

ORIGINAL RESEARCH ARTICLE

Lived experiences of self-injectable contraceptive use among women in rural Malawi

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Abstract

Drawing on women's lived experiences using self-injectable (SI) contraception, this study explores the method's integration into rural Malawi and the impact on women's lives. We conducted in-depth interviews with 18 SI users from Ntchisi and Mulanje districts. A two-phase analysis—first thematic, then narrative—identified benefits, challenges, and motivations for use. Our findings illustrate that many women transitioned from provider-administered injectables to SI, seeing value in its convenience and cost savings when health facilities were distant. Having multiple units at home offered protection against common stockouts. Women reported increased autonomy, greater privacy, and more partner cooperation than with provider-dependent methods. Many were motivated to promote SI through social networks. Challenges included inconsistent supply, varying reliability of Health Surveillance Assistants (HSAs), and early difficulties with self-administration. Findings highlight the need to invest in HSAs, ensure consistent supply, and leverage social support to optimize implementation of this innovative contraceptive method. (*Afr J Reprod Health* 2026; 30 [18]: 46-59).

Keywords: Malawi, contraceptive access, rural women, self-injection, DMPA-SC

Résumé

En s'appuyant sur les expériences vécues de femmes utilisant le DMPA-SC en auto-administration, cette étude examine l'intégration de cette méthode dans les zones rurales du Malawi et son impact sur la vie des femmes. Nous avons mené des entretiens approfondis auprès de 18 utilisatrices du DMPA-SC dans les districts de Ntchisi et de Mulanje. Une analyse en deux phases — d'abord thématique, puis narrative — a permis d'identifier les avantages, les difficultés et les motivations liés à son utilisation. Nos résultats montrent que de nombreuses femmes sont passées des contraceptifs injectables administrés par un prestataire de soins à l'auto-administration du DMPA-SC, en raison notamment de la commodité de cette méthode et des économies réalisées lorsque les établissements de santé étaient éloignés. Le fait de disposer de plusieurs doses à domicile permettait également de se prémunir contre les ruptures de stock fréquentes. Les femmes ont rapporté une plus grande autonomie, davantage de confidentialité et une meilleure coopération de la part de leur partenaire qu'avec les méthodes nécessitant l'intervention d'un prestataire de soins. Nombre d'entre elles étaient motivées à promouvoir le DMPA-SC au sein de leurs réseaux sociaux. Parmi les difficultés rencontrées figuraient l'approvisionnement irrégulier, la fiabilité variable des assistants de surveillance sanitaire (**Health Surveillance Assistants**, HSA) et les difficultés initiales liées à l'auto-administration. Ces résultats soulignent la nécessité d'investir dans les HSA, de garantir un approvisionnement régulier et de mobiliser les réseaux de soutien social afin d'optimiser la mise en œuvre de cette méthode contraceptive innovante. (*Afr J Reprod Health* 2026; 30 [18]: 46-59).

Mots-clés: Malawi, accès à la contraception, femmes en milieu rural, auto-injection, DMPA-SC

Introduction

In line with the United Nations' development goals over the last decades,^{1,2} Malawi, like many other countries in Sub-Saharan Africa, has made great

strides in improving access, outreach, and health education related to modern contraceptive methods.^{3,4} Currently, injectable contraceptive methods are the most popular in Malawi. Among married women, 34% choose an injectable. A

slightly smaller proportion choose injectables among unmarried women (24%), as male condom use is more prevalent in this demographic, but injectables remain the most common method across all groups.⁵ Women are drawn to this category of contraception because of the effectiveness and duration (three months), potential to use discreetly, convenience and ease of use, and word-of-mouth recommendations from peers.^{6–8} Only having to travel to a health provider every three months is especially beneficial to women in Malawi, as 84% of the population live in rural areas, 24% live further than five kilometers from a health facility, and 56% of women identify distance to a facility as a significant barrier to health access when they are ill.⁹

The subcutaneous Depot Medroxyprogesterone Acetate (DMPA-SC) is an important self-care innovation in the injectables market that allows users to administer the method themselves in their own homes. Self-injection (SI) of DMPA-SC has the potential to improve accessibility of contraception to women who want it and who are capable of injecting themselves. Many studies have demonstrated the appeal of SI lies in its convenience and cost savings because there is reduced need for provider visits.^{10–12}

A 2017 randomized control trial in Malawi showing contraceptive continuation can be significantly enhanced with the provision of DMPA-SC for SI as compared to the provider-administered injection¹³ spurred the government of Malawi to facilitate scaling of DMPA-SC across the country.^{14,15} The Ministry of Health Directorate of Reproductive Health introduced DMPA-SC and piloted it in seven districts in 2018 (Mangochi, Salima, Nkhota-kota, Mzimba South, Mzimba North, Machinga and Thyolo). Unlike many settings that prioritized provider-administered DMPA-SC implementation initially, in Malawi, SI was incorporated into the DMPA-SC delivery strategy *from its outset*.¹⁴ National scale-up of DMPA-SC occurred within just two years of the initial pilots in February of 2020.¹⁴ Between 2018 and 2020, average monthly dispensation of DMPA-SC increased from 39,000 units to 200,000 units, and by 2020 more than 1 in 5 DMPA-SC visits were women seeking SI services.¹⁴ Despite an early record of success with DMPA-SC implementation

in Malawi, several factors limiting its availability and accessibility for women have been documented. One key issue is inconsistent stock, often caused by supply chain system delays.^{7,16} Although the government launched an initiative to strengthen the community health worker network (2017–2022),⁹ many of these workers remain overstretched, without transport to reach the most remote areas, and under-resourced.^{17,18} Additionally, generating awareness of SI among community members, and even some providers, is still a work in progress.¹⁹ At the individual level, challenges with SI are noted in studies conducted in Malawi and elsewhere. Those assessing whether women would consider using SI show that fear of needles is prominent and many women lack the confidence to self-inject.^{10–12} Further, adolescents and others worry about the degree of privacy they have at home, finding it a less desirable choice for covert use.^{11,12} Prior studies have typically examined women's perspectives on SI use in hypothetical scenarios or in randomized controlled trials, exploring both what might draw women to use SI and the factors that might deter them.^{10–13,20} Real-world data from SI users, particularly women in rural areas, remain limited despite speculation about SI's particular benefits for this demographic.^{13,21} Following the national rollout of this new method in 2020, we aimed to deeply understand the lived experiences of rural women in Malawi who had chosen and were actively using SI. Specifically, we explored what benefits or challenges, if any, they described, how SI compared to other contraceptive methods they had used, how they were able to access the method and their experience with training, and perspectives on self-administering the method. Our study employs a narrative approach to provide a nuanced and holistic understanding of how rural women in Malawi experience and integrate SI use into their lives.

Study objective

This study aimed to explore the lived experiences of women in rural Malawi using DMPA-SC for SI as a contraceptive method by specifically examining: 1) perceived benefits or disadvantages of SI; 2) how SI compared to previous methods

used; 3) experience with training and access; 4) experience with injecting oneself. Of note, a separate publication from our team reports on women's perceptions of DMPA-SC for SI among a larger four-country interview sample;¹² that publication explored how women with diverse contraceptive use experiences (including many without self-injection experience) compare self-injection to other contraceptive methods in terms of perceived benefits and barriers to use.

Methods

Data for this study come from the Innovations for Choice and Autonomy (ICAN) project, whose primary goal is to understand how to implement SI of DMPA-SC in ways that best meet women's needs. The ICAN consortium includes researchers at Akena+ Health in Nigeria, Makerere University in Uganda, Kenya Medical Research Institute in Kenya, the Malawi University of Science and Technology in Malawi, and the University of California, San Francisco in the United States of America.

Research design

This qualitative study explored the experiences of current users of DMPA-SC for SI through eighteen (18) in-depth interviews (IDIs) conducted in the rural districts of Mulanje and Ntchisi. Mulanje, in southern Malawi, some 340 kilometers from the capital city Lilongwe, borders Mozambique and is susceptible to cyclones. Ntchisi is in Malawi's central region, about 90 kilometers from Lilongwe. Both districts have many hard-to-reach areas and rely primarily on subsistence farming. A modified grounded theory approach was used to gain a deep understanding of our participants' experiences using SI.^{22,23}

Sampling and recruitment

We used purposive sampling to recruit SI users of different ages (including both 15-19 and 20+ year-olds). Recruitment was conducted in collaboration with local Health Surveillance Assistants (HSAs), who maintain regular contact with community members for general health and contraceptive

needs. We aimed to recruit at least 15 SI users, a number selected to allow us to thoroughly examine the experience of rural women using SI while remaining feasible given time and budgetary constraints. The prevalence of SI use among women in Malawi using DMPA-SC was ~20%,¹⁴ and we recognized it would be difficult to recruit a large sample. Recruitment for the broader ICAN study included women in two additional categories: those with no history of using contraception and those with experience using methods other than DMPA-SC, with a target of 60 participants overall.²⁴ Drawing on prior qualitative research experience, we anticipated that enrolling 15-25 participants in each of the three categories would be sufficient to achieve thematic saturation.

Participant characteristics

Our sample of 18 SI users included mostly married and parous women (Table 1). The ages of participants ranged from 17 to 41 (mean = 28), with two participants under age 20. All participants described their residence as rural. Half of the sample had only finished primary school, and the other half had completed secondary school. A history of DMPA intramuscular (IM) injectable use (a method that requires provider administration) was common among participants.

Data collection

Participants were informed about the research objectives, their role and rights, and the voluntary nature of their participation. Written informed consent was obtained prior to participation and audio recording of interviews. Interviews were conducted in March and April of 2021, using a semi-structured interview guide translated into the local language (Chichewa) and designed to elicit rich narratives and insights into participants' experiences with SI and contraceptive decision-making. Participants were asked questions about prior contraceptive use and their approach to contraceptive decision-making, including who may influence their decisions. Regarding DMPA-SC specifically, questions addressed how they learned about the method, their training experience, access to the method, their experience with self-injecting,

Table 1: Participant Demographics (N=18)

Demographic Characteristics		n
Age	15-19	2
	20-45	16
Marital Status	Married	16
	Single	2
Residence	Urban	0
	Rural	18
Education	Primary	9
	Secondary	9
Parity	Nulliparous	3
	Has ever had children	15
History of DMPA-IM use	Yes	14
	No	4

and their reasons for choosing SI. Research assistants who were fluent in Chichewa and English, and had been trained in qualitative research methods, conducted the semi-structured in-depth interviews in Chichewa. Interviews took place in a private and comfortable setting, lasting approximately 45 minutes each. After the interviews, audio recordings were transcribed and translated into English by researchers fluent in both languages.

Data analysis

Our study employed a two-phase analysis process. First, we used a thematic analysis approach. Data were coded using Dedoose qualitative analysis software²⁵ and analysed using an iterative approach. The analysis process involved the following steps: 1. Familiarization: researchers immersed themselves in the data through repeated readings of transcripts and field notes. 2. Coding: initial codes were generated through rapid analysis to capture key ideas and concepts. Codes were both deductive (derived from research objectives) and inductive (emerging from the data). 3. Theme Development: themes were categorized through memoing and then further refined and validated by multiple researchers to ensure accuracy and credibility.

Suchman et al. (2023) detail this analysis process in a separate publication. For the second phase, we reviewed the emergent themes captured through our memos and identified six transcripts that aptly represented the common themes across all

18 participants. For these six transcripts, we performed a narrative review to deeply understand each participant's specific 'story': their relationships, stage of life, motivations for choosing SI and their experience using it. This second phase allowed us to better understand the themes within a real-life context and to create a richer portrait of SI use among women in rural Malawi.

Ethical approval

The study was approved by the Malawi University of Science and Technology Research and Ethics Committee (P.03/2020/007) and the UCSF Institutional Review Board (270555, 270747, 270554, 270084).

Results

Overall themes related to self-injection use in Malawi

Figure 1 outlines themes that emerged through phase one of our analysis, where we employed a thematic analysis of all 18 transcripts. We grouped these themes into the following five categories: general benefits, comparison to DMPA-IM, access and training, self-care experience, and social networks.

Related to benefits experienced, participants commonly cited convenience and the ability to save money and time. These advantages allowed them to focus on family responsibilities or income-generating work. Participants also mentioned that doing the injection themselves and managing the timing of each dose gave them a greater sense of control over their reproductive health. Finally, several participants raised that using the method at home made it easier to keep their contraceptive use confidential from others, such as neighbours or in-laws.

As many participants had used DMPA-IM previously, comparisons between the two methods were common. Because they could store their own units at home and avoid regular provider visits, SI was viewed favourably in contrast to the provider-administered injectable. Additionally, participants mentioned a better experience with side effects and the appeal of not having to expose their body to a male provider.

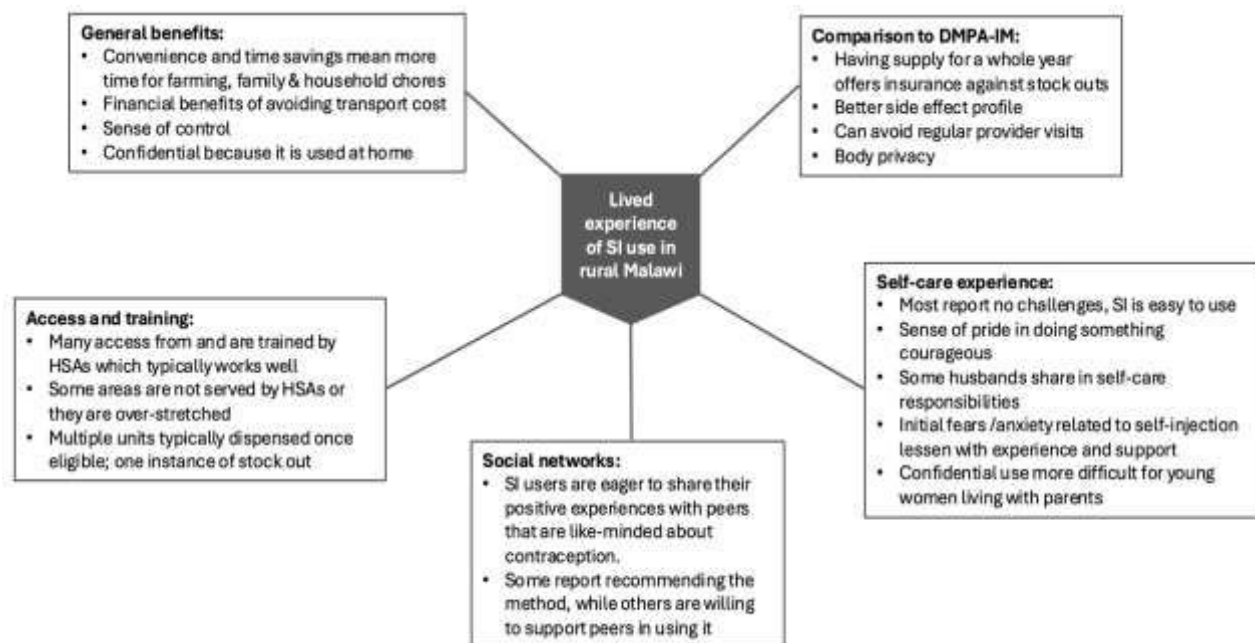


Figure 1: Themes related to the lived experience of SI use in rural Malawi grouped by category

Regarding access and training, almost all participants obtained their method from an HSA. Most found this to be a satisfactory experience and commented on the importance of HSAs in their communities. A few participants encountered challenges related to training quality, resource supply, and HSA availability. For example, participants rarely mentioned receiving visual instructions for continued use of SI and some HSAs relocated or could not be contacted for follow-up. However, as long as participants described a well-executed training, they reinjected without issue. As they reflected on the experience of self-injecting, most participants found SI easy to do and took pride in gaining a new skill that initially seemed daunting. Realizing they could perform a task they had previously associated with health workers boosted their confidence and autonomy. When participants initially experienced anxiety, subsequent reinjections were typically administered with increasing calm and self-assurance. Some women involved their husbands in the self-care process, which strengthened support for continued use and made the method feel more manageable. However, for the one participant living with her parents, concerns about SI confidentiality led her to switch to provider-administered injections.

Finally, themes in our last category relating to social networks emerged inductively through the analysis. Social connections played a role in how SI was received and shared, highlighting how SI knowledge and interest could spread informally in communities. Several participants described engaging with peers on the topic of SI, often recommending it to friends or relatives. In some cases, participants directly supported peers who needed assistance with administering the injection.

Stories of self-injection use reflecting overall themes

This section includes six illustrative stories showcasing the themes from phase one of our analysis. Here, they are embedded in a description of each participant's life, relationships, and contraceptive decision-making process. We derived each story from an individual transcript and have used pseudonyms to enhance the presentation of these personal accounts of SI use.

'Mwayi'

Mwayi, a 33-year-old married woman, lives with her husband and three children. After the birth of

her third child, Mwayi decided to use family planning to better manage the rising cost of living, particularly related to her children's education. Her decision was also influenced by her HIV-positive status, discovered during her second pregnancy. Despite some initial struggles with accepting her status, she followed her treatment program, and her child was born HIV-negative. By her third pregnancy, she had fully embraced her HIV treatment and chose to stop having more children, prioritizing her health and her family's future. 'If I continue (having children), it shows that I don't love my life,' she explained.

Mwayi accessed her contraceptive methods at a primary healthcare facility close to her home. She opted for an injectable contraceptive that she could self-administer, allowing her to avoid frequent clinic visits. 'I went to [the health centre] to start family planning and found an injectable contraceptive method that I can self-administer. I started taking it, and now I am in a good marriage,' she explained. Mwayi takes great pride in her ability to self-inject. 'I feel so good because it's like I am doing the job that health workers do.' She shared that although self-injecting was initially difficult to understand, the process became clear after her first dose, boosting her confidence.

Self-injecting has empowered Mwayi and also brought tangible time and financial benefits. Before adopting SI, she spent hours at the clinic for each family planning visit. Now, she administers the injection at home in a few minutes and continues with her daily activities, thus contributing to the family's financial stability. 'Sometimes when you go to the clinic, you spend 3 or 4 hours there—time you could have spent farming or doing business. When you have the injectable at home, you can inject yourself in minutes and continue working,' she explained.

For Mwayi, having access to a full year's supply of doses at home eases her mind about unplanned pregnancy and was her reason for choosing this method over others. 'I liked this method because I got doses for the whole year,' she shared, highlighting that this minimizes both the risk of missing injections and the need for frequent clinic visits.

Mwayi's journey with SI positively impacted her family and her health. With the ability

to self-administer her contraception, she enjoys more time, financial savings, and a sense of control over her reproductive health.

'Nabanda'

Nabanda is a 28-year-old married woman with three children, living in a village in Ntchisi. After her first child, Nabanda chose to space her pregnancies for the sake of her children's health. She began using DMPA-IM, appreciating its 3-month duration. After four years, side effects—especially prolonged bleeding—became bothersome. Having heard negative things about the implant, she opted for the self-injectable DMPA-SC, hoping for fewer side effects. So far, she has used it three times and has found benefits beyond the side effect profile.

Her reliance on HSAs for contraceptive knowledge has been crucial, although access has not always been easy. When her local HSA moved away, Nabanda had to travel long distances to the hospital for her DMPA-IM injection, which was both exhausting and costly.

Interviewer: What was difficult about getting the injectable contraceptive (DMPA-IM)?

Nabanda: I traveled for a long distance to reach to the hospital

Interviewer: Is it too far?

Nabanda: Yes, it is far, when I use motorcycle, I pay K1, 000 (\$7.72), when I use a car, I pay K800 (\$6.18). It is more expensive to use a motorcycle, and it pains me to pay that much. Majority of women are lazy to go for the family planning methods, and they get pregnant because they are not on any family planning method.

Interviewer: You have told me that in order for you to get the contraceptive you use K1,000 sometimes K800, how do you get this money?

Nabanda: I ask for the money from my husband but sometimes when he refuses to give me, I walk from around 5 or 6 am and I reach the hospital around 8 or 9 am.

Interviewer: Does it mean it is a 3-hour walkable distance?

Nabanda: Yes, it is far, so when I reach at the hospital, I feel tired and I also find the long queue. I get the contraceptive method around 2pm and I reach home around 4pm. Now, with DMPA-SC and the ability to self-inject, she is free from the burden

of regular hospital visits and has the advantage of using the method together with her husband. She said, 'I do not need to travel for a long distance to get the injection, my husband injects me, and I feel that this is good and it promotes bondage and love with my husband.'

Nabanda and her husband attended the SI training together with an HSA. Since that time, the HSA has again moved away and infrequently commutes to her village. However, Nabanda felt the training was well done and with her husband there to receive the same information, she does not report any need for continued support. She states, 'I do not need any (more) help as I was already taught on how to inject myself. I feel by teaching us on self-injection they (the HSA) helped us a lot so that we can have our own freedom.' In her close-knit community, Nabanda regularly discusses family planning with friends, often while they work in the fields or shell maize. These conversations are essential sources of support and information. However, she keeps her contraceptive use private from people in her life, such as her in-laws, who disapprove of this practice. As she continues to embrace the SI method, she has become a source of support for other women in her community. Friends come to her for help with administering DMPA-SC, and Nabanda gladly assists them.

Nabanda: Some of my friends visit me at home and ask me to assist them with the administration of [DMPA-SC], so I do inject them

Interviewer: How does this make you feel?

Nabanda: I feel good, I know that they are afraid to inject themselves.

Nabanda wants to have two more children, but only when the time is right, as she is mindful of her family's limited resources, particularly land for farming. SI will remain Nabanda's preferred method until she is ready for the next pregnancy.

'Nangozo'

Nangozo is a 17-year-old girl living with her mother. She is in school and does not have any children, but she does have a boyfriend. Due to the COVID-19 pandemic, her school recently closed. She and her mother have been discussing her education and future; they are considering a private school away from home but would need to borrow

money to afford it. Feeling the pressure from these discussions, Nangozo is especially worried about either getting pregnant or her mother discovering that she is using contraception to prevent pregnancy. Nangozo received contraceptive SI training from an HSA and states she knows how to use DMPA-SC. She found self-injecting straightforward but ultimately decided *not* to continue doing the injections herself to reduce the chances of being discovered by her mother. She explains, 'There is nothing hard about it, I was just scared that my mother would have found me in the process of administering.'

Nangozo may be overconfident as she discusses her competence with SI. She reflects that the HSA in her community is often difficult to find or meet with privately. 'He is a very busy person, there are always a lot of people at his house that he attends to, so it's very hard to get on a one-to-one discussion. And he also travels a lot. You cannot find him (at) home so easily.' As she recalls her training, she says, 'he has never told me anything except that I should inject it on my abdomen.' Further demonstrating a lack of effective training, she describes managing the intervals for DMPA-SC by 'feel' instead of by the calendar:

Interviewer: I want you to explain how you know that you are supposed to go and have another injection?

Nangozo: I just feel that the last one has run out of power and I need to go get another one.

Interviewer: How do you know that it has run out of power?

Nangozo: I just feel it in my body.

While Nangozo does not exhibit the apprehension about SI that many women do, she finds that it does not offer the kind of privacy she needs while living with her mother. Additionally, her experience with the HSA was suboptimal. She describes him as overburdened and difficult to access, plus she either did not receive or retain correct information about DMPA-SC.

'Nachisale'

Nachisale is a 40-year-old mother and wife living in Kambenje Village in Mulanje District. Her days follow the rhythm of rural life, balancing the

demands of subsistence farming and family responsibilities. As a teenager and during her first marriage, she gave birth to five children in quick succession, including twins. Her husband disapproved of using contraception, and she and her children suffered without the benefits of spacing her pregnancies. Indeed, three of these children died. Ultimately, she chose to use contraception without his knowledge. Her relationship with her current husband is different. They have three children together; between the last two, Nachisale started using the DMPA-IM injection but was 'afraid' to discuss this with her husband, not knowing how he would respond. In the end, after their last child, she raised the idea of contraception, and he agreed that preventing another pregnancy was wise and beneficial to their family.

Nachisale first learned about DMPA-SC for SI from her community HSA. Before it was even available for distribution in the community, the HSA described DMPA-SC as similar to the DMPA-IM injection: 'the only difference is that you will be self-injecting and we will be giving you the family planning method, when it's time to take another dose, you will be injecting yourselves in your homes.' When it became available, Nachisale chose to use DMPA-SC because, as she explained, 'I won't be busy waking up early in the morning rushing to the hospital, first, I do my chores at home... because I can inject myself at my own time.'

Beyond convenience and control over her own time, Nachisale values injecting privately without showing her body to a male provider. She explains, 'because (with) depo-provider injection sometimes you can meet a female or male provider, so when they said that I can inject myself, I felt so good that I am no longer going to show my body to anyone else.' After self-injecting on her own, she realized being in control of the injection was more comfortable for her than provider-administered injections: 'Because I inject myself, I have control over my body, I inject myself very slowly and calm when I am doing it myself...that's why I would prefer injecting myself because I am calm and gentle on my own body.' Another comparison to her experience with prior methods is that she no longer experiences side effects; DMPA-IM gave her back pain and pills caused dizziness. Nachisale

sees many positives in this method and she is determined to keep using it. She mentions encouraging friends to try it, pointing out how 'easy' it is and that visits to a health provider can be yearly with doses stored at home.

'Naphiri'

Naphiri is 31 years old and lives with her husband and four children. Since her husband spends most of his day outside of the home, caregiving and household chores are her responsibility. She owns a cow and supplies milk to various customers in the community. In this way, she contributes to the family income. With her pregnancies, Naphiri suffered various medical issues and relied on contraception between them to preserve her health. Previously, she used pills, an implant, and DMPA-IM. Her last pregnancy was unplanned and occurred after the local health outpost ran out of DMPA-IM and she was unable to get a dose at the right time.

So, it once happened to me that when the (DMPA-IM) injection got scarce, I had an unplanned pregnancy. I missed to take my injection for a month because it was scarce, I thought that may be the last dose was still effective in my body. I continued to have sexual relations with my husband. As a result, I got pregnant...This really affected my life because I gave birth to a child I did not plan for.

Naphiri learned about DMPA-SC from her community HSA. She and her peers initially doubted they could use the method themselves, especially without much schooling. The HSAs were reassuring and explained that it was simple to use, and everyone would be trained when it was available. The idea of taking home units and self-injecting on her own resonated with Naphiri because of her experience with the DMPA-IM stockout. As she explains, 'When this self-injection method came, I thought that it was a good method because I cannot experience what I experienced with the last method.'

Naphiri recalls that the HSA recommended DMPA-SC because she struggled with side effects with both DMPA-IM and the implant. While initially Naphiri experienced some 'challenges,' they dissipated over time, and now she finds her

body has adjusted well. What she appreciates most, however, is the sense of control she experiences by managing supply of her own doses for a year: 'I have control over my life, because I can have the method for the whole year. So, with this, I know that it is not possible to get unplanned pregnancy, hence, I have control over my life.'

'Nambewe'

Nambewe, a 28-year-old, and her husband are subsistence farmers growing maize and soya bean. They have one child together but also care for her brother's two children. Nambewe's daily routine includes rising early to work on the farm with her husband. When they return, she completes her many household chores: cleaning the compound, gathering water and warming some of it for bathing, and preparing food for the family. Nambewe got pregnant immediately after marriage. Because this happened quickly and without planning, she was determined to use contraception after this birth in order to plan and prepare for a second child. Initially, Nambewe's husband was skeptical, but she was able to help him see the benefits of her decision.

Nambewe knew that she could learn about contraceptive methods from the HSA; she had attended antenatal clinics with her in the village. The hospital is very far away, so when she heard from a friend that methods were available through the HSA, she decided to go with her husband. The HSA commended them for coming together to learn and discuss options as a couple. Based on what she already knew, Nambewe was interested in an injectable method. That day, they learned about DMPA-SC and the fact that she could inject herself. It was the only method available, so she had no other option if she wanted to start that day—but she liked the idea of doing the injection herself at home. The HSA explained the method in detail and gave her the first injection. She describes her husband as engaged during the session: 'He was the one asking a lot of questions during the counseling and he acknowledged the importance of such a session because people complain a lot for things they are not aware of.' In fact, when her next injection was due three months later, Nambewe was afraid to do it on her own. Her husband offered to help, and

because he had received the same training, he was able to.

Nambewe: The day I injected myself, we were together. I was afraid, then he offered to inject me as the HSA done, and he did it well. But my friends who went alone had problems getting help from their partners.

Interviewer: How did you feel afterwards?

Nambewe: I was so happy because it showed that my husband has fully accepted the use of contraceptive.

While Nambewe is pleased with the method, not everything went perfectly with the HSAs. During the training, the HSA mentioned that helpful instruction cards and calendars existed, but she did not have supply of them at the time. Nambewe felt she could continue to use the method without these, and planned to do so, but unfortunately, when she returned for more doses months later, DMPA-SC was unavailable. At that point, she was given the DMPA-IM injection and told to return in three months to see what was available then.

Discussion

Our results offer a glimpse into SI use that, for the most part, reflects the successful integration and acceptance of DMPA-SC for SI as a contraceptive method in rural Malawi. Indeed, many of the participants in our study viewed DMPA-SC for SI as a superior alternative to DMPA-IM (a method many had used previously), citing benefits such as time saved, lower costs, fewer side effects, more reliable access to contraception, and the actual injection experience. This favourable comparison is significant given how many women in Malawi—and other Sub-Saharan African countries—choose injectable methods.^{5,26} Several participants described a sense of security in managing their own supply of the method, which women can properly store at home after being trained.

The ability to maintain doses at home—a benefit that resonated with many participants—directly connects to SI policies. Malawi's policy, which allows for dispensation of three units after initial or follow-up visits, is more supportive than in many other Sub-Saharan African countries.²⁷ To realize SI's potential, we recommend that other countries align their policies with its design as a

self-care method, since the full benefits of SI are attainable only when women are empowered to use and store units on their own. Already, policy shifts are occurring as the literature on SI's potential grows; Nigeria recently updated its dispensation policy from fairly restrictive to one that mirrors Malawi's.²⁷ More support for Malawi's policy-related success is evidenced by participants' reliance on HSAs for SI training and access. As a country with a majority rural population (over 80%), community health workers are essential to health services access; the Ministry of Health wisely prioritized involving community health networks in the implementation of SI from the beginning. Not all countries that approved DMPA-SC for SI have policies that utilize community health workers for SI-related services,²⁷ despite much evidence in the literature to support its feasibility, acceptability, and utility.^{10,28} However, this element of implementation is key to ensuring reach and accessibility of the method. Health ministries should include community health workers in the implementation equation as policies related to SI are refined.

Many of our participants discussed contraception with their partners and had their support for contraceptive use; we recognize such dynamics may not represent broader norms in this setting.^{29,30} Our sample of SI users may have been a self-selecting group of women with higher self-efficacy, contraceptive knowledge, and partner support at baseline, but investigating such determinants of SI use was outside the scope of this study. Nevertheless, several stories showed how self-care can be a collaborative experience between relationship partners, even when it comes to contraception. A 2022 Malawi-based study explored how men may be able to support women in cooperatively using SI.³¹ The results showed men are helpful with fear of injection (either by offering support or administering the injection), remembering the periodicity required for injections—a challenge for some of our participants—and managing storage of the units. Similar themes were reflected in the experiences of our participants. Given that one of the most pervasive barriers to SI is fear (of the needle, of doing the injection incorrectly, or both),¹² engaging male partners as support, when appropriate, may

reduce these fears while fostering more egalitarian contraceptive decision-making.³¹ Participants in our sample sometimes spoke about the community of women who shared their positive views about contraception. Some peers were interested in learning about SI when our participants recommended it; others sought support because they had been trained in SI but lacked confidence in administering it on their own. This kind of peer-to-peer support emerged organically within the communities of several of our study participants. Given this natural inclination among women using SI, integrating peer support models in current SI implementation strategies may augment interest in and self-efficacy to use SI; in some settings, promising peer-to-peer pilot programs have yielded positive results.^{32–35} Such examples offer a helpful framework for new programs related to SI implementation.

Despite overall positive experiences with SI, some implementation challenges emerged in our participants' stories. HSAs were critical to access and learning but were not always easily reached or fully resourced. With continued efforts by the government of Malawi to build a robust community health network, HSAs will hopefully have more balanced patient loads and training and supervision that position them well to support self-care. Countries newly approving SI implementation through community health workers must support them with comprehensive training, manageable workloads, and transportation resources. This can be accomplished through policy revision and through programs supporting community health workers. Malawi's *Ndingathe* program provides a model for optimizing HSA impact. Designed and evaluated by the ICAN project, the intervention focused on HSAs' self-defined needs. Support such as bicycle provision, lunch allowances, and templates for planning workdays improved workflows and overall outreach. Additionally, a mnemonic tailored to the local language helped HSAs to teach—and women to learn—the steps for self-injection, while also easing users' fears about the process.³⁵

Resource supply chain management was another SI implementation challenge. Training aids such as instructional pamphlets and calendars were rarely available for our participants, but these can

be helpful to providers and clients alike.^{7,10} Regular distribution of calendars is likely to reinforce the importance of injections at 3-month intervals. Of course, the stock of the method itself is the most critical supply chain concern. Only one of our participants reported a stockout, but the 2023 data showed country-wide low stock of DMPA-SC in all but one month.¹⁶ Access Collaborative forecasting for 2024 showed that supply would be sufficient or even in surplus based on predicted demand; however, this assessment also revealed significant dependence on donors and development partners for the supply of DMPA-SC in Malawi. In general, 90% of Malawi's family planning program is donor-funded. USAID had been a meaningful contributor to the DMPA-SC supply; in 2024, planned orders totaled over 1 million units for use in Malawi.¹⁶ With the current uncertainty regarding foreign aid, considering alternative policy solutions and diverse funding sources will be essential for Malawi to maintain an adequate supply of DMPA-SC, among other methods.

For one adolescent participant, injecting at home was not private enough for her circumstances. As this method has been integrated into family planning programs across Sub-Saharan Africa, its potential to give younger women more autonomy and discretion in their contraceptive use is often highlighted.^{11,20} However, a number of studies have also documented this concern of at-home privacy.^{11,12} In our study, this was a barrier to SI use for one adolescent; women with partners who disapprove of contraception may hesitate to try SI for similar reasons. There are myriad benefits to DMPA-SC documented in the literature beyond the option to self-inject *at home*; women may consider the method for its side effect profile, the smaller needle, or the autonomy it offers regarding when and where they inject themselves. Providers must recognize that for some women who prefer DMPA-SC, self-injecting in a safe space outside the home (for example with the HSA or a trusted friend) or choosing provider administration may be the most ideal way to use the method, even if this sacrifices some of its unique benefits identified by others.

Strengths and limitations

A major strength of this study is our narrative analytical approach, which enabled a nuanced

understanding of women's experiences using SI; from initial adoption to regular use, we captured the challenges, anxieties, key sources of support, and perceived benefits that characterized participants' experiences. The primary limitation of our study relates to the sample size.

Our sample of 18 participants was predominantly married, over 20 years old, and parous, which provided us with particular insights into women of this profile. Future research should examine more closely the experiences of adolescents, unmarried women, and women without children in rural areas. Future research could also deepen knowledge of lived experiences navigating SI use by conducting serial interviews to longitudinally examine experiences over time, without relying on women's recall of a multi-month or year-long experience with SI. Additionally, because DMPA-SC supply was relatively consistent during our study period despite known stock variability in recent years, our data may underrepresent challenges related to the unstable nationwide supply of the method.

Conclusion

The lived experiences of women using SI in Malawi provide insights into the positive impact it can have in rural communities. While our results revealed minimal challenges related to SI use, when contextualized within the broader landscape of SI implementation, areas that need addressing come into focus: investing in community health workers, managing supply and related funding, supporting flexible use options for those with limited privacy, and harnessing social support. Efforts in these domains will further optimize the implementation of this innovative self-care technology.

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Author contributions

MN contributed to conceptualization of the project, methodology, formal analysis, validation, and writing of the original draft. EH worked on formal analysis, validation, visualization, and writing of the original draft. MK and AlfredM contributed to conceptualization, methodology, and review and editing of the manuscript. IM and TJ contributed to the investigation, data curation, and review and editing of the manuscript. BP, JV, and LS contributed to conceptualization, methodology, formal analysis, project administration, and review and editing of the manuscript, with LS also supervising other authors. KH and AddressM contributed to conceptualization, supervision of other authors, and review and editing the manuscript. KH also secured funding for the project.

Conflict of interest

The authors have no conflicts of interest to report.

Data availability statement

The qualitative data in this study are jointly owned by the ICAN research consortium partners and are not publicly available due to the need to ensure a high degree of respondent confidentiality consistent with our informed consent process. Requests for data can be made through the corresponding author and will be considered on a case-by-case basis. Additionally, the authors can make their data collection instruments (interview guides) and analysis tools (codebook for Dedoose qualitative data analysis software) available.

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