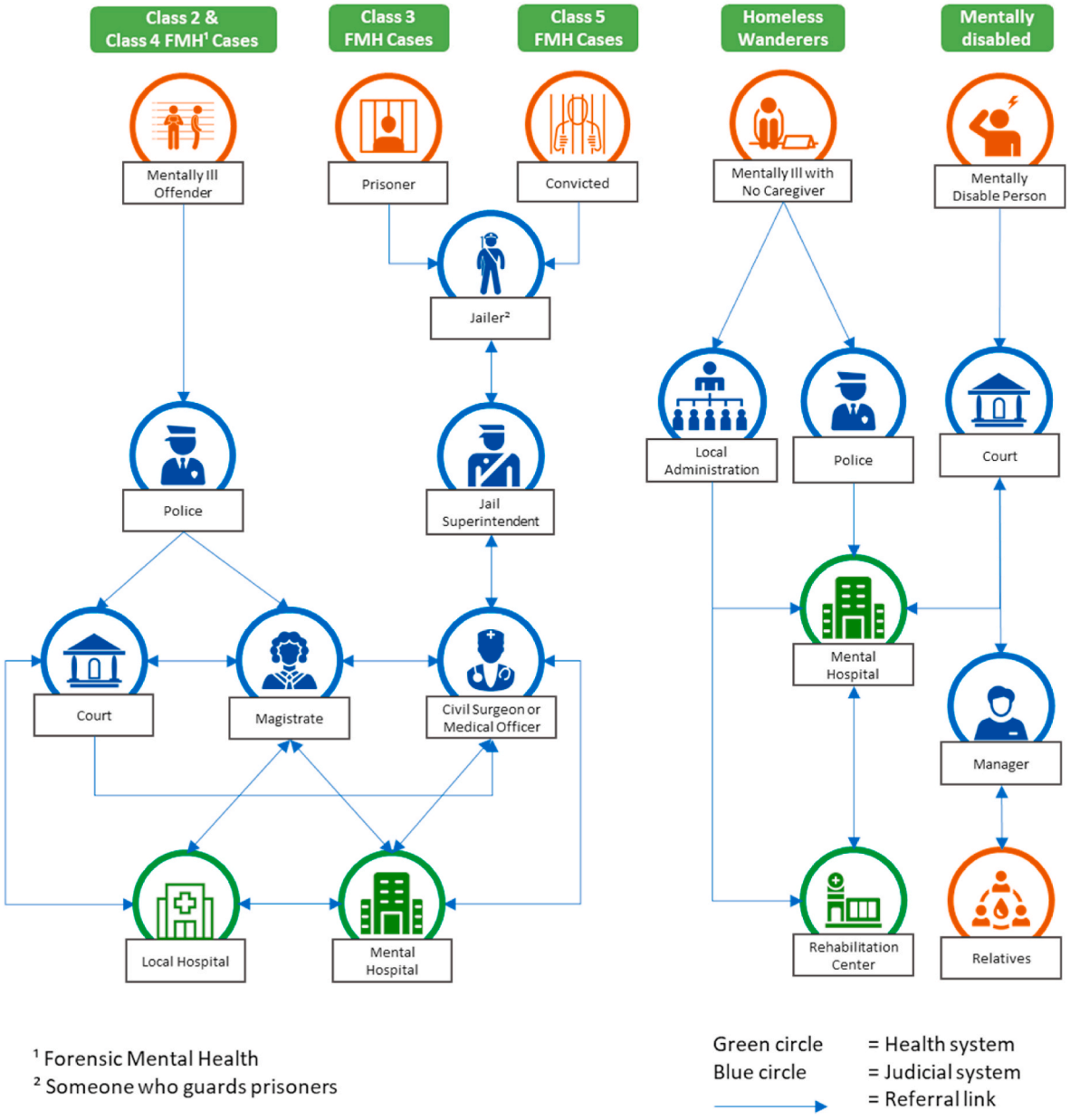


Fig. 2. Referral flow in the forensic mental health service in Bangladesh.

unclear when and how they are referred to the central police hospital, a 250-bed hospital in the capital city in Bangladesh.

> "*We constantly get such cases: that someone in the jail shows symptoms, they take them to the central police hospital, members in the police force are also referred to us directly from there when they show any such symptoms.*" [KII-1]

Different documents are used to refer a patient, such as 'outdoor tickets' or 'emergency tickets' (usually, referral slips used to refer patients containing basic information of the patient) from the hospitals, official letters from the concerned authority, and letters with signatures from the concerned medical officers.

For reporting, the hospital is commonly responsible for sharing the diagnosis and treatment details in a form or discharge paper to whoever as an authority referred the case. The form or the discharge paper is signed by the head of the board member or a senior doctor with his/her name on it. Thus, doctor confidentiality is not maintained in this procedure. Furthermore, we found no digital record of the procedure maintained in the hospital facility. For such practice, doctors and healthcare professionals follow the Bangladesh Medical and Dental Council (BMDC) code, which "*is not a substitute for the provisions of legislation and case law. If there is any conflict between this code and the law, the law takes precedence.*" The code protects patients' privacy and right to confidentiality unless the release of information is required by law or by public-interest consideration even after the patient's death (Bangladesh Medical & Dental Council, 2010). However, nothing is mentioned about such rights for forensic mental health cases in Bangladesh's code of criminal procedure except that the reporting doctor or their authority can be a deponent, and the deposition will be taken in the presence of the accused by the magistrate or a commission. The penal code does not mention medical confidentiality for forensic cases as well.

3.9. Security of forensic mental health patients

According to rule 740 of the jail code, a strict watch shall be kept over all prisoners confined in cells to prevent them from committing

suicide or injuring themselves. It also states that every forensic mental health case, suspected mental health case, or prisoner suspected of suicidal tendencies under medical observation in cells shall be carefully watched both by day and night.

"*If it is observed that the accused person may be harmful to himself or others, in that case, he can put in a confined place such as in a mental hospital, and when it is found that he has recovered from his illness, then he will be brought back to court for re-trial. As per the criminal law in Bangladesh, this is the usual procedure.*" [KII-4]

A prisoner who is sent to a cell for medical observation shall be frequently visited by the Warder on duty, who shall send information to the Medical Officer of any change which may take place in the prisoner's condition. When the prisoner is under observation, he shall receive such food as the medical officer considers necessary.

According to rule no. 1232 (1) a prisoner will be documented in the hospital register only if s/he is under medical observation or treatment for more than 48 hours. However, forensic mental health cases, who can harm themselves or others, are not put in the hospital rather than kept in separate cells (rule no. 1038 and 1239).

3.10. Gaps and recommendations

Forensic mental health is not focused in the academia of Bangladesh as a separate discipline of medicine or psychiatry. Also, as the development of the mental health sector is relatively new in Bangladesh, experts believe that it will take time to focus on forensic psychiatry in medical colleges.

"*If the field of psychiatry is developed, we can expect forensic psychiatry to develop as well. Currently, there are only four Professors in Psychiatry in the public medical colleges. Very recently, eight positions for the professor in psychiatry have been created; this will help develop the field hopefully.*" [KII-3]

The respondent, a senior professional at NIMH, also shared that students were reluctant to take higher degrees in Psychiatry because of the stigma and dilemma of having a secured career, meaning they would not earn much. The dilemma also came from the stigmatizing notion of both the service recipients' and colleagues' as they often considered psychiatrists the 'doctor of crazy persons'. However, he adds that the situation is changing these days, and people are now aware of psychiatrists' need for their wellbeing.

Also, as the services regarding forensic mental health are centralized and mainly capital-based, only six public hospitals in the capital city manage the cases referred from all over the country.

"*We should increase the number of psychiatrists and psychologists and thus increase the access to mental healthcare so that people can avail the services regarding forensic psychiatry wherever they are.*" [KII-1]

Presently, hospitals in the capital city receive cases from cities located at the farthest corner of Bangladesh. Such cases are first referred to the central jail, after which they reach the hospitals in the city referred by the jail. The interviewed professionals considered this a lengthy and time-consuming process that needs to transfer patients to central jail and then to the mental hospitals. Therefore, they recommended that the services on forensic mental health should not be centralized and be expanded all over the country. According to them, this can be done by increasing psychiatric nurse practitioners, occupational therapists and rehabilitation professionals.

"*We should increase the forensic psychiatry services in the hospitals outside Dhaka so that they do not have to come to Dhaka directly when admission is needed. Also, it would be easier if training or short-course could be arranged on forensic psychiatry for the providers in jail hospitals and central police hospitals so that they could at least provide primary mental health care services.*" [KII-1]

According to the respondents from the judicial side, mental health is itself a non-prioritized issue in the judicial system. There is no specialized focus on mental wellbeing for the offenders, accused, or convicted individuals.

"*If we look into the children welfare centers, that is not a jail; a reformation center. But those also do not focus on mental health; they do not usually have any guidance from experts to help them gain cognitive development. There should be such assessments and quality service. These are not available there; I have not found any … We have seen some occurrences recently in a center where the adolescents revolted against the Superintendent; that resulted in another criminal act, right? That is why I think that they are not properly taken care of.*" [KII-2]

NIMH officials thought that the government could introduce short courses or training for relevant providers if officials shared their recommendations in different forums to facilitate such an approach. Healthcare providers think forensic psychiatry should be included in the MBBS course curriculum and emphasized more in the MD, FCPS and MPhil courses. Also, they suggested that collaboration between judicial service providers and health providers could bring out such initiatives or training programs as an outcome.

"*We have to go to court to testify cases, and what happens there is that we have to make the advocates and judges understand every word, even with spelling. That is why I feel that we must make some liaison to share knowledge that can reduce both sides' cost and time. Sometimes we see that the people on the legal side have preoccupied ideas that 'mental cases' would be like crazy all the time, and they do not want to understand that there can be other forms of expressions for patients with mental disorders.*" [KII-3]

"*Both sides should be oriented on related topics. This is because lawyers do not know much about the disease and severity of those. Also, doctors do not know much about the judicial system. Short training sessions arranged by both sides can help, and we can see positive changes within a short period.*" [KII-5]

The feeling is mutual in both the health system and judicial system that different actors in the legal system should have a certain level of understanding of forensic mental health. However, the respondents thought that the policymakers might not know well about judges' and magistrates' needs regarding forensic mental health.

"*The technical terms they use in the assessment report are not easy for us to understand. So, it is tough for me and others like me to get these. So, I think here lies a problem in the system. … I think that as there is a definitive guideline for law implementation, the authority may not be much aware or concerned about the fact that these technical terms are creating issues while trial or interrupting decision making.*" [KII-4]

"*The judge, lawyers and police should know this matter. Otherwise, how would they know if what the doctors have certified is right or wrong? When they do not have any orientation on the mental illness, it is normal that will not understand most of the assessments.*" [KII-2]

It was opined by the respondent that for training on forensic mental health, the home ministry could include the topic in the police training. The ministry of law, the supreme court, bar council, and Bangladesh Judicial Administration Training Institute can come forward for the lawyers and judges.

"*In my 13 years of career in the judicial system, I have received many training programs. But so far, I have seen, any training on mental health is not provided. This is of course needed, and maybe the Directorate of health can take any initiative, then it will be beneficial for the judiciary as well as for the people of the country.*" [KII-4]

There are opportunities to work with the juveniles in the rehabilitation or welfare centers to provide them with psychological support and education to facilitate their upbringing, learning, and wellbeing, ultimately preventing antisocial behavior and further crimes. Most of the respondents agreed that more psychiatrists and psychologists could engage in children's development in the rehabilitation centers. Also, the monitoring and supervision are suggested to be protocol-guided and subjected to performance evaluation.

> "*The social welfare officers are liable to the judicial system, but that is ineffective. I always say that any Standard Operating Procedure (SOP) does not control their activities. There should be a separate protocol, performance review. We do not know if the officers guide them properly or work with an antipathic mind. You have to have certain skills like psychological or motivational skills; I am not sure if social welfare officers have those.*" [KII-2]

Also, two of the respondents shared that public awareness of psychiatric diagnosis can prevent casualties and crime.

> "*We can see that many offenses can be prevented if people are properly educated and aware of psychological disorders.*" [KII-5]

3.11. Case examples

We found some forensic mental health case examples from the respondents, which illustrated the diversity of referral authorities involved in those cases. The diversities were based on the nature of the occurrence of the cases. The anonymous forensic mental health cases are mentioned below in brief:

1. A death-sentenced prisoner who was a senior citizen was referred to a mental hospital in the capital city several times by the prison authority and had continued to come for treatment for about five years. [KII-1]
2. A person who was an Indian and found to cross the border to enter Bangladesh was referred by the police to a mental hospital in the capital city; however, the person's language and culture were unknown and thus, created issues during treatment. [KII-1]
3. A police officer murdered his wife and was referred by the court to the hospital. The officer was later found to think his wife was unfaithful and was diagnosed with delusional disorder. [KII-3]
4. A female murdered her little daughter, thinking of her as evil and raped by the devil. She was referred to the hospital by the magistrate. The female developed the side-effect symptoms of some steroid drugs and used to hear voices, get a foul odor from her daughter's body, and eventually suggestions to kill her. [KII-3]
5. A male accused of drug abuse claimed to have insanity and was referred to a medical college by the court. The primary assessment was that the accused had got symptoms of mental illness after being captured by the police but was not categorized as having an 'unsound mind' after a medical board assessed him. He was then sent to trial. [KII-4]

The hospitals always get forensic mental health cases whose outcomes are determined by the diagnosis and treatment done by the mental health professionals. However, not all outcomes are known to the health professionals because of the involvement of multiple actors from judicial authorities in handling the cases outside the hospital.

4. Discussion

The development of mental health services and policies is relatively new in Bangladesh. However, the government has taken initiatives recently to address the needs by introducing the mental health act, creating a National Mental Health Policy, and finalizing a National Mental Health Strategic Plan 2020–2030 (World Health Organization, 2020). Though the latter two policy documents were not public at the moment this paper was written, by our review of the Mental health act, 2018, it can be said that a broadened service provision would be considered in the upcoming strategic implementation of the policies. We have, however, included some future directions obtained from this study in Table-2.

The World Health Organization, long ago, suggested encouraging inter-sectoral collaboration and including the needs of prisoners in national mental health policies and plans (Information sheet: Mental health and prisons, 2005). Therefore, the local legal system's need to merge into mental health capacity-building strategies and training becomes imperative. The legal framework of Bangladesh has the fitness to plead, mental disorder defense and diminished responsibility like other countries with common law-based jurisdiction such as England, Hong Kong, India, Ireland, Scotland, Singapore and South Africa (Roesch & Cook, 2017). However, there are several issues to look into on the health system's side, such as the forensic beds per 100,000 adult population, the lowest (0.02 considering 15+ years as adults) compared with other low-and middle-income countries (Roesch & Cook, 2017). In addition, centralized psychiatric services and inadequate inpatient forensic units, issues identified in other studies on forensic mental health in other contexts (Barn, 2008; Firoz et al., 2006)., are marked as challenges by the key actors in health and legal systems of Bangladesh as well. Moreover, having a psychiatrist-bed ratio of only 0.01 and the nurse-bed ratio of 0.028 in the mental hospitals (Islam & Biswas, 2015) make the situation more challenging. To tackle such resource constraints, offenders with mental disorders are diverted to different hospitals in other countries (Every-Palmer et al., 2014). However, the common practice of referring offenders for evaluation to the capital city from all over the country cannot be a sustainable solution in Bangladesh. A reason for this reality might be the non-existence of functional health facilities in the district jails, as mentioned in the country's jail code (Rahman & Ali, 2018). An ideal solution can be implementing the recommendations by the World Health Organization to establish regular visits of community mental health team to prisons, ensure the availability of psychosocial support and medication, and training of care providers and prison staff to manage common mental health disorders in the prisoners (Information sheet: Mental health and prisons, 2005).

Findings from our study indicated that the doctors with only MBBS, whom the government recruits as medical officers, have elementary knowledge of forensic psychiatry from their academic curriculum. Therefore, academic learning on forensic mental health, identifying inmates with mental disorders, counseling, treatment, and judicial regulations can be included in the next update of the medical graduation curriculum. In addition, as medical officers of jails are the first assessors of most forensic mental health patients, their orientation and training to assess the patients properly can reduce the time and cost involved in

Table 2
Recommendations for improving forensic mental health in Bangladesh.

The Domains of forensic psychiatry	Future directions
Academy	It requires the inclusion of relevant judicial regulations in the medical curriculum and forensic psychiatry. Similarly, common medical terminologies and case studies need to be included in the academia of law professionals.
Health System	Needs to increase the number of health professionals in the prisons and mental health professionals in the hospitals. Also, the number of forensic beds needs to increase. Finally, referral mechanisms and reporting need to be digitalized.
Legal systems	Needs training of all existing professionals related to the trial process of forensic mental health patients. Also, the capacity of the prisons in terms of taking care of the mental health of the inmates needs to be developed.

referring and assessing the patients in mental hospitals. As the Jail code mentions, recruiting psychologists and classifying prisoners can also enhance the treatment and trial process. On the other side, training on mental illness and prevalent disorders for the lawyers focusing on criminal law and judges from the courts will enhance their decision-making process during criminal proceedings. Respondents in the present study attributed the relapse and recidivism of forensic mental health cases to the absence of continued psychiatric care, a concern seen in other contexts too (Nakatani, 2011). Furthermore, similar to our findings, legal experts lack the understanding of medical interpretations in other countries with even advanced legal systems (Canela et al., 2019; Math et al., 2015). All of these strongly validate the need to train relevant professionals of the legal system in Bangladesh on psychological wellbeing and social welfare.

There are plenty of examples in countries with advanced healthcare systems raising concerns about psychiatric practice in prisons (Bhugra, 2020; Fovet et al., 2020). However, in Bangladesh, there is no study among the prison population to assess the prevalence of their mental disorders. Although, the high prevalence among the referred patients (Mullick et al., 1998) already warranted such assessment among prisoners in scale. Moreover, the increasing number of prisoners in Bangladesh since 2014, currently reaching more than 80 thousand with an occupancy rate of 195.8% (*World Prison Brief*, 2021), makes them more vulnerable to mental illness (Bhugra, 2020) and validates the need to strengthen forensic mental health in the country.

5. Conclusion

This study is the first of its kind, providing an overview of forensic mental health in Bangladesh. With the findings and feedback from both health and judicial systems, we offer policymakers to revisit the existing policies and make necessary changes. Our findings might also help the planning departments of different ministries to understand the importance of capacity building and training programs. This paper should also encourage researchers and academicians to explore further the challenges and opportunities to improve forensic mental healthcare services in Bangladesh.

Author declaration

We wish to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.

We confirm that the manuscript has been read and approved by all named authors and that there are no other persons who satisfied the criteria for authorship but are not listed. We further confirm that the order of authors listed in the manuscript has been approved by all of us.

We confirm that we have given due consideration to the protection of intellectual property associated with this work and that there are no impediments to publication, including the timing of publication, with respect to intellectual property. In so doing we confirm that we have followed the regulations of our institutions concerning intellectual property.

We understand that the Corresponding Author is the sole contact for the Editorial process (including Editorial Manager and direct communications with the office). He/she is responsible for communicating with the other authors about progress, submissions of revisions and final approval of proofs. We confirm that we have provided a current, correct email address which is accessible by the Corresponding Author and which has been configured to accept email from zunayedazdi@gmail.com.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Declaration of competing interest

The authors declare no competing interest.

Acknowledgements

We want to thank Dr. Mekhala Sarkar, Associate Professor of Psychiatry at the National Institute of Mental Health (NIMH), for introducing us to one of the key informants for the study. We also like to thank Dr. Mahfuza Yasmin, Psychiatrist from NIMH, for sharing information about some local research done on forensic psychiatry patients.

References

Ahmed, S. M., Alam, B. B., & Anwar, I. (2015). *Bangladesh health system review. Health systems in transition*. Geneva: WHO Asia Pacific Observatory on Health Systems and Policies.

Bangladesh Medical, & Dental Council. (2010). *Code of professional conduct Etiquette and ethics*. Bangladesh medical and dental council. https://www.bmdc.org.bd/docs/EthicsBookMakeupfinal.pdf.

Banu, S., Hossain, A., Uddin, M. K. M., Uddin, M. R., Ahmed, T., Khatun, R., Mahmud, A. M., Hyder, K. A., Lutfor, A. B., Karim, M. S., Zaman, K., Khan, M. A. I., Barua, P. C., & Luby, S. P. (2010). Pulmonary tuberculosis and drug resistance in Dhaka central jail, the largest prison in Bangladesh. *PLoS One, 5*(5), Article e10759. https://doi.org/10.1371/journal.pone.0010759

Barn, R. (2008). Ethnicity, gender and mental health: Social worker perspectives. *International Journal of Social Psychiatry, 54*(1), 69–82.

Bhugra, D. (2020). Imprisoned bodies, imprisoned minds. *Forensic Science International: Mind and Law, 1*, Article 100002. https://doi.org/10.1016/j.fsiml.2019.100002

Booth, A., Hannes, K., Harden, A., Noyes, J., & Harris, J. (2014). *COREQ (consolidated criteria for reporting qualitative studies)*.

Bose, P. K., Arafat, S. Y., Shoib, S., & Reza, A. S. (2021). Necrophilia in a Forensic morgue staff in Bangladesh: Forensic psychiatric challenges and implications. *Journal of Affective Disorders Reports, 5*, Article 100158.

Canela, C., Buadze, A., Dube, A., Jackowski, C., Pude, I., Nellen, R., Signorini, P., & Liebrenz Rosenstock, M. (2019). How do legal experts cope with medical reports and forensic evidence? The experiences, perceptions, and narratives of Swiss judges and other legal experts. *Frontiers in Psychiatry, 10*, 18. https://doi.org/10.3389/fpsyt.2019.00018

Cohen, A., & Eastman, N. (2000). *Assessing forensic mental health need: Policy, theory and research*. RCPsych Publications.

Dattani, S., Ritchie, H., & Roser, M. (2021). Mental health. Our World in data. https://ourworldindata.org/mental-health.

Director General Health Services. (2018). Health Bulletin 2018. Ministry of health and family welfare, Government of people's Republic of Bangladesh. https://dghs.gov.bd/images/docs/Publicaations/HB%202018%20final.pdf.

Director General Health Services. (2019). Health Bulletin 2019. Ministry of health and family welfare, Government of people's Republic of Bangladesh. https://dghs.gov.bd/images/docs/Publicaations/Health%20Bulletin%202019%20Print%20Version%20(2)-Final.pdf.

Every-Palmer, S., Brink, J., Chern, T. P., Choi, W.-K., Hern-Yee, J. G., Green, B., Heffernan, E., Johnson, S. B., Kachaeva, M., Shiina, A., Walker, D., Wu, K., Wang, X., & Mellsop, G. (2014). Review of psychiatric services to mentally disordered offenders around the Pacific Rim. *Asia-Pacific Psychiatry: Official Journal of the Pacific Rim College of Psychiatrists, 6*(1), 1–17. https://doi.org/10.1111/appy.12109

Firoz, A. H. M., Karim, M. E., Alam, M. F., Rahman, A., & Zaman, M. M. (2006). Prevalence, medical care, awareness and attitude towards mental illness in Bangladesh. *Bangladesh J Psychiatry, 20*(1), 9–32.

Fovet, T., Thibaut, F., Parsons, A., Salize, H.-J., Thomas, P., & Lancelevée, C. (2020). Mental health and the criminal justice system in France: A narrative review. *Forensic Science International: Mind and Law, 1*, Article 100028. https://doi.org/10.1016/j.fsiml.2020.100028

Government of the People's Republic of Bangladesh. (2006). *The Bangladesh jail code*. Government Printing Press.

Government of the People's Republic of Bangladesh. (2018). *Bangladesh mental health act 2018*. Bangladesh. National Parliament https://www.mindbank.info/download_file/6788/0ecb21acb1b986e6d75e28bf64db23179c139955.

Hossain, A. (2018). Mental health disorders status in Bangladesh: A systematic review. *JOJ Nursing & Health Care, 7*(2). https://doi.org/10.19080/JOJNHC.2018.07.555708

Information sheet: Mental health and prisons. (2005). World Health Organization. Retrieved from: who.Int/Mental_health/Policy/Mh_in_prison.Pdf.

Islam, A., & Biswas, T. (2015). Mental health and the health system in Bangladesh: Situation analysis of a neglected domain. *American Journal of Psychiatry and Neuroscience, 3*(4), 57–62.

Jesson, J., Matheson, L., & Lacey, F. M. (2011). *Doing your literature review: Traditional and systematic techniques*.

Khan, M. J., & Mollah, S. (2019, September 17). 9 prison doctors for 90,000 inmates. The Daily Star https://www.thedailystar.net/frontpage/9-prison-doctors-for-90000-inmates-in-bangladesh-1801108.

Math, S. B., Kumar, C. N., & Moirangthem, S. (2015). Insanity defense: Past, present, and future. *Indian Journal of Psychological Medicine, 37*(4), 381–387. https://doi.org/10.4103/0253-7176.168559

Mullen, P. E. (2000). Forensic mental health. *The British Journal of Psychiatry, 176*(4), 307–311. https://doi.org/10.1192/bjp.176.4.307

Mullick, M. S. I., Khanam, M., & Nahar, J. S. (1998). Psychiatric Profile of the prisoners referred for psychiatric assessment. *Bangladesh Journal of Psychiatry, 12*(2), 69–75.

Nakatani, Y. (2011). [Treatment of offenders with mental disorders: Focusing on prison psychiatry]. *Seishin Shinkeigaku Zasshi = Psychiatria Et Neurologia Japonica, 113*(5), 458–467.

Nuri, N. N., Sarker, M., Ahmed, H. U., Hossain, M. D., Beiersmann, C., & Jahn, A. (2018). Pathways to care of patients with mental health problems in Bangladesh. *International Journal of Mental Health Systems, 12*. https://doi.org/10.1186/s13033-018-0218-y

Organization, W. H. (2015). *Bangladesh health system review*. Manila: WHO Regional Office for the Western Pacific.

Panday, P. K., & Hossain Mollah, A. (2011). The judicial system of Bangladesh: An overview from historical viewpoint. *International Journal of Law and Management, 53*(1), 6–31. https://doi.org/10.1108/17542431111111863

People's Republic of Bangladesh. (1860). The penal code, 1860. British Indian Empire http://bdlaws.minlaw.gov.bd/act-11.html.

People's Republic of Bangladesh. (1898). The code of criminal procedure, 1898. British Indian Empire http://bdlaws.minlaw.gov.bd/act-75.html.

People's Republic of Bangladesh. (2007). *The police Ordinace, 2007 Draft. People's Republic of Bangladesh*.

Pope, C., Ziebland, S., & Mays, N. (2000). Qualitative research in health care: Analyzing qualitative data. *BMJ British Medical Journal, 320*(7227), 114.

Rahman, M., & Ali, A. (2018). *An analysis on the real barriers of prison administration in Bangladesh* (Vol. 5, p. 5), 4.

Roesch, R., & Cook, A. N. (2017). *Handbook of forensic mental health services*. Taylor & Francis.

Sultana Begum, F. (2016). Annual report of Ain O Salish Kendra, 65 https://www.askbd.org/ask/wp-content/uploads/2018/04/Annual_Report_2016_optimized.pdf.

World Health Organization. (2020). WHO special initiative for mental health situational assessment. https://cdn.who.int/media/docs/default-source/mental-health/special-initiative/who-special-initiative-country-report—bangladesh—2020_f746e0ca-8099-4d00-b126-fa338a06ca6e.pdf?sfvrsn=c2122a0e_7.

World Prison Brief. (2021, March). https://www.prisonstudies.org/country/bangladesh.