

DESCRIPTIVE RESEARCH

Analysis the role of m-Health technology on psychological development of Bangladesh using TAM & UTAUT

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In Bangladesh (BD), mental health issues are prevalent, affecting across various ages and social statuses. Common mental health problems include depression, anxiety, and suicidal tendencies, often arising from factors such as family issues, joblessness, relationship troubles, and dowry-related problems. Studies indicate that the frequency of mental health issues in Bangladeshi people varies, but women are more likely to be affected than men. Sound mental health is a crucial determinant for a stable and fruitful life. In order to prevent mental health problem of BD, various mobile health (m-Health) technologies have emerged, offering essential services that help reduce healthcare disparities and enhance perceived health. The market for m-Health technology in BD is growing, and this paper aims to illustrate the impact of m-Health technology on the mental health development in the country using technology acceptance model. It also examines various factors related to psychological development in BD and the attitudes of respondents toward m-Health technology.

Keywords: health care informatics, TAM, mobile health technology, suicidal tendency, UTAUT, mental problem

Introduction

Mental health problems are a significant issue in Bangladesh, where a large number of individuals of different ages suffer from mental illness due to a shortage of mental health services. The causes of mental health problems in BD are due to a combination of various reasons, including inadequate mental health facilities, insufficient mental health care, stigma, panic, and insecurity.

Mental health care facilities in the country are limited. In recent years, mobile health (m-Health) technology has been introduced, significantly improving access to mental health support and solutions. This technology enhances the quality, accessibility, and affordability of mental healthcare. Unfortunately, societal stigma often leads individuals and families to avoid seeking help, but m-Health technology allows them to receive treatment discreetly.

The m-Health technology employs mobile devices to support healthcare services, including smartphones, tablets, wearables, and other devices. Well-known m-Health services in BD include Relaxy, Moner Bondhu, and the like. Relaxy is a locally developed app that connects users with mental health professionals, while Moner Bondhu offers online and in-person counseling, as well as a 24/7 crisis and emergency response helpline. These services aim to make mental health support more accessible and affordable for everyone in Bangladesh. Currently, BD has numerous mobile apps, online counseling platforms, and other services that play a significant role in addressing mental health issues.

m-Health is one of the digital solutions tackling health problems, and in recent years, people of BD have increasingly turned to this technology for medical support. However, the quality, accessibility, and affordability of m-Health technology for mental health solutions remain insufficient.

This research adopts the technology acceptance model (TAM) to evaluate the perceived benefits (PBs) and usefulness of m-Health technology for mental support. It also focuses on the attitudes of the people of the Bangladeshi population toward m-Health technology. In this research, the TAM framework helps to efficiently identify the relationships between various factors such as perceived usefulness (PU) and users' attitude toward m-Health technology, as well as the correlation between usefulness and the intention to use this technology.

Additionally, the research also discusses the role of m-Health technology in preventing mental health problems in BD and examines various factors associated with these issues.

This research was conducted from January 2023 to June 2024, adhering to ethical considerations to ensure the confidentiality and anonymity of all respondents.

Objective of the research

1. To evaluate the impact of m-Health technology on the physiological mental health development in Bangladesh.
2. To identify the association between PU, ease of use, and respondents' attitude toward m-Health technology.
3. To investigate the factors that contribute to mental health problems in Bangladesh.
4. To evaluate how m-Health technology provides discreet support for mental health patient due to societal stigma in Bangladesh.

Research question

1. To what extent is gender related to the types of mental health problems in Bangladesh?
2. To what extent does m-Health technology prevent mental health problems in Bangladesh?
3. To what extent is occupation associated with mental health problems in Bangladesh?

Literature review

In Bangladesh, over 6 million people suffer from depressive disorders, while 7 million experience anxiety disorders. It is estimated that more than 10,000 individuals die by suicide each year in the country. Among students aged 13–17 in Bangladesh, around 4% of boys and 6% of girls contemplate suicide.

This guideline addresses common mental health disorders in adults (18 years and older), including

depression (including sub-threshold disorders) and various anxiety disorders [such as generalized anxiety disorder, panic disorders, phobias, social anxiety disorder, obsessive–compulsive disorder, and post-traumatic stress disorder (PTSD)] (1).

Mental health issues are a significant concern in Bangladesh. Unfortunately, those with mental health conditions often do not receive adequate treatment, and mental health is not recognized as a serious public health issue. The prevalence of mental disorders is high across different population groups, which is compounded by negative societal perceptions. People with mental illnesses are often stigmatized and labeled as “mad,” leading to a poor reputation within society. m-Health technology provides discreet support to individuals experiencing mental health challenges (2).

The increasing number of mental health patients in BD can be attributed to several factors, including a lack of well-trained mental health professionals, shortage of public mental health facilities, limited financial resources, inadequately stewarded mental health policies, and social stigma.

Various forms of stigma against mental illness exist in BD such as self-stigma, public stigma, professional stigma, and institutional stigma. Self-stigma is a negative attitude of patients against themselves due to having mental issues. Public stigma toward mental patients is very common in Bangladesh; this denotes the general people's negative and discriminatory behaviors toward mental health patients, hindering their access to medical support. In this regard, m-Health technology is able to conceal the records of patients with mental illness and support them secretly (3).

Professional stigma indicates the negative and prejudiced attitude of patients, general people, or other healthcare professionals toward mental healthcare professionals due to their association with stigmatized patients, affecting their practice. So, through m-Health technology, mental healthcare doctors secretly prescribed to their patients. Lastly, institutional stigma is defined as the intentional or unintentional policies of an organization and negative attitudes toward mental patients that restrict the opportunities for them. m-Health technology can help conceal the identities of mental health patients and provide them with support in a confidential manner (3).

In Bangladesh, community care facilities for psychiatric patients are limited, and the BD government's budget for mental health care is minimal. Only a small percent of mental patients receive free essential psychotropic medications.

Recently, the Bangladeshi government has prescribed some mental health policies, such as

1. In 2018, BD Parliament approved a new Mental Health Act,
2. In 2019, the Ministry of Health approved a new Mental Health Policy.

There are several online counseling platforms available in Bangladesh such as.

1. Online counseling platforms: Offers virtual counseling sessions with mental health professionals.
2. Tele-psychiatry services: Connects mental health professionals with individuals seeking support or other services.
3. Centre for the Rehabilitation (CRP)-Ganakbari Day Center: Offers psychiatric consultancy, psychotherapy, counseling, occupational therapy, and more.
4. CRP-Mirpur Day Center: Offers professional mental health services on a daily and weekly package.
5. MindSheba: Offers therapy, counseling, and psychological assessments.
6. Esho Nije Kori: Focuses on developing the mental well-being of young professionals and youth.

m-Health technology uses mobile phones and other wireless technology to help with healthcare, such as tracking health, managing chronic diseases, and providing medical advice. The most common application of m-Health is the use of mobile devices to educate consumers about preventive healthcare services.

m-Health technology significantly influences mental health development by delivering accessible, convenient, and often discreet tools for self-management, symptom monitoring, and therapeutic interventions, allowing individuals to engage with mental health support more readily and consistently, particularly in situations where traditional access might be limited (4).

Key ways m-Health technology contributes to mental health development

Increased accessibility

Mobile apps and platforms can be accessed anytime and anywhere on a smartphone, making mental health support readily available to a wider population, including those in rural areas or with busy schedules.

Self-monitoring and tracking

Apps can facilitate self-tracking of mood, anxiety levels, sleep patterns, and other relevant mental health indicators, providing valuable insights for individuals and clinicians to monitor progress and identify potential triggers.

Evidence-based interventions

Many m-Health apps incorporate evidence-based therapies such as cognitive-behavioral therapy (CBT) techniques, mindfulness exercises, relaxation strategies, and journaling prompts, enabling users to practice coping skills at their own pace.

Personalized treatment plans

Apps can be tailored to individual needs, offering customized interventions and support based on specific diagnoses and symptom profiles.

Social support and connection

Some m-Health platforms facilitate peer-to-peer connections, allowing users to share experiences and provide support to one another, reducing feelings of isolation.

Examples of m-Health applications in mental health

Depression management apps

Apps such as “Headspace” and “Calm” offer guided meditations, breathing exercises, and mindfulness practices to manage stress and anxiety.

CBT-based apps

“Moodpath” and “Daylio” use CBT techniques to help users identify negative thought patterns and develop healthier coping mechanisms.

Anxiety management apps

Apps such as “Relax Melodies” provide soothing sounds and relaxation techniques to manage anxiety symptoms.

Mental health check-in apps

Platforms such as “Wysa” use AI-powered chatbots to provide immediate emotional support and check-in on users’ mental well-being.

Challenges and considerations

Data privacy

Ensuring user data security and privacy is crucial when developing and utilizing m-Health apps.

Accessibility and digital divide

Ensuring equitable access to m-Health technologies is important, considering limitations related to internet connectivity and device availability in certain populations.

Clinical validation and regulation

m-Health apps need to be clinically validated and meet regulatory standards to ensure their effectiveness and safety.

Overall, m-Health technology has the potential to revolutionize mental health care by making interventions more accessible, engaging, and personalized, potentially improving treatment outcomes for individuals struggling with mental health conditions (4).

Causes of mental health problems in Bangladesh

Mental health issues in BD are caused by a number of factors, including a lack of services, stigma, and trauma, lack of proper education, family problem, and so forth.

Shortage of mental health professionals

There are not enough qualified mental health professionals to meet the needs of the population.

Poorly managed policies

Mental health policies are not well managed, and there is a lack of a well-established referral system.

Limited access

Many people do not have access to mental health services, especially in rural area.

Stigma

Social stigma

Mental health issues are associated with stigma, taboo, and discrimination in Bangladesh.

Gender-based violence

Gender-based violence, such as dowry-related acid attacks, rape, and forced abortion, can lead to psychological and psychosomatic symptoms in this country.

Trauma

Childhood trauma: Childhood abuse, neglect, or trauma can lead to mental health issues.

Traumatic life events: Stressful life events, such as financial problems, the death of a loved one, or divorce, can lead to mental health issues.

Substance misuse: Substance misuse is a growing concern in Bangladesh, especially among young people.

Other factors

Chronic medical conditions: Chronic medical conditions, such as diabetes, can increase the risk of developing mental health issues.

Brain injury: Brain damage from a serious injury can lead to mental health issues.

Gender is a factor that can impact mental health, and there are many different factors that contribute to mental health issues in both men and women.

Mental health disorders in women

- Women are more likely to experience depression, anxiety, and eating disorders
- Women are more likely to experience PTSD due to sexual assault, rape, and child sexual abuse
- Women may experience depression during or after pregnancy (perinatal depression)

Mental health disorders in men

- Men are more likely to be diagnosed with substance abuse and antisocial personality disorder
- Men are more likely to die by suicide than women
- Men may be more likely to use alcohol to relieve stress

Other factors

- Gender identity and gender dysphoria
- Social expectations, discrimination, and violence
- Hormones, such as estrogen and progesterone, which impact mood, stress, and cognition

Treatment

The earlier treatment begins, the more effective it can be.

Understanding gender and mental health. Understanding the differences between men and women in mental health, and the underlying causes, could improve mental health treatment.

A significant relationship exists between occupation and mental health issues, where certain job characteristics like high stress levels, low job control, and demanding work environments can contribute to the development of mental health problems such as depression, anxiety, and burnout; conversely, having a meaningful and fulfilling job can positively impact mental well-being (5).

Key points about the occupation mental health

Job strain

A major factor linking occupation to mental health issues is “job strain,” which occurs when employees face high job demands with little control over their work processes, leading to increased stress and potential mental health problems.

Occupational stressors

Specific stressors, depending on the occupation, such as long working hours, shift work, heavy workloads, tight deadlines, and exposure to traumatic events, can significantly impact mental health.

Social factors

Aspects such as job insecurity, limited career advancement opportunities, and poor workplace relationships can also contribute to mental health concerns.

Positive impacts of employment

Conversely, having a stable job with a sense of purpose and belonging can promote positive mental health by providing structure, social interaction, and a sense of accomplishment.

Examples of occupations with potential high mental health risks:

- Healthcare workers (nurses, doctors) due to high stress and demanding patient care
- First responders (police officers, firefighters) due to exposure to traumatic events
- Social workers dealing with complex client situations
- Shift workers with irregular schedules
- Highly competitive professions with high pressure to perform

What can be done to mitigate the impact of occupation on mental health:

Workplace interventions

Implementing stress management programs, flexible work arrangements, supportive work environments, and access to employee assistance programs.

Individual coping mechanisms

Maintaining a healthy lifestyle, practicing relaxation techniques, setting boundaries, and seeking professional help when needed.

Impact of mental problem

Most people who die by suicide have a mental health issue. It may be a depressive or substance abuse disorder. They may feel lonely, depressed, or isolated. They may have had a traumatic life experience.

m-Health: definitions, classifications, and contradictions

m-Health refers to the use of mobile devices such as smartphones and tablets to support healthcare services, facilitating health data tracking, medical consultations, and health management. The features of m-Health technologies are healthcare practices; technological modality of the mobile device; intended user group; the stakeholders.

How it works

Data tracking: m-Health apps and wearable devices can monitor vital signs, activity levels, and other health data.

Medical consultations: Tele medicine platforms allow for remote consultations with doctors and other healthcare professionals.

Health management: m-Health tools can help individuals manage chronic conditions, track medications, and receive reminders for appointments.

Benefits m-Health technology

Convenience: m-Health provides accessible and convenient healthcare services, especially in remote areas or for individuals with limited mobility.

Improved health outcomes: By enabling continuous monitoring and real-time data collection, m-Health can help healthcare providers and patients make informed decisions about treatment and care.

Empowerment: m-Health empowers individuals to take an active role in their health management and decision-making.

Examples

1. Apps for tracking fitness, sleep, and nutrition.
2. Telemedicine platforms for remote consultations.
3. Wearable devices for monitoring vital signs.

Classifies m-Health apps into six categories: health record apps, lifestyle apps, remote counseling and monitoring apps, health education apps, apps for contacting healthcare providers, and diagnostic and treatment apps. Mobile fitness applications fall within the realm of lifestyle and health applications.

- Wellness and Lifestyle Management.
- Chronic Disease Management.
- Mental Health and Behavioral Apps.
- Telemedicine and Consultation.
- Health Monitoring and Medical Devices Integration.
- Personal Health Records and Management.
- Women's Health and Maternity.

Health care information system

The healthcare sector of BD tries to establish online and instant medical facilities for the patients. As a result healthcare sectors are implementing new digital solutions for medical support. Now, m-Health technology is used in administering clinical, administrative, and financial operations of medical organizations.

The health care information system provides healthcare data, information technology, instant medical support,

mental support, gives instant solutions to various mental and physical problems, and the like. Technology implementation plays a significant role in boosting m-Health sector (6).

Health Information System (HIS), generally acknowledged as HIS, is one of the most influential technological boons for the medical sector. HIS performs a significant role in developing mental health management with utter efficiency.

Brief description of TAM model & Unified Theory of Acceptance and Use of Technology

The TAM and the unified theory of acceptance and use of technology (UTAUT) are used to better understand why users accept or reject a given technology, as well as how user acceptance can be improved through better and modified technological strategies.

In this research, the author used TAM and UTAUT theory to predict the importance of m-Health technology on the mental health development in Bangladesh. The author successfully used the theory of TAM to predict technology adoption in the healthcare service of Bangladesh. Both TAM and UTAUT models are effectively applied in the mental health care sector of Bangladesh. In this paper, the author showed that TAM and UTAUT models are able to explain stable predictive capabilities for acceptance and use of technologies in the mental healthcare sector of Bangladesh. Mental health issues may be a specific context of health care, where not only the technology, but also socio-organizational and cultural factors influence technology acceptance (4).

By the principle of TAM and UTAUT, we know that the actual use of a specific technology is affected by one's behavioral intention to use it.

The theory of TAM explains that the intended use is determined by attitude toward using the technology, which in turn is determined by two perceptions of the system: PU and perceived ease of use (PEU).

There are various external factors that influence the perceptions of TAM and UTAUT. The perceptions of UTAUT are the extension of TAM as well as seven other theoretical frameworks. It proposes four constructs that affect usage intention—performance expectancy, effort expectancy, social influence, and facilitating conditions. Age, gender, experience, and voluntariness of use mediate the impact of these expediencies and facilitating conditions on intention (6).

Data analysis

Here the author used questionnaire to evaluate the impact of m-Health and E-health technology as a mental health development tool. The author interviewed personally 435

respondents. According to TAM, PU, UTAUT, and perceived ease (PE) are primary motivational factors for accepting and using new technologies. Based on the variables in TAM, the following hypotheses were formulated:

H01: m-Health technology has no impact on the prevention of mental health problems in BD.

H02: There is no association between gender and type of mental health problems in BD.

H03: There is no association between employment status and type of mental health problems in BD.

H04: Activities of m-Health technology have no association with the protection of mental health problems in BD.

H05: Purpose of m-Health technology is not associated with raising awareness toward mental health.

H06: There is no significant relationship between PEU and attitude of customers toward using m-Health technology.

H07: There is no significant relationship between PU and attitude of customers toward using m-Health technology.

H08: There is no significant relationship between PB and attitude of customers toward using m-Health technology.

H09: There is no significant relationship between social influence and benefits toward using m-Health technology.

H10: There is no significant relationship between usefulness and attitude of customers toward using m-Health technology.

H11: There is no significant relationship between usefulness and intention of customers toward using m-Health technology.

H12: There is no significant relationship between occupation and mental health disorder.

Data analysis

The population for this study consisted of 435 respondents from various locations across Bangladesh. Participants were selected using intentional random sampling and completed a questionnaire based on a 1–5 Likert scale. The research data analysis utilized several statistical tests including Pearson correlation R test, independent t-test, validity test, goodness-of-fit test, and chi-square test. Participants were then directed to the questionnaire, where they shared their experiences with M & E health technology that enhances mental health development in Bangladesh.

TABLE 1 | Distribution of respondents according to their age.

Age group	Frequency of respondent	% total	Mean	Standard deviation (SD)
16–25	124	28.51	35.03	6.78
26–35	113	25.98		
36–45	96	22.07		
46–55	81	18.62		
56–65	21	4.83		
Total	435	100		

Source: Prepared, collected, and calculated by the author.

TABLE 2 | Distribution of respondents according to their education level.

Education level	Frequency of respondent	% total	Mean	SD
Undergraduate	174	40	1.76	12.74
Graduate	193	44.37		
Postgraduate	68	15.63		
Total	435	100		

Source: Prepared, collected, and calculated by the author.

All questionnaires were self-administered. The testing process was completed once participants finished answering the questions.

The research method employed was a quantitative descriptive method.

Table 1 shows that young age people are highest number of respondents in this area. SD is a widely used measurement of variability in statistics. It shows how much variation there is from the average (mean). A low SD indicates that the data points tend to be close to the mean, whereas a high SD indicates that the data are spread out over a large range of values. The mean value is 35.03, indicating that most of the respondents agreed to that variable. The SD value is 6.78, indicating that there is a moderate stability of ideas on the specific variable.

Table 2 shows that Under-graduate and graduate people are the highest number of respondents in this area; higher education level people are very lower percentage.

The mean value is 1.76, indicating that most of the respondents did not agree on that variable. The SD value is 12.74, indicating that there is a low stability of ideas on the specific variable.

Table 3 shows that students are the highest number of respondents in this research. The highest mean indicates that most of the respondents agreed on that variable. The lowest SD indicates that there is a stability of ideas on the specific variable.

The mean value is 3.26, indicating that most of the respondents agreed on that variable. The SD value is 9.41, indicating that there is a low stability of ideas on the specific variable.

TABLE 3 | Distribution of respondents according to their occupation.

Occupation	Frequency of respondent	% total	Mean	SD
Student	131	30.11	3.26	9.41
Banker	21	4.83		
Businessman	46	10.57		
Teacher	37	8.51		
Housewife	93	21.38		
Corporate job holder	107	24.61		
Total	435	100		

Source: Prepared, collected, and calculated by the author.

The range of interpreting the Likert scale mean score is as follows: 1.0–2.4 (Negative attitude), 2.5–3.4 (Neutral attitude), and 3.5–5.0 (Positive attitude).

A low SD means there was a lot of agreement about the answers. High SD means there was a wide range of answers, indicating disagreement. Here, the author gets high SD, indicating high disagreement among the answers.

The range of interpreting the Likert scale mean score is as follows: 1.0–2.4 (Negative attitude), 2.5–3.4 (Neutral attitude), and 3.5–5.0 (Positive attitude). Here, the author gets high SD, indicating high disagreement among the answers.

The mean of all statements is greater than 3.5, respectively, which indicates positive attitude of PEU of ride sharing app. SD of all the statements are greater than 10, which indicates high disagreement among the answers.

The mean of all five statements is greater than 3.5, which indicates positive attitude of PU of ride sharing app. SD of all the statements are greater than 10, which indicates high disagreement among the answers.

TABLE 4 | Demographic attributes of the respondents.

Variables	Number of students
Gender	
1. Male	293
2. Female	142
Residence	
1. Rural	159
2. Urban	276
Employment status	
1. Employed	211
2. Unemployed	224
Education level	
1. Undergraduate	187
2. Graduate	162
3. Postgraduate	86
Marital status	
1. Never married	136
2. Single (widow, widower, divorced)	115
3. Married	184

Source: Prepared, collected, and calculated by the author.

The mean of all the statements is greater than 3.5, which indicates positive attitude of PB of ride sharing app. SD of all the five statements are greater than 10, which indicates high disagreement among the answers.

The mean of all the statements is greater than 3.5, which indicates positive attitude toward ride sharing app. SD of all the statements are greater than 10, which indicates high disagreement among the answers.

The mean of all the statements is greater than 3.5, which indicates positive attitude of intention toward ride sharing

TABLE 5 | Role of m-Health technology as a mental health development tool.

Statement scale (5–1)	Strongly agree	Agreed	No response	Disagree	Strongly disagree	Mean	SD
m-Health technology helps to stay connected with various types of people.	174	156	35	36	34	3.92	11.24
m-Health technology provides various mental health solution.	164	159	36	39	37	3.86	11.05
m-Health technology is useful for mental support.	171	168	36	35	25	3.98	11.47
m-Health technology shares news about depression, suicidal tendency, frustration, and other mental problem.	169	166	31	36	33	3.92	11.36
People inspired by connecting m-Health technology.	156	148	47	45	39	3.77	10.59
m-Health technology enhances mental problem awareness.	171	168	36	33	27	3.97	11.47
m-Health technology helps better access to mental support.	144	155	44	47	45	3.70	10.48
m-Health technology communicates with physician and general public.	145	148	46	49	47	3.68	10.34

Source: Prepared, collected, and calculated by the author.

(Strongly agree = 5, Agree = 4, No response = 3, Disagree = 2, Strongly disagree = 1).
N = 435.

TABLE 6 | Activities of m-Health technology on mental health development in BD.

Statement scale (5-1)	Strongly agree	Agreed	No response	Disagree	Strongly disagree	Mean	SD
m-Health technology provides mental health awareness.	168	165	31	36	35	3.91	11.31
It improves mental health of people.	173	169	33	28	32	3.97	11.55
It ensures mental health problem solution.	168	166	42	38	21	3.97	11.35
It helps in mental health development.	169	164	44	27	31	3.95	11.32
It increases mental productivity.	165	167	41	29	33	3.92	11.28
m-Health technology help insaves time of people.	174	171	33	23	34	3.98	11.64
m-Health technology provides health solution at a cheaper cost.	169	176	28	25	37	3.95	11.64
It reduces suicidal problem.	168	171	37	28	31	3.96	11.47
It reduces depression of people.	166	162	46	33	28	3.93	11.19
m-Health technology maximizes the efficiency of mental power of people.	172	177	36	27	23	4.03	11.75
It decreases suicidal tendency, self-destruction, etc.	164	167	41	27	36	3.91	11.26

Source: Prepared, collected, and calculated by the author.
(Strongly agree = 5, Agree = 4, No response = 3, Disagree = 2, Strongly disagree = 1).
N = 435.

TABLE 7 | PEU of m-Health technology.

Statement scale (5-1)	Strongly agree	Agreed	No response	Disagree	Strongly disagree	Mean	SD
m-Health technology makes it easy to solve many mental problem and crisis.	163	165	33	34	40	3.87	11.18
The purpose of m-Health technology is clear and understandable by all types of people.	165	169	34	31	36	3.91	11.33
It is easy to access m-Health technology through various devices such as smart phone, iPad, iPhone.	168	165	32	36	34	3.91	11.31
The response rate of m-Health technology is sufficient.	164	165	36	31	39	3.88	11.20
m-Health technology is simple and convenient to use.	175	172	33	24	31	4.00	11.69

Source: Prepared, collected, and calculated by the author.
(Strongly agree = 5, Agree = 4, No response = 3, Disagree = 2, Strongly disagree = 1).
N = 435.

TABLE 8 | PU of m-Health technology.

Statement scale (5-1)	Strongly agree	Agreed	No response	Disagree	Strongly disagree	Mean	SD
m-Health technology is useful for me.	166	173	39	29	28	3.97	11.47
The m-Health technology provides me accurate information.	172	169	29	33	32	3.96	11.52
I believe that the application of m-Health technology is a useful support for mental problem of people.	173	165	32	34	31	3.95	11.44
The m-Health technology is useful in solving the problem of mental disturbance of people in secret.	169	174	29	27	36	3.95	11.58
m-Health technology is useful to solve various problems of people secretly.	166	169	34	32	34	4.07	11.35

Source: Prepared, collected, and calculated by the author.
(Strongly agree = 5, Agree = 4, No response = 3, Disagree = 2, Strongly disagree = 1).
N = 435.

app. SD of all the statements are greater than 10, which indicates high disagreement among the answers.

Here, the mean of all the statements is greater than 3.5, which indicates positive attitude of social impact of ride

sharing app. The author gets high SD, which indicates that there was a wide range of answers, indicating disagreement.

The range of interpreting the Likert scale mean score is as follows: 1.0-2.4 (Negative attitude), 2.5-3.4 (Neutral

TABLE 9 | Perceived benefit (PB) of m-Health technology.

Statement scale (5-1)	Strongly agree	Agreed	No response	Disagree	Strongly disagree	Mean	SD
m-Health technology can help the people to solve various mental health problem and crisis secretly.	169	166	33	31	36	3.92	11.36
m-Health technology is a unique platform that empowers doctors to earn money directly from their patients in a variety of different ways.	167	174	32	29	33	3.95	11.52
m-Health technology is easily shareable and something we recommend doctor's post/guidelines across our other social media platforms.	166	167	36	32	34	3.92	11.30
m-Health technology helps to provide mental health development guidelines.	174	169	29	28	35	3.96	11.58
m-Health technology acts as a doctor to support patients secretly.	175	169	35	27	29	3.99	11.61

Source: Prepared, collected, and calculated by the author.

(Strongly agree = 5, Agree = 4, No response = 3, Disagree = 2, Strongly disagree = 1).

N = 435.

TABLE 10 | Respondent's attitude toward m-Health technology.

Statement scale (5-1)	Strongly agree	Agreed	No response	Disagree	Strongly disagree	Mean	SD
I have been using m-Health technology regularly.	169	172	34	29	31	3.96	11.52
I enjoyed connected with the m-Health technology.	173	175	29	26	32	3.99	11.72
I have a positive attitude toward using m-Health technology.	168	175	31	29	32	3.96	11.58
I believe it will be a prudent idea to use m-Health technology.	169	167	33	31	35	3.93	11.38
I have a positive attitude toward using the m-Health technology.	166	171	33	31	34	3.93	11.41

Source: Prepared, collected, and calculated by the author.

(Strongly agree = 5, Agree = 4, No response = 3, Disagree = 2, Strongly disagree = 1).

N = 435.

TABLE 11 | Respondent's intention toward m-Health technology.

Statement scale (5-1)	Strongly agree	Agreed	No response	Disagree	Strongly disagree	Mean	SD
I intend to use m-Health technology to learn about health problem.	167	169	33	31	35	3.92	11.39
I intend to engage with m-Health technology as frequently as needed.	169	166	34	29	37	3.92	11.36
I would encourage my friends to use m-Health technology as any mental crises.	166	169	34	31	35	3.92	11.36
I would like the m-Health technology to be part of the regular health check up I do.	168	169	34	32	32	3.94	11.41
I would encourage my friends to use m-Health technology system to support in mental crises.	166	167	35	32	35	3.91	11.30

(Strongly agree = 5, Agree = 4, No response = 3, Disagree = 2, Strongly disagree = 1).

N = 435.

attitude), and 3.5–5.0 (Positive attitude). Here, the author gets high SD, indicating disagreement among the answers.

The range of interpreting the Likert scale mean score is as follows: 1.0–2.4 (Negative attitude), 2.5–3.4 (Neutral attitude), and 3.5–5.0 (Positive attitude).

A low SD means there was a lot of agreement about the answers. High SD means there was a wide range of answers, indicating disagreement. Here, the author gets high SD, indicating high disagreement among the answers.

TABLE 12 | Social influence of m-Health technology.

Statement scale (5-1)	Strongly agree	Agreed	No response	Disagree	Strongly disagree	Mean	SD
m-Health technology qualifies as a health technology platform because it allows users to share health problem, solution, suggestions, and health guidelines secretly.	169	174	34	29	29	3.98	11.58
m-Health technology was reported to increase their understanding of other's experiences, access to expert information of various types of mental health problem, solution, etc. in hidden.	167	169	33	31	35	3.92	11.39
m-Health technology enables and supports substantial economic value for their physicians and owners who receive income from their patients.	169	176	31	29	30	3.98	11.63
m-Health technology enables users to save time.	171	169	34	32	29	3.97	11.49
m-Health technology helps users to solve health problems by self, which enhances knowledge of its users and conceal the information and data.	163	167	33	36	36	3.89	11.23

Source: Prepared, collected, and calculated by the author.

(Strongly agree = 5, Agree = 4, No response = 3, Disagree = 2, Strongly disagree = 1).

N = 435.

TABLE 13 | Respondent's satisfaction toward m-Health technology.

Statement scale (5-1)	Strongly agree	Agreed	No response	Disagree	Strongly disagree	Mean	SD
The patients get smooth service from the m-Health technology.	163	167	34	36	35	3.89	11.23
The patients get timely service from the m-Health technology.	173	166	32	28	36	3.95	11.47
The patients get desired service from the m-Health technology at a minimum cost.	169	175	26	29	36	3.95	11.61
The behavior of the doctors of the m-Health technology is gentle and polite.	166	169	29	36	35	3.91	11.36
m-Health technology service meets all the necessity to support patients.	167	169	32	29	38	3.91	11.39

Source: Prepared, collected, and calculated by the author.

(Strongly agree = 5, Agree = 4, No response = 3, Disagree = 2, Strongly disagree = 1).

N = 435.

TABLE 14 | Suicidal tendency at various age in BD.

Age group	Frequency of respondent	Suicidal tendency	Percentage of suicidal tendency (%)
16-25	124	87	70
26-35	113	56	49.56
36-45	96	21	21.88
46-55	81	11	13.58
56-65	21	05	23.81
Total	435	180	100

Source: Prepared, collected, and calculated by the author.

TABLE 15 | Various types of mental problems in BD.

Types of mental problems	Frequency of respondent
Depression	117
Schizophrenia	33
Anxiety disorders	46
Insomnia	65
Addictive behavior	69
PTSD	22
Stress	83
Total	435

Source: Prepared, collected, and calculated by the author.

Test of hypothesis

H01: m-Health technology has no impact on prevention of mental health problem in BD.

Here the author used independent t-test;

Calculated t-value = 0.06436206

Table value t = 0.00000

If the absolute value of the t-value is greater than the critical value, we reject the null hypothesis. So, the null hypothesis m-Health technology has no impact on prevention of mental problem in BD is rejected or not true. There is a significant impact of m-Health technology on prevention of mental health problem of Bangladesh.

TABLE 16 | Mental disorder according to their profession.

Occupation	Type of mental problem							Total
	Depression	Schizophrenia	Anxiety disorders	Insomnia	Addictive behavior	PTSD	Stress	
Student	23	12	21	23	21	06	25	131
Banker	02	02	01	04	02	01	09	21
Businessman	11	01	05	07	06	03	13	46
Teacher	16	03	06	03	05	01	03	37
Housewife	29	06	05	11	09	10	23	93
Corporate job holder	36	09	08	17	26	01	10	107
Total	117	33	46	65	69	22	83	435

Source: Prepared, collected, and calculated by the author.

TABLE 17 | Disease cause and suicidal tendency in BD.

Type of mental disease	Strongly agree	Agree	No response	Disagree	Strongly disagree	Mean	SD
Depression tends suicide	161	157	43	39	35	3.85	10.92
Schizophrenia tends suicide	165	161	39	37	33	3.89	11.12
Anxiety disorder tends suicide	145	131	47	59	53	3.59	10.01
Insomnia tends suicide	121	136	53	66	59	3.45	9.69
Addictive behavior tends suicide	109	115	73	76	62	3.31	9.25
PTSD tends suicide	167	164	51	26	27	3.96	11.29
Stress tends suicide:	171	166	53	22	23	4.01	11.47

Source: Prepared, collected, and calculated by the author.

(Strongly agree = 5, Agree = 4, No response = 3, Disagree = 2, Strongly disagree = 1).
N = 435.

TABLE 18 | Gender and type of mental health problem.

Category	Types of mental health problems in BD							Total
	Depression	Schizophrenia	Anxiety disorder	Insomnia	Additive behavior	PTSD	Stress	
Male	77	17	31	49	42	12	65	293
Female	40	16	15	16	27	10	18	142
Total	117	33	46	65	69	22	83	435

Source: Prepared, collected, and calculated by the author.

H02: There is no association between gender and type of mental health problem in BD.

Here the author used chi-square test.

The calculated chi-square value = 13.31.

Degrees of freedom = $(2-1)*(7-1) = 6$

At 0.05 level of significance and 6 degrees of freedom the table value of chi-square value = 12.592.

So, chi-square cal > chi-square table.

If our chi-square calculated value is greater than the chi-square critical value, then we reject our null hypothesis. So, in the null hypothesis, there is no significant association observed between gender and type of mental problem in BD, which is rejected or not true. So, there exists a significant association between gender and type of mental health problem in BD.

H03: There is no association between employment status and type of mental health problems in BD.

Here, the author used chi-square test.

The calculated chi-square value = 42.7316.

Degrees of freedom = $(2-1)*(7-1) = 6$.

At 0.05 level of significance and 6 degrees of freedom, the table value of chi-square value = 12.592.

So, chi-square cal > chi-square table.

If our chi-square, calculated value is greater than the chi-square critical value, then we reject our null hypothesis. So, in the null hypothesis, there is no significant association observed between employment status and type of mental health problem in BD, which is rejected or not true. So there exists a significant association between employment status and type of mental health problem in BD.

TABLE 19 | Employment and type of mental health problems.

Category	Mental health problems in BD							Total
	Depression	Schizophrenia	Anxiety disorder	Insomnia	Additive behavior	PTSD	Stress	
Employed	47	11	19	37	23	10	64	211
Unemployed	70	22	27	28	46	12	19	224
Total	117	33	46	65	69	22	83	435

Source: Prepared, collected, and calculated by the author.

TABLE 20 | Activity and protection of mental health problem.

Activities of m-Health technology	Protection of mental problem in BD through m-Health technology			Total
	Protected	Neutral	Not protected	
m-Health apps and platforms can provide access to a wealth of health information, including educational materials, disease prevention tips, and self-care instructions.	37	5	13	55
Mobile technology can be used to promote health campaigns and public health initiatives.	39	9	14	62
m-Health can deliver tailored mental health information based on individual needs and preferences.	16	18	23	57
Mobile devices can facilitate rapid communication between patients and emergency services in case of medical emergencies.	67	9	22	98
m-Health platforms enable doctors to conduct virtual consultations with patients, providing access to healthcare services in remote or underserved areas of Bangladesh.	64	07	18	89
m-Health can be used to report disasters and transmit real-time data about locations and time of events.	44	18	12	74
Total	267	66	102	435

Source: Prepared, collected, and calculated by the author.

TABLE 21 | Purpose and awareness.

Purpose of m-Health technology	m-Health technology able to raise awareness toward mental health			Total
	Raise awareness	Neutral	Not raise awareness	
m-Health technology is able to leverage mobile devices for mental healthcare purposes.	96	21	79	196
Empowering individuals and healthcare providers to improve health outcomes.	85	13	37	135
m-Health technology performs remote monitoring, data tracking, and access to medical information smoothly.	82	15	7	104
Total	263	49	123	435

Source: Prepared, collected, and calculated by the author.

H04: Activities of m-Health technology has no association with the protection of mental health problem in BD.

Here, the author used chi-square test.

The calculated chi-square value = 43.12.

Degrees of freedom = $(3-1)*(6-1) = 2*5 = 10$.

At 0.05 level of significance and 10 degrees of freedom, the table value of chi-square value is = 18.307.

So, chi-square cal > chi-square table.

So, in the null hypothesis, activities of m-Health technology have no association with the protection of mental health problem in BD, which is rejected or not true. So, activities of m-Health technology have a direct association with the protection of mental health problems in BD.

H05: Purpose of m-Health technology is not associated with raising awareness toward mental health development.

Here, the author used chi-square test.

The calculated chi-square value = 38.659.

Degrees of freedom = $(3-1)*(3-1) = 2*2 = 4$.

At 0.05 level of significance and 4 degrees of freedom, the table value of chi-square value = 9.488.

So, chi-square cal > chi-square table.

So, in the null hypothesis, the purpose of m-Health technology is not associated with raising awareness toward mental health development, which is rejected or not true. So, the purpose of m-Health technology is directly

TABLE 22 | Association between PEU & attitude.

Model	Unstandardized coefficient		Standardized coefficient	t	Significance
	B	Std. error			
Constant	4.87	16.72		1.78	0.000
PEU	5.06	16.12	0.9998		0.000

Source: Prepared, collected, and calculated by the author.

TABLE 23 | Regression between PEU & attitude.

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.9998	0.9996	0.9996	25.86

Source: Prepared, collected, and calculated by the author.

^aPredictors: (Constant), PEU.

^bDependent Variable: attitude.

TABLE 24 | Association between PU & attitude.

Model	Unstandardized coefficient		Standardized coefficient	t	Significance
	B	Std. error			
Constant	5.8963	13.43		1.78	0.000
PU	7.621	10.39	0.999254289	2.66	0.000

Source: Prepared, collected, and calculated by the author.

associated with raising awareness toward mental health development in Bangladesh.

H05: There exist no remarkable association between PEU and attitude of customers toward using m-Health technology.

The consequence in **Tables 22** and **23** shows that there is a remarkable association between PEU and attitude of customers toward m-Health technology, because the P-value of 0.000 in this association is less than the pre-set level of significance in this study, which is 0.05 ($P = 0.00 < 0.05$). The beta value ($r = 0.9998$) discloses that there is a strong positive correlation between attitude and PEU. The R square proved that 0.9996 of the total variation of attitude is being explained by PEU. On that basis, therefore, the null hypothesis is accepted, and the alternative rejected.

H06: There exist no remarkable association between PU and attitude of customers toward using m-Health technology.

The consequence of **Table 24** expressed a strong evidence against the null hypothesis based on “t” value results.

The outcomes in **Table 24** disclosed that there exist a remarkable association between PU and attitude of respondents toward the use of m-Health technology, that is, the P-value of 0.00 in this association is less than the pre-set level of significance in this study, which is 0.05

TABLE 25 | Regression analysis of PU & attitude.

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.99925	0.999999	0.99999	21.72

Source: Prepared, collected, and calculated by the author.

^aPredictors: (Constant), PU.

^bDependent Variable: attitudes.

TABLE 26 | Association between PB & attitude.

Model	Unstandardized coefficient		Standardized coefficient	t	Significance
	B	Std. error			
Constant	4.87	16.72		1.77	0.000
PB	4.86	16.75	0.999940717		0.000

TABLE 27 | Regression analysis of PB & attitude.

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.999940717	0.999881438	0.999879989	26.11

Source: Prepared, collected, and calculated by the author.

^aPredictors: (Constant), PB.

^bDependent Variable: attitudes.

($P = 0.00 < 0.05$). The beta value ($r = 0.999$) also disclosed that there is a strong association between attitude and PU. The R square value proved that 99.99% of the total variation of attitude is being explained by PEU. Consequently, it can be concluded that there is a positive association exists between attitude of customers and their PU of m-Health technology. On that ground, the null hypothesis is accepted and the alternative rejected.

H07: There exist no remarkable association between PB and attitude of customers toward using m-Health technology.

The consequence of **Table 26** expressed a strong evidence against the null hypothesis based on “t” value results.

The outcomes in **Table 27** disclose that there exist a remarkable association between PU and attitude of customers toward the use of m-Health technology, that is, the P-value of 0.00 in this relationship is less than the pre-set level of significance in this study, which is 0.05 ($P = 0.00 < 0.05$). The beta value ($r = 0.999940717$) also proves that there exist a strong association between attitude and PBs. The R square disclosed that 99.99% of the total variation of attitude is being explained by PEU. Hence, it can be established that there exist a positive correlation between attitude of respondents and their PB of m-Health technology. On that basis, the null hypothesis is accepted and the alternative rejected.

TABLE 28 | Association between usefulness and attitude.

Model	Unstandardized coefficient		Standardized coefficient	t	Significance
	B	Std. error			
Constant	4.89	16.74		1.79	0.000
Perceived usefulness	4.88	16.79	0.9999	1.83	0.000

Source: Prepared, collected, and calculated by the author.

TABLE 29 | Regression analysis of usefulness and attitude.

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.9999	0.9998	0.99987	26.11

Source: Prepared, collected, and calculated by the author.

^aPredictors: (Constant), PU.

^bDependent Variable: attitudes.

H08: There is no significant relationship between social influence and benefits toward using m-Health technology.

Here, the author used Pearson r test., $r = 0.7067$

So, there exists a strong positive relationship between social influence and benefits toward using m-Health technology.

H09: There is no significant relationship between usefulness and attitude of customers toward using m-Health technology.

The consequence of **Table 28** expressed a strong evidence against the null hypothesis based on “t” value results.

The outcomes in **Table 29** disclose that there exist a remarkable association between PU and attitude of customers toward the use of m-Health technology, that is, the P-value of 0.00 in this relationship is less than the pre-set level of significance in this study, which is 0.05 ($P = 0.00 < 0.05$). The beta value ($r = 0.99994$) also disclosed that there is a strong relationship between attitude and PU. The R square proves that 99.99% of the total variation of attitude is being explained by PEU. Hence, it can be established that there exist a positive correlation between attitude of respondents and their PU of m-Health technology. On that ground, the null hypothesis is accepted and the alternative rejected.

Discussion & analysis

From the consequence of the above test, it can be found that there exists a strong relationship between PEU and attitude. Of patients towards m-Health technology. Maximum of the respondents agree that they found m-Health technology service easy to use. The respondents also admit that the medical support they get in terms of

mental health issues from m-Health technology in BD is very useful for them.

The research showed that young age people are highest number of mental patients in Bangladesh (**Table 1**).

Table 2 showed that no education or graduate people are the highest number of mental patients in Bangladesh. Higher education level people have very lower percentage of mental issues in Bangladesh.

The data of **Table 3** showed that students are the highest number of respondents in this research.

The research found that male participated more in the interview. This paper also showed that unemployed people are more susceptible to mental health issues than employed people in Bangladesh. The research also showed that people whose education level is in undergraduate level are highly susceptible to mental health problems in Bangladesh. This paper also showed that urban people presented more mental health problems than rural people of Bangladesh. The paper found that married people are more susceptible to mental health crises in Bangladesh (**Table 4**).

The research disclosed that maximum of the respondents agreed that the role of m-Health technology is smoothly performed as a mental health development tool (**Table 5**).

The research found that activities of m-Health technology had a positive impact on the mental development in Bangladesh (**Table 6**).

The research showed that maximum of the respondents accorded that it would be easy to use these m-Health tools to find information regarding mental health issues, which indicated that PEU has an optimistic effect on attitude toward m-Health technology in BD (**Table 7**).

The research found that most of the respondents agreed that PU of m-Health technology is very effective (**Table 8**).

The research showed that PB of m-Health technology on mental health development is recognized by maximum of respondents (**Table 9**).

The research found that maximum of the respondents showed positive attitude toward m-Health technology (**Table 10**).

The research disclosed that most of the respondents have strong intention toward m-Health technology in Bangladesh (**Table 11**).

The research found that m-Health technology has a positive social influence in Bangladesh (**Table 12**).

Most of the respondents in this research expressed moderate satisfaction toward m-Health technology (**Table 13**).

In this research, the author disclosed the percentage of suicidal tendency according to age (**Table 14**). The research found that 16–25 age people have more suicidal tendency in this country.

Here, the author also mentioned the type of mental problem and percentage of mental patient of each type of mental problem in BD (**Table 15**). This research showed that depression is the most common mental problem in

Bangladesh. Then most of the respondents are victim of insomnia, addictive behavior, anxiety disorders, stress, and schizophrenia.

In this research, the author also explained the mental disorder rate according to their profession (Table 16). The research found that students in BD are most susceptible to stress, depression, insomnia, and addictive behavior. Bankers and businessmen are most suffered by stress. Teachers experienced depression the most. Housewives are also victims of depression and stress. Most of the corporate jobholders also were susceptible to depression.

The research found that schizophrenia patients had more tendency to commit suicide than any other mental patient in Bangladesh. Then, depression, PTSD, and stress caused most suicidal tendency in Bangladesh (Table 17).

In this research the author found an association between gender and type of mental health problems (Table 18). This research found that males are the most susceptible to depression, stress, insomnia, and addictive behavior. And females are the most affected by depression and stress.

Here, the author found a relationship between employment and types of mental problems (Table 19). The research proved that unemployed are the most victim of depression than employed people in Bangladesh. Unemployed people have more additive behavior than employed people. Again, employed people are the victim of stress than unemployed people in Bangladesh.

The research found that activities of m-Health technology has a direct association with the protection of mental health problem in BD (Table 20).

The research showed that the purpose of m-Health technology is directly associated with raising awareness toward mental health development in BD (Table 21).

This research defends Davies TAM that the PEU affects the attitude and the intention to use m-Health technology in Bangladesh.

The research showed that the degree of PU of m-Health technology positively influences the attitude of respondents toward m-Health technology (Tables 24 and 25). The PU of m-Health care service upgrades the job performance of mental health care industry in Bangladesh, which indicates that m-Health technology with a high level of PU is one for which a user believes that there is a positive user performance relationship. The results of this research found that there is a strong positive relationship between PU and attitude of respondents toward using m-Health technology (Tables 28 and 29).

In this research the author also revealed that there is a significant impact of m-Health technology on prevention of mental health problem of Bangladesh. The author also found that there exists a significant association between gender and type of mental problem in BD. Male and female responded differently to mental health crises (Table 18)

The author also showed that there exists a significant association between employment status and type of mental

health problem in BD. Employed people are mostly affected by depression, insomnia, and stress because of workload and career pressure. While unemployed people are mostly affected by depression and additive behavior, because of disappointment, family and social stress, and the like.

The research found that more than 70% respondents have positive attitude toward m-Health technology. The research showed that the most significant barriers of m-Health technology are the unwillingness and low literacy rate of respondents toward m-Health technology.

Limitation

However, this research is not beyond its limitations. This is a perception-based research where a limited number of convenience samples are considered to determine the benefit of m-Health and E-health technology and factors that affect mental health problems in Bangladesh.

There also exist some other limitations in this research, such as all respondents are not so qualified to replied and respond accurately. Time limitation is also a constraint here.

Conclusion

The research showed that m-Health technology plays an important role in preventing mental illness in Bangladesh. m-Health service application is rising gradually in Bangladesh. At present, the number of mental health patients in BD increased rapidly as a result of rate of suicide, crimes, and rape reported. As a consequence, family life, social life, and productivity are hampered seriously. m-Health technology performs a crucial part in protecting mental illness and provide mental support to the patient immediately, promptly, secretly, and remotely.

This research showed that m-Health service performed its activity smoothly because of modern technology. The use of technology eases the use of m-Health service. As a result, more people are interested in m-Health technology.

The research found that Information & Communication Technology (ICT) application of the m-Health technology is in both rural and urban areas of Bangladesh. This research frequently used the perception of TAM and UTAUT implying that acceptance of m-Health applications of all class of people of this country. Now BD mostly exploits ICT to develop m-Health service organizations.

This research explained the role of m-Health technology on the development of mental soundness in Bangladesh. This paper discussed how m-Health tools can be implemented and sustained over time for diverse types of people in this country.

This paper is an implementation science research that emphasized the mental soundness of all class of

people through technology-based support system such as m-Health care implementation. This m-Health technology works actively against the societal stigma toward mental patient in Bangladesh.

Besides the crucial part of this paper, the outcomes may identify the correlation among various demographic factors, set up a mental health care development strategy to capture outcomes in a systematic way that prioritizes usefulness of m-Health technology, factors cause mental problem in Bangladesh, inclusion, and robust measurement science.

Conclusively this paper recommended that m-Health technology is a very efficient tool to ensure innovative healthcare service. This technology is meeting the emerging needs of people all over the country. On account of technological innovation m-Health service is very easy to access and implement.

Implication and future study

The application of m-Health service is contiguously accelerating. The m-Health technologies provide a solution to support a lonely person live in a remote place, who may not be able to access in-person medical care services.

The impact of m-Health technology on the development of mental health issues has been increased rapidly.

Future researcher, policymakers, and service providers can study the core research done in this paper in order to conduct more research, issue advance policy, and offer more flexible service.

The result of this research demonstrated a range of studies to capture the exponential growth of m-Health interventions for people. This research showed that m-Health technology had a significant potential to solve various mental health problems of different classes of people and for the youth generation of BD who are facing mental health challenges and seeking support to overcome these challenges.

However, the research found out that the factors that affect mental health problem of people in Bangladesh. The research focused on the reasons for mental health problem in Bangladesh. Again, the paper discussed how m-Health technology lessens the mental health crisis issues of the people of Bangladesh.

However, the review also highlighted notable attention in research that include benefits of m-Health technology, social influence of m-Health technology, satisfaction toward m-Health service, and the like.

Future research may be conducted on adoption of equity, diversity, and inclusion lens of m-Health services. The upcoming research prioritizes understanding how current m-Health technologies can be adopted into existing models of care and develop guidelines, standards, and evaluation frameworks to support future m-Health development and implementation.

The technological advancement expand rapidly in all sectors of modern life including healthcare. Now more global resources are needed to monitor technological advancements to provide quality mental health support through m-Health technology to all people of BD where and when they need them.

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