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Structural Barriers to Condom Adoption: Insights from India

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Abstract

Background:

Condoms remain the only widely available multipurpose prevention technology that simultaneously protects against HIV, other sexually transmitted infections (STIs), and unintended pregnancies. Despite promotion efforts and free and subsidised availability, condom uptake in India remains low, contributing to a high prevalence of HIV and STIs and continued population growth. While previous studies have identified some barriers to condom use, comprehensive research examining structural barriers and how they impede adoption remains limited. Drawing on institutional theory, this study explores how structural barriers influence condom adoption in India.

Methods:

We employed a qualitative, exploratory approach using purposive sampling to recruit system level actors such as managers and leaders from organisations that design and implement condom promotion and behaviour change initiatives. In-depth interviews were conducted with these actors from government agencies, NGOs, and social marketing organisations in New Delhi who possess a system level understanding of barriers gained through engagement with communities, regulators, and supply chains. Data were analysed using thematic analysis.

Results

Three categories of structural barriers emerged, aligned with institutional pillars: regulative, normative, and socio-cultural. The regulative barriers highlight how rules, regulations, and bureaucratic procedures impede behaviour change. Normative barriers reflect the influence of prevailing norms and beliefs that discourage condom use. Socio-cultural barriers capture the meanings, symbols, and associations surrounding condoms that hinder adoption.

Conclusion

This study demonstrates that structural barriers, shaped by regulative, normative, and socio-cultural institutions, significantly hinder condom adoption in India.

Contribution to public health

- Addressing structural barriers requires health intervention to go beyond individual behaviour and engage with multiple actors across regulatory, social, and cultural systems.

- This study shows that failures in condom promotion are driven by the interaction of system level macro forces rather than individual resistance alone.
- By uncovering how these forces intersect, our findings provide actionable insights for designing system-level health promotion strategies that enhance condom uptake and support broader behaviour change initiatives.

Introduction

According to the World Health Organisation (WHO), condoms remain the only available multipurpose prevention technology that simultaneously protects against HIV, other sexually transmitted infections (STIs), and unintended pregnancies. Condoms play a crucial role in achieving Sustainable Development Goal 3, which focuses on ensuring good health and well-being of the globe. The WHO *Global Health Sector Strategy on HIV 2020–2030* emphasises the need to strengthen primary prevention efforts by expanding access to condoms and promoting their consistent and correct use (1). Although condoms have been instrumental in reducing HIV transmission globally, their use and impact vary considerably across regions and countries. For instance, in India, despite numerous national and international initiatives promoting condom use, uptake among sexually active men and women remains low, at only around 7% among men and negligible among women (2). India is currently facing an epidemic, with approximately 2.5 million people living with HIV/AIDS, ranking third in the world, alongside an estimated 35 million new STI cases annually (3). Thus, promoting sustained behaviour change in this domain remains a critical public health concern.

Public health discourse has often framed behaviour change as an individual responsibility, focusing heavily on personal-level determinants such as knowledge, attitudes, and perceptions (4, 5, 6). In line with this perspective, existing research on condom adoption has overly focused on individual and relational determinants (6, 7), with limited exploration of how structural factors constrain behavioural uptake. Existing studies examining structural factors have predominantly focused on identifying these factors (8), rather than delving deep into elucidating the underlying mechanisms that hinder behaviour change. However, in reality, from a health promotion perspective, condom use is not merely an individual choice, but an outcome shaped by environment. Understanding these upstream influences is critical for designing effective, system-level health promotion strategies.

Recent health scholarship has highlighted the importance of understanding broader systemic and structural influences such as policy environments, cultural norms, and institutional arrangements, as these factors can exert powerful downstream effects on the health and well-being of individuals and families (4,9). Similarly, practical initiatives such as *Health in All Policies* (10) and Public Health England's obesity prevention programmes exemplify the growing recognition of the need for multi-level, structural approaches to public health (4).

Therefore, drawing on institutional theory, this study investigates the question: *How do structural challenges hinder condom adoption?* Understanding these structural or macro-level barriers is essential

for designing interventions that promote systemic and sustainable behaviour change to achieve public health goals. Insights from this analysis can inform broader behaviour change strategies within public health.

The paper is structured as follows. We begin with an overview of barriers to condom adoption and a discussion of institutional theory. This is followed by a description of the study's method, analysis, and discussion. The paper concludes by outlining key implications for public health promotion policy and practice.

Background

Condom adoption in India

In 2020, India distributed approximately 2.3 billion condoms, with nearly 65% concentrated in urban areas, while use in rural regions remained considerably lower (11). Government programmes have largely driven efforts to increase accessibility, with non-government organisations (NGOs) and social marketing agencies (12). These organisations conduct free distribution of condoms and subsidised condoms targeting economically disadvantaged groups to improve availability. While making condoms available, they also conduct campaigns to raise awareness about sexual health, prevent sexually transmitted infections (STIs), and promote family planning (12). Despite widespread awareness and availability, efforts to promote condom use have met with limited success across the broader population of India. The National AIDS Control Organisation (NACO), alongside NGOs and social marketing agencies, have implemented campaigns addressing HIV/AIDS prevention and family planning. Nevertheless, national surveys of India continue to show persistently low condom use of around 7% among the general population, well below the global average (3).

Research has identified a wide range of barriers to adopting condoms in India that can be categorised into individual, interpersonal, and structural levels. Individual barriers include limited knowledge, negative attitudes, low self-efficacy, lack of motivation or desire, financial constraints, and feelings of shame (8). Interpersonal barriers identified are partner opposition, dynamics of transactional sexual relationships (13), partner trust and intimacy, and general dissatisfaction with condoms with long-term partners (14), partner communication (15). Structural barriers are entrenched gender inequalities, policy gaps, limited access to health services (8), restrictive societal norms, cultural values, and behavioural assumptions guiding sexual practices in India (12; 14; 16). Stigma, fear of judgment, and misinformation (8) further exacerbate these challenges. While much of the existing literature has focused on individual and interpersonal determinants, structural and institutional factors shaping condom use behaviours and how they work as barriers have received comparatively limited attention.

Existing research on these barriers has also overly focused on high-risk populations such as sex workers (8, 17) and men who have sex with men (MSM), given their vulnerability to HIV and STIs (18, 19). While such studies are vital, general population-level condom uptake has been far less explored. Mapping and

synthesising these broader structural barriers, and elucidating how they operate, are crucial for understanding and promoting sustainable behaviour change. Accordingly, this paper draws on institutional theory to offer a nuanced and holistic perspective on structural barriers.

Institutional Theory

This paper employs institutional theory to map out structural barriers to accepting and using condoms. Recent scholarship in public health has increasingly endorsed the use of such a systemic view in public health (4;20). Institutions are defined as "regulative, normative, and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life" (21; p. 56). This theory emphasises that social structures that impact how people think and behave are composed of symbolic elements, social activities, and material resources. Thus, efforts to change individual behaviour must be understood within, rather than divorced from, the broader contextual realities that shape it.

Early institutional theories drew from economics, political science, and sociology, each offering distinct insights into how institutions shape behaviour. Economics-based rational choice institutionalism views individuals as rational actors influenced by rules, monitoring, and sanctions (22). Political science emphasises formal structures, power distributions, and political behaviour, while sociology highlights the role of social norms and cultural meanings in guiding behaviour (21). These insights help explain how health behaviours are shaped not only by individual determinants but by policies, regulations and incentives, social norms, cultural values, and perceptions of legitimacy. Understanding institutional influences can better inform interventions, policy implementation, and efforts to promote socially accepted health practices.

Institutional theory conceptualises three pillars that shape behaviour (21). The *regulative pillar* focuses on institutions with authority to set rules, monitor compliance, and apply sanctions, which may be formal (laws, courts, regulatory bodies) or informal (shaming, social exclusion). These mechanisms influence rational behaviour, often coercing individuals and organisations to comply. The *normative pillar* captures values and norms, defining what is desirable and appropriate within a social context. Conformity can evoke strong emotions such as pride and honour, while violation can lead to shame, thereby reinforcing social order. The *cultural-cognitive pillar* emphasises shared meanings, symbols, and interpretative frameworks that shape perceptions of reality (21, 22).

Method

Study context

We conducted this study in New Delhi, India, for several reasons. As the most populous city in India and projected to become the world's most populous city by 2028 (23), New Delhi represents a critical context for examining public health interventions, as the national capital, it also hosts the highest concentration of government agencies and other organisations engaged in health promotion and behaviour change.

Data were collected from managers working in government bodies, NGOs, and social marketing organisations based in New Delhi, who have a comprehensive understanding of barriers gained through engagement with communities, regulators, and supply chains. These organisations operate across both rural and urban settings, providing free or subsidised condoms and promoting their use. Moreover, they routinely navigate challenges emerging from institutional structures, allowing us to capture the systemic dynamics that shape the delivery and uptake of sexual health services in the Indian context.

Data collection

An author with contextual expertise developed the interview guide to elicit deep insights into the issue. A purposive sampling strategy was employed to recruit information-rich participants (24). In total, fifty-eight in-depth interviews were conducted with leaders and managers who are actively involved in promoting condom use in India. This study intentionally examines the perspectives of these system-level actors who design, regulate, and implement health promotion initiatives. These actors are uniquely positioned to reveal how institutional arrangements enable or constrain condom promotion at scale. Participant characteristics and affiliations are presented in Table 1.

Table 3
Details of organisations participating in the study

Organisation type	Main activities	Domain	Number of participants
International Research NGO-1	Research and Consulting	International	2
International research NGO-2	Research and Consulting	International	1
International Research NGO-3	Research	International	1
National Research Firm-1	Research and Consulting	National	2
National Research Firm-2	Research and Consulting	National	1
National Research Institute	Research	National	2
National SMA-1	Promotion	National	2
National SMA-2	Promotion	National	1
National SMA-3	Promotion	National	2
National SMA-4	Promotion	National	3
International SMA-1	Promotion	International	6
International SMA-2	Promotion	International	6
International Marketing NGO	Promotion	International	1
National Program NGO	Promotion	National	3
International Capacity Building NGO	Capacity Building Services	International	2
National SMA-5	Communication	National	3
International Communications Institute	Communication Consulting	International	1
International Communications NGO	Communication	International	3
National Media Agency	Communication Services	National	1
National Education NGO-1	Education	National	1
National Education NGO-2	Education	National	1
International Funding NGO-1	Funding	International	2
International Funding NGO-2	Funding	International	1
International Funding NGO-3	Funding	International	1
International Funding NGO-4	Funding	International	2

Organisation type	Main activities	Domain	Number of participants
Government	Planning	National	2
Government	Planning	Federal	1
National Technical Services NGO-1	Technical Services	National	2
National Technical Services NGO-2	Technical Services	National	1
National Community NGO	Community Organisation	National	1

*SMA – Social marketing agencies

*NGO – Non-governmental organisation

Following ethical approval from one of the authors' institutions, the interviews were conducted by the same author originally from India who is fluent in Hindi, Marathi and English and has extensive experience collaborating with government and non-governmental behaviour change agencies in the country. Two authors possessed strong contextual understanding, which was instrumental in shaping the interpretation. We conducted long, in-depth interviews (25), beginning with specific questions about participants' experiences and perspectives on condom promotion and adoption, as well as the roles of various key actors in India and then moved to more specific questions around structural barriers and how they impede condom adoption. Our overarching research questions guided the interview protocol (please refer Appendix 1 for the interview protocol). However, we adopted a flexible approach, probing and adapting questions as the conversations unfolded. Each interview lasted between 90 and 120 minutes and was transcribed verbatim.

Data Analysis

We manually coded the interview data and subsequently reduced these codes into open coding based on familiar patterns, enabling a more manageable amount of data. Open codes were then reduced into a manageable number (26), such as Men refuse to wear condoms with wives/girlfriends, condoms reduce pleasure, etc; then, based on common patterns, we developed nine second-order themes such as shared beliefs, appropriate behaviours, expected behaviour, symbolism of condoms, standard logics, etc. (26). We then clustered these second-order themes into three aggregate themes (Normative, regulative, cultural-cognitive) based on our theoretical framework (27). All authors discussed and moved back and forth between codes and themes to reach a consensus. The Findings section illustrates this evidence, with pseudonyms used consistently to ensure the anonymity of all participants.

Findings

We organised our themes around the three institutional pillars (21) to map the structural barriers and to illustrate how these barriers impede condom adoption.

Normative pillar

Our data reveal that shared societal beliefs prescribe appropriate behaviours during sexual activity. Men commonly resist using condoms, expressing the expectation that condoms should not be used with long-term partners such as wives or girlfriends. Condoms are predominantly perceived as products that 'reduce pleasure,' 'disrupt the sexual act,' and are associated with 'illicit' or 'immoral' encounters rather than with committed relationships. As Naresh illustrates, these shared beliefs discourage condom use and, in turn, contribute to adverse health outcomes:

People have various reasons for not using condoms, such as a lack of pleasure, which is a big reason, and a [1]**disturbance to the sex act**. *Then people also* **talk about purity**.*..... Then, if the man comes home and uses condoms with his wife, the wife may think he is going to other places for sex.* **So, there are a lot of misconceptions floating around... These can then affect the health of both the husband and wife.**
(Naresh, National Social Marketing Agencies)

The role of the man is prescribed (21) as the one who holds power in decision-making during sexual acts, both within the household and in interactions with sex workers. Men always tend to avoid using condoms due to their decision-making power:

Men in India will do anything in their power to avoid using condoms. *If you want, you can pay higher, take them (sex workers) to a lodge, to a hotel, they will stay with you the whole night, their charges will be more than their chances of using condoms will go down.*
(Sunil, National Research Institute)

In the above quotes, our participants draw attention to the role of the man and how he behaves in sexual encounters, reflecting the normative expectation embedded in this context (21). Men often perceive condoms as unwarranted because they do not align with their need for a pleasurable sexual experience. Such attitudes and behaviour could jeopardise the health and safety of both partners. The gendered nature of decision making is evident in this context, where women are expected to behave in a certain manner and internalise such behaviours stemming from patriarchy 'Women have internalised patriarchy, ' and '*women cannot get over it (patriarchy) easily. It takes years and years.* Though condoms are primarily aimed at men, the value of using a condom equally benefits women. Although condoms are primarily targeted at men, their use equally benefits women. However, women are often expected to remain silent or assume a passive role, making them reluctant to request that men use condoms, as illustrated by Sunil:

As far as cultural factors in Indian society are concerned, there is a **culture of silence among women.** *Why are more women getting infected? (That is because) they are not ready to exercise their*

reproductive and sexual rights. **A tiny proportion of women can ask their husbands to use condoms… this is due to illiteracy, lower economic control, and dependency on men.** *There are various factors around which one can argue why HIV infections and vulnerability to STIs and HIV are high among women in India.*

(Sunil, National Research Institute)

While women are not absolved of responsibility in negotiating condom use, sex workers often consciously put their health at risk when pursuing financial gain. To secure higher payment, they may engage in sexual intercourse with clients without protection. The following excerpt illustrates this dynamic of mutual exploitation:

Sex workers, yes, there is reasonable awareness about using condoms, but there is an **economic issue with sex workers**. *We work with sex workers; they know that if they don't use a condom, they might contract HIV, but if the* **client offers three times what she normally gets, she does not dare to decide**. *W***hat if your client offered three times the amount she normally gets? Without a doubt, she will tell you she will not use a condom because she is not empowered, as money is still a big issue.**

(Darsh, National Community NGO)

This example illustrates how societal norms and culturally prescribed roles (21) can generate public health challenges at both individual and societal levels. This condom resistance was not only limited to male condoms but also female condoms due to shared beliefs about female condoms as *"problematic"*,

They should have that **much time to put on a female condom**. *Then the whole question of hygiene.*

(Jatan, International Capacity Building NGO)

Similarly, other participants pointed to the *pain* and *cost associated with female condoms.* Female condoms are often stigmatised and perceived as embarrassing to use (28), reinforcing existing societal norms and gender dynamics. Participants shared similar ideas, suggesting that men strongly believe that *condoms reduce pleasure* and resist wearing them at all costs.

Further, many people have considered condoms to be something 'shameful' and inappropriate to buy, consume, or dispose of, therefore, forgoing health and safety. The following excerpts provide evidence of how such normative aspects shape perceptions and behaviours:

Sex, on the whole, is looked down upon, or it is something you are not supposed to enjoy. These attitudes still persist. So, **I would say there is not only a need to normalise condoms. I think there is a need to normalise attitudes towards sex itself.**

(Sheeba, International Social Marketing Agency)

I am sure, out of **10 people, seven will feel hesitant**. *They will go to a paan shop (a small shop that sells daily items) and ask for a cigarette or a paan (betel leaf) very easily*, **but not a condom**. *Another problem*

is, after using it, **where to dispose of it? Where to keep it in the house so children can't pick it up?**

(Sunil, National Research Institute)

The above quotations highlight the confrontational and socially sensitive nature of sex and condom use. Participants noted that it is often considered inappropriate to request condoms from a shopkeeper or chemist. The stigma associated with condoms is frequently linked to shame (28) and can significantly impede behaviour change, including the purchasing and use of condoms. Both shopkeepers and customers face normative constraints, as they are expected to behave in a manner deemed 'appropriate', which limits their actions and discourages condom use. Strategies for navigating these shared challenges in buying and selling condoms are evident in Biswas' account:

When we go to the retailer and **start talking about condoms, many times, they feel shy to react to us**. *(…). So those are the challenges; they are shy to open up to discussing issues on condoms… If you see many times in India when condoms are sold* **… the conversation between the client and the shopkeeper does not take place.** *A client goes, and the way he reacts suggests that the shopkeepers know what he wants. So, he gives him money. For example, when he gives him Rs. 10, he knows he has to give him a condom pack. So, he takes it from somewhere, wraps it, and gives it to him.*

(Biswas, National Social Marketing Organisation)

Shame and honour emerge as recurring themes in these contexts, playing a critical role within the normative pillar in maintaining social order (21). The cumulative behaviours of both users and retailers mutually reinforce the existing institutional barriers. In this setting, the shared difficulty of comfortably purchasing a condom as a customer or openly selling one as a retailer result in a loss for both parties and may discourage future interactions. Neither consumers nor retailers can disregard the social constraints and pressures of shame when conducting even a basic transaction.

Cultural-cognitive pillar

Our data indicate that cultural-cognitive elements such as the meanings, symbols, and shared understandings associated with condoms (21) play a significant role in shaping perceptions of what condoms represent and their health benefits. The data suggest that condoms are often symbolically associated with "disease" and "adultery," and are linked to specific groups, including "truckers, sex workers, and homosexuals." The following quote illustrates this perception:

Some individuals in India perceived and connected condoms to a **disease** *because of the HIV connection. If a girl asks to use a* **condom, he will ask, 'Don't you trust me***? Do you suspect I am HIV positive? Do you suspect I have a sexually transmitted disease? Do you think that I have relations with other women? These* **things create a barrier**. *They also feel a condom is only for* **truckers, sex workers, and same-sex groups.** *The condom has been seen as a* **symbol of the disease**. *That is why I say that* **condoms have** *been highly* **stigmatised** *in India. There is a need; it is high time we put our best efforts into projecting* **condoms as a symbol of love**. *If someone loves their wife or girlfriend, they will definitely go for condom use.*

(Sunil, National Research Institute)

The societal discourse surrounding condoms shapes cognitive interpretations that position them as undesirable or inappropriate. These findings help explain the limited acceptance and legitimacy of condoms among both users and the wider society. Furthermore, participants noted that condom promotional campaigns often reinforced existing schemas by associating condoms with “fear,” “disease,” “monstrous,” and “promiscuous” behaviours. Attempts to reframe these associations in terms of “love” or “pleasure” are largely ineffective, as the negative meanings ascribed to condoms have become institutionalised through entrenched cognitive and cultural schemas (21).

The minute you create this **monster HIV**, *which all the initial campaigns did in India, with phrases and words such as daravni cheez hai, bhoot hai [it is a scary thing, it is an evil spirit in Hindi] and the black colour*, **people get scared of us; it’s like you got that horrible disease**. *It’s like leprosy; you translate the* **fear of the disease into the fear of that person.** *So, if not for any other reason, that alone is reason enough. It’s not fear. It’s more like they need to realise they are at risk.*

(Maheshwari, National Education NGO)

Our data also indicate that NGOs promoting condom use, including USAID, NACO, and the Bill & Melinda Gates Foundation, have not provided a coherent or positive framing of condoms in their campaigns. Rather than positioning condoms in terms of “pleasurable sexual experiences,” “safe sex,” or “orgasm” to encourage behaviour change, campaign messages predominantly focus on “disease prevention,” a pattern noted in previous studies in India (29). Such messaging reinforces existing cultural schemas, thereby reproducing the same social structures that limit condom acceptance and use.

Look at the HIV communication in India; even if you track it over the last ten years, you will see the messages people send out. **One of the reasons that the condom market has really slumped over the last decade is because of the HIV/AIDS messages.**

(Mohan, International Research NGO)

These ideas are reinforced culturally by influential actors, such as government officials and health ministers, who promote abstinence as the primary means of preventing sexually transmitted diseases rather than advocating condom use. These officials often frame Indians as culturally superior to Westerners, with higher sexual morals, and attribute sexual activity among youth to peer pressure. Consequently, their moral guidance discourages condom use, shaping behaviours in ways that align with these culturally sanctioned norms.

A lot of what they **tell us is happening (sex) is really happening because of peer pressure**, *because you begin to feel that you are missing out on something that your friends are doing. Talking about brahmacharya [celibacy, in Hindi], saying if you are not ready for it, don’t give in just because your friend is pressuring you or because you think it is a dumb thing not to do. Just figure out the consequences and*

then do what you want to do in life. (…) **That's the way we look at abstinence. And I think it also fits with the Indian ethos.**

(Maheshwari, National Education NGO)

Our data also suggest a pervasive knowledge gap in Indian society, where a limited understanding of condoms, sexuality, family planning, and HIV/AIDS makes it difficult to communicate and frame the value of condom use and public health benefits effectively.

Many people stigmatise sex. Essentially, the root of it is poor education. *These things must be discussed if you want a healthy future for your children and grandchildren.* **Recently, we haven't discussed sexuality; it seems to be suppressed**.

(Gupta, International Research Agency)

This quote demonstrates the taboo of sex in Indian society. Our participants confirmed that '*Bringing sex education to class, to students, is a* **tough task**' *(Brinda, SMO).*

Powerful actors are often mobilised to resist efforts to provide comprehensive sex education. In extreme cases, Indian authorities have even banned sex education programs. Similarly, teachers frequently report discomfort in delivering this content. As Sharma recounted from his experience:

That is a joke; **six state governments banned sex education at some point**. *It's just unthinkable, something which is apprehensive. Even if sex education existed, it was delivered in a* **poor fashion, as teachers are uncomfortable**.

(Sharma, International Funding Body)

Orthodox nature in society contributes to the sex education void, and this further reinforces the existing structures. As Gupta emphasises:

Everybody is tip-toeing around what is politically correct and what is not correct. Some people have different convictions; some people are nervous **about HIV and condoms**. *This is a large part of politics that one has to understand.* **Some politicians are ready to provide us with money in exchange for our looking the other way.**

(Gupta, International Research NGO)

Regulative pillar

While the regulatory pillar plays a critical role in the early stages of establishing behaviour change (21), our data indicate that, in this context, it also reinforces an order that discourages condom use. Most government policies and laws are less transparent, and actions by authorities often lack accountability, making it difficult for other actors to understand or navigate the "rules of the game" (21), or even the "game" itself. Vairaj illustrates this challenge:

Many states **have taken a stand that there is no HIV in their states**, *but* **nothing is clear**.

(Vairaj, National Social Marketing Agency)

A state, as a powerful actor, taking a stand that *"there is no AIDS in the state"*, coerces people not to engage in condom usage. This is well linked to the shortage of funding, the absence of government commitment, and the absence of government human capital, such as *"not having social marketing people*", and little engagement between public and private partnerships.

As much as we may talk about the need for public–private partnerships, the commercial sector is still envisioned as having deep profits that can be mobilised to address funding gaps. Moreover, **I find this regrettable** *because I think that when you talk of true partnership, you must treat them as partners*, *not as people who are balancing the books.*

(Safal, International Research Body)

The above quote illustrates that, although the government is a powerful and resourceful actor capable of legitimising condom use through regulations and laws, it does not operate harmoniously with public health institutions and other condom-promoting agencies. Consequently, it fails to establish the legitimacy that arises when institutions work collaboratively. As Safal explains, while the government should play a central role in advocating condom use, it often assumes a backseat position, citing a perceived lack of moral responsibility.

Condoms should be distributed freely as a public sector responsibility. *My moral value suggests that the government is responsible for making the product available to anyone and everyone at no cost (…).* **Now, this depends on the morality of the central and state governments in making free condoms available to urban and rural populations as a priority.**

(Safal, International Research Body)

This evidence demonstrates that the government has fallen short in committing resources and enacting appropriate regulations to promote condom usage due to the existing cultural beliefs and bureaucracy. In particular, bureaucracy as a regulative institution constrains the actions of condom advocates, as explained by Saumi: '*Working with NGOs is much easier (…) working with the government department is not; they believe in hierarchy and formalities*'. Other leaders and managers voiced similar complaints: '*not easy to take permission for activities*' and '*too many unwanted rules and regulations*', '*I think the entire bureaucracy needs to be blamed.'* Furthermore, the absence of clear vision and policies has tangible consequences for behaviour change. Managers from several agencies noted that the government banned certain advertisements despite complying with existing advertising regulations. For example, Jaya from a national media agency explained: "*It is a condom negotiation between a sex worker and her customer, so the government decided not to air it."* Such sanctions, including withholding permission to broadcast condom adverts and limiting the free distribution of condoms, demonstrate

how the government, as a powerful actor, can leverage its authority to impose structural constraints on condom promotion (21). Sagar further illustrates this point, highlighting how some media outlets contribute to misinformation and mislead users.

There was some news that **condoms were being used to make sarees**. *We investigated the matter immediately and found that these things were not possible and were not happening.* **I will tell you that even the Ministry is, in a way, responsible for such bad publicity**, *because of some political interest somewhere. And then our media is the worst, giving major coverage to these issues.*

(Sagar, Government Agency)

Lack of regulations to tackle such issues is another barrier in this context, and data also show that politicians interfere with the media's narrative. Usually, powerful actors in the regulatory pillar can mobilise their resources to reinforce existing structures (21). Our data signals that the difficulty in developing a desirable storyline around condoms, usually powerful actors fuel tensions, delegitimise condoms, and further their interests:

I know a good reporter from an English daily who has written many articles on health issues and has consistently delivered favourable coverage **for over two years.** *Then, suddenly, one Sunday morning, I opened the newspaper and saw on the centre half-page a different story. I thought about what happened and where this came from, and through the reporter*, **I realised that certain politically influential people had been pressurising her to change the story.**

(Safal, International Research Body)

Thus, powerful actors such as the media and politicians play a significant role in discouraging condom use, making their influence highly instrumental within the marketplace. Their actions shape users' decision-making and perceptions, thereby perpetuating the problem of condom non-acceptance. Simultaneously, the absence of effective regulations in the condom market has allowed a grey market to emerge, further confusing and limiting access for consumers.

You have a small market with many players; **you have a huge grey market**, *specifically in the area of condoms. You don't have anyone who does public information activities.* **It's very difficult for people to know what to use, where to go, and why to use it**.

(Mohan, International Research NGO)

Thus, our data suggests how normative, cultural-cognitive, and regulative elements work together to destroy value in the condom marketplace.

Discussion

Our analysis is structured around three institutional pillars: normative, cultural-cognitive, and regulative. The data demonstrate how each pillar functions as a structural barrier to condom adoption by

reinforcing the legitimacy of non-use, promoting compliance with prevailing norms that discourage condom use, and highlighting the social and regulatory consequences of deviating from this established institutional order. These “how” elements are outlined for the three pillars in Fig. 1, based on our findings.

The normative pillar establishes the foundation of social order by assigning distinct roles to men and women in sexual interactions. Men are positioned as dominant decision-makers, while women are expected to adopt a more passive role. Consequently, men’s reluctance to use condoms is often justified by beliefs that condoms reduce pleasure (29), placing both their own health and that of their partners and, by extension, public health at risk. These roles are reinforced through prescribed behaviours, and any deviation can threaten an individual’s honour as a man or woman. Norms are therefore morally governed, shaping behaviour through social obligations (21). Men who insist on condom use may be perceived as lacking masculinity or trustworthiness, whereas women who advocate for protection may be viewed as challenging traditional gender roles. This moral governance generates intense societal pressures that discourage deviation, compelling individuals to conform to established expectations even at the expense of their health and well-being.

The cultural-cognitive pillar is evident in the negative connotations associated with condoms, such as “disease” and “wrongdoing.” Stigma has been identified as a key barrier to condom use in previous studies (14, 12). Our analysis goes further to illustrate how societal schemas shape individuals’ perceptions and interpretations of condom use and how stigma and shame arise in this context. The prevailing shared logic links condoms primarily with individuals who “cheat” or are “sex workers,” reinforcing stigma and discouraging their use. Efforts by NGOs to reframe condom use as a means of safe sex often generate confusion; despite attempts to promote societal dialogue, other powerful actors, such as the media and politicians, work to maintain the status quo. As influential actors, media institutions occupy a prominent socio-cultural position. They are regarded as custodians of cultural values, yet they often mobilise their resources to sustain and reproduce the negative schemas associated with condoms.

The regulative pillar has received limited attention in previous research. It encompasses rules and policies that often coerce actors into avoiding condom use, reinforced through bureaucratic barriers, sanctions, and restrictive regulations that hinder the recognition and realisation of condom related benefits. Powerful actors, particularly politicians, leverage their influence and media access to suppress NGO initiatives and promote narratives that delegitimise condom use, framing it as associated with deviant individuals or groups, a pattern characteristic of the regulative pillar (21). Fear of legal consequences and structural obstacles further discourages condom adoption. This alignment between politicians and the media deliberately obstructs behaviour change, fosters confusion regarding condom use, whether for safe sex or otherwise and ultimately shapes societal perceptions in ways that impede adoption.

In conclusion, these pillars operate interdependently to give condoms a particular meaning and shape behaviour (21). For instance, due to cultural meanings arising from the patriarchal views within the

Indian society, women are unable to influence condom use under the pressure of cultural norms positively; that is, normative institutions (patriarchy) endorse the construction of negative schema (cognitive institution), perpetuated by the regulatory pillar (sanctioning condom promotion), thereby highlighting systemic issues. This process does not require a conscious intent. The adopted or imposed belief systems and cultural frames condition how women (wives in this instance) respond, ensuring the taken-for-granted conformity and compliance (21). Conversely, men, particularly husbands, can exploit institutional elements to their advantage, for instance, by accusing wives of mistrust if they request condom use. Within this social context, powerful actors continually produce and reproduce destructive institutional arrangements that impede condom adoption.

Implications for health

Our study contributes to public health literature by adopting a systemic approach to understanding the barriers to condom adoption. While previous research has identified specific barriers (14, 12, 30), our work systematically demonstrates structural barriers. It provides a comprehensive framework that not only maps these barriers but also explains *how* they hinder behaviour change. We further empirically illustrate how these structural factors influence individual-level determinants, including emotions such as shame and fear, as well as interpersonal determinants such as role obligations and trust between partners (see Fig. 1). This approach is particularly important in public health because behaviour change such as in the contexts of alcohol consumption or dietary practices, is often contextually embedded, influenced by multiple actors, and deeply intertwined with local historical and socio-cultural dynamics.

Furthermore, our study demonstrates how the three institutional pillars, normative, cultural-cognitive, and regulative, mutually reinforce one another to establish legitimacy around a particular practice (in this case, condom use), ultimately shaping behaviours. This integrative system wide perspective preserves the nuance of institutional dynamics and enables a deeper understanding of how these pillars interact in practice.

For public health interventions to be effective, practitioners must develop a comprehensive understanding of the roles and influence of all actors within the system, including consumers, media, policymakers, NGOs, religious leaders, retailers, and the general public. By identifying opportunities for collaboration and adopting context-sensitive, system wide approaches to health promotion, stakeholders can co-develop solutions that align with the complex dynamics of the system. Addressing structural barriers requires interventions that go beyond targeting individual behaviour and engage multiple actors across regulatory, social, and cultural domains. By highlighting the interplay of these institutional forces, our findings provide guidance for public health experts to consider broader behaviour change initiatives. In doing so, we align with and contribute to the conversation on systems thinking in public health (4;9)

The current study has several limitations that also suggest directions for future research. First, our analysis is limited to a specific geographical context within India. Future empirical work could examine other regions, particularly in highly institutionalised settings, to provide a more comprehensive

understanding of how institutions shape behaviour change. Second, comparative studies between the Global North and Global South could illuminate how differing institutional environments influence behaviour. Finally, the institutional pillars framework employed in this study could be applied to investigate other behaviour change contexts, such as alcohol consumption, smoking, and related health behaviours.

Abbreviations

HIV
Human Immunodeficiency Virus
STI
Sexually Transmitted Infections
NGO
Non-Governmental Organisations
WHO
World Health Organization
NACO
National AIDS Control Organisation (India)

Declarations

Ethics approval and consent to participate:

The research was conducted in compliance with the Declaration of Helsinki. Ethics approval was obtained from the Human Subject Research Committee in the Office of Research Services at the University of Lethbridge (Canada). Ethical protocols were followed throughout the research process, including obtaining informed consent from participants and anonymising personal information. No reference number was issued for the ethics approval.

Consent for publication:

Not applicable. Participants provided written consent to participate in the study and for their quotes to be used in publications. To protect participant anonymity, *pseudonyms* are used with quotes throughout the manuscript, as explained in the Methods section.

Competing interests:

The authors declare that they have no competing interests.

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Author Contribution

SG: Conceptualisation, methodology, data analysis, writing, and editing.AE: Conceptualisation, data analysis, writing, and editing.SD: Data collection, methodology, analysis, and final editing.

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Data Availability

The data underlying this article will be made available upon reasonable request to the corresponding author.

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Footnotes

1. *Words in quotes are highlighted in bold throughout the manuscript for emphasis.*

Figures

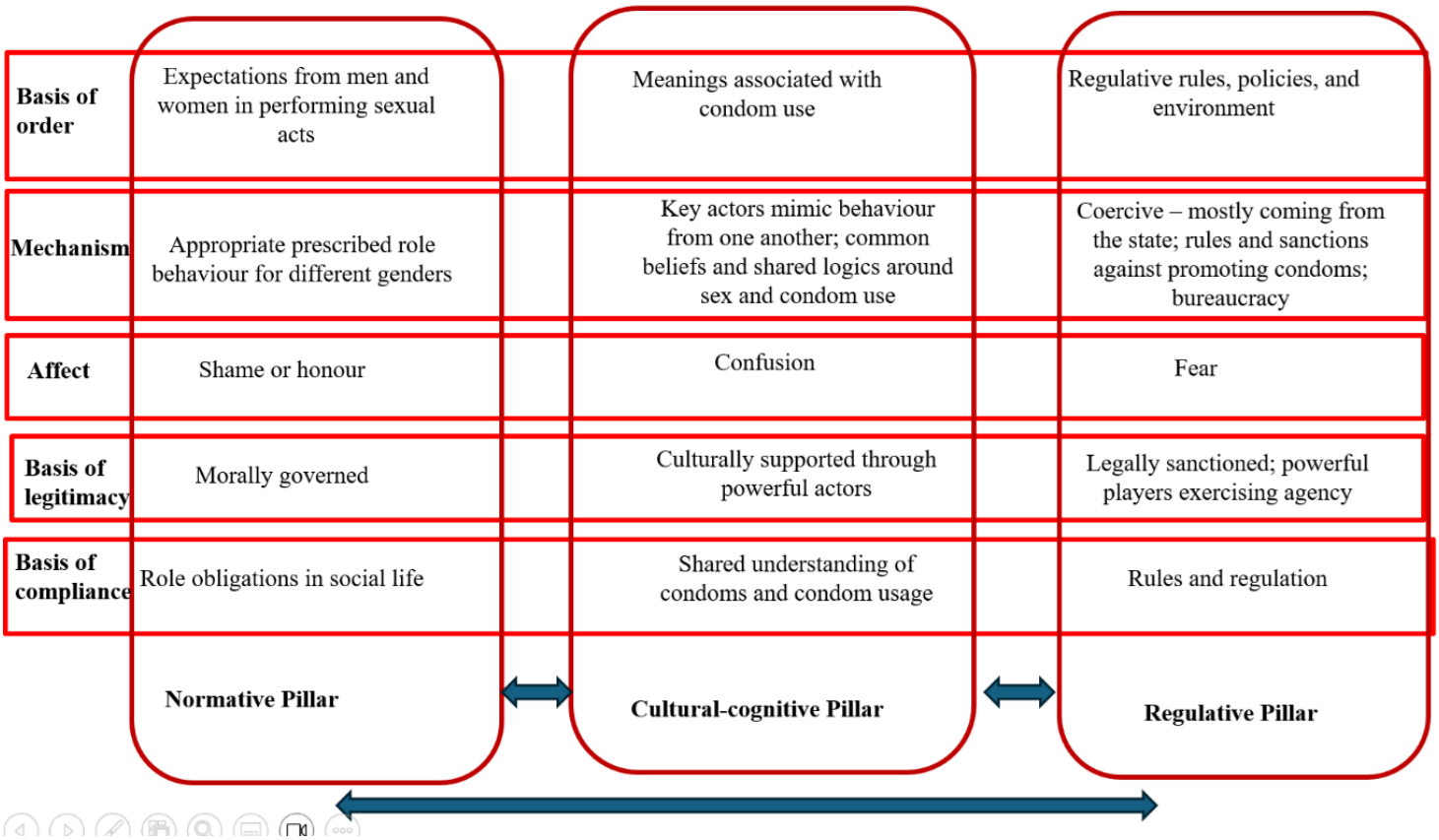


Figure 1

“How” structural barriers hinder condom adoption

Supplementary Files

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