Swiss TPH
Swiss Tropical and Public Health Institute
Schweizerisches Tropen- und Public Health-Institut
Institut Tropical et de Santé Publique Suisse

Department of Epidemiology and Public Health

Women, WASH and Health in Rural Pune

Identifying Stress and Unmet Needs

Research Partner: Vadu Rural Health Program, KEM Hospital Research Center

Dr. Peter Steinmann

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Overview

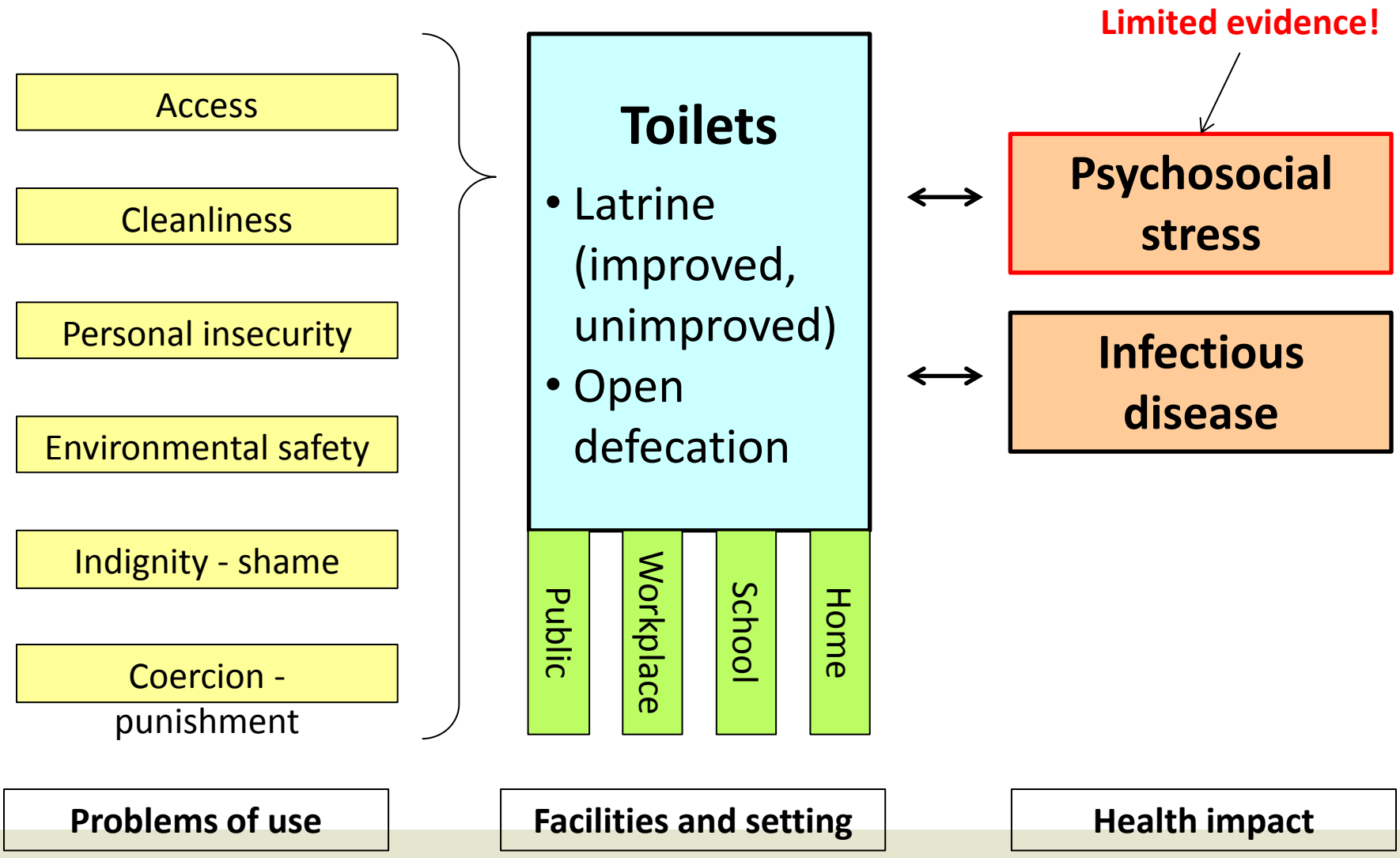
- Background and rationale
- Setting and methods
- Findings
- Implications

Study

Women, WASH and Health in Rural Pune District.
Identifying stress and unmet needs

- Collaboration between Swiss Tropical and Public Health Institute and KEM Hospital Research Centre/Vadu HDSS
- Two site-PIs: Dr. Sanjay Juvekar; Dr. Peter Steinmann
- Funding: Open call for proposals, funding from UK Department for International Development (DFID) though the SHARE Research Consortium and the Water Supply & Sanitation Collaborative Council (WSSCC)
- Duration: 2013-2014
- Location: Vadu (near Pune, Maharashtra, India)
- Status: Data collection and analysis completed, publication ongoing

Background and rationale



Conceptual framework of research plan

Basic needs	• Defecation-urination • Nutrition-hydration • Menstruation
Facilities, resources	• Toilets, sewage and fields • Water and food • Absorbent materials (availability and disposal)
Other factors	• Personal prior experience • Family and community experience and expectations • Social and cultural values
Practice	• WASH-related behaviour - preference, use and maintenance of facilities; hand washing • Coping strategies, including limiting dietary and fluid intake • Menstrual hygiene
Effects	• Self-perceived health and social problems or benefits of reported practices • Psychosocial effects, stress, dignity and quality of life (personal, family and community)

Aims of Proposal

- Identify **sources of psychosocial stress** with reference to personal experience, reported accounts and perceived vulnerability to violence **that affect access and use of various types of sanitation facilities** and open defecation.
- Identify **women's preferences, priorities, practices and perceived needs regarding menstrual hygiene**, distinguishing preferred and available options, assessing the stress imposed by social expectations and cultural values and clarifying perceived effects on women's health.
- Assess the **level of stress, priority and self-perceived effects of limited access to water and sanitary facilities, and the extent to which such concerns may lead to coping strategies** that involve limiting intake of food and liquids.
- Determine the **availability, functionality and perceived adequacy of sanitary infrastructure in local health facilities**, with particular attention to those facilities providing prenatal and obstetric care. Clarify whether these concerns influence the preference and use of accessible health facilities.

Setting and methods

- Pune district: semi-rural area; >100,000 population in 22 villages
- Private and public health facilities
- Monitored by HDSS since 2002
- Farming, industrialization started along highway
- In-migration (labour, seasonal)
- Limited representativeness for rural India

No.	Research Method	Sample
1.	**Quantitative**	
	Survey questionnaire	a. 165 adolescent girls (13-17 years) b. 143 adult women (18-45 years)
	Health facility infrastructure assessment	12 health facilities in the study area (6 public; 6 private)
2.	**Qualitative**	
	a. Focus group discussions	9 Focus Group Discussions (adolescent girls, young women, older women and seasonal migrant women)
	b. Key informant interview	21 Key Informants Interview (local government, teachers, health professionals)
	c. Free listing (“good toilet”)	a. 25 adolescents (13-17 years) b. 25 adults (18-45 years)

Findings 1: Psychosocial stress associated with toilet use

- Open defecation: 9% of residents and most seasonal migrants

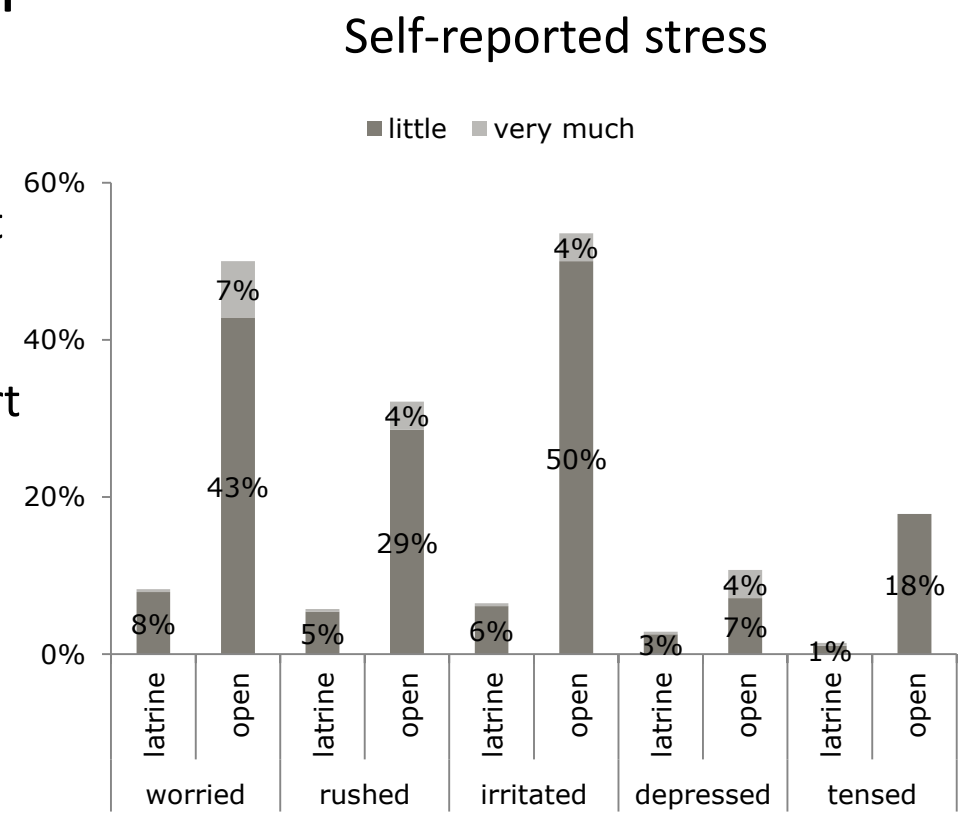
	Latrines	Open defecation
Problems	14% no water available	46% unclean
	10% inadequate lighting	42% no water available
	4% long waiting time	23% unsafe feeling
	3% unclean	19% long distance
Fears	5% injury/snakes	36% injury/snakes
	2% sexual harassment	5% sexual harassment
Stress	6% lack of personal safety	64% lack of personal safety
	3% lack of privacy	44% lack of privacy
	5% lack of cleanliness	46% lack of cleanliness

Findings 1: Psychosocial stress associated with toilet use

- *"Yes, it is a tension (worry). If you sit in the closed toilet then there is no fear but if you sit in an open place then there always remain tension that somebody may watch us".* KII with village chief, male
- *"In the summer season there are less problems than in the rainy season when going out in the open becomes difficult for women. We don't feel like going there, it becomes very filthy".* A woman in a FGD
- *"They have the problem of finding an unfrequented place. Now there are no open spaces remaining as there were in the past which is a kind of hassle."*
  KII with health worker

Findings 1: Psychosocial stress associated with toilet use

- **Good Morning Committee: fear of punitive action, reported deaths**
- Lack of privacy is stressing in more situations than during act of defecation (e.g. carrying water, accessing latrines)
- Seasonal migrant women report stress from lack of privacy but not fear for personal safety or injury
- Often insufficient latrines in market places, at bus stands etc. This can lead to stress and unhealthy coping (e.g. drinking less)
- *Good toilets: clean, with water*



Findings 2: Coping strategies in response to limited sanitation facilities

- Reported coping mostly related to non-routine situations (e.g. travel)
- More likely to report coping if higher level of stress is reported

Coping strategy (% of total)	Adolescents (n = 154)	Women (n = 154)
Delayed relief (19%)	17%	21%
Drinking less (8%)	9%	7%
Eating less (6%)	5%	6%
Combined (24%)	22%	27%
Medical problems due to coping (5%)	7%	3%

Findings 2: Coping strategies in response to limited sanitation facilities

- "I have urine problem; if I drink water then I have to go for frequent urination in the night. So I drink less water." *Young woman in FGD*
- Some awareness for negative health effects of certain coping mechanisms (e.g. drinking less, delaying relief)
- Coping with one stressor can result in another stress – e.g. delaying latrine use until after dusk increases fear of accidents and abuse

Findings 3: Menstrual hygiene practices and preferences

- Cloth as absorbent material: 36% of adolescents and 62% of adults
- Reasons for choice: ease of use, family practice, hygiene and comfort
- >90% report no challenge to change - but 37% of adolescents report disposal problems in school latrines, and shame/embarrassment makes washing cloth difficult
- Hand hygiene after changing is observed (reported)
- Restrictions during menstrual period: 53% (adolescents)/67% (adults)
- Limited access to prayer room (83%), kitchen (49%), domestic work (44%), religious/social activities (39%), bed (32%)
  - Migrants: limitations only observed when in native area
- Not troubled by restrictions: 71%

Findings 3: Menstrual hygiene practices and preferences

Restrictions during menstruation: "It depends upon the family. If the family asks you to sit separately then you need to do so for four days." *Older woman in FGD*

Troubling aspect of restriction during menstruation: "And the one who don't know especially the men gets to know about it (menstrual period) after isolation. It gives the different feeling." Adolescent girl *in FGD*

Difference between generations: "She (i.e. daughter) does not sit separately but I think that she should." *Older woman in FGD*

Findings 4: Availability and perceived adequacy of WASH infrastructure in health facilities

	Public (n=6)	Private (n=6)	Total (n=12)	
Adequacy (latrines) good				
Improved	4	6	10	Flush toilets inside or outside
Beds/latrines ratio	3.5	4.1	3.9	One public facility without toilets
Out-patients/latrines ratio	34.0	6.7	14.0	One public facility without toilets
Adequacy (hand washing stations) good				
Pipe with tap	4	6	10	Distance <10 m from latrine
Beds/HWS ratio	5.6	3.9	4.2	Two public facilities without HWSs
Out-patients/HWS ratio	55.3	6.3	15.0	Two public facilities without HWSs
Functionality good				
Latrines	4	6	10	Typically, no garbage bin is available
Hand washing stations	2	6	8	Typically, no hand drying materials are available
Order and maintenance good				
Latrines	3	6	9	Typically, no toilet paper is available
Hand washing stations	2	5	7	Often, no soap is available
Accessibility good				
Latrines	4	6	10	Indoor or convenient path
Hand washing stations	3	6	9	Indoor or convenient path
Privacy ensured (latrines)	5	5	10	Typically, no gender separation.

Findings 4: Availability and perceived adequacy of WASH infrastructure in health facilities

Satisfaction

- Questionnaire: Satisfactory WASH installations in health care facilities: 97%
- FGD, KII: - WASH installations expected as part of basic infrastructure
  - *Awareness of differences between public and private health care facilities:* "Each private hospital has a toilet facility…they need because they have to run the business" *KII with community leader*
  - Improvements in government facilities over recent years

Impact on behaviour

- Questionnaire: Consider WASH installations when deciding which health care institution to attend: 73%
- *FGD, KII: Good reputation and respected doctors and the ability to competently deal with complications are more important than the WASH situation:* "We do not think about toilets if we soon [i.e.: the same day] come back. If we have to get admitted then it is given a thought" *FGD with adolescent women*

Conclusions and implications

- Open defecation is less prevalent than in other parts of India
- Girls and women experience stress where sanitation is insufficient (market places, bus stations etc), mainly related to lack of privacy and cleanliness, and fear of accidents
  Good toilets are clean and have water
- (Fear of) violence related to open defecation seems not to be a prominent problem – but Good Morning Committees are feared.
- Reduced fluid intake and withholding urine are common coping strategies
- Restrictions during menstruation are common
- Maintaining menstrual hygiene is challenging in schools and if cloth is used
- WASH in health care facilities is commonly available – and expected; better installations in private than in public facilities
- WASH installations are not a primary consideration when deciding which facility to use

Evidence gaps

- Comparative studies in other communities in India (e.g. in urban, high prevalence of open defecation, more traditional and conservative states)
- Real level of stress might be higher (assessed was self-reported stress!)
- More subtle and less obvious evasive or adaptive strategies
- Physiological health effects of the reported coping strategies
- Impact of menstrual hygiene solution and school sanitation on school absenteeism
- WASH installations in larger hospitals
- Community perception of health facilities that lack basic WASH installations
- Impact of WASH installation upgrades on the use of and satisfaction with health centers

Thank you very much for your attention!