



## Provider perspectives on a point-of-care tool to facilitate patient-centered contraceptive care among Latina/x patients in Baltimore, MD



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### ABSTRACT

**Objectives:** To explore clinician perspectives on the development, utility, and feasibility of a provider-facing point-of-care tool to assist in provision of patient-centered contraceptive care for Latina/x patients in Baltimore, MD.

**Methods:** We conducted 25 semi-structured qualitative interviews with a sample of clinicians who provide contraceptive care to Latina/x patients. An interview guide was developed based on prior research related to patient-centered care and extant point-of-care tools. Transcripts were independently coded by two study team members and analyzed using a directed content analysis approach.

**Results:** Four themes emerged from the data: (1) clinician perception of a need for a tool to facilitate patient-centered contraceptive care, (2) concern for tool burden and burnout, (3) desire for tool ease of use, and (4) a need for cultural awareness during tool development to avoid bias and typecasting.

**Conclusions:** A provider-facing, point-of-care tool to facilitate patient-centered contraceptive counseling was acceptable among providers, provided the tool is easy to use and promotes cultural awareness.

**Innovation:** In the current era of more limited reproductive choice across the U.S., the need and support for non-coercive, patient-centered contraceptive care is timely. A provider-facing, point-of-care tool can facilitate the provision of patient-centered care among clinicians providing contraceptive counseling to Latina/x.

### 1. Introduction

In recent years, patient-centered care (PCC) has been put forth as a kind of gold standard for clinical care. Defined by the Institute of Medicine as care that is, “respectful of and responsive to individual patient preferences, needs and values and [ensures] that patient values guide all clinical decisions” [1], PCC emphasizes the role of providers in eliciting and respecting the wants and needs of patients throughout the course of their care. PCC within contraceptive care specifically considers the social environment in which people make decisions [2] as well as the historical reproductive abuses perpetrated against many marginalized and disadvantaged communities in the United States [2,3].

Patients describe the ideal contraceptive counseling as that which focuses on their preferences [4], is respectful of their choices, and is personalized to their needs [5]. Patients also value adequate time with their providers when making decisions related to contraception [6]. Moreover, research suggests that perceptions of high-quality contraceptive care are associated with improved satisfaction with a chosen method and method continuation [7,8]. Despite the potential for PCC to improve patient experience and outcomes, significant barriers hinder its implementation. Patient-level

factors including insurance status and financial constraints challenge the provision of PCC [9]. For clinicians, time constraints, patient-provider language discordance, and racial/ethnic biases toward patients can disrupt provision of PCC [10].

America's history of reproductive violence toward marginalized groups necessitates a focus on contraceptive PCC, if we are to resist continued coercive practices particularly among disadvantaged communities [3,11,12]. Among Baltimore's Latina/x community, research has demonstrated the importance of trust and communication during contraceptive counseling [4,13]. Yet, extant literature also suggests inequities in the provision of PCC for this population [14,15]. Notable barriers to implementation of contraceptive PCC among Latina/x patients include many of the common, expected systemic obstacles such as time and insurance constraints, as well as additional barriers including patient-clinician language discordance, a lack of cultural humility among clinicians, and an adherence to prescriptive, paternalistic paradigms of contraceptive counseling that prioritize pregnancy prevention rather than patient preferences [15]. Such barriers pose significant obstacles to the implementation of PCC during contraceptive counseling and decision-making, and a point-of-care tool designed to focus clinicians on PCC delivery, may be prove useful.

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Several decision-making aids for use by patients have been developed to facilitate contraceptive decision-making [16-18]. While inherent in PCC is the inclusion and active involvement of patients in healthcare decision-making, PCC also requires the intentional participation of clinicians. Recent research suggests that while clinicians often think they are providing patient-centered contraceptive counseling, this is not always the case [15,19]. In fact, clinicians often focus contraceptive counseling on pregnancy prevention only, which often leads to focused and limited discussions about most effective methods (i.e., LARCs) while failing to elicit patients' true preferences [13,15]. This paternalistic paradigm of care provision may rely on clinician assumptions rather than patient's preferences and suggests that clinicians may benefit from use of a point-of-care tool focused on facilitating the provision of patient-centered contraceptive counseling.

Few clinician-facing, point-of-care tools exist for the provision of patient-centered contraceptive care [20,21] and no existing tools focus on the provision of contraceptive PCC for historically marginalized groups, including those who identify as Latina/x. Extant point-of-care tools mostly focus on providing relevant information to help guide clinical judgement [22] and research suggests the most desirable clinician-facing tools are succinct, well-organized, and easy to use [23-25]. In addition, clinicians describe the most desirable tools as those that have clear and available user instructions [24] and are implementable via a clinician training [22]. Such tools add value to clinical practice without threatening clinician autonomy, disrupting workflow, or jeopardizing face-to-face relationship-building time with patients [24,26].

Given the dearth of provider-facing point-of-care (POC) tools for the provision of contraceptive PCC, as well as the notable barriers to implementation of PCC, this study sought to explore clinician perspectives on the design of such a tool to aid them in the contraceptive counseling of Latina/x patients in Baltimore, MD.

## 2. Methods

### 2.1. Study design, setting, sample, and recruitment

We conducted semi-structured qualitative interviews with a convenience sample of physicians and nurse practitioners across four specialties (Family Medicine, Internal Medicine, Pediatrics, Obstetrics/Gynecology) at four healthcare facilities in Baltimore, MD ( $N = 25$ ). Clinicians were eligible if they reported providing contraceptive counseling to Latina/x patients. Facilities serve predominantly low-income/uninsured patients or those with public insurance. Using purposive sampling [24-27], clinicians were recruited during site specific clinical staff meetings during which the study team presented the study objectives and obtained contact information from interested clinicians. Following the implementation of COVID-19 restrictions, participants were additionally recruited via emails sent by facility medical directors to eligible clinicians. Email communications included a formal letter from the study Primary Investigator detailing study procedures and providing contact information. The study was approved by all overseeing Institutional Review Boards.

### 2.2. Data collection

After obtaining informed consent, interviews were conducted in-person and virtually from February 2020 to January 2021. A semi-structured interview guide was developed based on previous research conducted by the research team [4,27] employing a PCC conceptual framework [1]. The guide explored providers' contraceptive counseling approaches and perspectives on the development of a point-of-care tool to facilitate contraceptive decision-making within the context of PCC (Appendix A). A trained research assistant (doctoral student who is a white cisgender woman with extensive reproductive health and qualitative research experience) conducted interviews until reaching thematic saturation, defined as the point at which interviews provided no new data or evidence for confirming or disconfirming established, major themes [29]. While data was collected through 25 interviews, data saturation was reached at 20 interviews in

this study, which is reflective of prior research suggesting that saturation is generally reached by 20 in-depth qualitative interview. [30] Interviews lasted approximately 60 minutes and were audio-recorded and then transcribed verbatim. Participants received \$85 gift cards as remuneration.

### 2.3. Analysis

Two investigators (DNC and KGB) independently analyzed data using a directed content analysis approach [31] to identify codes through memoing and a line-by-line analysis of the transcripts. As interviews were conducted, DNC and KGB met weekly to discuss memos, review and reconcile coding discrepancies, and iteratively develop a final codebook, which was guided by both by PCC constructs and the most literature about the important and desired characteristics of clinician-facing point-of-care tools [20-24]. When data collection was complete, KGB applied the final codebook to each transcript. DNC, KGB, and AMT then organized data by emergent themes (e.g., tool preferences), informed by literature about existing POC tools. The research team then identified illustrative quotes that best conveyed emergent themes. KGB conducted member checking during interviews by reviewing topics discussed with clinicians that were discussed in preceding interviews with previous participants –as a means to confirm or disconfirm prior findings. Member checking was confirmatory, with clinicians across sites and specialties providing similar suggestions for the tool as well as barriers to its implementation.

## 3. Results

We conducted 25 interviews. Most providers identified as white/Caucasian (68%), 20 % were Black/African American, 12% Latina/x, and one identified as Asian-American. The majority of participants were physicians (72%). Providers represented Pediatrics (44%), Ob/GYN (36%), Family Medicine (16%) and Internal Medicine (4%) (Table 1).

Four major themes were identified in the data: (1) clinician perceived need for and understanding of a point-of-care tool, (2) concerns about tool burden and burnout, (3) desire for ease of use in a tool, and (4) a belief that tool development should consider cultural awareness to address the specific needs of Latina/x patients.

### Theme 1: Perceived need for and understanding of a provider-facing tool

Though each clinician was asked specifically about the need for, and recommendations for the development of a clinician-facing tool, early on in data collection, nearly every clinician shared their perspectives about a tool for use by patients. Although in these instances the interviewer

**Table 1**

Demographic characteristics of a sample of providers ( $N = 25$ ) in Baltimore, MD.

Demographics	% (N)
Training	
MD/DO	72 (18)
Nurse Practitioner	28 (7)
Medical Specialty	
Family Medicine	16 (4)
Pediatrics	44 (11)
Ob/Gyn	36 (9)
Internal medicine	4 (1)
Race/ethnicity*	
Black/African American	20 (5)
Latino/a/x	12 (3)
Asian-American	4 (1)
White/Caucasian	68 (17)
Gender	
Cis female	92 (23)
Cis male	8 (2)
Spanish-speaking	40 (10)

\* sum > 100% as providers could select more than one race/ethnicity.

immediately re-directed participants to focus on a tool for use by clinicians, they often still defaulted to describing a tool that would be used by patients, instead of themselves.

*I mean, other than, other than the website and the, the chart, you know, having things to give to the patient to take home or visual aids are, are really, you know, I think they definitely have a place in what we do. I know there is – there are things available, but we just – I don't really see them in the clinics. There's – there is this one pad that we can take to give to the patients, but how e – whoever did it I'm not as impressed with it. (white obstetrics-gynecology nurse practitioner).*

Often this misunderstanding resulted in suggestions for ways to elicit patient preferences prior to or without direct patient-contact, generally to save time during the clinical visit itself:

*I mean I could see that it might be helpful to have, you know, like a screening tool. ...if I could give a patient a piece of paper that said, you know, mark what you – have you – what you – definitely want... And have the patient sort of fill that out that you quickly scan... It might be useful. (Latina internal medicine physician).*

This pattern and seeming confusion among participants was noted by the research team, and the wording of the interview guide was revised to more clearly emphasize the focus on respondent perspectives regarding “provider-facing” tools for themselves as clinicians. Despite these changes, in subsequent interviews, some clinicians still seemed to have difficulty describing a provider-facing tool rather than a tool to be used by patients – which was frequently proposed; one clinician interviewed after changes were made to the interview guide responded:

*The first answer is yes [there is a space for a provider-facing tool]. Uh, and in my brain, um, the tool would look like a, a - some kind of digital patient interactive where, um, where the patient is blinded to all forms of contraception, but they answer questions concerning their, their wants from the birth control. (Black/African American obstetrics-gynecologist).*

### Theme 2: Concern for tool burden and burnout

Participants described a clinical setting that often encourages the use of clinical tools (e.g., checklists, clinical calculators, etc.), contributing a perceived burden on the part of providers who described high utilization of clinical tools during patient encounters. Tool burnout was also expressed in the form of negative viewpoints about a perceived overreliance on tools.

*We have so many checkboxes in medicine that we have to like constantly click and so, I'm really hesitant to, um, say, “Oh, we need more, um, another checklist.” I know, there's like people who love checklists but there's – I – there are certain things for which I firmly believe in checklists. I think that giving guidance and making it something that can sort of like be married to the way that the provider has been doing counseling is better. (white obstetrics-gynecologist).*

*... we already – our EMR, like, you know, has little checkboxes [...] but I think there's, like, so many things that we need to get through in an adolescent visit, that having another list of things that I am supposed to ask, um, that's, like, scripted, would – I don't know that that would be very helpful. (white pediatrician).*

Several limitations seemed to contribute to tool burden and burnout. Participants often cited time constraints as a barrier to the uptake and integration of a potentially onerous clinician-facing clinical tool.

*Oh, time constraints, 100%. Like if a provider is running 45 minutes late on their schedule, and this thing flashes up when they open the patient's chart,*

*and they have to click through this before they can get to whatever it was that they were aiming for, I'm sure people are going to click through without reading it. (white obstetrics-gynecologist).*

*...like the time is so crunched already during the visit that it would be – it would be a barrier I think to most providers to – unless it was something like easily accessible on their phone, which may not be too bad, but like to have to get another tool out to – and then start it up, and then like, you know, go through some algorithm. Um, it would have to be something that's very quickly accessible. (white obstetrics-gynecologist).*

Other clinicians felt that a tool could distract from their interactions with their patients:

*I mean, my first thought when you say tool, I immediately think to something that's going to involve a computer. Um, and I hesitate for something like that because I think anything that is going to require a provider to interact with a computer, is taking away from the interaction with the patient. Um, so, that I, I would have some real hesitation about, I don't know how effective that would be. (white obstetrics-gynecologist).*

*I think because you don't wanna be focused on whether or not you're getting benchmarks on. And that might take away from actually picking up on cues that the patient may be giving you or um, helping you stay on focus in a direction that you need to go in. So you don't wanna be distracted by, say, “Oh, I should've said this. I should've done this,” kind of things. (Black/African American obstetrics-gynecology nurse practitioner).*

### Theme 3: Desire for ease of use

To mitigate tool burden, burnout, and the potential for distraction, clinicians described a preference for a tool that is easy and simple to use and as accessible as possible with respect to readability, length, and availability in multiple modalities (on paper/laminated card or electronic medical record [EMR]).

*Probably just ease ability of use and then, and then functionality... the ultimate recommendation is functional and reasonable, then, we all could, you know, be motivated to continue to use it. (white obstetrics-gynecology nurse practitioner).*

*I think it's got to be simple. It's got to be like, easily incorporated... it can't have too many parameters in it. (Asian obstetrics-gynecologist).*

*If [tools are] easy to – easy to get to, right. So, if they're available. If it's within the medical record. That it's easy to see... That would be helpful. And just like available in all the rooms so that you don't have to run around and find them. (white pediatrician).*

Several respondents expressed that the ideal tool would be short in length, “simple,” and deemed acceptable by respondents who would want to use it to help ensure patient preferences are addressed.

*I like checklists. Uh, uh, but the problem is they have the tendency to be, uh, lengthy because there is a balance between being comprehensive and being simple. Uh, and, uh, the more simple, the better. So, if there's something that's very simple like very few steps, it would be very helpful. (white obstetrics-gynecologist).*

The development of prompts, key phrases, or specific questions reflective of PCC that could be asked by the clinician during a contraceptive counseling encounter were also suggested by several participants as a means to make tool use easy.

*I think for sure there is space [for such a tool in clinical practice]. I think it would be really great if it, if there was like a part of it that was like provider prompts that helped providers like ease into conversations or facilitate more productive conversations. (white pediatrician).*

*I think just like good prompts for open-ended questions are really important. I think if you go with, you know, a question that's not going to close off that patient or prevent them from asking you what or expressing their interests in questions, then you're already on a much better footing than if you don't. (white obstetrician-gynecologist).*

*... if I have something in my toolbox that's very clear... like, "Here's two ways, or two sentences," or something, I'll find that really helpful. (Latina/x pediatrician).*

Clinicians described a variety of potential tool modalities that could make the tool easier to use, including pen and paper, EMR-integrated, and a web-based option.

*Oh, paper and pen. Our EMR is horrible. Yeah, just like a handout. (white family/community medicine physician).*

*Um, I think for me it would have to be something embedded in the um, in the [EMR]. And it will be helpful if it was a tool that could pull – somehow pull the last – because a lot of things – a lot of times what 'we're doing is 'we're reinforcing or reiterating, you know, things that 'we've talked about in previous visits especially if there's a – if you have a longitudinal relationship with a patient. (Black/African American pediatrician).*

*I mean, I guess you could have a website with it too, but you know, like you said it's for providers only. So, somehow you have to differentiate that that the general population couldn't have access to it. (white obstetrician-gynecologist).*

Training on how to use a tool for provision of patient-centered contraceptive counseling, was also discussed by clinicians as means to improve the ease of use of such an instrument. The majority said they would consider participating in such a training.

*[...] it would be nice if we had the perfect tool to have a training over it of like, "Hey, here's what we've got, here's what's in it. It's gonna be..." (white family physician).*

*I think having, like, a training and a refresh – you know, a training where I can, um, learn about those things and, like, actually use the – use the tools and then practice using the tools [...] You know, like, how can I make it work for my own thing? That would be good. (Latina pediatrician).*

#### Theme 4: The role of cultural awareness in tool development

With respect to the use of a provider-facing PCC tool specifically with Latina/x patients, providers consistently cited importance of cultural awareness in the development and implementation of any tool. Clinicians noted that using such an instrument should intentionally consider the specific needs and experiences of a heterogeneous Latino/x community.

*Um, I just think that it's really important that as we're thinking about, like, any kind of a tool or whatever, we'd be really careful not to put people into buckets. (Asian obstetrician-gynecologist).*

*And I think just like knowing if there are particular values surrounding child-bearing that are important to the culture so that you don't stick your foot in your mouth or come off as imposing your own values, I think is helpful. (white obstetrician-gynecologist).*

Clinicians also cautioned against broad generalizations about the contraceptive needs and preferences of Latina/x patients.

*... somewhat taking it [a culturally-tailored POC tool] with a grain of salt that okay, this may be a common thing but it's not necessarily everyone. I feel like maybe working in, you know, communities for a while that I've realized some people will often say, "Oh, it's all this." And I'm like, "No, actually it's not all that," you know, the often-heard stereotypes that Latin women are not gonna get abortions is untrue or that they are going to be worried about birth control for religious reasons is untrue. (white family nurse practitioner).*

## 4. Discussion and conclusion

### 4.1. Discussion

Results suggest the acceptability of a clinician-facing point-of-care tool to facilitate patient-centered contraceptive counseling for Latina/x patients, but also the concern that a tool could contribute to burden and burnout in the clinical setting. Reflecting extant research about the acceptability of clinician-facing tools, our data suggest that clinicians prioritize simplicity and ease of use for such a tool [23-25]. Importantly, given the target population of patients, clinicians discussed the importance of developing a culturally aware tool free from generalizations and stereotypes.

Notably, several participants struggled with the concept of a "provider/clinician-facing" tool and consistently described characteristics of and offered suggestions for tools to be used by patients (patient-facing) when prompted for thoughts about such tools. This frequent misunderstanding may reflect clinician awareness of common and important paradigms of healthcare which encourage patients to be self-informed and to advocate for themselves. While patient-facing decision aids are useful and necessary tools for sharing evidenced-based information with patients [32] and providing avenues for method choice, they are not meant to substitute collaborative conversations with clinicians. Patients, including Latina/x patients, are often already quite informed about their contraceptive options prior to a medical visit, whether or not a decision-aid is used. For example, Latina patients in Baltimore seeking contraceptive counseling often know their contraceptive options and how to access them, yet still they seek clinician expertise in choosing the method that is best for them, though they do not always feel that clinicians are listening or communicating non-biased evidence-based information [15]. Therefore, a point-of-care tool to facilitate clinician use of PCC techniques (including elicitation of patient preferences, evidenced-based, full, and non-coercive information exchange, and support of patient preferences) during contraceptive counseling is essential to support patient access to and use of the methods that best align with their goals and desires. Given the study findings, the development and implementation of such a tool should include outreach, education, and targeted training for clinicians not only about its use, but also about the rationale for its need in contraceptive counseling.

While clinicians expressed support for a tool to facilitate patient-centered contraceptive counseling, our findings demonstrate that clinicians were concerned about the potential burden such a tool could add to the already extensive clinical expectations and requirements that they face in daily patient encounters. In contemporary American healthcare delivery and clinical practice in which visit times are often short (10–15 minutes) and clinicians are expected to see a higher volumes of patients than ever before while still providing comprehensive care, there is understandable widespread concern about the feasibility of incorporating any new point-of-care tool into daily practice [24-26]. Consistent with other studies, participants also expressed concern that tool use may detract from face-to-face, in-depth conversations with patients in exchange for increased time on the computer [24,26]. This concern for the tension that could arise between the use of yet another point-of-care tool which could potentially negatively interfere with patient-clinician interaction and communication

[24,26] and the clear need for a tool focused on providing patient-centered contraceptive care, is understandable. This is especially true given the time constraints than many clinicians experience when they see patients during very short appointment times, and as noted, research has previously demonstrated that clinicians believe time restrictions are clear barriers to the provision of PCC [15,33-35].

Despite their concerns about the use of yet another point-of-care tool, clinicians expressed support of and understanding for the importance and need of PCC for the provision of equitable contraceptive care. Clinicians were thus forthcoming in their suggestions about important tool characteristics that could facilitate its use, and by extension, PCC during contraceptive counseling. Consistent with extant research, study participants suggested that any point-of-care tool should be readily usable and accessible. Clinicians by and large shared that desirable tool features include easy readability, short length, and accessibility via multiple modalities (EMR, websites, hardcopy). Previous research supports incorporation of PCC principles into the EMR [36,37]. One such intervention requires patients to answer a questionnaire about their general care preferences and values, which then becomes accessible to their providers to facilitate conversation in clinic visits [36]. Additional recommendations for EMR-based PCC include incorporation of tools for patient preference elicitation into the EMR with associated mechanisms that alert clinicians when care plans are inconsistent with documented patient preferences [37]. Therefore, our study data together with previous research suggests promising potential for the incorporation (via multiple modalities including EMRs) into clinical practice of a short, easily readable, and accessible tool for provision of PCC during contraceptive counseling.

To facilitate patient-centered contraceptive counseling of a Latina/x patient population, study participants also acknowledged the importance of creating a tool that is culturally aware, non-biased, and non-discriminatory. Culturally-tailored communication has been shown to improve shared decision-making and patient-centered communication by ensuring that clinical encounters are relevant to individual patients [38]. Nevertheless, it is important to acknowledge that not every person of a particular ethnic background has the same ideas and preferences [28], especially since Latina/x communities across the U.S. are quite heterogeneous with respect to cultural traditions, language spoken, and immigration experiences. The goal is therefore to create a tool that encourages clinicians to consider patients' sociocultural context, lived experiences, and even potential generational trauma while avoiding biases and typecasting. Thus, an important component of patient-centered contraceptive care is acknowledgement of the historic and contemporary reproductive abuses committed against non-white communities in the U.S. and how legacies of oppression may influence patient experiences and preferences [2]. Those of Latin American descent are among the groups for which there is a longstanding history of government-supported programs to control reproduction, including eugenics laws that allowed for the disproportionate sterilization of institutionalized Latinos, testing of high-dose oral contraceptives on Puerto Rican women without consent or FDA approval, and other government-supported sterilization campaigns targeting both Puerto Rican- and Mexican-origin women [39]. To truly practice PCC in provision of contraceptive care, it is critical that clinicians be aware of these historical reproductive injustices committed against the Latina/o/x communities.

The study should be understood in the context of its limitations. The experiences and preferences of participating clinicians are not generalizable across U.S. clinicians. However, the diversity of training and clinical specialties in the sample suggests that reported concerns about and desired traits of a point-of-care tool for facilitation of PCC in contraceptive care are transferrable across a variety of contexts. Social desirability bias may have influenced what providers shared in interviews. To minimize this concern, interviews were conducted by a non-clinical research team member (KGB) and rapport building was emphasized during study preparation. [40,41] Moreover, member checking conducted throughout data collection

and at its completion was confirmatory, suggesting that the views shared across providers were both dependable and credible. Finally, our study does not include patient perspectives on the use of the tool in the context of contraceptive counseling, which may differ greatly from that of clinicians.

#### 4.2. Innovation

The present research is innovative both as a first step toward the development of a novel tool and in its implications for the reproductive autonomy of an historically marginalized group [3,11,12]. The challenges to implementing patient-centered contraceptive counseling among Latinas in Baltimore described by the clinicians in our sample and the dissonance between their desire to practice PCC and actual counseling practices [15] are reflected in the documented inequities in the provision of patient-centered contraceptive care, particularly among Latina/xs [14]. Despite this, to date, no provider-facing point of care tool to facilitate the provision of patient-centered contraceptive counseling exists. Thus, such a tool represents an important innovation in improving the provision of contraceptive care among Latina/xs by helping providers to challenge the prevailing pregnancy-prevention paradigm and provide counseling that is more closely aligned with patient preferences.

Further, the utilization of such a tool is innovative in its potential to more evenly distribute the responsibility for facilitating open communication between clinicians and patients. In the current post-Dobbs era in which the reproductive autonomy of so many (especially those from marginalized communities) is more threatened than ever before, clinicians intending to mitigate the risk of unintended pregnancies for those with limited or restricted access to sexual and reproductive healthcare may lean into the propensity toward contraceptive coercion. This is especially concerning, given this historical and contemporary state-sponsored population control programs that have targeted Latina/xs in the United States [39]. Consequently, the relevance and need for an innovative tool to facilitate non-coercive, contraceptive care that is both patient-centered and culturally aware could not be more urgent.

#### 4.3. Conclusion

Clinicians generally support the concept of PCC in contraceptive counseling and often believe they are practicing it, even though evidence may at times suggest the contrary [13]. There is, then, a need for a provider-facing, point-of-care tool that can help guide and facilitate clinicians in the provision of patient-centered contraceptive care. Such a tool could prompt clinicians to utilize principles of PCC including immediate elicitation of patient preferences, non-biased information-exchange without coercion, and heightened efforts to provide patients with their desired methods.

#### Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Diana N Carvajal reports financial support was provided by National Institutes of Health. Diana N Carvajal reports a relationship with University of Maryland School of Medicine that includes: employment.

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#### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.pecinn.2023.100190>.

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