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Co-Creating Interventions to Address Menstrual Seclusion in Nepal via Human Centered Design

Community Design Team members participate in an experience diagramming exercise. Photos by Sara Baumann unless otherwise noted. All photographs used with permission.

Sara Baumann, Annika Agarwal, Bhimsen Devkota, Kajol Upadhyaya, Mary Hawk, Guna Raj Shrestha, Megan Rabin, Brigit Joseph, Nikita Sharma & Jessica Burke

Presentation at the NHRC 10th National Summit of Health and Population Scientists in Nepal

Background & Objective

- Chhaupadi, a menstrual seclusion practice followed primarily in mid- and far-west Nepal
- Various forms, but typically menstruating women and girls sleep in menstrual or animal sheds, among following other restrictions.
- Illegal and was criminalized in 2017, but it remains widespread
- **Contextually appropriate interventions to address harmful aspects of the practice are needed**

Photo: Poulomi Bisu

Photo: Sara Baumann

WHAT IS CHHAUPADI?

Chhaupadi is a social tradition practiced largely in mid- and far-west Nepal. Under the practice, women and girls are excluded from community life and forced to live in seclusion during menstruation.

It affects many aspects of women's & girls' lives.

- banished to an animal shed
- some don't attend school
- can't prepare food
- bathe far from their home
- cannot attend places of worship
- cannot touch others

Impacts **PHYSICAL HEALTH**

Deadly snake bites   anemia
Reproductive Tract Infections   hypothermia
dehydration   pneumonia
asphyxiation   rape
substance abuse   gender-based violence

Impacts **PSYCHOSOCIAL HEALTH**

stress
fear
inferiority   shame
embarrassment   anxiety
low self-esteem   depression
loneliness

We hypothesized that **human centered design** tools would support with engaging communities in meaningful ways **to design their own interventions.**

Community Design Team shares reflections on the HCD activities.

Methodology: Human Centered Design

Facilitator guides a participant as she creates a Concept Poster.

- HCD is an approach to problem solving that centers human experiences via an iterative design process, resulting in tangible solutions.
- Historically used in the private sector, however, HCD in public health is on the rise.
- Rationale: Community members or "end users" of the intervention should be seen as experts in their own lives, and that meaningful involvement of their voices will produce the most effective and sustainable interventions.

Methodology: Human Centered Design

- **South Africa -** Developing a Program to Engage Men Living With HIV in Care and Treatment (Bruns, 2021)
- **Northern Kenya -** Adapting Supply Chains and Offering Digital Solutions for Community Health Volunteers in Nomadic Communities (Andersson, 2021)
- **Rwanda -** Developing, Launching, and Evaluating a National Digital Health Platform to Improve Youth Reproductive Health (Ippoliti, 2021)
- **Western Kenya -** HCD to Guide Intervention Planning for Noncommunicable Diseases (Leung, 2020)

Community Design Team members reflect during a Stakeholder Mapping exercise.

Study Design

- **6 HCD activities over a 4-day co-design workshop to generate intervention ideas.**
- **Community Design Team (CDT):** 10 women, 20-59 years, practice *chhaupadi*, range of caste/ethnic backgrounds
- **Community Validation Team:** 12 people, 27-62 years, men/women, diverse occupations and caste/ethnicities
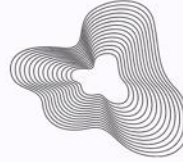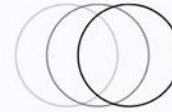

Study site in Dailekh, mid-west Nepal.
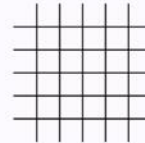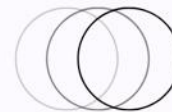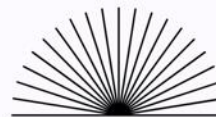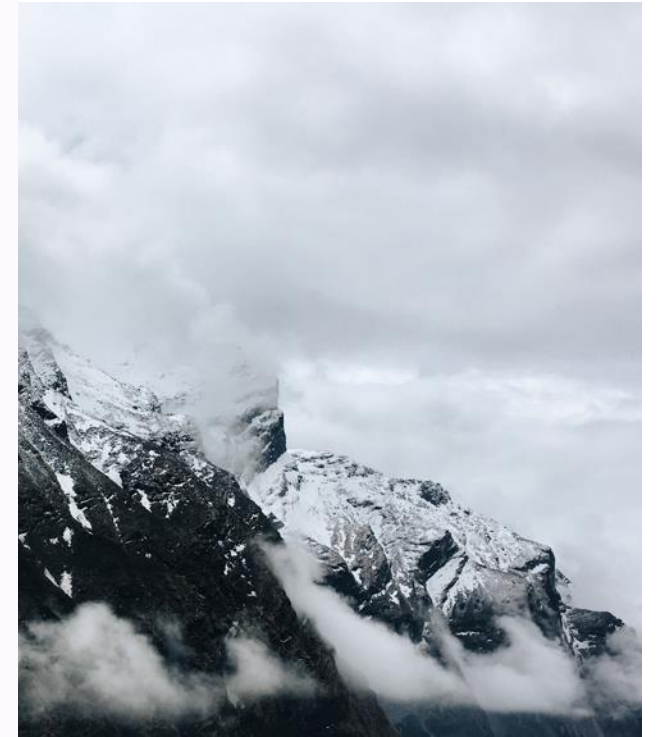
Discovery Phase Highlights: Walk-a-Mile & Experience Diagramming

- **Walk-a-Mile**
  - Generated empathy through first-hand experience
  - Identified key aspects of *chhaupadi* tradition
- **Experience Diagramming**
  - Mapped key aspects of *chhaupadi*
  - Identified which aspects are liked/beneficial and disliked/opportunities for change
  - Determined entry-points for interventions

Community Design Team members share their Experience Diagrams as a group.

Design Phase Highlights: Creative Matrix & Concept Posters

Facilitator leads Community Design Team members through a Concept Poster sharing session.

- **Creative Matrix**
  - Brainstormed unique solutions to *chhaupadi* problems in the community
  - Generated ideas for problems identified in discovery phase
- **Concept Posters**
  - In pairs, CDT members developed details for a selected intervention idea
  - Outlined inputs, expected outputs, key stakeholders, main steps, duration, and other key information for the intervention

Community Validation Meeting

- **Goal:** Bring together diverse community members to offer feedback and validate potential intervention ideas
- Meeting attendants were diverse in terms of caste, gender, age, and educational background
- **Voting:** Selected top ideas in terms of feasibility, acceptability, and potential community impact
- Encouraged consensus building and added additional ideas (e.g., offered idea to engage religious leaders)

Study site in Dailekh, Nepal

Results

- **Offers diverse ways of participating**

"The workshop had new approaches and activities which helped us learn new things. So, it is the best training that we have received so far."

- **Embraces embodied approaches**

"[On walk-a-mile] If you had not gone there, how could [you] learn something different? This is beneficial for us. You went and observed there and now we hope that you can bring some change."

Human Centered Design offers an engaging, creative, and community-centered approach to solving complex global health issues.

Community Design Team participant votes on her favorite intervention ideas from the Creative Matrix exercise.

Results

- **Participants felt empowered by the process and practiced new skills**
  "We have never done this before... we had to think and write by our self. We did it too. We are happy that we did it knowingly."

- **Embraces a democratized approach**
  "It was an excellent idea to do it... all information was within or around us."

Human Centered Design offers an engaging, creative, and community-centered approach to solving complex global health issues.

Community Design Team participant votes on her favorite intervention ideas from the Creative Matrix exercise.

Results

- **Emphasis on reading and writing**
- **Individual activities were less effective than group tasks**
- **New activities and exercises required extra support and facilitation**

Participants complete a stakeholder mapping exercise as a group and concept posters in pairs.
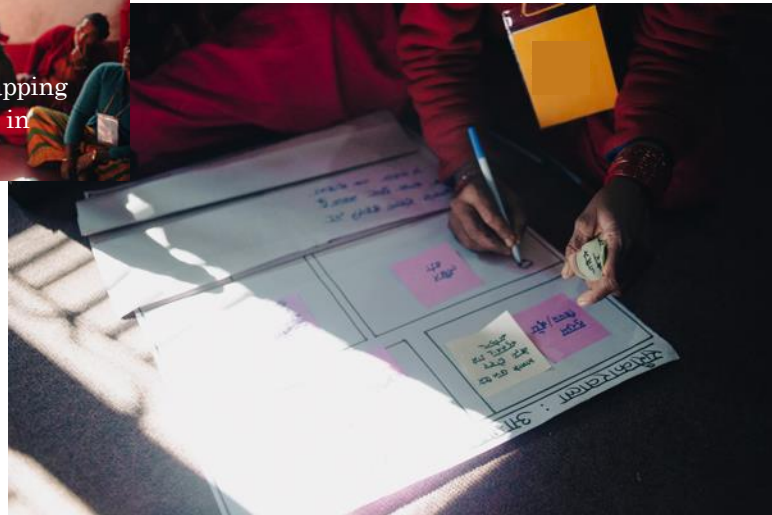
"It was challenging in the beginning. [Facilitator: 'How so?'] Because we did not understand it. We were scared that we could not do it in the right way."

"If we were more experienced in this or had more knowledge, it would be easier."

Results:

Two community design team participants work on their Concept Poster.

- **Female Community Health Volunteer Intervention:** Act as a role models and provide counselling and awareness about menstrual health and *chhaupadi*.

- **Mothers' Intervention:** Change behavior and initiate sleeping inside the home.

- **Community Intervention:** Increase awareness community-wide about dangers of sleeping in the shed.

- **Fathers' Intervention:** Let daughters sleep inside and speak up for daughters.

- **Adolescents' Intervention:** Use their tenacity and youth clubs to speak out for change.

Conclusion

HCD offers a creative and engaging way to partner with communities of diverse talents to design culturally appropriate solutions for tackling complex menstrual health challenges.

Community Design Team members reflect in a Stakeholder Mapping exercise.

5-year, NIH Fogarty International Center Study building upon this work (PI: Baumann, K01TW012424):
"Improving Menstrual Health Among Women and Girls Using Community Engaged Intervention Development in Nepal"

Key aims:
1. Explore successes and failures of past *chhaupadi* interventions
2. Co-design *chhaupadi* intervention with community members
3. Pilot the intervention and assess feasibility and acceptability in a clinical trial

Member of the research team visits households who practice chhaupadi during walk-a-mile.

Sara E. Baumann, PhD, MPH is an Assistant Professor at the University of Pittsburgh School of Public Health. Her work centers on women's reproductive health and methods innovation. She has been working in Nepal for 10 years, and currently splits her time between the US and Nepal.

Thank you!

Contact Information:

Sara Baumann (PI)
Email: sab269@pitt.edu
Instagram: @glowherpitt

Nikita Sharma (Research Coordinator)
Email: nikieesharma@gmail.com

HCD & Global Health References

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