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Role of Public Awareness and Healthcare in Preventing Substance Abuse: A Policy Analysis in Bangladesh

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ABSTRACT

Bangladesh is among several developing countries burdened with substance abuse that is compounded by misinformation, cultural beliefs, and inadequate healthcare access. Public perception and consequent exposure to people with substance use disorders have worsened the situation. Public awareness and health policy formulation are crucial in developing preventive strategies to address this issue. A study evaluating the impact of public awareness on healthcare in minimizing stigma and maximizing early interventions in Bangladesh will be discussed. A quasi-experimental pretest-posttest design was used to study the effectiveness of a national awareness campaign in collaboration with healthcare stakeholders. Baseline perceptions of public attitudes were augmented using a structured survey administered in August 2023. Subsequently, an extensive awareness campaign was launched across multiple platforms, including community outreach, social media, and healthcare providers. A post-campaign survey was administered to ascertain any changes in awareness and stigma. The community-based seminars and social media-targeted messaging were the most effective strategies. A major proportion of respondents agreed that stigma minimized treatment-seeking. Furthermore, data analysis reveals significant changes ($p < .05$) in recovery belief, provision of treatment support, trust in healthcare providers, and stigmatization of criminal behavior. In conclusion, prioritized frameworks incorporating localized strategies with high cultural competence, healthcare, and societal leaders should be formulated. Communal healthcare communication and outreach interventions for mental illness at the community level, reducing stigma in Bangladesh.

INTRODUCTION

Drug abuse is becoming a new public health problem in Bangladesh. Its prevalence is becoming higher among the youth and vulnerable groups (Hasan, 2024). Although there is growing attention to this issue at the policy level, the country still grapples with social stigma, misinformation, and limited access to only some types of care. These issues result in delayed intervention, poor treatment-seeking behavior, and weak community support networks (Negash *et al.*, 2023). Substance Abuse Awareness and Healthcare Awareness of the public and health care are critically important in the prevention of substance use. However, in the majority of the communities in Bangladesh, myths and cultural biases about addiction live on and can result in stigmatizing and discriminating against individuals with SUD (Inamdar, 2023). This brings with it the associated stigma, which also contributes to poor mental health for those affected and prevents families and the wider community from seeking professional support. The programs and campaigns conducted by government and non-government agencies have been implemented to create a background in which these social ideas are circulated; however, not much research has been done on the effectiveness of their influence on attitudes and stigma reduction (Zavyalova, 2025). A well-informed and context-specific health education campaign, facilitated by community-based interventions, can reshape the attitudes of the public, improve community response, and guarantee early access

to therapy (Ugbor *et al.*, 2024). This paper aims to evaluate the efficacy of combining a media-based public awareness strategy with healthcare engagement in various geographic settings throughout Bangladesh. The intention of this policy analysis, which assesses shifts in public opinion and behavior before and after the PSA campaign, is to inform scalable strategies and real-world communication that are more effective, contextually relevant, and healthcare-integrated in preventing drug use.

LITERATURE REVIEW

Substance Abuse is generally considered a multidimensional public health problem affecting both individuals and their families and communities (Tasfi & Mostofa, 2024). Across the world, a wide range of responses to this problem has been adopted, from law enforcement to harm reduction. Two such well-known and effective approaches to combating substance abuse today are public education and strengthening health systems. One of the strategies used in the past in public health to impact knowledge, attitudes, and health practices, including substance use, has been public education (Gilham *et al.*, 2024). These campaigns aim to counter misinformation, minimize stigma, and promote early intervention. Guarded public awareness campaigns traditionally utilize mass media; however, community engagement, educational programs, and storytelling are also employed to humanize the problem and generate empathy for individuals with substance use disorders (Young *et al.*,

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2024). Research from multiple countries indicates that if the message is culturally appropriate and sustained, it increases public understanding and reduces stigma, including the belief that people with drug use disorders are personally responsible or incapable of recovery.

A health system is also involved in the prevention and treatment of substance abuse. A robust, well-functioning healthcare infrastructure is well-positioned to deliver services for screening, early diagnosis, counseling, and treatment. Coordination of mental health and substance abuse services with primary healthcare improves access to services for populations that may be difficult to reach and ensures the provision of comprehensive care (Isaacs & Mitchell, 2024). Additionally, healthcare professionals are often considered trusted within their community, enabling them to inform patients and direct them to necessary recovery services. Capacity development, training, and the integration of addiction education in health care curriculums are required to enable this (Newman & Swishelm, 2025). The impact of lower health literacy and stigmatization affects the prevention of drug abuse in Bangladesh and similar developed countries, which is constructed by low public awareness and low access to healthcare. Some national policies have incorporated the relevance of DR, but it is yet to be enforced (Jarre *et al.*, 2024). Community-based interventions that combine public education and healthcare-based outreach have shown promise at the local level, with strong backing from both government and non-governmental organizations.

The literature also indicates that not all approaches are effective for all populations. There is a prudential need to understand and accommodate regional characteristics, cultural symbols, and health literacy levels to achieve significant results. Therefore, even if examining and adapting successful international prevention strategies to Bangladeshi settings and investing in public health infrastructure and effective communication strategies, the positive effect of prevention has the possibility of being reinforced in the field of substance abuse. This review reflects the need for public awareness and healthcare delivery to address substance abuse. More context-specific studies are necessary for Bangladesh to assess the impact of such interventions and to inform future policy formulation.

MATERIALS AND METHODS

Study Design and Sample

This trial utilized a quasi-experimental pretest-posttest design to test the effect of a public service announcement and healthcare advocacy for stigma reduction and increasing literacy on substance abuse in Bangladesh. The pre-intervention survey was conducted in July 2024 to gather baseline information on public attitudes, awareness, and perceptions towards SUDs. Following the pretest, a one-month awareness-raising campaign commenced in August 2023 in the selected urban and semi-urban areas. The campaign involved several

components targeting a wide range of communication media, including community workshops, mobile health services, social media, local radio stations, and printed materials (posters, leaflets, and banners), as well as local platforms for airing short educational videos. To maintain steady exposure, participants were provided with a digital awareness toolkit, which included campaign elements (e.g., social media images, fact sheets), testimonial videos, and FAQs on substance use and the availability of healthcare services. After the campaign, the same sample was re-contacted at the beginning of September 2024 and requested to complete a posttest questionnaire. The posttest reproduced the design of the pretest to ensure comparability but added a section to capture respondents' exposure to the different capacities of the campaign and their feedback on content relevance and clarity. Participants were enrolled on a voluntary response sampling basis (54) through local NGOs, youth organizations, healthcare centers, centers, and university mailing lists. We recruited adult men and women of all educational and socioeconomic levels. Participation was completely optional, and no exclusion criteria were applied. Consent was obtained digitally from participants prior to their completion of the survey. A minority of subjects were randomly chosen to receive a reward for participating (a mobile data package or shopping voucher) as a small token of appreciation for their time. Ethical clearance was obtained from an established institutional ethics committee in Bangladesh, and participants were informed about the principles of confidentiality and the process of informed consent.

Intervention

The Campaign in August 2024, a multi-media public awareness campaign was rolled out to combat the general stigma and erroneous beliefs about drugs amongst the Bangladeshi. Substance Abuse is Preventable and Treatable. The campaign's focus was on generating awareness, empathy, and early intervention by supporting the core message. This message was also uniformly included in all outreach copy and communication channels to build public awareness and establish trust. A media- and health-oriented approach was applied in the campaign to encourage wide community participation. Posters, banners, and billboards placed in prominent areas, such as community clinics, were used as a medium to distribute awareness materials. A series of brief videos featuring testimonies from people in recovery and their relatives were disseminated through social networks, television broadcasts, and YouTube. The videos sought to put a human face on recovery and debunk myths and stigma around addiction. Educational videos, including animated explainer videos and infographics, were also produced to focus on the use of non-stigmatizing language in addressing substance use. Medical professionals and community leaders were mobilized to promote awareness, treatment, and mental health support through the use of social media and community radio.

A tailored methodic toolkit was produced for various publics and purposes. For instance, the toolkit for local religious leaders included spiritual teaching resources and culturally sensitive terms for discussing addiction-related issues with empathy. Prevention, peer support, and the dangers of early substance use were the main topics for schools. Training was provided to community health workers and volunteers on how to use this toolkit through hands-on sessions, workshops, and outreach

visits. The campaign also collaborated with providers in local medical institutions to incorporate screening, counseling, and referrals into their services during the intervention period. Mobile health vehicles were deployed to remote and underserved areas to enhance access to information and prompt assistance. On the whole, the intervention was designed to mitigate stigma as well as bolster community support networks, and prompt timely healthcare-seeking for substance use disorders.

Table 1: Public Awareness and Healthcare-Based Campaign Interventions in Bangladesh

Media/ Platform	Description	Estimated Cost (3 Months)
Billboards	<ul style="list-style-type: none"> Installed in key locations across Dhaka, Chattogram, and regional towns with the core message “Substance Abuse is Preventable and Treatable.” Each billboard included a QR code and web link to access awareness materials and hotline numbers. 	BDT 850,000 for six billboards
Public Transport Signage	<ul style="list-style-type: none"> Interior posters and exterior visuals on local buses and CNG-run auto-rickshaws. Repeated messaging from billboards and promotion of local rehabilitation centers. 	BDT 300,000 for 20 interior/exterior placements
Digital and Social Media Campaign	<ul style="list-style-type: none"> Targeted outreach through Facebook, YouTube, and popular local news portals. Shared testimonial videos, myth-busting infographics, and mental health messages. Directed users to a dedicated website and helpline. 	BDT 2,000,000 for digital outreach
Radio Broadcasting	<ul style="list-style-type: none"> Aired 30-second messages in Bengali across FM and community radio channels covering urban and rural areas. Focused on stigma reduction and healthcare access. Included localized messages and endorsements from health professionals. 	BDT 600,000 for 10 stations
Earned Media and Influencer Engagement	<ul style="list-style-type: none"> Collaborated with television hosts, social workers, and local celebrities. Conducted interviews, storytelling sessions, and panel discussions. Shared stories of recovery, resilience, and family involvement in healing. 	In-kind collaboration and outreach

Data Collection

Digital engagement measures and pre- and post-intervention survey responses were used to assess the effectiveness of the public awareness and healthcare campaign. Digital outreach was measured through platform-specific analytics, including those from social media tools, email campaign software, and web traffic monitoring systems. These metrics assessed the reaction of the target group to campaign materials (informational posts, banner ads, email newsletters, video content, and social marketing). The effectiveness of email marketing was evaluated by open rates (the percentage of recipients who opened the campaign emails) and click-through rates (the proportion who clicked on embedded links leading to health education resources or support services). Users were assessed as unique across different platforms based on their impressions of banner ads and social media posts. When it came to engagement, passive interactions, such as scrolling, hovering, or video autoplay, on both mobile apps and digital display networks were also included in the analysis. A pre-post intervention online survey, administered via email invitations to the project’s list of partners’ networks in urban and semi-urban areas, was used to collect data. The questionnaire assessed

demographic variables (gender, age, education, income, and occupation), attitudes toward drug use, and media consumption patterns (i.e., print, television, radio, and social media). Respondents answered a five-point Likert scale (strongly agree to disagree strongly) about their attitudes to drug taking and drug addicts.

Stigma was measured using 19 items (questions) built into the survey, which were used to assess attitudes and biases toward people with substance use problems. The scale structure was held identically. However, the scale items’ titles were re-phrased to accommodate the diversity of substances used in Bangladesh, including alcohol, cannabis, over-the-counter (OTC) drugs, injectable drugs, and synthetic drugs. The term substance use problem was explicitly defined as a pattern of use that results in considerable damage, health complaints, or social or psychological interference. This two-pronged quantitative analysis of digital platforms and self-reported perceptions provided a more complete picture of how general awareness and health messaging have affected perceptions of drug abuse in Bangladesh.

Data Analysis

An analysis in two parts was performed for evaluating the

effects and effectiveness of public awareness and healthcare campaign on drug abuse prevention in Bangladesh. Performance on digital engagement the performance in digital engagement was assessed by comparing the key outreach indicators against established benchmarks of the media and public health communication Working at the communication factory, we made a plan. Table 2 All your outputs belong to us 203 sector (Table 2). These were analytics like email open rates, click-through rates, ad impressions, social media engagement and user views of educational videos and website content. Secondly, data for survey measurements before and after the campaign were analyzed with a matched sample approach. Seven hundred forty-four respondents took part in the baseline (pretest) survey. Nevertheless, because of discrepancies in participants' ID and issues (e.g., logging in to the experiment multiple times with different email addresses and errors in entering the codes), much of the posttest data were unmatchable to the pretest data. Accordingly, the last examination took into consideration 69 matched valid responses. This shortcoming was documented for future rounds of research to address.

Summary statistics were analyzed to quantify length of exposure to participants, since exposure duration differed according to how much participants interacted with campaign materials. Survey answers were considered in

terms of six primary axes: demographic data, perceived social stigma, contact with campaign contents (either face-to-face or through digital means), personal acquaintance with cases of substance abuse, exposure to media and radio station contents, as well as stigma-related attitudes. Subjects were categorized into two groups according to the type of exposure to the campaign. Participants who had experienced awareness materials in public spaces (e.g. billboards, radio or transport advertisements) were classified as "previously exposed" ($n = 25$). Participants who only interacted with digital content (videos, emails, and social media) preceding the posttest were classified as "Not Previously Exposed," ($n = 44$).

To evaluate shifts in stigmatizing attitudes and social prejudice, pretest and posttest responses within each group were compared using a paired sample t-test. The scale was a 19-item attitude shot that indexed stigmatization, wherein lower scores signified more positive and supportive attitudes toward those with substance use disorders. Data were analyzed using a one-tailed significance test at $p\text{-value} \leq 0.05$. This analytical design enabled the study to examine the extent of attitudinal changes regarding various outreach strategies and levels of exposure, which added to policy level insight for effective awareness mechanisms in Bangladesh.

Table 2: Results of the Public Awareness Campaign in Bangladesh

Media Strategy	Industry Average Benchmarks	Campaign Results
Email Marketing		
Email open rate	12% – 25%	17%
Email click-through rate	2% – 5%	2%
Email click-to-open rate	10% – 22%	9%
Mobile In-App Advertising & Social Media Engagement		
Engagement rate based on display network views	0.31%	0.20%
Pre-roll video engagement	—	0.14%

RESULTS AND DISCUSSIONS

The quantitative digital advertising aspects of this public campaign in Bangladesh were, in fact, in line with typical industry benchmarks. Digital outreach in the form of email marketing and social media was highly effective in getting to the end user. Radio was another platform that showed significant reach with an average of 132 listeners tuning in to each ad. This meant that radio was the second performing media platform for audience reach, following social media networks. The overall exposure to

the campaign on various media is presented in Table 3.

Exposure Time

In participants for whom we still had data ($n = 69$), the median time spent living in a community where the public awareness campaign existed before participating virtually was around 24 days. The length of exposure across participants spanned 8-38 days, with exposure commencing as early as mid-August 2020 and ending in late September 2020.

Table 3: Reach of Public Awareness Campaign in Bangladesh

Media Strategy	Type	Reach Details
Targeted Digital Advertising	Email Marketing	- 8,352 impressions- 17% open rate (out of 50,000 emails sent)- 2% click-through rate- 9% click-to-open rate
Mobile In-App Advertising		- 186,920 impressions- 373 clicks- 20% click-through rate
Social media		- 303,900 impressions- 595 link clicks- 20% click-through rate

Pre-Roll Video	- 250,560 impressions- 359 clicks- 14% click-through rate- 68.63% viewed entire video
Radio Advertisements	- 2,232 radio spots aired- Net reach of approximately 295,100 people (impressions)

Table 4: Demographic Characteristics of Study Participants

Demographic Category	Characteristic	Count	Percentage (%)
Gender	Female	52	75.4
	Male	17	24.6
Ethnicity	Bengali	64	92.8
	Other Ethnic Minorities	5	7.2
Education Level	Secondary School Graduate	4	5.8
	Some College/Intermediate	8	11.6
	Diploma/Associate Degree	7	10.1
	Bachelor's Degree	15	21.7
	Professional Degree	26	37.7
	Postgraduate/Doctorate	9	13.0
Age Group (years)	18–24	5	7.2
	25–34	18	26.1
	35–44	19	27.5
	45–54	15	21.7
	55–64	9	13.0
	65+	3	4.3
Income Level (BDT)	0 – 200,000	6	8.7
	200,001 – 400,000	21	30.4
	400,001 – 600,000	12	17.4
	600,001 – 800,000	7	10.1
	800,001 – 1,000,000	11	15.9
	Above 1,000,000	12	17.4
Employment Affiliation	Academic (student, teacher)	24	34.8
	Business sector (owner, manager)	5	7.2
	Religious community (leader, volunteer)	2	2.9
	Healthcare professional	31	44.9
	Other	6	8.7
	Recovery community member	1	1.4

Participant Characteristics

Summary of a demographic profile of the respondents is presented in Table 4. Most participants were women (75.4%) and Bengali (92.8%). The most common highest educational attainment was professional degree (37.7%) or 4-year cohort university degree (21.7%). The age distribution concentrated between 25 and 54 years, and the majority were 35-44 years (27.5% of the sample). In terms of income, the majority of the participants had monthly incomes of between BD 20,000-40,000 4 Taka (30.4%), and more than half (56.5%) earned less than 60,000 Taka. Regarding occupation, the highest proportion was among the healthcare professionals, at 44.9%, followed by academic personnel, at 34.8%. The perceived SUD related stigma and exposure to SUD

Participants answered 3 questions measuring stigmatized attitudes and self-reported SUD exposure. The responses were measured on a 0–10 scale. All participants were of the opinion that people with a substance use problem are spoken about in very negative terms, and they recognized substance use as an important social problem. This belief also significantly rose after the first visit to the follow-up. In addition, the respondents perceived fewer negative norms or stereotypes related to drug addiction in their local area after the awareness intervention. Similarly, reported exposure to public materials on substance use disorders dropped sharply after the campaign. Statistically significant effects were predominantly found for participants who had been unexposed to stigma-reducing campaigns prior to propagation. This indicates

that public awareness and healthcare outreach led to an increased recognition of the severity of stigma related to SUD and to a lower perception of negative attitudes in the community.

Assessment of Stigma and Bias Reduction

Perceptions of stigma and bias toward substance use before and after the public awareness campaign were compared. In general, stigma scores decreased and the biggest decrease was in people with previous awareness educational exposure.

However, a difference in the total stigma and bias scores between the pre-campaign (Mean = 32.9, SD = 20.8) and post-campaign (Mean = 31.8, SD = 20.3) periods among all participants was not observed to be significant, suggesting that the campaign did not successfully reduce stigma for the entire sample. A closer analysis of certain attitude statements showed meaningful changes:

1. Among those who had previously been exposed to awareness-raising efforts there was a significant decline

in the proportion that believed that “there is little hope that people with a substance use problem could recover.”

2. There was a significant reduction in endorsement among all participants for the statement “people with substance use problems cannot be trusted” indicating increased trust in affected individuals.

3. The belief that “people with drug problems who use treatments such as methadone are really substituting one drug for another” also fell sharply, especially among those newly exposed to the campaign.

4. The attitude that “people with substance use problems don’t care about anything other than getting their next fix” also had a large reduction post-campaign exposure.

These findings imply that stigma-reduction beliefs about drug abuse can be reduced effectively by targeted public awareness and healthcare communications in Bangladesh, especially if people have had prior or direct contact with these communication campaigns. But, some more long-term efforts may require to bring more general attitudinal changes in the society (Islam *et al.*, 2025).

Table 5: Changes in Public Perception and Exposure Related to Substance Abuse

Question	Mean Pre-Test	SD Pre-Test	Mean Post-Test	SD Post-Test	Statistically Significant (p < .05)
B1: Awareness of negative discussion about substance abuse and recognition of its seriousness	7.55	0.29	8.10	0.26	Yes (0.02)
B2: Frequency of encountering negative attitudes toward substance abuse	7.26	0.28	7.07	0.30	No (0.24)
B3: Exposure to substance abuse materials in public	6.42	0.33	5.72	0.32	Yes (0.03)

There was a significant increase in the awareness of the seriousness of substance abuse problem after campaign as evidence of public attention. There was also a notable decline in the reported exposure to substance abuse materials in public areas (B3), indicating the possibility that awareness initiatives could reduce visible stigma content. But the number of times that they had seen negative attitude towards substance abuse (B2) was still the same according to the participants, that is, stigma on personal

level may be existed though the level of consciousness is so much higher (Mallik & Rahman, 2024). These findings emphasize the urgent need for a comprehensive public awareness campaign and health-related intervention to enhance recognition of substance abuse problems and their repercussions on the people in Bangladesh. Efforts are still needed to further destigmatize social attitudes and behavior.

Table 6: Changes in Attitudes Toward Substance Abuse Stigma Following Public Awareness Efforts

Performance Change	Total (n = 69)	Previously Exposed (n = 25)	Not Previously Exposed (n = 44)
Decrease in Stigma	37 (53.6%)	15 (60.0%)	22 (50.0%)
Increase in Stigma	30 (43.5%)	8 (32.0%)	22 (50.0%)
No Change	2 (2.9%)	2 (8.0%)	0 (0.0%)

Overall, there was a decrease in stigma-related attitudes toward substance abuse by more than half of the participants (53.6%) after the campaign. The greater reduction in stigma was observed among the previously exposed to community awareness (60.0%) than those newly exposed (50.0%). But a significant portion in particular in naïve group still increased their stigma attitude (50.0%). These findings indicate the possibility

of de-stigmatizing substance abuse in Bangladesh at a public health and advocacy level that could be facilitated by public awareness and healthcare interventions, and may be enhanced through continued community exposure. However, the continued high level of stigma in some respondents finds support to the view that over time, sustained efforts might be required aimed at altering the societal attitudes (Mallik & Rahman, 2024).

Table 7: Analysis of Changes in Stigma-Related Attitudes Following Public Awareness and Healthcare Initiatives

Question	Pre-Test Mean	Pre-Test SD	Post-Test Mean	Post-Test SD	Statistically Significant (p < .05)
E1	1.51	0.15	1.38	0.14	.17
E2	1.45	0.16	1.45	0.17	.50
E3	2.09	0.18	1.83	0.18	.06
E4	1.33	0.15	1.43	0.16	.21
E5	2.20	0.20	2.26	0.21	.37
E6	2.39	0.23	2.58	0.21	.15
E7	1.38	0.17	1.43	0.17	.35
E8	2.46	0.19	2.12	0.17	* .01
E9	2.10	0.20	1.81	0.18	* .03
E10	1.52	0.17	1.48	0.17	.39
E11	1.91	0.19	1.54	0.15	* .02
E12	1.62	0.16	1.58	0.17	.40
E13	1.71	0.19	1.46	0.16	.06
E14	1.59	0.18	1.67	0.17	.30
E15	1.25	0.16	1.19	0.15	.34
E16	1.03	0.13	1.10	0.14	.31
E17	2.43	0.20	2.54	0.18	.30
E18	1.29	0.17	1.42	0.17	.21
E19	1.59	0.20	1.58	0.19	.47
Overall	32.87	2.50	31.84	2.44	.24

The overall findings indicate a modest decrease in stigma-related attitudes following the public awareness and healthcare campaign; however, this change was not statistically significant. However, substantial reductions in stigmatizing beliefs were observed in specific areas, notably regarding the trustworthiness of people with substance use problems, beliefs about drug replacement therapies, and assumptions about drug-seeking behavior. These results highlight the critical role of targeted public awareness and healthcare interventions in addressing negative perceptions surrounding substance abuse in Bangladesh. While overall stigma remains a challenge, focused efforts can shift particular attitudes and support prevention strategies.

Discussion

With the exponential increase in internet access, and smartphone usage, including the use of social media “adopt by ALL” has been one of the “how” to in public health interventions in Bangladesh (Islam *et al.*, 2024). This study discovered that social media had the highest penetration amongst the population compared to conventional mediums of radio and television. The decrease in radio exposure and increase in digital streaming services indicates that social media is a more feasible medium in future efforts to prevent substance abuse on a larger scale.

Nevertheless, reducing stigma toward people who use substances (PWUS) continues to be. Despite this, reducing

stigma toward people with SUD does not (El Hayek *et al.*, 2024). There is still stigma that affects the recovery, self-esteem and utilization of healthcare services. Our study showed that although broad public awareness campaigns may increase public knowledge and self-efficacy on a range of topics, they may not be enough to reduce stigma. Participants frequently described encountering negative stereotypical attitudes towards individuals with a substance use disorder, indicating common societal stereotypes.

This data suggests that people’s language and perceptions are a significant component of the stigma associated with addiction; language that focuses on the person instead of the addiction could promote more sympathetic attitudes (Schachman *et al.*, 2024). The current research also found that participants who had experienced substance abuse issues, themselves or through others, were more receptive to attitude change, highlighting the necessity of tailoring messages for those who are personally or indirectly affected. In future public health campaigns in Bangladesh, the use of more focused messages aimed at specific target groups such as healthcare providers, law enforcement personnel, educators and policy makers may increase intervention effectiveness (Mallik, 2024). Further, combining media interventions with healthcare approaches to foster empathy and recovery could enhance prevention and decrease stigma.

Limitations

Concerning limitations, the present policy analysis

also had limitations. There was a selection bias in the sample, which was not fully representative of the diverse population of Bangladesh, and was over represented by the urban and educated population, which might limit the generalizability of the findings. Loss to follow-up between survey waves hindered tracking all attitudinal change for each respondent. Moreover, some respondents may have elected to pass some stigma questions and this might have biased the overall findings. Filling these gaps and presenting more generalizable findings are necessary to reflect the diverse cultural and socioeconomic settings in all over Bangladesh. In addition, the use of self-reported data in this study may bias estimates of stigma downward because of social desirability.

CONCLUSIONS

The present study also shows the potentially significant, but ambivalent, influence of public perceptions, health service and health promotion in preventing substance use in Bangladesh. Although broad public health campaigns raise knowledge, they have less effect on stigma without specific tactics. Population-specific campaigns tailored messages, and provider engagement also hold promise for shifting beliefs related to hope, trust, drug acceptance, and misconceptions pertaining to drug-seeking behavior. Therefore, optimal public policy should highlight a multicomponent approach that includes extensive public education and targeted strategies for sentinel populations who impact stigma and substance use outcomes. Using well-received social media tools and developing the role of health providers in online environments to promote drug prevention messages is considered as a way of expanding prevention work and modernizing the delivery of prevention interventions. Further work is required to develop and test messaging strategies, and measure their impact across different Bangladeshi populations, to support more informed policy and practice.

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