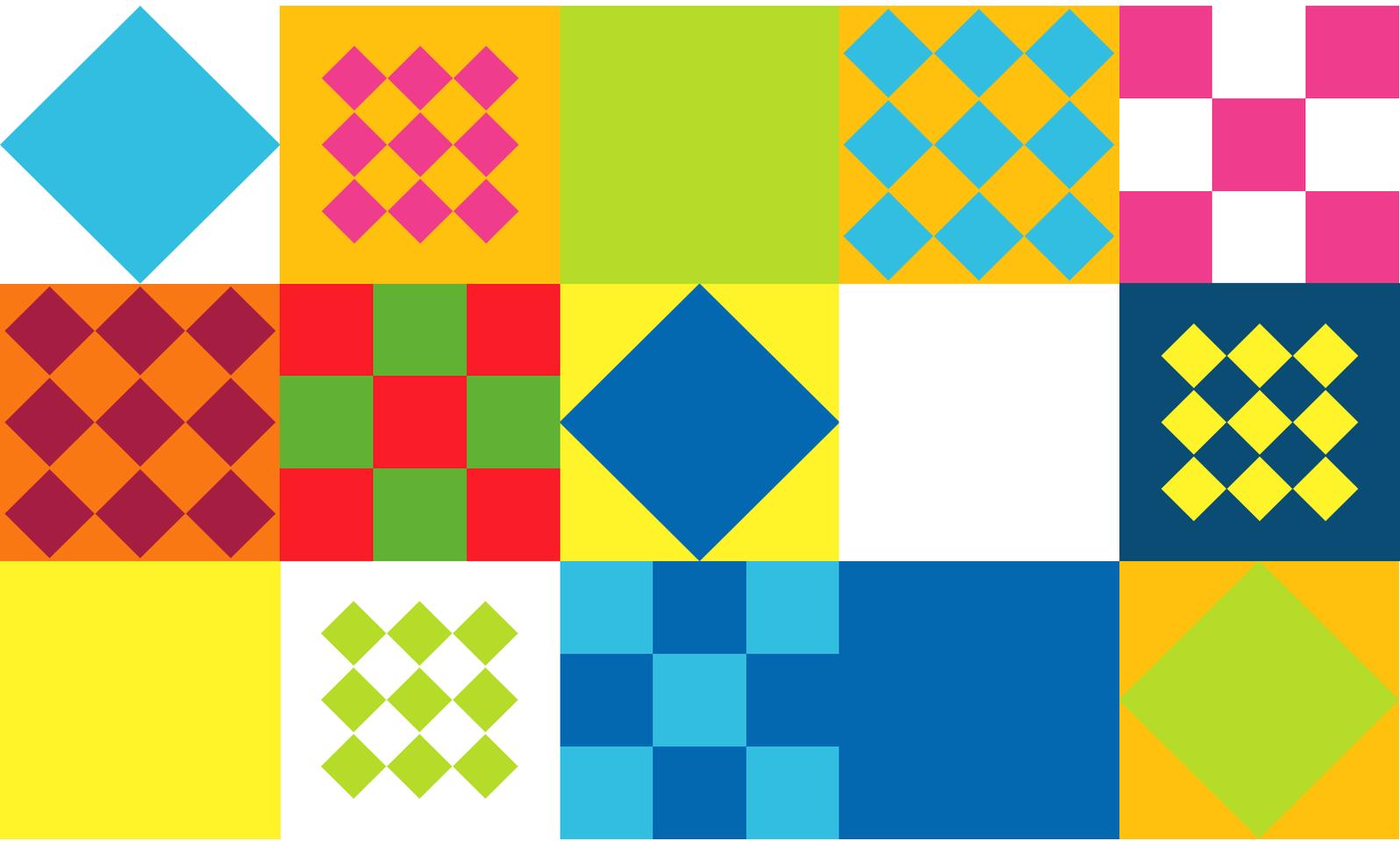




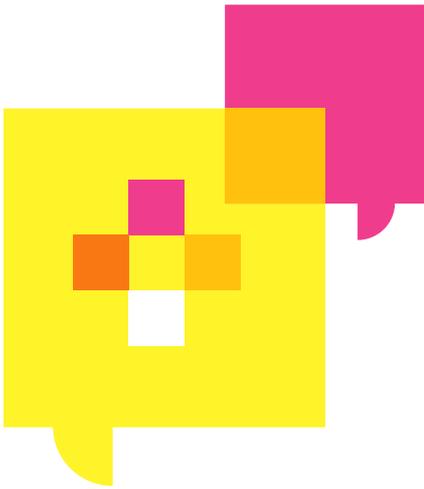
Jordan



The Effect of Spatial Design on Gender Norms and Roles: Jerash Camp



Executive Summary



SAIB

Society for Aid, Improvement, & Bridging (SAIB) works with refugees on livelihood, education, health, and rehabilitation development programs. SAIB started in 2010 as part of the German Jordanian University until it became an independent registered nonprofit organisation in 2016.

SAIB is a community of members and volunteers who have the vision to provide vulnerable societies in refugee camps with tools and skills that will allow them to sustain themselves.

ORIGINAL REPORT AND PHOTOS PREPARED BY

The Society for Aid, Improvement, and Bridging

ADAPTED BY

The UNDP Jordan Accelerator Lab

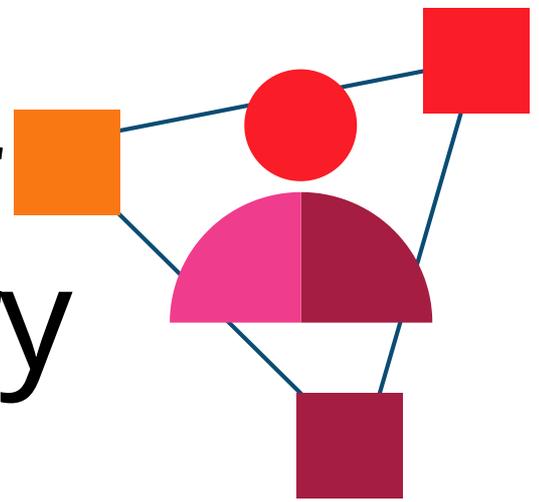
Through 2021 and 2022, the Accelerator Lab Jordan and the Society for Aid, Improvement, and Bridging (SAIB) designed and ran an experiment to study the effect of spatial design on gender norms and roles in two houses in the Jerash refugee camp in Jordan. The experiment was designed according to the published research of Zaid Awamleh, co-founder of SAIB, entitled: 'A multi-method Behaviour Settings Analysis in a Protracted Refugee Camp in Jordan'.

The experiment started with three households and created a baseline of the gender norms and roles of these households in the camp through a multi-method research process. Accordingly, SAIB and the Accelerator Lab facilitated a co-design workshop with the SAIB Jerash camp local committee to develop the spatial changes for three households. One of the households withdrew from the project during the process. The co-design process was followed with final intervention plans for two houses and civil work to complete the identified changes. Lastly, SAIB ran an observational study after three months to assess the impact of the spatial changes on each of the households' gender norms and roles.

While the experiment's hypothesis was on how gender norms and roles are affected by spatial design, the results showed limited effects on gender norms and roles.

Interestingly, the experiment recorded self-reported psychological, social, and physical behaviour changes, such as increased family-bonding activities, feelings of independence, control over decision-making, and handling of house chores by male family members.

The Behaviour Settings Theory



Behaviour Settings Theory is a framework that posits that human behaviour is shaped by the physical and social environment people occupy. This theory suggests that people are not solely influenced by their characteristics but also by their specific settings, such as homes, workplaces, schools, and public spaces. Changing the settings one occupies can change the unsatisfying aspects of their life. For example, if someone is unhappy in their current workplace, they may improve their job satisfaction by seeking a new job in a different setting. Behaviour settings theory has been used in psychology, sociology, urban planning, and architecture to develop interventions that promote positive behaviours and improve overall well-being.

Previous research has shown that housing design impacts the gendered experience and use of space. For instance, the variability within and between gender in the use of space reflects different home uses. Such uses are influenced by the social relations of family members and the social meaning behind these relations (Ahrentzen, Devine, & Michelson, 1989). Other gendered-oriented studies on housing focused on women highlighted that housing rehabilitation radically changes women's household routines (Sunikka-Blank, Bardhan, & Haque, 2019), housing conditions impact women's activities in a Palestinian refugee camp (Al-Khatib, Arafat, & Musmar, 2005), and the patterns of home activities affect housing design preferences of housewives (Yuhaniz & Jusan, 2016). Those different studies demonstrate how the housing design impacts the gendered experience and use of space. Accordingly, SAIB designed the experiment to build on this understanding and investigate how changing spaces affect gender roles and norms in the two households in Jerash camp setting.



Jerash camp. © 2013 UNRWA Photo by Ahmad Abu Sitteh

Jerash Camp

More than 2 million registered Palestine refugees live in Jordan. Most were given Jordanian nationality except those mainly displaced from the Gaza Strip in 1967 and accommodated in the Jerash refugee camp, locally known as Gaza camp, in Jerash, Jordan.

Originally prepared to accommodate 11,500 refugees, the camp has hosted more than 40,000 at the same plot since its establishment (Anera, 2019). The camp faces very difficult situations at all levels its occupants are considered the poorest among the ten Palestinian refugee camps in Jordan (Fafo, 2013).

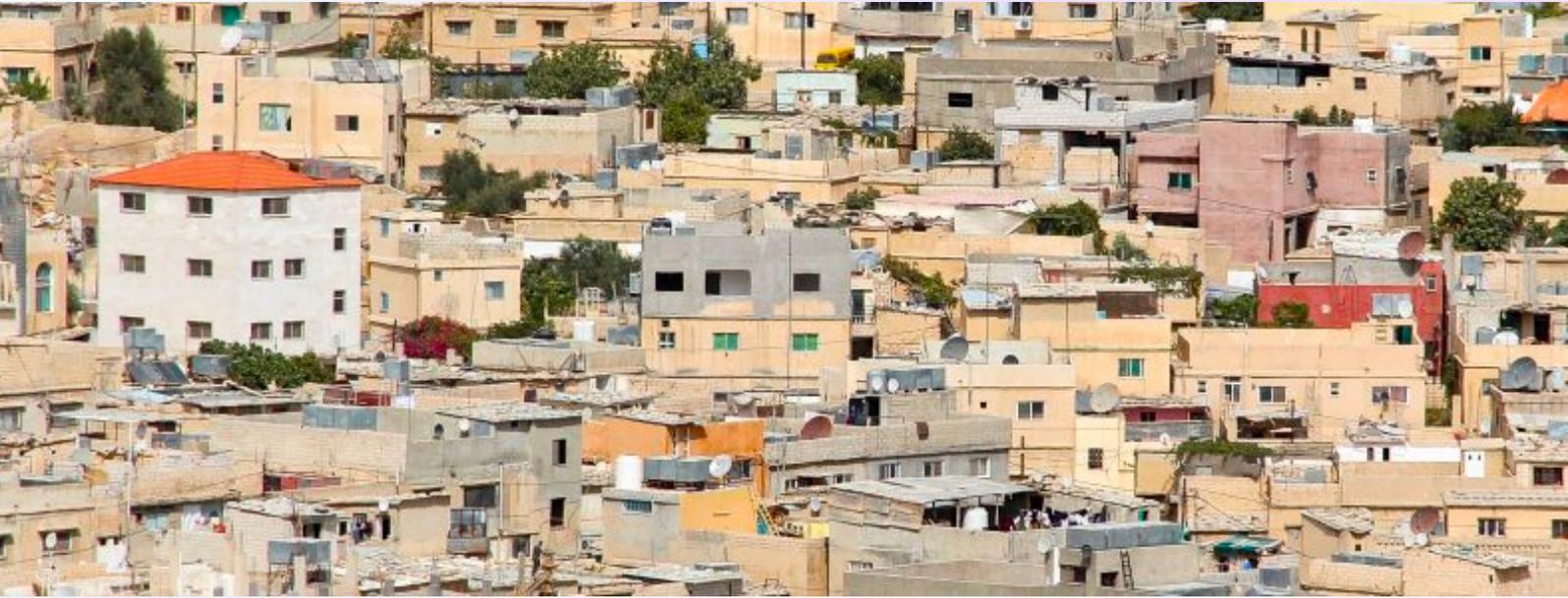
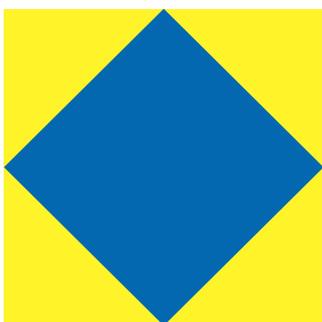


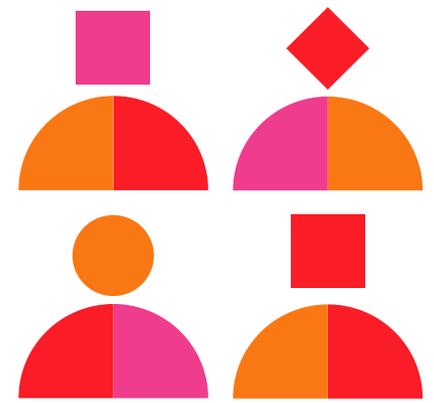
Image source: https://greeningthecamps.com/portfolio_page/jerash-camp/. Last accessed: 02/05/2023

The Experiment Hypothesis

The experiment hypothesised that redefining the meaning or sense of physical space creates shifts in the dynamics of gender norms and roles.



The Experiment Participants



Initially, the experiment worked with three households; however, only two families completed the experiment, and the third withdrew. The families' profiles are detailed in the following table. Selecting the research participants considered the extremes of the gender norms and roles.

Family 1	Age	Occupation
Father	40	Worker
Mother	32	Housewife
Son	11	Student
Son	8	Student
Son	3	Pre-schooler

Family 2	Age	Occupation
Father	44	Unemployed
Mother	33	Housewife
Daughter	15	Student
Daughter	12	Student
Daughter	10	Student
Daughter	6	Student
Daughter	2	Toddler

The Pre-intervention Phase

In the first phase of the experiment, the pre-intervention phase, SAIB used which included in-depth interviews, collection of preliminary information, physical and behavioural observations, behavioural records, a focus group and an open-mic session to assess the residential spaces of the participating families and documented their gender norms and roles within these spaces.

Each household's members chronologically recorded their activities inside the house 24 hours for a week. Each activity had time, duration, and location tags. The records were validated with the families in follow-up semi-structured interviews.

The spaces were crowded as they were small relative to the number of house inhabitants. The inhabitants self-reported a lack of privacy and a sense of independence, which they believed negatively affected their well-being and the relationship between the husbands and wives.

The self-reported behaviours overlapped and co-occurred in the same space. Additionally, the pre-intervention assessment observed the males' gendered behaviours. House one showed that 53% of the mother's activities occurred in the multifunctional bedroom and 30% in the kitchen. On the other hand, the father recorded 53% of his daily activities in the multifunctional bedroom and 20% in the kitchen. This family's sons recorded no participation in household activities, whose activities were primarily recorded in the multifunctional bedroom.

In house two, the mother and father shared the household responsibilities like cleaning, tidying, and cooking to a high degree. For example, they were both observed in the kitchen simultaneously on weekends. During the week, 23% of the father's activities happened in the kitchen when his wife was not there. The mother spent 10% of her activities in the kitchen and approximately 50% of her activities in the multifunctional bedroom.

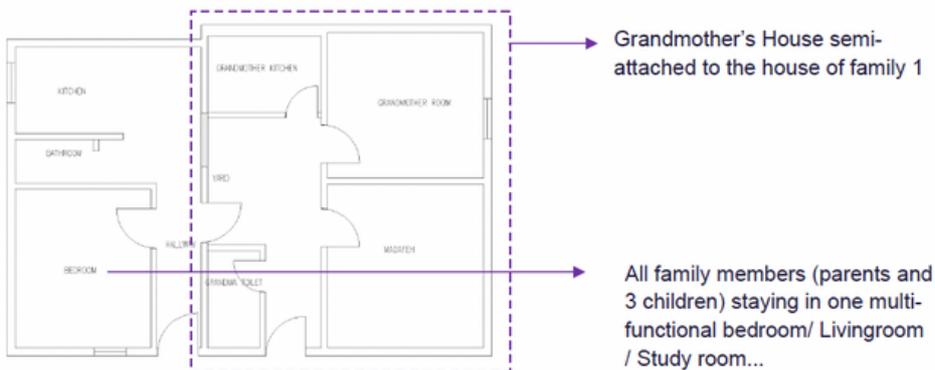
House one kitchen before the interventions



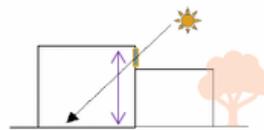
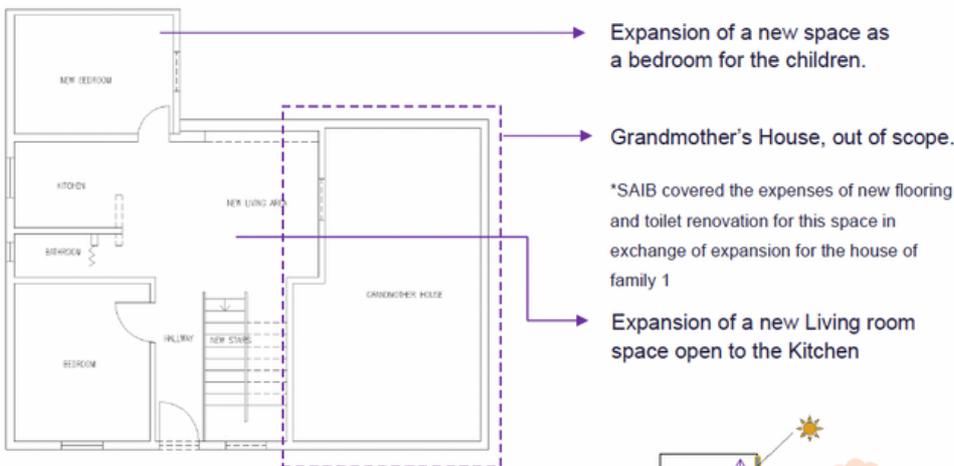
The Spatial Civil Work Interventions

Based on the assessments, SAIB designed the spatial interventions to test how to make the spaces more gender-inclusive, change gender-stereotyped behaviours, and improve the participants' well-being.

House one pre- and post-interventions



House one pre-intervention blueprint



The height of the house was extended to create a clerestory window that allows sunlight and natural ventilation to spaces that can't have traditional windows (openings) to the outside.

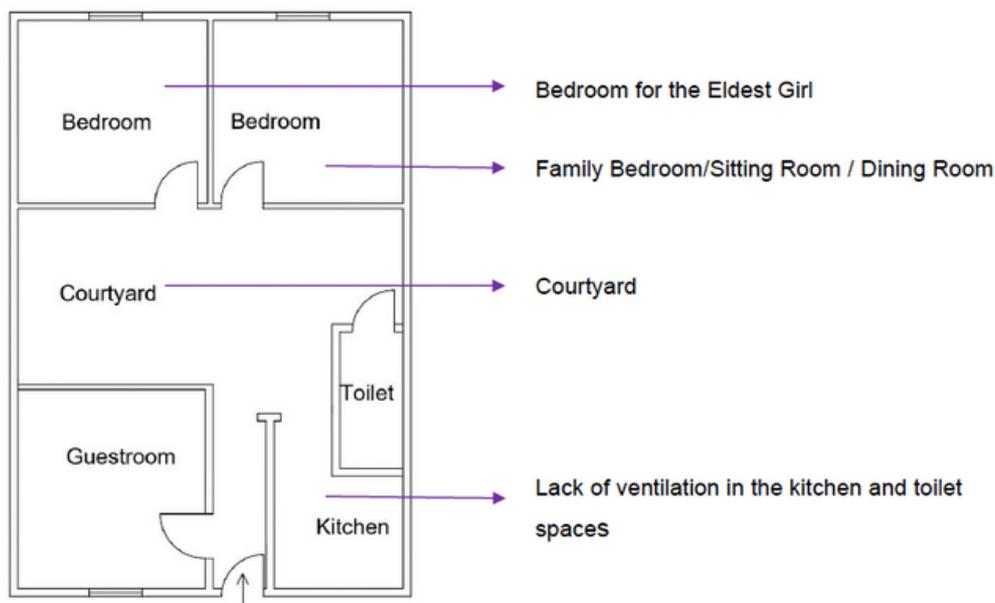
House one post-intervention blueprint

- Creating a new gender-inclusive space as per the needs of the parents and children.
- Combining the kitchen with the living room.
- Adding a kitchenette to the grandmother's space.
- Switching the guest room with the grandmother's living room.
- Providing a rooftop space.

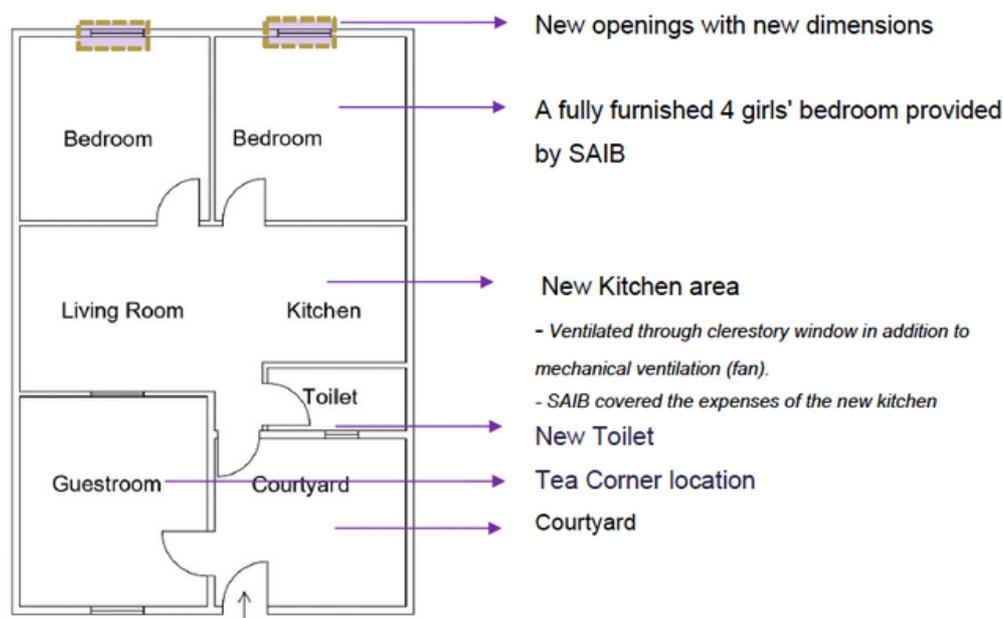
The Spatial Civil Work Interventions

Based on the assessments, SAIB designed the spatial interventions to test how to make the spaces more gender-inclusive, change gender-stereotyped behaviours, and improve the participants' well-being.

House two pre- and post-interventions



House two pre-intervention blueprint



House two post-intervention blueprint

- Providing privacy for parents and a play space for kids.
- Rearranging the eldest daughter's room so the two other daughters can be accommodated in the same room. (Interior design)
- Relocating the courtyard to maintain a stable temperature between bedrooms, kitchen, and toilet.
- Opening the kitchen to the living room.
- Placing a tea corner in the guest room.

The Post-intervention Phase

SAIB returned to the families several months after the spatial design civil work was completed to document another behavioural record to track any behavioural change. The spaces not included in the interventions sustained their previous dynamics and the associated behaviours. The guest room in house two is an example of a space sustaining its gender exclusivity despite the attempt to change this dynamic through spatial intervention.



The mother's behavioural mapping in house one post-interventions

House one

- Before interventions, 53% of the mother's weekend activities took place in the parents' bedroom; after interventions, it decreased to 15%. The parents spent more time in the bedroom for conversation than they used to before.
- The father said: "For some reason, I feel the confidence to take up the household responsibilities that had previously been handled by my wife. The mother said, "He leaves me to sleep until noon every weekend while he goes grocery shopping, buys the chicken, chops and cleans it, stores it in the refrigerator, and makes breakfast for the family. He had some previous attempts, but now I feel this task is entirely associated with him."
- The mother spent four times as much time with her husband as before, which was recorded in the form of the husband's increased participation in household chores, such as helping prepare meals during the afternoons and evenings.
- Children's sleeping patterns improved with a new bedroom, allowing for a standing pattern of the afternoon napping. This could be a consequence of having a private room for themselves.
- The mother's visits to her mother changed from full-day to a few hours in the evenings. The mother mentioned in the follow-up interview that her long visits to her mother's house were to calm her anxiety and reduce disruptions in her household. She said: "There [mother's house], I felt like I had a space I don't feel like I have at home."
- After interventions, the family had more visitors and bonded more with neighbours, friends, and extended family members. The mother commented: "I hardly ever invited friends or family over to the old house, I was ashamed of the state of the house, and there wasn't a place to host them".
- A solid roof was installed, creating a new space on the top of the house, which the family used for socialising, hosting the mother's guests, and as a safe play area for their children. The father said: "I like to relax in the sun and watch my kids play safely in the rooftop space".

The Post-intervention Phase

Before



House facade



Sitting room

After



The family's house was connected to the grandmother's house (the father's mother), a place for the extended family to gather. However, the interventions separated the two spaces and provided more privacy for everyone. After the interventions, the father spends quality time with his mother by cooking meals for her on weekends. His wife (the mother) is happy because she has more control over her space and can raise her children independently. The sons help with household duties, which they did not do before the changes. The family members have reported feeling better mentally and physically since the changes.



The Post-intervention Phase

Before



After



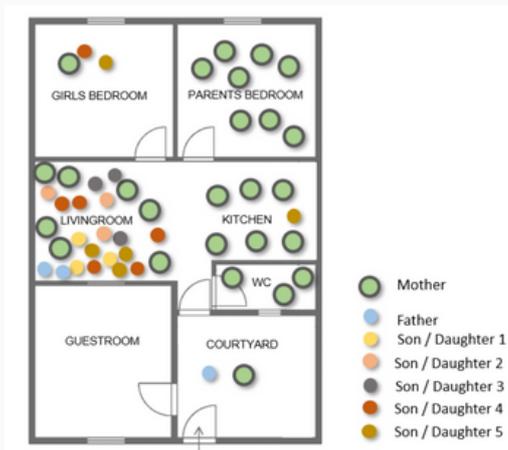
Toilets



Kitchen



The Post-intervention Phase



The mother's behavioural mapping in house two post-interventions

House two

- Before interventions, 50% of the mother's activities were in the multifunctional bedroom, which other family members used. These activities changed to 23% in her bedroom and 28% in the new living room.
- Post-interventions, the family's activities were distributed across the new spaces allowing for more family interaction and social activities in the living room, an established regular coffee hour in the courtyard area for the parents, and increased privacy for everyone.
- The house cleaning responsibilities remained the same, carried out by the daughter and the father, while the mother continued to clean her bedroom and living room. The father helped with household chores like meal preparation, room cleaning, and serving visitors.
- The daughters and the father developed new napping patterns. The father said: "How come I could do this before when we all lived in one room? What nap can I take with the kids running around?"
- Following the interventions, almost equally, the number of visitors for both the mother and father has increased significantly, and the mother now hosts friends and family members in the new living space.
- The guest room, where the father previously hosted his guests, had a new, fully equipped tea and coffee corner, which the father could use to serve his guests himself without asking his wife or daughters for help. This is a deviation from the gender norms and attitudes in the camp's culture. This corner received positive reactions from the guests.
- There was an increase in the mother's number of visitors compared to the pre-intervention assessment.
- The second-eldest daughter had more privacy now that she had a space in the daughters' shared bedroom. She also started studying in the bedroom.
- The eldest daughter experienced low energy which might have been caused by her isolation in a private bedroom and the poor ventilation in the house pre-interventions. Her post-intervention behavioural records increased interactions with her family from 7% to 36%. She commented: "Although I now share a bedroom with my sisters, we each have our bed and closet, and I have my own desk to study, so I don't feel like I've lost my personal space".

The Post-intervention Phase

Before



Daughters' room

After



Kitchen



Parents' room



The Post-intervention Phase

Before

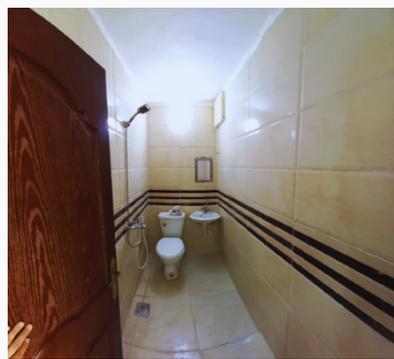


Living room

After



Toilets



Open courtyard



Conclusion

Although the results of the spatial interventions show a limited demonstration of physical space's ability to affect gender norms and roles, they show a positive relationship to these interventions contributing to change in the family member's sense of privacy, well-being, and gender equality within a household.

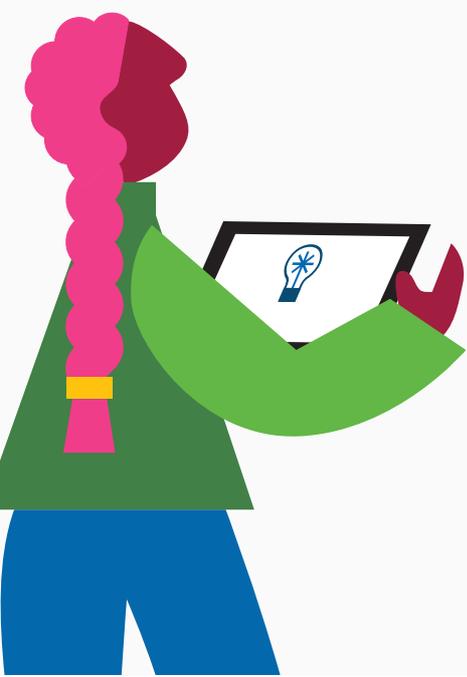
One of the compelling outcomes of this experiment is an elevated sense of privacy among the family members. The participants reported psychological, social, and physical behaviour changes because the new bedrooms were separate for the parents and children; for example, the parents started having private time for chatting, and the children had more naps than before. New spaces allowed the families to play, study, host guests, and bond. According to the UN Human Rights Council, privacy offers protection against gender-based violence, discrimination, and other harms that disproportionately affect women. The Special Rapporteur on the Right to Privacy for the United Nations, Geneva (5 March 2020), asserts that gender equality is ingrained in privacy practices.

The mother in house one reported that she felt more empowered to make her decisions in rearing her children because now she has a separate house from her mother-in-law; she reflected this empowerment by dividing the chores of cleaning and laundry between her sons. The daughter in house two felt she had extra hours for studying.

The father in house one increased his participation in household responsibilities, and the father in house two served his guests using the new tea corner in the guest room. While the gender norms in the camp typically give men more indoor and outdoor spatial opportunities to socialise than women, the spatial changes have given the mothers in both houses opportunities for recreation and socialising by hosting guests.

Within the range of gender norms and roles, the experiment showed shifts in males taking up roles that are usually done by female family members, for example, the increasing involvement of male family members in handling chores and their initiative to solely handle tasks that had previously been handled entirely by female family members. However, the records did not show a shift in women taking on roles typically performed by men, such as plumbing.

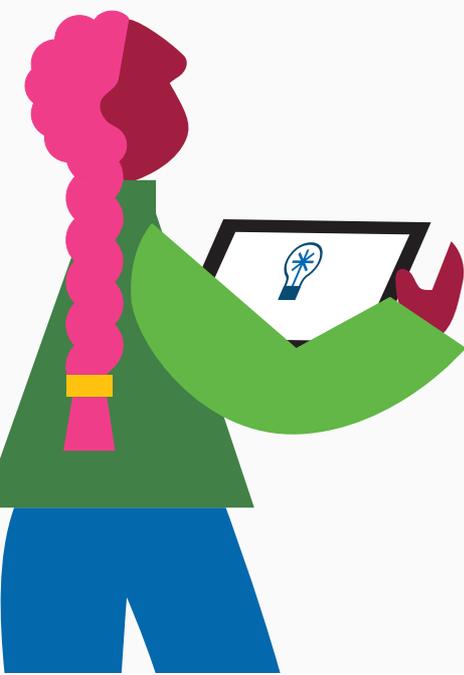
Compared to the pre-intervention observations, the father in house one and his sons cook, clean, and grocery shop either as entirely new behaviours or as an increase in duties since the implementation of the spatial changes. The study's findings suggest that male participants demonstrated greater ease in transcending the conventional boundaries between male and female roles and norms within the camp's culture. It is, however, important to note that the research was conducted on a limited sample of two families, and the data collected was primarily qualitative. To build a more comprehensive understanding of the relationship between spatial intervention, behaviour changes, gender equality, and women's empowerment, further research and analysis is strongly recommended.

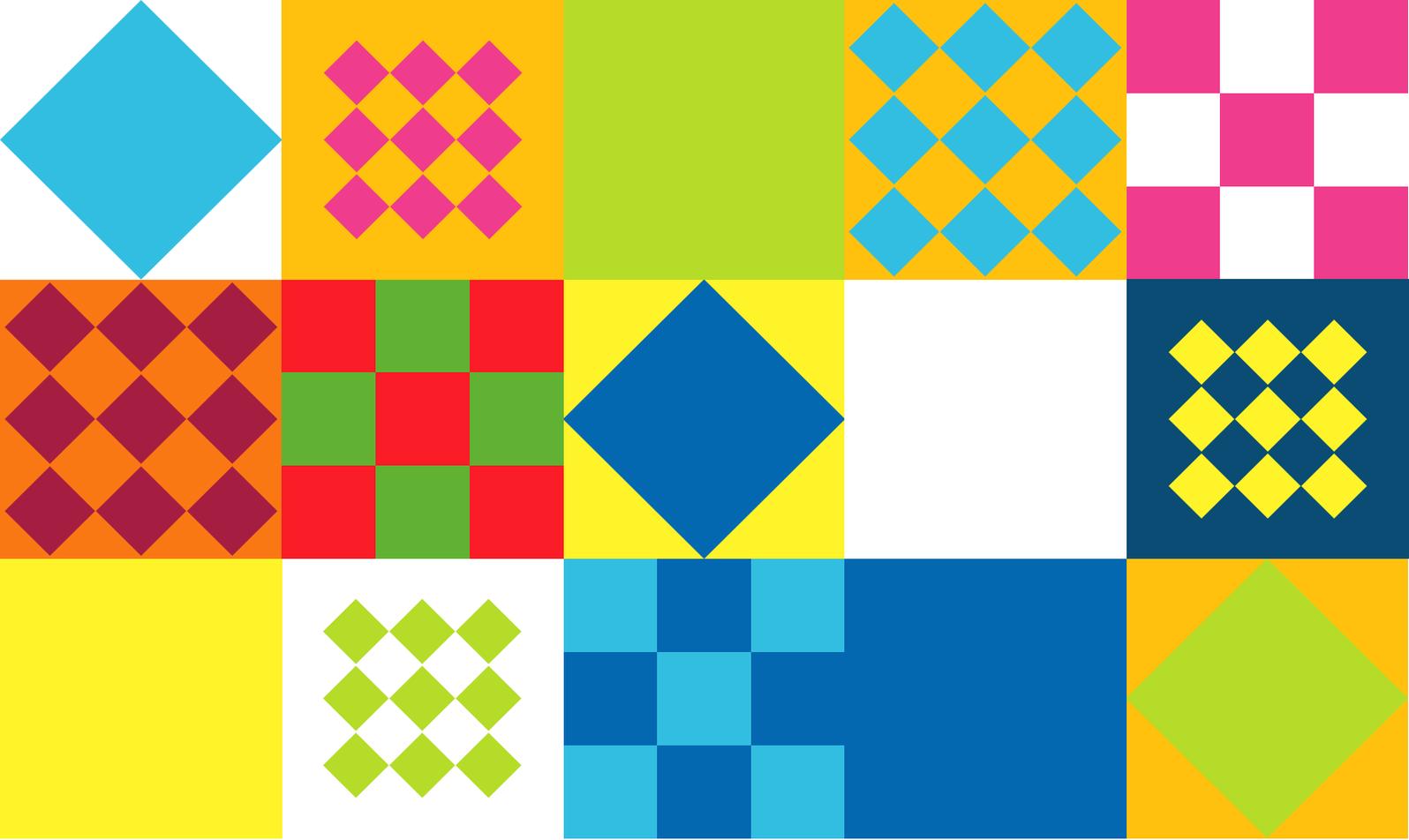


Conclusion

Additionally, it is advisable for future studies to clearly define gender norms and roles to mitigate potential ambiguity surrounding the causal link between spatial interventions and changes in gender norms and roles. This, in turn, will enable other researchers to replicate the experiment using a consistent study design.

In conclusion, the spaces included in the interventions showed a relationship to behavioural changes (albeit not necessarily a causal relationship, but rather a correlation); however, because of the small sample size, its diversity, and experiment design, further research and systematic review are needed to establish how spatial design influences gender norms and roles, gender equality, well-being, and women's empowerment.





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