









POLICY BRIEF

Driving Innovation: Advancing Healthcare through Digital Transformations in Bangladesh

Authors: Maliha Mehnaz Mitu, Sabiha M Khan, Mahmodul Hasan Shesheir, Md. Tanzirul Alam, Farzana Misha

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Introduction

Digital health platforms hold immense potential to improve the delivery of high-quality healthcare to individuals. The COVID-19 pandemic has demonstrated an exponential growth in the use of various digital health platforms. In Bangladesh, there were 52.58 million internet users in 2022, with internet penetration at 31%^[1]. The National ICT Household Survey 2018-19 stated that an overwhelming 92% of respondents had used the internet for social networking in the past 3 months ^[2].

Despite the surge in utilization of digital health platforms in Bangladesh during the pandemic, recent trends show a decline in the use of such platforms.

One significant factor contributing to this decline is the growing concern among users regarding privacy and security issues. Within the digital sphere, ensuring data privacy and security is crucial, especially when it involves matters related to sexual and reproductive health and rights (SRHR). SRHR issues are often stigmatized, leading people to keep it hidden and avoid seeking relevant information. Without proper regulation in place, the misuse of health data poses a serious threat to an individual's privacy. Unauthorized access, data breaches, and the potential for exploitation of sensitive health information are all risks that need immediate attention. The trend of decreasing digital health use in Bangladesh, should be viewed as an opportunity to strengthen regulatory frameworks and address privacy and security concerns.

About the research project _____

The Centre of Excellence for Gender, Sexual and Reproductive Health and Rights (CGSRHR) under the BRAC James P Grant School of Public Health, BRAC University conducted a research titled "Effective Digital Health Platforms for Sexual and Reproductive Health and Rights", funded by the UK Government's Foreign Commonwealth and Development Office (FCDO) and coordinated by the Institute of Development Studies (IDS), UK.

This research aimed to understand the user experiences and identify the challenges experienced by adolescents and young adults (18-35 years old) in Dhaka Division while using digital health platforms and the factors influencing the use of digital health platforms for sexual and reproductive health among different communities and marginalized groups. The research explored digital health usage, the types of digital health platforms used, and the knowledge and perceptions regarding sexual and reproductive health and rights among the young adults aged 18-35 years from Dhaka Division. A mixed-methods approach was employed, including a quantitative survey of 829 respondents, a qualitative study consisting of 18 focus group discussions (FGD), 26 in-depth interviews (IDI) and 3 key informant interviews (KII) and Digital Ethnography. Once the data was processed and analyzed, a validation workshop was conducted, including digital healthcare providers and users, to validate the emerging findings.

Key Findings

Digital health usage patterns:

88.9% of young adults in the age group of 18-35 use digital health platforms, primarily relying on search engines and social media for health information.

"When I feel a little ill, I search on YouTube or Google to gather information about my symptoms. I also search to know about medicines."

- Male Private University Student, 23

Preference for in-person services:

Despite digital health usage, a significant portion (76.5%) prefers in-person services due to established trust and reliability with familiar healthcare providers. The perceived advantages include undivided attention from doctors (86.9%) and proper physical examinations (78.9%).

"I prefer going to the doctor as I can't share my issues properly through a phone."

- Female Garment worker, 34

Challenges while seeking digital health:

About 23.5% have taken consultations online. Among users who took SRHR services (12.7%), 41.3% were not comfortable enough to talk or discuss, 23.6% reported being judged by health service providers, 26.2% claimed their privacy was not maintained, and 21.2% didn't get proper answers. Apart from that, concerns were also raised about privacy, service quality, skepticism toward online doctors, and language.

"Someone I know faced problems after having sex. I recommended consulting with a doctor online; the doctor thought that it was some kind of STD but couldn't confirm it; ultimately, he was diagnosed with a kidney issue by a doctor through a hospital consultation."

- Member of Gender Diverse Community, 25

Factors influencing use of digital health platforms:

Residential area, family size, father's education, the number of Facebook accounts, and internet usage influence the choice of digital health platforms. Participants cite ease, convenience, and the impact of COVID-19 lockdowns on limiting in-person services as key factors encouraging digital health adoption.

"I prefer the online source for SRH problems because if I go in person, I get harassed. I can't see the doctor's face online. So even if they judge me while providing treatment, I don't suffer from mental breakdowns."

- Member of Gender Diverse Community, 23

Transparency and accountability concerns:

Among digital health users, 45.9% are unaware of who can access their personal and medical data. Suggestions for improvement include a complaint monitoring system, emphasizing the need for policies focusing on data protection (89.1%), privacy (78.9%), accountability (38.9%), and interoperability (33.2%). Participants highlight the absence of interoperability in Bangladesh and its potential benefits for enhancing patient care.

"In my adolescence, I didn't feel comfortable talking about it and sharing these things with an elder brother or my parents. I relied entirely on the internet for this since I wasn't comfortable talking about it but needed solutions."

- Menial Job Holder, 22

Existing Policies & Programs ———

SMART BANGLADESH ICT Master Plan 2024:[3]

- Aims to revolutionize healthcare by 2041, prioritizing inclusive, accessible, and affordable services through advanced technology.
- Section 4.2.1: Smart Healthcare targets for 2025-2041: universal access to health information, digital records, telemedicine, and Al-driven pre-diagnosis.

National Strategy for Adolescent Health, 2017-2030:[4]

- Goal: By 2030, adolescents will lead a healthy and productive life in a socially secure and supportive environment where they have access to quality education, comprehensive information, and services".
- Aims to establish telemedicine in rural areas, portable health records, and augmented reality in medical education as part of an inclusive and technologically advanced future.

Digital Security Act 2020:[5]

- Intentional transmission of offensive or false data is considered a punishable offense.
- Framework to address digital security concerns and protect against online harassment and threats.

2018 National ICT Policy:

- Prioritizes automation, artificial intelligence, and digital security, laying out Bangladesh's roadmap to becoming a knowledge-oriented nation by 2041
- Emphasis on equity and suggests safeguarding personal information as well as establishing a national e-Health policy.

National Health Policy 2011:[6]

- Linked to the National ICT Policy 2009 and the government's Digital Bangladesh & Vision 2021.
- Prioritizes integrating information and communications technologies (ICT) in health services.
- Aims to digitally expand health services in Bangladesh's fragmented system with a focus on e-governance, e-health, telemedicine, and electronic campaigns.

Bangladesh Population Policy, 2012:[7]

- Prioritizes adolescents in major strategies for implementation
- Section 5.13 (d): Encourage the use of modern digital information technology for integrated collection and use of information, and ensure free flow of all information through different media including websites".

Recommendations -

Health information section on digital health platforms:

Digital health platforms should contain an additional section with general information and targeted information on sexual and reproductive health and rights (SRHR). This can create awareness among users and promote well-informed healthcare seeking decisions.

Digital upskilling for healthcare providers:

Training programs should be designed for healthcare providers across Bangladesh to enhance their digital proficiency. These programs will ensure the effective utilization of digital tools to improve the overall quality of healthcare services. Periodically conducting workshops, webinars, and hands-on sessions is essential to ensure that physicians stay up-to-date on emerging technological advances in healthcare.

Effective Grievance Redress Mechanism

(GRM): An effective Grievance Redress Mechanism (GRM) should be introduced to ensure transparent monitoring. A straight-forward complaint/feedback submission process through digital health platforms should be established for users, and those should be addressed and resolved promptly. Updates on complaint resolutions should be communicated to build trust among users.

Healthcare provider sensitization on SRHR

issues: Healthcare providers should be sensitized to the importance of unprejudiced communication with patients, particularly on sensitive topics like SRHR. Healthcare providers in the digital space should create a safe space for patients to share their concerns without fear of judgment. This will improve the patient-provider relationship and facilitate open discussions, leading to better-informed decisions.

Multilingual, user-friendly interface:

User- friendly digital interfaces in multiple languages should be developed to address Bangladesh's diverse language and dialect landscape. This innovation will help break the language barrier and provide equitable access to healthcare information and services for individuals with different linguistic backgrounds.

Gender-inclusive options on digital health platforms: A div erse range of gender identities beyond conventional binary options should be recognized and included in digital health platforms. Gender-diverse communities should be consulted to understand the different gender inclusive options. Users and healthcare professionals should be made aware of the importance of respectful inclusive gender representation. This will ensure the inclusivity of digital health platforms in Bangladesh.

Address the unique health needs of disabilities persons with and gender-diverse individuals: Distinct health services are essential for individuals with disabilities, as each type of disability necessitates specific treatment approaches. This principle similarly applies to gender-diverse individuals. To address these diverse needs, an inclusive design is necessary, which will ensure tailored services are readily accessible to both persons with disabilities and gender-diverse individuals, facilitating their ability to receive appropriate and personalized treatment online.

A Government accreditation system can be introduced to include the above recommendations.

Strengthen privacy and security measures for health data: Privacy and security measures for health data should be strengthened, particularly focusing on sensitive areas like SRHR in Bangladesh, recognizing heightened identity concerns, especially for gender-diverse individuals, to foster trust in digital healthcare. This initiative addresses heightened identity concerns, especially for gender-diverse individuals, fostering trust in the secure handling of personal health information.

Strategic implementation of interoperability of patients' medical records:

Standardized protocols for interoperability should be established in Bangladesh, and a centralized database or platform should be created that securely stores and shares patient data with individual consent. Healthcare professionals should be trained on interoperability standards to ensure seamless exchange of information. This will enable healthcare providers to access comprehensive patient data to make well-informed decisions.

Comprehensive list of accredited digital health service providers:

A list of accredited digital health service providers in Bangladesh should be created, including a detailed profile of each provider, specifying the types of services offered, language support, and reviews from other users. Regular updates will maintain accuracy. The list will ensure easy access to information on existing certified digital health services for individuals to make an informed choice.

References

- Bangladesh National ICT Household Survey 2017-18.
 https://le8q3q16vyc81g8l3h3md6q5f5e-wpengine.netdna-ssl.com/wp-content/uploads/2020/05/Bangladesh-National-ICT-Household-Survey.pdf
- 2. Rajia S, Sabiruzzaman M, Islam MK, Hossain MG, Lestrel PE (2019) Trends and future of maternal and child health in Bangladesh. PLOS ONE 14(3): e0211875. https://doi.org/10.1371/journal.pone.0211875
- 3. SMART BANGLADESH ICT Master Plan 2024. https://a2i.gov.bd/wp-content/uploads/2023/03/Smart-Bangladesh-ICT-Master-Plan-2041-Draft-PDF-1.pdf
- 4. National Strategy for Adolescent Health 2017-2030 https://www.unicef.org/bangladesh/sites/unicef.org.bangladesh/files/2018-10/National-Strategy-for-Adolescent-Health-2017-2030.pdf
- 5. Digital security Act 2020. https://www.cirt.gov.bd/wp-content/uploads/2020/02/Digital-Security-Act-2020.pdf
- 6. Ministry Bangladesh Health Policy (2011).
- http://www.mohfw.gov.bd/index.php?option=com_content&view=article&id=74&Itemid=92

 7. Bangladesh Population Policy (2012).
 - $https://bangladesh.gov.bd/sites/default/files/files/bangladesh.gov.bd/policy/98896a22_df81_4a82_b70c_24125dec56d7/Bangladesh.gov.bd/policy-2012.pdf$

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