Using theatre as a data collection tool in menstrual health research in rural India,

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This chapter draws on research undertaken to explore the role of dignity in improving menstrual health outcomes in rural Bihar and Uttar Pradesh in India. The purpose of the study was to develop a set of dignity indicators that practitioners and policymakers can use to gauge the menstrual health outcomes of rural women. The essay discusses the methodological novelty of the research in using theatre as a data collection tool and improving community participation in the research rather than as an intervention strategy. The approach is found to be particularly useful in researching thematic inquiries where a participant cohort exhibits reluctance to participate because of stigma associated with the subject being researched, as in the case of menstrual health in the context of this study.

There is rich literature and a long history spanning over two millennia in different cultures on the use of street theatre for communicating with the citizenry for disseminating information, seeking cooperation and support, campaigning for both behavioural and social change, activism, and protest (Boal, McBride and McBride, 1979). Additionally, literature on theatre based on relevant data for possibilities to engage new audiences in research is also not new (Anderson, 2007). However, the use of street theatre as a data capture tool by indirectly nudging respondents and recording their interactions is not commonly found in the literature on the use of street theatre.

The chapter examines a novel approach to deploying theatre to capture the respondent community's engagement and reactions to research carried out in a sample within that community. The analyses are rooted in fieldwork carried out by the authors on the role of dignity in improving menstrual health outcomes in rural communities in the states of Uttar Pradesh and Bihar in India. Following a survey of 600 females and 300 males, two interactive street theatre performances in each research site were used as a data capture tool. The street theatres not only communicated the key findings but also the connection between survey findings and societal aspirations. Thus, in addition to data on taboos, and ill-conceived perceptions of menstruation, the theatre also performed a story about the essential requirement of the regular menstrual cycle for a daughter-in-law to provide an heir/child /grandchild to the family and ensure the continuity of the lineage. This responded to the survey finding that 83% of men in the sample were aware that menstruation is linked with having children. The street performance highlighted the role of the menstrual cycle in achieving the aspiration of each family to have offspring and the critical importance of good menstrual health in the family lineage.

Two key events have shaped this inquiry. First, the pilot fieldwork in both geographical areas where the research was conducted showed there was stiff reluctance of the male members to engage with conversations on MH. Further, the female researchers did not feel comfortable to interview the men. In two villages in Bihar, the team had to abandon the interviews with male community members as the resistance from the interviewees was intimidating. Second, the onset of the Covid-19 restrictions between March 2020-March 2022, did not allow for the last (3rd) stage of the data collection that was to follow after the street performances.

This paper develops the approach, bringing out its distinctness and drawing attention to its use in sensitive thematic domains where people are reluctant to share their views. The chapter is organised in five sections. Following the introduction in section 1, a brief overview of the literature on the use of theatre in global development is presented in section 2. The context within which this research applied theatre as a data collection tool is discussed in section 3. This entails an overview of the thematic inquiry on the role of dignity in improving menstrual health outcomes in rural Bihar and Uttar Pradesh in India conducted between 2018 and 2019. Section 4 presents first the rationale for deploying theatre as a data collection tool representing a novel approach and a departure from the more conventional applications of theatre in development examined in section 2. The discussion then describes the process of capturing the data and the framework used to analyse it. Conclusions of the study along with some insights grounded in the fieldwork on the potential for applications of theatre as a data collection tool are presented in section 5.

Section 2: Street Theatre in Global Development

The use of theatre as a mechanism to engage with the citizenry and reflect the values and issues in society is often referenced to the work of the Greek philosopher Aristotle and his pupil Plato. Its use as a medium to educate communities and mobilise groups has long existed in almost all ancient and medieval cultures in the continents of Africa, Latin America, and Asia (South and East in particular). The ancient Indian text 'Natyashastra' written in Sanskrit is a treatise on the science of theatrics and its role in society. It is estimated to have been written between 200 BC to 500 BC. The origins of communicating with citizens via theatre in China are even older, dating back to the Shang dynasty between 1766 -1066 BC. Banham's (2004) extensive edited volume captures the history of theatre as a means to communicate and engage with people in the vast continent of Africa within geographical as well as in linguistic clusters. Regional scholars have highlighted the deep connections and interchange between the ancient traditions of Ethiopia dominant in East Africa and West Africa together with the Arab influence in North Africa. Oral narration and myth are used to deliver the foundations of the African theatre rooted in ritual, seasonal ushering, religion and communication with communities. Theatre though comprised a broad spectrum of forms of performances ranging from dance to storytelling, masquerade to communal festival.

In more recent history from medieval to modern times, the widespread dissemination of contemporary 'literary' thought and societal reflections through performances in both closed and accessible to all open spaces became prevalent. Street theatre thus became an effective medium for mobilisation of citizenry, advocacy, and campaigns. With more focused attention on conceptions of human progress and the subsequent discourse that emerged from the 20th century onwards, a new terrain for using theatrics to communicate with communities evolved. The unique features of theatre in terms of its ability to overcome literacy and language barriers through street performances, dance, and carnivals make it an extremely useful and powerful communication tool (Prentki, 1998). In his work with Tearfund, Prentki further highlights the effectiveness of theatre as it can engage with people's emotions, passions and prejudices and is not restricted to just connecting with our reasoning (Prentki and Lacey, 2004). Additionally, not only is theatre an engaging way of sharing information, it is also a strong tool to connect with both adults and children for learning and participating in new ideas.

Theatre for development (TfD) is grounded in the complex landscape of development that entails three key domains. First, a framework of the 'deficit approach' that enables understanding and mapping of what individuals and communities lack. This comprises a wide range of needs from equality of opportunities in life, good health, sanitation, dignity, education, participation, wellbeing to clean environment and drinking water. Second, a framework to understand the aspirations of individuals and communities located within the Capability Approach and what they have to build on, captured within the Wellbeing Approach. Thirdly, a framework albeit one with somewhat fluid boundaries within which the global development actors – grassroots, third sector, state and the international development institutions engage with global challenges. The Sustainable Development Goals (SDGs) offer a global consensus of such a framework by enabling engagement of actors on 17 areas of challenges the world faces in varying degrees in different countries and regions.

TfD mostly delivered as street performances in open spaces accessible to all (street theatre) is being increasingly used in each of the three domains noted above for engaging with communities for a widespread terrain of objectives. These include for example advocacy, campaigns, awareness and information to community buy-in and participation. In recent years, the practice of staging the research data for informing and sharing research findings for disparate audiences in ethnographic studies over decades has been highlighted (Anderson, 2007b). The menstrual health research in rural Bihar and Uttar Pradesh deployed this technique by creating stories for street theatre that were based on the findings of the fieldwork (Tiwari, 2022). A detailed discussion on the context of this research and insights into using street theatre are presented in the next section.

Section 3: The context: Role of Dignity in Improving Menstrual Health (MH) Outcomes in rural India

The geographical location of the project was in the densely populated states of Bihar and Uttar Pradesh (UP) which are the worst performing states in terms of female wellbeing indicators. These include for example maternal mortality (285 and 208 deaths per 100,000 live births compared to 167 for the whole of India), rural female literacy (58 and 70 percent versus 31 percent for the country), female work participation (25 and 9 percent as compared with 31 percent for all India average) and declining child sex ratio (0-6 years) since the 1991 census from 927 females per 1,000 males to 902 in 2011 census in UP and from 953 to 935 in Bihar (World Bank, 2016). A sample of 6 villages was selected (3 in each state) in which there is high Self-Help-Group coverage by project partners. The project partners were two large women's collectives with over 1 million rural women members each. Rajiv Gandhi Mahila Vikas Pariyojana (RGPVP) is an NGO in UP while JeeVika is a state supported independent entity in Bihar.

The research in this study is underpinned by the discourse on considering menstrual health as a concern for society and not just women. This insight stems from grounding menstruation within women's health as a central dimension of her bodily function essential for childbearing and her wellbeing. Childbearing ensures the continuity of the family lineage. Within the patrilineage norm in South Asia and the preference for a male child within the Indian context in particular (Dickemann, 1981, Dreze and Sen, 1995, Sen, 2014, Vishwanath, 2004, Patel, 2007), childbearing acquires a higher function. The women's wellbeing on the other hand affects the health and nutrition of the children as well as the overall welfare of the family as per the comprehensive literature on mother and child wellbeing (Goodwin et al., 2005, Negash et al., 2015). Hence, inclusion of women, adolescent girl, adolescent boys and men has been central in capturing the perceptions surrounding menstrual health in this research. The research sample therefore included both men and women.

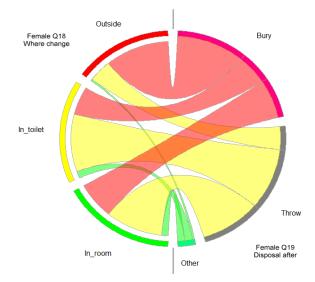
The sample comprised 600 women and 300 men over 18 years of age. The selected cohorts were representative of the rural socio-economic contexts in the two states in terms of low literacy, poor incomes, and dependence on low-paid jobs in agriculture. In the female sample, 45% had no schooling while the remaining were split almost equally between having primary and secondary education. The male sample had about 21% who had no schooling, 46% with primary education, and the remaining 33% had secondary education. Almost 50% of women reported to be agricultural labourers doing seasonal work while 60% men identified themselves as being self-employed. The women's cohort comprised 81.5 % married women mostly in the 18-25 age group.

A mixed methods approach was deployed to capture the perceptions of MH, its practices and challenges experienced by women. Based on an extensive literature review to capture both theory and empirical evidence, two questionnaires were designed – one for female and the other for male respondents in rural areas. They comprised 39 questions and 32 questions respectively, designed in English and translated to Hindi. Both questionnaires had a mixture of closed and open questions. The female questionnaire was structured to capture demographics, knowledge of menses, behaviour and experience, attitudes and opinions. Similarly, the male questionnaire was structured to capture demographics, knowledge of menses, behaviour and experience, attitudes and opinions but often with differently worded questions. The key open, narrative questions are in behaviour and experience (e.g. "What does this tell you about what people think of women?") and attitudes and opinions ("What do you understand by dignity?", "What do you understand by respect?"). A team of six field researchers – four female, and two male – were trained to administer the questionnaire given the sensitivity of the topic. A small pilot was conducted and analysed with some changes made to the questionnaire.

The survey was then carried out for 600 females and 300 males in six villages in rural Uttar Pradesh and Bihar provinces in India. The questionnaire was paper based so that modern technologies would not distract the interviewees. The questionnaire responses were subsequently entered into an Excel template (one each for female and male responses) with pull-down options to aid consistency and accuracy. Free text narratives were entered verbatim in Hindi. The Excel spreadsheets were checked against the paper copies using a 10% random sample. All the analyses were carried out in open-source R (https://www.r-project.org/).

The bulk of the statistical analysis was bivariate using cross tables with circular diagrams to visualise them in order to gain insight into the associations (or otherwise) between variables. The circular diagrams were found to be particularly effective in communicating these associations to non-statistical colleagues and practitioners. As an example, Figure 1 shows the visual association of responses to "Where do you most often change?" and "What do you usually do with the cloth/Pad once the menstruation is over?"

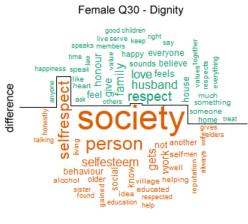
Figure 1: Association between where women change and what they do with used cloth/pad



The left hemisphere gives the responses to "Where do you most often change?" while the right hemisphere shows responses to "What do you usually do with the cloth/pad once the menstruation is over?" This shows that the majority of women who change outside (where they go for open defecation) bury their products, which is to be expected. On the other hand, a high proportion of women who change in the toilet throw their products away. The finding has implications for using cheap non-biodegradable plastic in the pad that is buried in agricultural land. This could result in the toxins eventually making their way into the food chain or adversely impacting the crop but a bio-degradable material would render the product unaffordable. The use of re-useable cloth is dependent on easy access to washing facilities in private spaces, but running water in village settings in India is mostly in open public spaces for the majority of households. These insights offer the potential for designing affordable sustainable sanitary products while also being cognizant of the contextual constraints. Further, the findings can also be communicated to the users and villagers via street theatre.

Perceptions of interviewees in their narrative responses to the open questions required a different approach. For this we deployed text mining, specifically the creation of wordclouds based on word frequencies in responses. As well as wordclouds for individual questions, it was possible to generate wordclouds that showed the differences and commonalities between questions. As an example, Figure 2 shows the differences between female "What do you understand by dignity?" and male "What do you understand by dignity?", in other words, contrasting the female and male respondent perspectives. The word 'society' stands out as the most frequent difference e.g. "self-respect is gained by how you are valued in society". The words 'person' and 'self-respect' also stand out on the male side. On the female side, the words 'respect', 'husband', 'love' and 'family' are used more frequently in their responses than the men.

Figure 2: Female and male perceptions of dignity



Male Q23 - Dignity

An important difference in the way men and women understand dignity and respect also emerged from the responses. While the male focus was on pride derived from work and what society thought of them, the women's self-esteem and self-respect came from being able to care for the family, happiness in the family, being valued by husband and to be able to offer hospitality to guests.

Responses that offer insight into perceptions of menstrual health and how these locate MH within the dignity discourse are captured within four thematic domains. These included: taboo, shame/worthlessness, MH awareness, and access.

Taboo: the word menstruation was not mentioned in the presence of young children, men and elders as indicated by the data that 87% of women did not know about menstruation until their first period. The majority of men found out about menstruation after getting married. Most commonly mentioned restrictions in the findings that forbid menstruating women from social and religious practices included: not touching any pickles, not cooking as little as is possible –sometimes there is no one to cook in the house, not serving food, not touching grain, not going to school, not working outside of the house and preventing male members of the family from seeing a cloth used during menstruation. The religious prohibitions during menstruation included not praying, not entering places of worship, not participating in any religious ceremony, watering or touching the sacred 'Tulsi' plant or handling the offerings.

Shame/worthlessness: Responses of 62% of women in the sample indicated feeling worthless, embarrassed, or being a burden during menstruation. The remaining women emphasized pain and stress.

MH awareness: The women's understanding of the correct purpose of menstruation was almost 100%. This was captured elegantly by one of the women in an analogy of the relationship between fruit and flower – the fruit being children and the flower being menstruation. While the majority of men (83%) were aware of MH and its bodily functions, perceptions of menstrual blood being dirty, having a foul smell and menstruation being caused due to heat in the women's body were widely prevalent amongst both men and women. Further, irregular menstruation or lack of it caused blindness, gas/swelling/filth in the stomach, illness that needed treatment and inability to bear children were also reported by the women. Men's responses also emphasized it as a mechanism to get rid of poisonous or dirty blood and filth that is black in colour, women's faces becoming dull and that women experience body ache.

Access to sanitary products: Three quarters of the interviewed women used old rags while the remaining majority (24%) used pads to manage menstruation. While old rags were easily available, washing the rags for re-use posed challenges due to the water source being in the open courtyard or a public space. While the commercially manufactured branded pads were easier to use, there were financial implications albeit the local brands were much cheaper at INR 2-3 per pad. Over a third of women used a room inside the house, another third used the toilet to change while the remaining third changed outside in the absence of easy access to running water and toilets. The disposal of either the pad or the rag was challenging with half of the women burying it while the other half throwing it in the open.

The findings of each one of these themes were used to develop scripts for street theatre performances by a girls' theatre group that developed as a result of this research¹. The theatre group 'Udaan' had already done twelve performances in different parts of the state in Uttar Pradesh as well as to policymakers in Bihar in November 2019.

Section 4. Using Street Theatre as a data collection tool

The literature on theatre, based on research findings for possibilities to engage new audiences in further research is not new (Anderson, 2007a), however using it to both nudge respondents and capture their interactions is a novel approach in this research. While conducting the pilot study, men's reluctance to participate in the research as it concerned a women's issue, came out strongly. As discussed in Section 3, the research in this study is underpinned by the discourse on considering menstrual health as a concern for society and not just women. Hence capturing the men's responses was deemed essential. To address this situation, it was important to find a way to better explore men's understanding of MH. It was decided to act out the key findings of the research via street theatre in the village squares. The researchers would then collate observational data in terms of the number of villagers present – male versus females, their reactions, how many left, and their responses in the interactive theatre. To capture this data, 3 researchers were trained in observational data collection without directly interacting with the theatre audience as they watched the street performance. The local researchers were explained the rationale for conducting this experiment. They were part of the whole research team and had been involved in discussions about strategies for increasing men's participation in the research. Further, the requirement to collect unbiased data by not interfering with the audience's reactions to the content of the performance was also made clear. The researchers were then trained to do a quick headcount of the audience, as well as the headcount of men and women present at the start of the performance. They were asked to be vigilant and record swiftly the number of people - both men and women that left soon after the audience became aware of what the street theatre was about. The reactions of people as the street theatre progressed in terms of how many were exchanging comments, shaking heads in disapproval, clapping or showing approval or how many showed no reaction were also to be noted by the researchers.

The observational data collected using methods explained above would indicate the level of stigma attached to mentioning MH and related issues in the presence of men, their reluctance

¹ The teenage girls' network of the project partner RGMVP active in promoting women and girls' education and self-defence was also reaching out to girls on MH awareness. They found the street theatre performances administered by the research team using external actors very encouraging. They were then supported by the research leads and RGMVP to set up the girls' theatre group 'Udaan'

to be part of conversations around MH, and also women's participation in discussions around MH issues in the presence of men. The next stage in using this method of data collection entailed the researchers going back to the male community members and administering the semi-structured questionnaire².

Two interactive street theatre performances in each research site were used as a data capture tool at the end of the 900 interviews. The street theatres not only communicated the key findings but also the connection between a finding and societal aspirations. Thus, in addition to data on taboos, ill-conceived perceptions of menstruation, the theatre also performed a story about the essential requirement of regular menstrual cycle for a daughter-in-law to give a '*waris*' (heir/child /grandchild) to the family and ensure the continuity of the patriarchal lineage most valued in the cultural context in India (Arnold, Choe and Roy, 1998; Tiwari, 2019; Sen, 2014). This captured the finding that 83% of men in the sample were aware that menstruation is linked with having children but locating it within an aspiration of each family highlighted its critical role in the family lineage.

The interaction between the performers, the researchers, and the audience followed the performances. In one of the two locations, the audience was not aware of what the street theatre was about so a large mixed crowd with around 60 percent men in the audience gathered as they associated this with entertainment. About 20 percent left within 5 minutes of the performance. Several women were observed exchanging comments, with much less conversational activity noted within the male cohort. The performers engaged with the audience by asking a few follow-up questions in the form of 'whether they agreed with the doctor's advice on prioritising the daughter-in-law's nutrition and taking special care during her periods'.

There was reluctance to participate and one or two men who did, gave monosyllabic responses. In anticipation of audience reluctance, the research team tutored a couple of assistants and planted them in the audience. These assistants were local and spoke the same dialect. They were instructed to initiate the interaction in the event of a long silence from the audience. Once the interactive dynamics between the actors and the assistants in the audience had been started, several male members joined, followed by 4-5 elderly women who also voiced their comments. This informal communication platform encouraged a male member of the audience to come forward and share a story of how the documentary 'Period. End of Sentence' (he could not recall the exact name though) had got him thinking about menstrual health and what women experience. Another male audience then mentioned the Bollywood biographical movie 'Pad Man' starring popular stars Akshay Kumar and Sonam Kapoor. The biopic captures the life of a social entrepreneur in South India who invented a low-cost sanitary pad-making machine. He is also credited for grassroots mechanisms for generating awareness about traditional unhygienic practices around menstruation in rural India.

As the interactions were tapering off, the crowds thinned. The lively conversations in in low tones amongst in particular the female members of the audience as they made their way back to their dwellings was distinctly visible. Another key observation made by the researchers was that after the initial reluctance, far more male members of the audience participated in the interactions following the performance than the female audience. Within the female audience participants, far more of the older women engaged in the interactions than the younger cohort. The reluctance of the younger women to participate in the interactions with the performers in the public space was noticeable albeit they were seen to be actively conversing with each other.

² This stage as noted in the introduction could not be administered due to the Covid-19 restrictions.

The second phase of using theatre as a data collection tool as noted earlier in this section entailed administering the semi-structured questionnaire amongst the male members in the village following the street performance. Given that in some clusters the researchers had encountered stiff resistance and intimidation to carry out the research, the uneventful street performances engaging over 40-50 mixed audiences in the village square were considered a success. However, the next phase fieldwork could not be completed because of the Covid-19 restrictions between 2020 March -22 February. The research team was encouraged and very satisfied with the street performances and how the audience eventually warmed up to participating in the interactive component of the methodology. We believe no other medium would allow talking about MH openly in public space in front of a mixed audience especially in the context of reluctance and resistance from men.

The observational data captured by trained researchers in the open public space presented valuable insights into not just the stigma and shame attached to open conversations about MH but also the power and gender dynamics in the village. Hence men's participation improved in the open public space compared to their engagement in face-to-face interviews. For women, it was the reverse, very few if at all participated in the interaction following the performance while engaged in depth in the face-to-face interviews.

Section 5: Conclusion

This chapter has highlighted the innovative use of street theatre to improve community participation in research by directly engaging with the reluctant cohort in open public space. This is done by performing the research findings of the fieldwork already conducted in the community that reflects demonstrable reluctance to engage. The performances use narratives and stories written around the research findings in open space, accessible to all in the community. This is followed by an interactive session with the actors and the audience asking for their comments and views on the stories. Trained researchers made fully aware of the context, the rationale and the objective of the experiment, gather unbiased observational data without directly interacting with the theatre audience as they watch the street performance. The researchers do a quick headcount of the audience, as well as the headcount of men and women present at the start of the performance. They are asked to be vigilant and record swiftly the number of people - both men and women who might leave soon after the audience become aware of what the street theatre is about. The reactions of people as the street theatre progresses in terms of how many are exchanging comments, shaking heads in disapproval, clapping or showing approval or how many show no reaction are also to be noted by the researchers.

The research team found the street performances very encouraging especially how the audience eventually warmed up to participating in the interactive component of the methodology. We believe no other medium would allow talking about MH openly in public space in front of a mixed audience especially in the context of reluctance and resistance from men.

The observational data captured by trained researchers in the open public space presented valuable insights into not just the stigma and shame attached to open conversations about MH but also the power and gender dynamics in the village. The observational data indicated men's participation improved in the open public space compared to their engagement in

face-to-face interviews. For women, it was the reverse, very few if at all participated in the interaction following the performance while engaged in depth in the face-to-face interviews. This shows the men's disinhibition in talking publicly while women's inhibition in the same situation as a norm within the context of this research.

The approach of using theatre as a data collection tool is particularly useful in researching thematic inquiries where a participant cohort exhibits reluctance to participate because of stigma associated with it as in the case of menstrual health in the context of this study. The theatre provoked the sharing of data and eased reluctance so that further data could be collected via s-s interviews. The innovative use of TfD can therefore be deployed in several other similar domains where there is societal stigma and participant reluctance.

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