Contraception and Reproductive Medicine

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Barriers and facilitators to contraception provision among rural healthcare providers

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Abstract

Background Access to a full range of contraceptive options ensures that individuals can make autonomous decisions about their health and wellbeing. Contraceptive continuity requires that individuals have access in their local communities to a variety of methods, which may change throughout their reproductive lives. Individuals living in rural areas face healthcare access barriers which require special considerations to ensure continuous and effective utilization of contraception to support family planning decision-making. One particular type of family planning service—contraception provided to the postpartum individual—presents challenges related to reimbursement, provider training, and timing of placement, which can be complicated further for individuals who must travel for care.

Objective This study sought to assess family planning provider perspectives in rural communities, including their knowledge, attitudes, and practices related to general contraception provision, provision of contraception in the specialized circumstance of the postpartum period, and provider assessment of barriers to care to identify strategies to improve access to contraception across the reproductive life cycle.

Methods We conducted a mixed methods study with an electronic survey of 90 reproductive healthcare providers, and semi-structured follow-up interviews of 9 providers. All providers are currently licensed and provide patient care in Montana. The survey instrument was designed with feedback from physicians and nurses and included questions on contraceptive practices, knowledge, and barriers to providing contraceptive care. Quantitative survey results were analyzed using descriptive statistics and bivariate tests of significance. Qualitative interviews were coded using a combined inductive and deductive approach.

Results Montana providers consistently reported cost and insurance-related procedural barriers. Additional important themes emerged from qualitative interviews regarding barriers to contraceptive access, including experiences with provider-, institutional-, and practice-level barriers, and provider philosophy and approach to contraceptive care.

Conclusions This study identifies knowledge gaps, institutional and procedural barriers and facilitators, and provider approaches to contraceptive care in Montana. Findings suggest that the need to increase provider awareness of Montana Medicaid coverage of immediate postpartum contraception. Results should inform future interventions to increase access to hospital-based contraceptive care.

Keywords Maternal health, LARC, Access to care, Family planning, Contraceptive care training, Rural health disparities

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Introduction

Significant disparities in reproductive healthcare access, utilization, and outcomes exist for those living in rural communities in the United States [1]. Approximately 19 million women of reproductive age live in counties designated contraceptive deserts, generally considered to be areas wherein the availability of the full range of contraceptive care services is insufficient to meet the reproductive healthcare needs of the individuals in those communities [2]. More specifically, a county that lacks at least one health center for every 1,000 reproductive aged women eligible for publicly funded contraception is characterized as a contraceptive care desert [3]. As a deeply rural state, access to sexual and reproductive healthcare in Montana is highly variable, with rural and Federal Indian Reservation communities facing the most formidable structural barriers to accessing care and recording the most striking health disparities [4]. Rural residents in Montana often confront steep obstacles to obtaining family planning services, including provider shortages, concerns over confidentiality in small communities, transportation barriers, facility-level restrictions at religiously affiliated hospitals, and a lack of insurance coverage [1, 5]. The availability of immediate postpartum contraception is a crucial facilitator to access for those residing in low-resource areas and is an effective means of aiding individuals in these communities to reach their reproductive health needs and goals [6]. According to American College of Obstetricians and Gynecologists (ACOG), an estimated 40% of patients do not attend 6-week postpartum appointment—likely owing to a diverse set of personal and structural circumstances—thus limiting access to postpartum contraception [7]. Access to contraception immediately after delivery helps overcome the barrier of having to schedule and return for another appointment to access contraception. This access is especially important for people in rural areas who have limited access to healthcare due to long distances to care, lack of transportation, and higher rates of poverty [8]. These barriers in reproductive health are particularly stark at the intersection of race and rurality, as Indigenous people make up approximately 6.7% of Montana's population and reflect its largest racial minority group [4]. Indigenous people are 20x more likely to deliver at a facility that lacks obstetric services in Montana and are at a significantly elevated risk of adverse reproductive health outcomes as a result of structural inequities and systemic racism [4]. Through this mixed method study, we sought to understand rural provider experiences and barriers in their provision of contraception, with the goal of enhancing access to care in Montana.

Background

Provider knowledge and training

Clinical care guidelines encourage competency in Intrauterine Device (IUD) and implant provision for all providers who offer contraceptive care [9–11]. An important factor facilitating patient access to the full method mix is adequate training and comfort among providers [8, 12]. Certain methods are more clinically intensive and may pose greater access barriers. For instance, although immediate post-placental IUD placement is safe and acceptable to patients [13–16], providers commonly report lack of training and comfort in postpartum contraception provision, especially regarding immediate post-placental IUD placement [12, 13, 17, 18]. Two of the most frequently cited reasons for not recommending IUDs include limited knowledge of safety and side effects [14, 15], and lack of training and experience in device placement [19–21]. Little is known about the provision of immediate postpartum contraception among rural hospitals.

Attitudes toward contraception & contraceptive philosophy

Understanding provider attitudes toward contraception and their contraceptive philosophies may illuminate additional barriers to contraception provision in Montana. The American College of Obstetricians and Gynecologists (ACOG) recommends patient-centered contraceptive counseling which prioritizes patients' values, recognizes provider bias, and acknowledges historical and ongoing mistreatment of marginalized individuals [22]. However, different training environments, values, and sociocultural experiences can unduly influence providers' ability to offer such patient-centered care to all [23, 24]. Prior research has demonstrated that patients' contraceptive choices are, at times, disregarded by providers [25], and some providers ascribe contraceptive noncompliance to patient race/ethnicity, age, and SES, rather than to failure of contraceptive methods to meet patient needs [23]. This bias, whereby providers limit their patients' choice of contraception due to patient characteristics or due to providers' own preferences toward certain types of contraception, is a problematic barrier to patient autonomy [24]. Such biases can be problematic in the postpartum period, following miscarriage and abortion, and for those seeking emergency contraceptive care [26].

Device availability and policy barriers

Research suggests that patients during the postpartum period prefer long-acting reversible contraception (LARC) and more permanent options, however not all who prefer postpartum LARC methods are able to access them [27–33]. Those residing in rural areas

are more likely (40.8%) to use methods of contraception deemed "most effective," including sterilization or intrauterine devices (IUD), as compared to those in urban areas (30.4%) [34]. Accordingly, women in rural areas are significantly less likely than those in urban areas to use methods of contraception considered least effective (e.g. condoms or withdrawal) or moderately effective (e.g. oral contraceptive pill or injection) [34]. LARCs may be particularly desirable for those living in rural areas who must travel long distances to care because they do not require repeated visits to the clinic or pharmacy [35]. Despite the advantages of LARC methods for communities with low-resource availability, those in rural areas face structural, provider, and facility-level obstacles to accessing their desired forms of contraception [36]. Research on the availability of family planning services in federally qualified health centers (FQHC) in rural areas have demonstrated that this patient population lacks access to the full range of contraceptive methods and is less likely to be provided on-sight LARC provision—including IUDs and subdermal implants [37]. Frequently cited barriers to LARC provision in rural areas include shortages of providers trained in LARC placement and limited device availability [37], facility policies and practice norms preventing certain providers (e.g., pediatricians) from offering onsite LARC provision [38], limited support from colleagues and supervisors [39], absent hospital protocols for immediate postpartum LARC insertion [40], and difficulty scheduling appointments [17].

Cost and insurance coverage

Following new federal Department of Health and Human Services (HHS) guidance in 2016, Medicaid policy changes surrounding postpartum LARC reimbursement improved access to LARC in many states [41–43]. However, according to one study [44], while Medicaid reimbursed for the LARC device, less than half of US states offered Medicaid reimbursement for provider insertion fees, thus limiting access for those interested in receiving same-day immediate postpartum LARC. Medicaid coverage of additional necessary LARC services, including contraceptive counseling, follow-up care, and removal, varies by state [45]. Thus, cost barriers persist, especially for low-income individuals [46]. In 2020, the Montana Department of Public Health and Human Services (DPHHS) implemented a rule change that unbundled the reimbursement for LARC methods immediately after delivery, meaning that the LARC insertion can be billed separately from the inpatient delivery claim [47]. This policy shift was intended to make postpartum contraception more readily accessible to new parents in Montana by reducing the financial burden on hospitals.

Facilitators

Just as understanding the many barriers hindering contraception provision is essential to improving contraceptive access, so too is exploring provider views of what might strengthen their ability to offer quality contraceptive care. Research suggests that trainings, clear communication strategies with patients, stakeholder engagement, and improvements in contraceptive counseling are promising avenues for increasing LARC provision [48]. Increased awareness of Medicaid coverage has been demonstrated as another variable related to increased LARC provision in the postpartum period [49]. Other studies identified additional effective facilitators including increased care coordination, access to resources, referral to specialists [17], insertion training, understanding of misconceptions about patient LARC eligibility, and improving patient knowledge of LARCs [50–52].

Methods

Aims & design

Our study sought to gather information about provider experiences to increase understanding of barriers and facilitators to contraception provision among rural providers. We utilized a mixed methods approach to understand provider experiences, gathering provider data through both quantitative survey and optional follow-up semi-structured qualitative interviews.

Materials

Survey instrument

The survey instrument was informed by feedback from physicians and registered nurses, items from the LARC Toolkit produced by the Tennessee Initiative for Perinatal Quality Care and Benfield et al. [53, 54], and questions related to contraceptive practices, training, attitudes, and knowledge in the postpartum care context.

Follow-up interviews

Follow-up interviews were semi-structured and included 20 open-ended questions about providers' maternal healthcare experiences, contraceptive philosophy, and attitudes toward contraception provision.

Participants

Our final sample included 90 licensed Montana healthcare providers, 9 of whom participated in an optional follow-up interview.

Procedure

We used a sampling frame of 842 licensed Montana healthcare providers with prescriptive authority, including physicians, nurse practitioners, certified nurse midwives, and physician assistants/associates. We eliminated

Table 1 Characteristics of Licensed Healthcare Provider Survey Participants (N = 90)

	%	*n*
License Type		
MDs and DOs	48%	43
APRNs	20%	18
PAs	10%	9
CNM and CPMs	7%	6
RNs	2%	2
RNC-OB	1%	1
No Response	12%	11
Medical Specialty (MD/DO, *n* = 43)		
Family Medicine	63%	27
Internal Medicine	5%	2
OB/GYN	21%	9
Something else	7%	3
Pediatrics	5%	2
Medical Care Setting*		
Hospital (not religiously affiliated)	34%	31
Rural Health Clinic	22%	20
Federally Qualified Health Center (FQHC)	21%	19
Hospital (Catholic affiliation)	16%	14
Private/Group Clinic	9%	8
Urgent Care/Walk-in Clinic	8%	7
Hospital (religious affiliation, not Catholic)	4%	4
Planned Parenthood	4%	4
Title X Family Planning Clinic	3%	3
Independent Abortion Clinic	3%	3
University Health Clinic	3%	3
Other**	3%	3
Indian Health Services (IHS) Clinic or Urban Indian Clinic	2%	2
City/County Health Department	2%	2
Critical Access Hospital	2%	2
Free-Standing Birth Center	1%	1

*Multiple responses possible

**Other = In-home care, outpatient internal medicine, multispecialty clinic affiliated w/ hospital

Table 2 Licensed Healthcare Provider Demographic Characteristics (N = 90)

	%	*N*
Gender Identity	1%	1
Woman	69%	62
Man	17%	15
Non-Binary, Gender Fluid, or Gender Expansive	13%	12
Age		
18–29	1%	1
30–39	40%	36
40–49	22%	20
50–59	17%	15
60–69	7%	6
70–79	1%	1
No Response	12%	11
Race & Ethnicity		
White/Non-Hispanic	81%	71
American Indian/Alaska Native	2%	2
African/African American/ Black	2%	2
Asian/Asian American	2%	2
Hispanic/Latinx	3%	3
Native Hawaiian or Pacific Islander	1%	1
Something Else	4%	4
No Response	6%	5

partially completed surveys (< 70% of items answered) for a final sample *N* = 90. Of the 90 providers, nine opted into a follow-up subsequent semi-structured qualitative interview. Interviews were audio recorded and audio files were transcribed by a third-party transcription service. This study was reviewed and approved by the University of Montana Institutional Review Board (IRB Protocol #213 – 21).

Analyses

Bivariate analyses were conducted for quantitative survey items using Stata 18 Software. Interview transcripts were dual coded by a team of two researchers. The team utilized a combined deductive and inductive coding approach to develop an initial codebook. Once the initial codebook was established, the team independently and remotely coded three of the interview transcripts and met to discuss changes to the codebook before finishing coding and re-coding. The team communicated through email memos to discuss codes and revise code applications. Overall, the inter-coder agreement was 0.80.

Quantitative results

The majority of participants were White/non-Hispanic 71 (81%), women 62 (69%), and between the ages of 30 and 59, 71(79%). Approximately half were physicians 43 (48%), with the most commonly represented medical practice settings being non-religiously affiliated hospitals 31 (34%), rural health clinics 20 (22%), and federally qualified health centers 19 (21%). (See Tables 1 and 2 for further demographic information). The majority of physicians specialized in family medicine 27 (63%) or obstetrics/gynecology 9 (21%), and approximately one third (31%) of providers held hospital privileges for labor and delivery.

Of the 90 providers included in our sample, 53 (59%) indicated that they provide care in the postpartum period (immediately after birth through 84 days post-delivery). As such, for items regarding experiences with postpartum and immediate postpartum care, we report results specifically from postpartum care providers (*n* = 53; herein referred to as PPCPs), and for more general contraceptive care questions, we report data from the full sample (*N* = 90; herein referred to as licensed healthcare providers, LHPs).

Barriers to LARC provision

Overall, the most frequently reported barriers to implant provision were lack of training in insertion and removal 18 (20%), provision of implants by other colleagues in their practice 10 (11%), lack of patient interest/request 5 (6%), other 5 (6%; e.g., supervising MD does not allow insertion or removal of IUDs), inadequate reimbursement 4 (4%), provider does not provide contraception 4 (4%), and hospital-level restrictions against provision 3 (3%). The most reported barriers to IUD provision included lack of training in insertion and removal 18 (20%), provision by other colleagues in practice 13 (14%), provider does not provide contraceptives 8 (9%), expense 3 (3%), and hospital-level restrictions against providing contraception (3%). Please reference Table 3 for additional quantitative data to barriers to LARC provision.

Immediate postpartum contraception

Immediate postpartum contraception was conceptualized in our survey as contraception provided within the first 24 h of giving birth and/or before parent and baby leave the hospital. Among the 53 PPCPs surveyed, the top five most reported types of immediate postpartum contraception provided included injection (e.g., Depo Provera®; 21 (40%), implant (e.g., Nexplanon; 20 (38%), counseling on abstinence 18 (34%), oral contraceptive pills 16 (30%), and tubal litigation/sterilization 15 (28%). Please reference Table 4 for additional immediate postpartum contraception methods provided.

Knowledge and training

Overall, 12 (13%) LHPs reported receiving specialized training in family planning or reproductive or sexual health care. 19 (21%) of LHPs believed that pelvic inflammatory disease (PID) is a major risk of IUD use, while 9 (10%) were unsure. Regarding knowledge of safety of Depo Provera® for breastfeeding, 19 (21%) of PPCPs advised their breastfeeding patients to avoid Depo Provera®. In terms of immediate postpartum contraception, 9 (10%) of LHPs disagreed and 23 (26%) were unsure whether an IUD can be inserted as immediate postpartum contraception after abortion or after D&C for miscarriage (prior to the patient leaving the clinic). Similarly, 18 (20%) disagreed and 12 (13%) were unsure whether an IUD can be inserted as immediate postpartum contraception after giving birth. In addition, 18 (20%) disagreed and 21 (23%) were unsure whether any IUD (copper or hormonal) could be used as emergency contraception. Please see Table 5 for additional data related to provider knowledge and training.

Attitudes toward contraception & contraceptive philosophy

Eleven (12%) LHPs confirmed that their practice locations enforced restrictions on contraception or miscarriage management care, while an additional 16 (18%) of LHPs were unsure about their practice's restrictions. When asked about their own attitudes toward contraception, 3 (3%) of LHPs believed that fate determines when one becomes pregnant, regardless of whether individuals use contraception. Twelve (13%) LHPs believed that conscience clauses are an acceptable way to allow healthcare providers to withhold contraceptive care from certain patients.

Table 3 Barriers to LARC Provision

If you have not inserted any implants in the past year, what are the reasons why not?	***N*=90(%)**
N/A, I already provide implants	47 (52.2)
Lack of training in insertion and removal	18 (20.0)
Provided by other colleagues in my practice	10 (11.1)
Lack of patient interest/request	5(5.6)
Do not provide contraceptives	4 (4.4)
Inadequate reimbursement	4 (4.4)
Hospital-level restrictions against providing contraception	3 (3.3)
Expense	2 (2.2)
Concern about medical safety	1 (1.1)
Liability concerns	1 (1.1)
Insufficient time	1 (1.1)
Insufficient personnel	1 (1.1)
Few of my patients are candidates for the implant	1 (1.1)
Concerns about the management of side effects	0 (0.0)
Concerns that the implant acts as an abortifacient	0 (0.0)
Other	5 (5.6)

Table 4 Immediate Postpartum Contraception Provided by Postpartum Care Providers

Which of the following contraceptive methods do you provide during the immediate postpartum period (within 24 h of giving birth and/or before they leave the hospital)? Please check all that apply.	***N*=53 (%)**
Injection (Depo Provera®)	21 (39.6)
Implant (Nexplanon®)	21 (37.7)
Abstinence	18 (34.0)
Oral contraceptive pills	16 (30.2)
Tubal ligation (female sterilization)	15 (28.3)
I do not see patients during the immediate postpartum period	15 (28.3)
Hormonal IUD (Mirena®, Liletta®, Skyla®, Kyleena®)	13 (24.5)
Lactation amenorrhea method (LAM; exclusive breastfeeding)	12 (22.6)
Copper IUD (ParaGard®)	11 (20.8)
Emergency contraception (Ella®, levonorgestrel pills)	6 (11.3)
Vaginal ring (NuvaRing®)	6 (11.3)
Natural family planning (rhythm method, basal body temperature, cycle beads)	5 (9.4)
Patch (Ortho Evra®)	5 (9.4)
Vasectomy (male sterilization)	4 (7.6)
Withdrawal	4 (7.6)
None of the above	5 (9.4)

Table 5 Licensed Healthcare Provider Knowledge and Training in Contraception Provision

How strongly do you agree or disagree with the following statements? *N* = 90(%)	Strongly agree	Agree	Disagree	Strongly Disagree	Unsure	Missing
Pelvic inflammatory disease is a major risk of IUD use	3 (3.3)	16 (17.8)	37 (41.1)	19 (21.1)	9 (10.0)	6 (6.7)
An IUD can be inserted immediately after an individual has an abortion or a D&C for miscarriage (prior to leaving the office/clinic).	22 (24.4)	30 (33.3)	6 (6.7)	3 (3.3)	23 (25.6)	6 (6.7)
An IUD can be inserted immediately after an individual gives birth (prior to discharge).	23 (25.6)	31 (34.4)	11 (12.2)	7 (7.8)	12 (13.3)	6 (6.7)

Table 6 Licensed Healthcare Provider Contraceptive Attitudes and Philosophies

How strongly do you agree or disagree with the following statements? *N* = 90(%)	Strongly agree	Agree	Disagree	Strongly Disagree	Unsure	Missing
I generally have enough time to counsel my patients regarding contraceptive methods.	34 (37.8)	43 (47.8)	8 (8.9)	1 (1.1)	0 (0.0)	4 (4.4)
Unintended pregnancy is a serious problem in my practice.	13 (14.4)	26 (28.9)	27 (30.0)	13 (14.4)	6 (6.7)	5 (5.7)
Most of my patients use contraception correctly and consistently.	3 (3.3)	52 (57.8)	24 (26.7)	2 (2.2)	5 (5.6)	4 (4.4)
Even if a patient requests a specific contraceptive method, I still provide counseling regarding other methods.	34 (37.8)	45 (50.0)	2 (2.2)	1 (1.1)	3 (3.3)	5 (5.6)
When counseling patients about potential health risks of contraceptive methods, I include a discussion of the health risks of unintended pregnancy.	24 (26.7)	46 (51.1)	12 (13.3)	0 (0.0)	3 (3.3%)	5 (5.6%)
Conscience Clauses are an acceptable way to allow healthcare providers to withhold contraception from certain patients	5 (5.6)	7 (7.8)	26 (28.9)	37 (41.1)	15 (16.7)	0 (0.0)
Pregnant individuals want to talk about contraception during prenatal care appointments.	7 (7.8)	47 (52.2)	11 (12.2)	3 (3.3)	17 (18.9)	5 (5.6)

Table 7 Licensed Healthcare Provider Attitudes Toward LARC

How strongly do you agree or disagree with the following statements? *N* = 90 (%)	Strongly agree	Agree	Disagree	Strongly Disagree	Unsure	Missing
IUDs and implants should be considered as first-line contraceptives for both nulliparous and parous adolescents.	37 (41.1)	28 (31.1)	9 (10.0)	1 (1.1)	8 (8.9)	7 (7.8)
The IUD is more likely than other contraceptives to lead to lawsuits against me.	2 (2.2)	4 (4.4)	30 (33.3)	27 (30.0)	22 (24.4)	5 (5.6)
The implant is more likely than other contraceptives to lead to lawsuits against me.	0 (0.0)	4 (4.4)	27 (30.0)	28 (31.1)	23 (25.6)	8 (8.9)
IUDs are under-used by my patients.	9 (10.0)	36 (40.0)	26 (28.9)	3 (3.3)	10 (11.1)	6 (6.7)
Most individuals can use an IUD or contraceptive implant.	35 (38.9)	44 (48.9)	0 (0.0)	0 (0.0)	6 (6.7)	5 (5.6)
Few patients in my practice are good candidates for an IUD.	4 (4.4)	3 (3.3)	27 (30.0)	46 (51.1)	5 (5.6)	5 (5.6)
Most IUD users are satisfied with this method.	27(30)	52 (57.8)	3 (3.3)	0 (0.0)	4 (4.4)	4 (4.4)

Regarding approach to contraceptive counseling, 79 (88%) of LHPs counseled on multiple contraceptive methods, even when their patients requested a specific method. Just over half of LHPs believed that most of their patients use contraception correctly and consistently. Regarding labor and delivery, 15 (17%) of PPCPs felt that discussing family planning is unimportant during the hospital stay following delivery, and approximately 23 (26%) PPCPs believed that patients do not want to talk about contraception during their hospital stay. Please see Table 6 for additional results related to provider attitudes toward contraception and contraceptive philosophy.

Attitudes toward LARC

Most (72%) LHPs believed that IUDs and implants should be considered first-line contraceptives for both nulliparous and parous adolescents, and 45 (50%) of LHPs believed that IUDs are underused by their patients. Some LHPs believed that the IUD 6 (7%) and implant 4 (4%) were more likely than other contraceptive methods to lead to lawsuits against them. The majority of LHPs 79 (88%) believed that most IUD users are satisfied with their contraceptive method, and 7 (8%) of LHPs believed that few of their patients were good candidates for IUDs. Reference Table 7 for additional findings related to provider attitudes toward LARC.

Table 8 Montana Medicaid Reimbursement for Postpartum Contraception

Are you aware that you can get reimbursed by Montana Medicaid for immediate postpartum contraception (e.g., the cost of contraception is "unbundled" from all other labor and delivery costs)?	***N*** **= 53 (%)**
Yes	6 (11.3)
No	20 (37.7)
Unsure	10 (18.9)
Does not apply to my healthcare practice	16 (30.2)
Missing	1 (1.9)

Cost and insurance coverage

Just over half (57%) of LHPs were unaware and 5 (6%) did not believe that their state mandated insurance coverage for all FDA-approved contraceptive methods. Regarding state Medicaid reimbursement, 20 (38%) of PPCPs were *unaware* and 10 (19%) were *unsure* whether Montana Medicaid reimbursed separately for immediate postpartum contraception (unbundled from labor and delivery). About a third (39%) of LHPs believed that more of their patients would choose an IUD or implant if cost was not an issue. Please reference Tables 8 and 9 for more findings related to cost and insurance coverage.

Facilitators

LHPs who had not placed any IUDs or implants in the past year reported the following facilitators which might enable them to offer LARC: insertion and removal training, CME/CNE courses, new ACOG guidelines, increased patient interest/requests, additional staff, improved liability environment, increased reimbursement, better insurance coverage, and changes to institutional (e.g., hospital) policies. Most (86%) of LHPs felt that they generally have enough time to counsel patients regarding contraceptive methods. Please reference Table 10 for more information related to facilitators to postpartum contraceptive care.

Qualitative results

Qualitative analysis yielded three unique themes related to the following areas of provider experience: (1) Provider Philosophy and Approach to Contraception; (2) Provider, Institutional, and Practice-level Barriers; and (3) Facilitators of Contraceptive Access[1]. These themes include a wide variety of factors impacting provider experiences with providing contraception, and the narratives that follow demonstrate the complexities influencing access to contraception. The nine interviewed providers included family physicians ($n = 4$), PAs ($n = 2$), family nurse practitioners ($n = 2$), and one general pediatrician. Their practice facilities included hospitals, community health centers, and a primary care/abortion care clinic. Below,

Table 9 Contraception and Insurance Coverage

How strongly do you agree or disagree with the following statements? *N* = 90 (%)	**Strongly agree**	**Agree**	**Disagree**	**Strongly Disagree**	**Unsure**	**Missing**
My state mandates insurance coverage for all FDA-approved contraceptive methods	12 (13.2)	16 (17.7)	3 (3.3)	2 (2.2)	51 (56.7)	6 (6.7)
More patients in my practice would choose an IUD or implant if cost was not an issue	10 (11.1)	25 (27.8)	28 (31.1)	2 (2.2)	20 (22.2)	5 (5.6)

Table 10 Facilitators of IUD Provision

If you have not inserted any IUDs in the past year, do you think any of the following would make it possible to provide IUDs in your practice? *N* = 90 (%)	**Yes**	**Maybe**	**No**	**Unsure**	**Missing**
N/A, I already provide IUDs	50 (55.6)	0 (0.0)	17 (18.9)	2 (2.2)	21 (23.3)
Insertion & removal training	12 (13.3)	8 (8.9)	12 (13.3)	0 (0.0)	58 (64.4)
CME/CNE course	11(12.2)	6 (6.7)	14 (15.6)	18 (15.6)	59 (65.6)
New ACOG clinical guidelines	7 (6.7)	9 (10.0)	14 (15.6)	1 (1.1)	60 (66.7)
Increased patient interest/requests	5 (5.6)	7 (7.8)	17 (18.8)	0 (0.0)	61 (67.8)
Additional staff	3 (3.3)	7 (7.8)	19 (21.1)	0 (0.0)	61 (67.8)
Improved liability environment	6 (6.7)	4 (4.4)	17 (18.9)	0 (0.0)	63 (70.0)
Increased reimbursement	7 (7.8)	3 (3.3)	17 (18.9)	0 (0.0)	63 (70.0)
Better insurance coverage	9 (8.9)	3 (3.3)	16 (17.8)	0 (0.0)	63 (70.0)
Changes to institutional (e.g., hospital) policies	8 (8.9)	3 (3.3)	16 (17.8)	0 (0.0)	63 (70.0)

[1] The authors note that two other major themes, Disability Care Barriers and Patient Barriers also emerged and will be addressed in separate manuscripts which are currently in progress.

their narratives are woven together to highlight their experiences with providing contraceptive care.

Provider attitudes and perspectives

Provider Philosophy & Approach to Contraception: ***"I really talk to the individual about what their life is like and what their goal is."***

Providers commented on their overall approach to contraception provision and contraceptive counseling. Subthemes reflected both the content and nature of their approaches and included: (a) Patient-centered approach and importance of contraception access, (b) Conscience clauses, (c) Perceptions of other providers' philosophies, (d) Initiating contraception conversations, (e) Limiting and spacing pregnancy, and (f) Natural contraceptive methods.

Patient-centered approach and the importance of contraception

Several providers made statements about offering patient-centered and empowerment-focused care, emphasizing choice, and tailoring care to support their patients' unique goals. One provider noted:

> *In general, my approach to contraceptive care is that anybody who wants it should be able to get it, and I try to encourage that as much as possible, as it fits in with people's plans.*

Another explained their contraceptive approach as promoting bodily autonomy:

> *I really try and frame contraception and using any method just as a way of taking control either of your body or of your timeline, of your cycles, and just using it more as a tool to be empowering over anything else.*

Many providers offered their beliefs about the importance of contraception and its access for all. One provider noted the importance of contraceptive counseling for all genders: "I think contraception's really important… my approach is that we should be talking about it with every person with a uterus who is of reproductive age. We probably should be talking about it with men more as well."

Another participant noted additional barriers to contraceptive care access and provision:

> *I would say I'm definitely pro-contraceptive care. I wish it was more easily accessible for people for sure. I see a lot of barriers to people getting it. I also see a lot of barriers in our own practice for me trying to help patients get it.*

Conscience clauses

When asked about their views on the use of conscience clauses to justify withholding certain types of contraceptive care from certain patients, most providers were personally against the idea and did not use conscience clauses themselves. For example, one shared: "If it's legal and you can prescribe it, you should. You shouldn't be able to say, I don't believe in this because [of] my own personal religious or whatever belief. I don't believe in that."

Some spoke about conscience clauses' place in their profession, and others explained their process of arriving at their currently held beliefs. For example, one provider detailed the evolution of their beliefs and contraceptive care approach over time:

> *I identify as Catholic and I trained at [an East Coast university] where they have organization-wide conscience clause…Initially, I was actually using a conscience clause and feeling that it would be better suited for that patient to meet with a provider that was able to counsel them on all of the options if they were to want them. But that has really changed for me, personally, because I felt that there were medical conditions that needed to be treated, and contraceptive methods were the appropriate treatment. Painful periods don't have to be something a woman suffers through, that can be treated just like any other health condition. I felt that teenagers being responsible about their sexual interactions should not be punished. I changed where I was, but I also want to be able to respect [a provider] who doesn't think that they are best suited for that particular treatment, because we see that in other areas as well.*

One provider described the complexity of their beliefs about conscience clauses, explaining that the answer may not necessarily be black and white:

> *I think [it's] a spectrum. I've heard of people being opposed to birth control, like pills and devices and things like that, and I don't really think there's a good foundation for that.… The gray area would be: should they provide emergency contraception on-demand for people? And I guess my personal feeling is that they should, but I can see that there's disagreement in that area.*

Another provider noted conflict with a pharmacist who refused to carry emergency contraception at their pharmacy and denied a mutual patient's access to contraception:

What drives me nuts more than anything else is when pharmacies and pharmacists will step in, because they haven't been part of that conversation and then for them to deny prescriptions or not fill prescriptions or not carry certain prescriptions based on their own personal beliefs…There's some pharmacists, or some pharmacies especially I think in [this rural community] who won't carry plan B or won't order certain scripts, or they'll order them but don't keep them on hand and then we run into that, especially with some of our transgender patients.

Perceptions of other providers' philosophies

Providers shared their perceptions of their colleagues' approaches to contraceptive provision. Most providers believed that their colleagues held similar contraceptive philosophies to their own. One provider offered their perspective on contraceptive approaches of primary care providers across the state:

Out in the broader Montana community, I suspect most people who practice primary care are talking about [contraception] some. I think there are some more conservative folks who maybe are talking more about natural family planning, things like that. But I don't have a strong sense that there's a lot of physicians and advanced practice providers who aren't talking about contraception. Though, how aggressive they are about having those conversations probably varies significantly.

Initiating contraception conversations

Providers varied in their tendencies to either wait for patients to ask questions about contraception or initiate the contraceptive conversations themselves. Most providers stated that they tend to initiate contraceptive conversations unless contraception is the main purpose of the visit. For example, one noted that, apart from adolescent patients, "[It's] about 80% me initiating, 20% them initiating." Another indicated initiating contraceptive conversations "99% of the time." Providers also offered details about how they initiate the conversation. For example, one shared:

If I know that that's on someone's list, I'll bring that to the front of their list for them. And then if they need to talk about something else, let's say acne or shoulder pain or something like that, then I'll ask that they make a follow up appointment. A lot of times people are just fine with that approach, but we make [contraception] a priority.

Others emphasized the importance of initiating contraceptive conversations for patients in the postpartum period in particular:

I would consider that almost one of the most important reasons for the visit… [and I] feel it out with patients in their third trimester of pregnancy.… I want to know if they're thinking tubal ligation before they deliver so that we can plan for that if we need to.

Counseling on limiting and spacing pregnancy

Providers commonly underscored the importance of limiting or spacing out pregnancies and varied in their promotion of each during contraceptive conversations. One provider detailed respecting patient beliefs:

If a patient expresses to me that they don't want birth control of any kind, or they have a belief system that doesn't allow for it or they want as many children as God wants them to have, then I probably wouldn't be promoting [limiting]. I would probably just educate a little bit about the benefit for the following children, or child spacing, and then leave it at that.

Some prioritized evidence-based health outcomes when counseling on inter-pregnancy intervals:

My professional opinion is that it's important to space out pregnancies for their health, for the health of the child, for just their sanity. I do call that out from, for moms, up until about age one. And then, I don't know that I would say I'm looking to limit pregnancies, but I am looking to offer moms the ability to protect themselves from pregnancy before they're ready or if they're ready to have another child.

Counseling on natural contraceptive methods

Most providers engaged in counseling on natural contraceptive methods with interested patients. However, they commonly expressed feeling less familiar with natural contraceptive methods, and shared their attitudes toward natural contraceptive methods:

I try to, if they are going to do natural family planning, to have some kind of app or something that they can [use to] track their cycle. I don't discuss cervical mucus or anything because I'm not even sure I really understand that and could accurately convey that.

Another echoed: "I'm not an expert on this […] I'm sort of directing or printing things on natural family planning and fertility awareness, but we do talk about it."

Provider knowledge and practice

Provider, institutional, and Practice-level barriers

Providers described a variety of barriers to their provision of contraceptive care at the individual, institutional, and practice levels. These barriers centered around the following subthemes: (a) Contraceptive Care Training; (b) Not Enough Providers in Rural Areas; (c) Insurance Coverage; (d) Insufficient Time; (e) Policies and Procedures.

Contraceptive care training

Several providers made statements about the training they had already received and their desire for additional contraceptive care training. One PA noted of their training program:

> *I mean, it was a fantastic program. I felt really well-prepared, but what we didn't have was a gynecology specific rotation. And we had a brief, just two-week module for gynecology. And so, I felt like a lot of the women's healthcare that I did starting [at my current practice], I needed to learn on the job […] That's unfortunately what access looks like for gynecologic care, and I feel really strongly that that is not enough training.*

Another PA provider detailed the additional training and changes required to be able to offer LARC to their patients:

> *I'm not trained in [inserting IUDs and contraceptive implants]…I would need training […] I would need my employer to agree that this is a privileged service I can provide. My employer would have to work to improve their purchasing and obtaining of IUDs. And I would need flexibility in my clinic environment to be able to place IUDs from a scheduling perspective.*

Some providers expressed hesitancy to provide contraception to individuals with certain medical conditions. For example, a few commented that they would seek consultation or take extra care with patients presenting with pelvic inflammatory disease (PID):

> *I think PID would make me stop and think for a second, and I would probably ask an OB for advice, make sure that that patient was completely treated and yeah. I'd probably ask for assistance.*

Insurance coverage

Almost every provider spoke about complications with insurance as impeding contraceptive care. Despite the federal Affordable Care Act mandating insurance coverage of all FDA-approved contraceptive methods, and Montana's state Medicaid program covering immediate postpartum contraceptives, providers reported confusion and reimbursement issues. One noted," They should be covered, but I don't think they mandate making it easy." Another pointed out: "I am aware [of the state mandate], but that's not what happens."

Another provider described the lengthy timeline, unpaid phone calls and faxes, and mailing required to receive an IUD in their clinic for privately insured patients:

> *The clinic part of our practice is a rural health clinic. And what I'm told is that we're paid a certain amount of money per visit, and it's supposed to be all-inclusive. So, because of that, we can't include the cost of the IUDs in the visit. There's a crazy system of ordering it through a pharmacy, the pharmacy mails it to us, and then we schedule the patient. My experience is it usually takes about two months to get through that process. And it's always multiple faxes, multiple phone calls in. In my opinion, I would love to just grab an IUD off the shelf and put it in the patient who wants it.*

This same provider went on to explain the hindrance that the private insurance process presents for and immediate postpartum contraception in their clinic:

> *We really don't do any immediate postpartum contraception, which I would love to do […] we don't stock any [IUDs] and because they're an expensive product; we can't just borrow it from the clinic. And so, for a woman to get an immediate postpartum IUD at our facility, we would have to really preplan a couple months ahead of time, order it, and she'd have to go through our billing office to make sure her insurance would cover it. And so, I've actually never placed one in our facility because it's just too many steps.*

One provider described potential reimbursement ambiguity and confusion that could pose barriers for both patients and providers surrounding postpartum tubal litigation for Medicaid patients at their practice:

> *Medicaid requires the patients to sign a form, I think it's 30 days ahead of time, in order for it to be covered. And so, then if someone maybe wasn't organized or they didn't come for an appointment and*

then they end up in a C-section [...] we know she wants [a tubal litigation], but does the provider do it? And knowing that, either the patient will get a bill, or we will not get paid [...] that's an unnecessary barrier [...] a provider could legitimately say, "I'm so sorry, you didn't sign this consent 30 days ahead of time and we'll have to reschedule you for six weeks out," and then they have to go back to surgery and all that.

Insufficient time

While most survey respondents reported they have sufficient time to provide contraceptive counseling to their patients, some of the interviews identified time constraints as a major barrier to contraceptive counseling. Many noted that they do not have time to adequately discuss contraception with their patients: "I would say probably 95% of the time, time does not allow for me to offer to have a conversation about contraception only because the speed at which my clinic operates." Another described oftentimes starting but not finishing contraceptive counseling conversations:

Often, it's sort of start the conversation and then maybe I give them some handouts [on contraception] and hopefully I remember to talk about it or ask them to come back in the future to talk more about it [...] but we just don't have enough time for anything. Patients are complicated usually. And even at our clinic where we are allotted 30 min per patient, it's just not enough to address everything.

Policy and procedural barriers to contraceptive care

Providers made statements about barriers to contraception provision due to practice, facility, or organizational procedures and policies. Many of these barriers centered around difficulties and delays in obtaining LARC devices:

I'd love to see our IUD ordering and placement services be more streamlined and be more efficient. Currently, a patient says she wants an IUD, it's a two to four-month process to get that done. And that's just not acceptable. But it's a small portion of the population...When I think about mothers who became pregnant with an unintended or unwanted pregnancy, I can think of one in particular that totally changed the trajectory of her life because of it.

One provider described attempts to circumvent the long waiting period for IUDs:

Sometimes people will come in and I'll just direct them to another place if I think that they could get an IUD in less than a week somewhere else and they're very motivated and don't mind driving [75 miles].

Another described a similar barrier for contraceptive injections:

We don't have any trouble getting [birth control] pills for people. I would say Depo has another weird system and it has to do with the finances of it. So, I have to prescribe the Depo to our pharmacy. It's easier because it's our local pharmacy, so the patient has to drive a half a mile to go pick it up. So, I prescribe it, the patient picks it up at the pharmacy, which is privately owned. It's not our hospital's pharmacy. And then they bring it into clinic and have a nurse visit for it. So, it is an extra step for them.

One provider reported being unable to offer patients certain contraceptive methods at all because of religiously affiliated hospital policies: "I don't do [tubal litigation], and actually no one in our facility does tubal ligations because we're a Catholic hospital."

Facilitators of contraceptive access: *"With the resources we have, we do pretty well."*

While participating providers described many barriers to contraception provision, they also noted some facilitators of contraception provision and access. Such facilitators included aspects enabling contraception provision more readily to all populations, including specific trainings, equipment, staff, and policies that made them feel more prepared and comfortable.

One provider noted recent trainings which allowed additional staff to provide NEXPLANONs, enabling their practice to offer same-day contraceptive implants:

I have a full schedule, I'm...the only provider that puts [NEXPLANONs] in, in my practice, although two more have been trained. That will certainly expand our ability to put them in same day. We're trying really hard to make sure that we don't have to send teenagers home just to come back later for it. They've already identified the need.

Similarly, one provider noted recent changes to clinic policies allowing for more same-day scheduling to meet increased patient demand:

Since the SCOTUS ruling [overturning Roe. v. Wade] our requests for LARCs and long-term implants have just really gone through the roof, and we've changed the way that scheduling works in our practice to allow more space in the day-to-day schedule for people to call same day and get LARCs same day.

Another provider explained the facilitative benefits of maintaining a positive reputation in the community. They also described the advantages of having well-trained medical assistants who often prepare the patient for the contraceptive counseling conversation:

> *We're really well-known in [the community] for doing women's healthcare…And so that just means that when [patients] come to us…my approach can be very casual and very conversational, just that I'm not needing to dig very far to get people to open up and talk about that piece of their care. Most people are scheduling with some intention behind wanting that [contraceptive] access. What's nice is that our medical assistants are…really well-educated and really well-trained in contraception and so that's something that we ask about every time someone comes in for a well child check…or an annual exam, [they are] always asking about what people are using for contraception, so that question is already primed before I even walk in the room.*

Discussion

Training needs

Across quantitative surveys and qualitative interviews, providers expressed a need for additional training in several areas. Most consistently, providers desired additional training and experience in insertion and removal for post-placental, post-abortion, and post-miscarriage IUD placement. Providers highlighted limited staff, long distances to care, difficult transfers to higher levels of care, and a general lack of resources within the rural care context as additional barriers to postpartum contraception provision. Existing research conducted in similar rural care settings suggests that training may be providers' only exposure to less commonly seen presenting concerns (e.g., obstetric hemorrhage) for months or years at a time [55]. Indeed, providers in our study noted a shortage of obstetricians in their communities. Extending contraceptive care training to primary care physicians, nurse practitioners, midwives, and other women's healthcare providers could expand overall access to contraception and same-day LARC access in Montana [9–11, 46, 56–58]. However, training is not a panacea. Enhancing provider knowledge and skills will only expand access to care as far as the structural resources allow. Training interventions should be paired with facility-level and payer-level interventions that materially improve providers' ability to offer care at the top of their training and scope of practice.

Attitudes, beliefs, and approach to contraception

Providers generally reported incorporating aspects of patient-centered care and emphasized reproductive wellness and autonomy in their approaches to contraception. They shared positive views of their colleagues and providers across the state who offer contraception to all. Some were aware of medical professionals in their communities who withheld contraceptive access from certain patients, or who held biased attitudes interfering with healthcare provision. Some providers held personal beliefs that interfered with contraception provision, including views that patients are uninterested in LARC, and that family planning and contraceptive counseling during the hospital stay after delivery are unimportant or unwanted by patients. Given existing postpartum contraception research which underscores the importance of family planning and recommends family planning discussions be held at multiple time points throughout the perinatal period (Zapata et al., 2015), efforts to reduce such biases are needed. Supportive training acknowledging human tendencies toward bias and involving specific behavioral interventions and opportunities to shadow colleagues who promote all forms of contraception to patients have shown promise in decreasing provider bias [24].

Insurance, expense, and procedural barriers

National data suggest that LARC use has increased in recent years, though tubal litigation and oral contraceptive pills continue to be more widely used than IUDs [42, 59] consistent with national data, IUD provision in our study was not as common as contraceptive injection, implants, abstinence counseling, oral contraception, and tubal litigation. Providers attributed low IUD provision rates to cost, delays in receiving the devices at their practice, and lack of patient interest. More than half of providers were unaware of state-mandated insurance coverage of FDA-approved contraceptive methods, and nearly half were unaware of recent Medicaid policy changes allowing for separate reimbursement of LARC provision following labor and delivery (e.g., unbundled from labor and delivery). This lack of awareness may in part reflect a knowledge gap but is also likely reflective of providers' lived experiences with insurance coverage and reimbursement challenges in practice. Nearly all providers described difficulties with insurance coverage and inhibitive approval and preauthorization procedures. They spoke about resulting delays creating up to several months wait for patients seeking LARC. Additionally, some indicated engaging in unpaid LARC provision or described patients resorting to out of pocket pay for LARCs, indicating that LARC demands are currently unmet. These delayed and out-of-pocket approaches hinder timely provision of emergency and can complicate post-placental IUD placement, especially for patients who cannot cover this unexpected cost. While many insurance companies, including Medicaid, offer coverage

for IUDs, significant barriers continue to prevent their widespread provision. Providers perceived potential solutions to delayed IUD access through changes to facility policies and streamlined insurance coverage procedures.

Other barriers to postpartum contraception included security and safety concerns interfering with abortion care provision in practices known to provide abortion care, and several providers noted previously or currently working at religiously affiliated hospitals where certain forms of contraception (e.g., tubal litigation) were forbidden, regardless of the provider's professional beliefs, training, and patient needs. Finally, while most follow-up interviewees expressed having insufficient time to counsel their patients on contraception, participants in the overall initial survey reported having sufficient time for contraceptive counseling.

Facilitators

Overall, most providers showed favorable beliefs toward LARCs. Few were concerned about LARC methods leading to lawsuits against them. Most believed that their patients were good candidates and were satisfied with their IUDs. Providers described procedural, educational, and resource-related facilitators which supported their efforts to provide contraceptive care, including well-trained staff, supportive coworkers, positive relationships between their facility and their community, access to educational materials on contraception in waiting rooms, and multiple avenues for patients to access contraception. They expressed hope for future policy changes, improved insurance coverage and reimbursement, and improved liability environments.

Limitations

This study was conducted in Montana, a rural state with limited access to postpartum care services. As such, the transferability of our findings may be limited to other similarly rural states with limited access to care. While survey participants expressed more varied beliefs toward LARC and immediate postpartum contraception, follow-up interviewees consistently expressed positive beliefs and attitudes toward LARC and postpartum contraception, suggesting our results may be impacted by selection bias and social desirability bias.

Conclusion

Our findings indicate that LHPs in Montana confront steep obstacles in their efforts to provide post-partum contraceptive care, including institutional and procedural barriers, a lack of training, and challenges with insurance reauthorization and reimbursement processes. Crucially, more than half of providers were unaware of recent Medicaid policy unbundling post-partum contraception from labor and delivery services, and nearly half providers were unaware of state-mandated insurance coverage of FDA-approved contraceptive methods. This finding indicates that, in addition to more comprehensive contraceptive care training, there is a significant need to educate providers on state-level insurance policies that facilitate access to postpartum contraception.

Abbreviations

ACOG	American College of Obstetricians and Gynecologists
APRN	Advanced Practice Registered Nurse
CME/CNE	Continuing Medical Education/Continuing Nurse Education
CNM	Certified Nurse Midwife
CPM	Certified Professional Midwife
DO	Doctor of Osteopathic Medicine
DPHHS	Department of Public Health and Human Services
FQHC	Federally Qualified Health Center
IHS	Indian Health Services
IUD	Intrauterine Device
LHP	Licensed Healthcare Providers
MD	Doctor of Medicine
OB/GYN	Obstetrician/Gynecologist
PPCP	Postpartum Care Provider
PA	Physician Assistant/Physician Associate
RN	Registered Nurse
RNC	OB–Inpatient Obstetric Nursing

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Author contributions

AB, NS, and ALG contributed to the study conception and design. NS, ALG, and AB contributed to material preparation; data collection was performed by AB, and quantitative analysis was performed by ALG. Qualitative coding and analyses were performed by AB and ABG. The first draft of the manuscript was written by AB and ABG and all authors commented on previous versions of the manuscript. Authors ABG and ALG completed extensive revisions on the manuscript before submission. ABG and ALG completed all edits in response to reviewer feedback. All authors read and approved the final manuscript.

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Data availability

The datasets generated and/or analyzed during the current study are not publicly available to protect participant confidentiality but are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

IRB approval was obtained from the ethics committee of University of Montana (IRB Protocol #213 – 21). The procedures used in this study adhere to the tenets of the Declaration of Helsinki.

Consent to participate

Informed consent was obtained from all individual participants included in the study.

Consent for publication

Not applicable. Consent for publication was not obtained from participants beyond IRB requirements as identifying information, such as data and pictures, is not submitted for publication.

Competing interests
The authors declare no competing interests.

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