

## Seizing the 9-month moment: Addressing behavioral risks in prenatal patients

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### Abstract

**Objective:** Our qualitative study explored prenatal care providers' methods for identifying and counseling pregnant women to reduce or stop smoking, alcohol use, illicit drug use, and the risk of domestic violence.

**Methods:** We conducted six focus groups (five with OB/Gyn physicians, one with nurse practitioners and certified nurse midwives), total  $N = 49$ , using open-ended questions. Investigators analyzed transcripts to identify and describe themes.

**Results:** Three major themes emerged: (1) specific risk-prevention tactics or strategies exist that are useful during pregnancy; (2) some providers address patients' isolation or depression; and (3) providers can adopt a policy of "just chipping away" at risks. Specific tactics included normalizing risk prevention, using specific assessment techniques and counseling strategies, employing a patient-centered style of smoking reduction, and involving the family.

**Conclusions:** Providers generally agreed that addressing behavioral risks in pregnant patients is challenging. Patient-centered techniques and awareness of patients' social contexts help patients disclose and discuss risks.

**Practice implications:** Brief but routine assessment and risk reduction messages require little time of the provider, but can make a big difference to the patient, who may make changes later.

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### 1. Introduction

Pregnancy is a critical time to address preventable behavioral risks threatening the health of mother and child. Cigarette smoking and use of alcohol and illicit drugs are associated with spontaneous abortion, low birth weight, and preterm delivery [1–6], and specific physical, cognitive, and behavioral problems in children [7–12]. Domestic violence (DV) perpetrated by an intimate partner also poses risks,

including late entry into prenatal care [13,14], preterm labor, low birth weight [15,16], chorioamnionitis [17], bleeding, anemia, and infections [18]. Reported prevalences during pregnancy are 11–23% for smoking [19–22], 4–9% for alcohol use [22,23], 7–11% for illicit drug use [22,24], and 4–20% for domestic violence [19,25,26].

Recommendations for behavioral risk screening and intervention during pregnancy have been published by a number of medical organizations [27–29]. Data suggest that screening and counseling during pregnancy decrease risky behaviors [30,31]. Nevertheless, many physicians either fail to take advantage of prenatal visits to address behavioral

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risks [21,23,32–34] or, following initial assessment, fail to conduct follow-up assessments, provide further counseling, or make referrals [35–38]. Abundant literature has documented physicians' barriers to risk assessment and counseling, including, among others, underestimating risk prevalence, pessimism about changing behavior, and time constraints [39–48]. Given these barriers, how can physicians help pregnant patients reduce behavioral risks? Using qualitative, focus group data, we conducted an exploratory study to address this broad question. We sought increased understanding of how prenatal providers approach or navigate around the barriers to prevention of smoking, alcohol, drug, and DV risks. Such data could allow us in future to refine and test methods for achieving better compliance with clinical practice recommendations.

## 2. Methods

### 2.1. Participants

Compared with surveys or interviews, focus groups allow more extensive exploration of the research question, by encouraging the exchange of advice, debate, and sharing of opinions [49]. Six focus groups, each with 6–11 participants, were conducted during winter 2003–2004. Five groups included obstetrician/gynecologist (OB/Gyn) physicians, and one included nurse practitioners and certified nurse midwives (NP/NMs). We used purposive sampling, a qualitative method in which participants best suited to provide a full description of the research topic are intentionally selected. We sought a sample of OB/Gyns who provide routine prenatal care to San Francisco Bay Area patients. To identify common patterns across settings [50,51], we recruited physicians from private practice, academic centers, county hospitals, and health maintenance organizations (HMOs). Recruitment was by invitation and in “snowball” fashion [52], in consultation with a professional survey research organization. Potential participants were screened by phone and were eligible if they saw pregnant patients in their practice and were aware of seeing pregnant

patients with any of the four risks under study. Those screened in turn provided additional names of potential participants, who were likewise invited and screened.

Recruitment ceased when we obtained enough physicians for five focus groups of about 6–10 participants each; allowing for rich, varied data [48,53], but with noticeable “theoretical saturation,” that is, when data begin to become repetitive [49,54]. We recruited one additional group of nine prenatal NP/NMs, by invitation and snowball sampling. Physician participants had indicated they regularly deferred some risk prevention activities to other providers (NPs and NMs), so we hoped to gain some understanding of their perspective as well.

### 2.2. Data collection

Each focus group was facilitated by the same moderator (a psychologist). A focus group guide, with open-ended questions, was used (Table 1). Sessions lasted two hours and were held in professional focus group settings. Additional investigators viewed sessions from behind two-way mirrors. Written informed consent was obtained, and a written survey was administered to collect demographic and practice information. Participants received a stipend. Study procedures were approved by the University's Committee on Human Research. Sessions were tape recorded, and transcripts were reviewed for accuracy by several investigators.

### 2.3. Analysis

We used a subjective, interpretive “editing style” of analysis, as described by Crabtree and Miller [55]. Several investigators independently conducted initial readings of the transcripts, and identified prominent codes, ideas, and themes in the data. The NP/NM group's data were combined with physician data, due to similarity of perspective and techniques between the groups. (According to the NP/NMs, many of their patients saw them at routine visits rather than a physician and looked to them as their medical authority.) Two additional research team members checked validity of initial findings and coding categories, clarifying or adding themes. A smaller

Table 1  
Focus group core questions

1. Tonight we're talking about four behavioral risks during pregnancy: smoking, alcohol consumption, use of illicit drugs, and domestic violence. What are your specific problems, issues, or interests in the area of preventing these patient risk behaviors during pregnancy?
2. We have posted some ACOG recommendations for how providers might handle the four risk areas we're discussing tonight (tobacco, alcohol, drugs, domestic violence). I'd like to get each of you to briefly give me your reactions/opinions about them, and or tell me do you follow them in your practice?
3. In this era of evidence-based medicine, do you think there is evidence that providers can have a positive impact with their patients in each of these four risk areas?
4. Within these four risk areas, what do you consider real risks? Of the four risk areas, are there differences in terms of difficulty with assessing or counseling patients? Are there differences in difficulty with achieving behavior change?<sup>a</sup>
5. In your opinion, is pregnancy an opportune time to really reach women and influence changes in their behavior? Why or why not?
6. Do you think that counseling patients to reduce risky behaviors is part of your job?
7. What do you find are the best ways to ask patients about each of the four risk areas?
8. Are there specific strategies that you have found to be effective when you are trying to help your patients with these four risk behaviors?

<sup>a</sup> Results of this question are reported separately.

set of investigators then engaged in an inductive process, re-organizing themes as more general concepts. Results were reviewed with other team members, and findings were shared with two peer reviewers as a validity check.

### 3. Results

Participants included 40 OB/Gyns, 5 NMs, 3 NPs, and 1 registered nurse. Eighteen participants worked at an HMO, 14 in private practice, 8 in community health clinics, 5 in county hospitals, and 4 in academic centers. Thirty-one participants were female, 18 were male. Ages ranged from 26 to 74 years (mean = 44.9; standard deviation = 11.01; median = 47). Our sample included 30 white, not Hispanic or Latino, 8 Asian, 5 black, 4 Hispanic or Latino, and 2 mixed race or “other” participants.

Although generally providers indicated awareness of the American College of Obstetricians and Gynecologists (ACOG) recommendations to screen for risk behaviors during pregnancy, they did not discuss following specific recommendations in the areas of counseling, follow-up, or other behaviors. There was some disagreement with specific recommendations; for example, at least one provider was uncomfortable with giving abstinence messages for alcohol to her patients. So much discussion flowed from differences in perspective and practice between the four risk areas (alcohol versus smoking versus drugs versus DV) that we are preparing a separate report for those data. Here, in general, we report participants’ beliefs and behaviors as they pertain to all four of the risks.

Most participants believed that pregnancy was the most opportune time for a woman to change risky behaviors. During pregnancy, providers noted that women have more motivation to change behavior and greater continuity of care. The relationship between patient and provider, based on continuity and trust, can facilitate open communication about risk behavior. As one provider stated, “It’s not just a teachable moment, for some women it is THE teachable moment. That 9-month ‘moment’ is probably the only time you’re going to get some of them in your office, so it’s a prime time to hit every single vice they have . . .” [OB/Gyn resident, county hospital, female].

Participants’ discussions about what they themselves do to take advantage of that 9-month moment can be described as comprising three major themes: (1) specific risk-prevention methods exist that are useful during pregnancy; (2) some providers employ strategies of reducing isolation and/or assessing depression; and (3) ultimately, providers can adopt a policy of “just chipping away” at risks.

#### 3.1. Specific risk prevention methods useful during pregnancy

Individual participants had devised various specific ways to take advantage of the pregnancy context. Providers

discussed (1) normalizing the risk prevention process, (2) specific assessment techniques eliciting greater disclosure, (3) counseling strategies tapping into patients’ sense of accountability or motivation to help the baby, (4) a patient-centered, collaborative style for reducing smoking, and (5) bringing in the family.

##### 3.1.1. Normalizing risk prevention

Participants expressed a desire to approach patients in a nonjudgmental, caring manner. Normalizing risk assessment and intervention, making it routine in prenatal care, is one way of helping the patient feel comfortable.

“I say, ‘We always ask these questions for your safety, first, are there any concerns about domestic violence?’ That’s how I start out, then I ask about drinking and drugs, because I think asking about domestic violence really softens the blow, so to speak.” [OB/Gyn resident, HMO, female].

“[We tell] them this is part of their care just as much as taking their blood pressure . . . it’s something they have to do, not to make them feel guilty.” [OB/Gyn, HMO, female].

##### 3.1.2. Specific assessment techniques

Participants described tactics for eliciting greater disclosure of risk behavior. Framing questions in the past to describe behavior prior to pregnancy was a common technique for encouraging truthful answers about current behavior. Also common was the tactic of asking whether the patient drinks or uses specific, relatively high amounts to make the question less threatening. Providers sometimes used general, non-threatening questions, such as “How is the pregnancy going?” to serve as an opening for more personal dialogues.

“I’ll take a really high number, and I’ll say, ‘Would you say six drinks a day?’ They’ll say, ‘Oh no, I only have four drinks a day!’ I think somehow that makes them feel, ‘I guess there are a lot of people who drink more than I.’” [NP, community hospital, female].

##### 3.1.3. Counseling strategies

Following risk assessment, some providers mentioned encouraging the patient’s accountability, reminding her that the issue will be revisited at her next appointment. Another commonly described strategy was to tap into the patient’s motivation to protect her baby, including tactics such as showing pictures of Fetal Alcohol Syndrome effects or showing a sonogram of her baby, to make the pregnancy and baby more real to the patient.

“[I] usually ask, ‘What plans do you have for your baby?’ and ‘What do you want when the kid grows up?’ Well, they have plans, and I say, ‘[E]ven though the baby may appear healthy, if you drink alcohol, sometimes you won’t notice effects until the kid is in elementary school, or in high

school.' So it puts it to them to decide whether they're going to drink or not." [OB/Gyn, county hospital, male].

#### 3.1.4. Harm reduction strategies with smokers

The greatest number of tips given by participants involved reducing patients' smoking. Many participants espoused a policy of harm-reduction rather than abstinence. Drawing on collaborative counseling skills, they assessed patients' motivation, used positive behavior reinforcement, and engaged in problem-solving with patients to get them to cut back on their smoking.

"One of the most successful stories I've had is limiting the places the patient can smoke, counting down the numbers of cigarettes she smokes. First I ask patients if they want to stop smoking . . . if they do, I ask 'Where do you smoke?' 'In the car, on the way home from work, one in the morning, and one after dinner, on the back porch.' So I'll say 'Okay, all you have to do this month is just not smoke in the car.' That will count for a percentage [of their smoking], and they'll come back, and say 'Okay, I only smoked in the car one time,' and that's okay. Then I say, 'Now you can't smoke on the porch any more.'" [OB/Gyn resident, HMO, female].

#### 3.1.5. Bringing family members into the process

Participants often sought to elicit involvement of family members, to help the patient change or directly affect the pregnancy by changing their own behavior. Providers commonly brought in husbands or children as part of a strategy to reduce harmful effects of the patient's smoking or second-hand smoke.

"It's important is to get the whole family history. I think one of the patient's real barriers to success is the spouse or somebody living with them who is still smoking, so I'll give out prescriptions for the patch to husbands. I also talk about parents as being role models." [OB/Gyn, HMO, female].

"I always say, 'Do your kids want you to quit smoking? Well, kids are really creative, have your kids help you figure out how to stop. That makes the kids feel important, too.' This one mom decided that she and her son would get up early, and look up baseball cards that they'd gotten at a garage sale, on the Internet, to see how much they're worth. And that's what they did for a half hour every morning, instead of smoking a couple cigarettes." [OB/Gyn, county hospital, female].

### 3.2. Some providers attempt to reduce isolation and assess depression

Some providers discussed what they saw as related issues of isolation and depression. Participants who emphasized these issues represented all health care settings and served

patients from a range of socio-demographic groups. Participants mentioned that addressing isolation and/or depression with patients could facilitate or deepen risk discussions.

Providers believed that patients' isolation generated shame, exacerbated or perpetuated substance abuse or domestic violence risks, or hampered open discussion about risk behavior. Some providers described the process of bringing groups of pregnant women together for discussion and support. For domestic violence especially, the success of this model of care, developed by midwives, termed "centering pregnancy", [56] may be one bright spot in an otherwise often discouraging picture.

"[L]ack of resources drove us to centering. The goal was to just let them talk – unless we had to clarify, support, or provide resources. I think it has paid off . . . Domestic violence is tough, when I was doing one-on-one . . . it was tough for me to bring up, but when we put it into the group setting . . . the group camaraderie was able to bring out this discussion. We were able to not even [have to] ask ['Are you being abused?'] so much as start providing resources for them and their friends – packets and handouts – and people were very supportive of those who disclosed. In subsequent groups they would follow up, saying, 'How are things going?' Or these women became more empowered with that discussion and the other women saying, 'You shouldn't let that happen, that's not right!'" [NM, community clinic, female].

Group processes are also used for smoking cessation during pregnancy at the HMO. These tools for, as one participant said, "creating community" were suggested as practical means for addressing a variety of health issues, especially among groups that normally are difficult to serve, such as teens or immigrants.

Although all providers were aware of the risk of postpartum depression, and many described a standard assessment for it, practices diverged for assessing depression prenatally. Some participants reported regularly asking and counseling about depression during prenatal visits, because it is both common and related to other risk behaviors.

"A lot of my patients are depressed. To me it's one of the easier stigmatized things to approach, to address directly, to see positive outcomes, throughout pregnancy . . . because I can do something more . . . I feel more comfortable addressing it. There are things I can do that have proven benefit . . . Sometimes if you can identify depression and . . . get them to open up . . . really ask about everything that's going on – domestic violence, maybe other issues . . . they are able to make decisions and move in a more positive direction." [OB/Gyn, HMO, female].

Other participants, however, seemed less comfortable acknowledging or dealing with depression in their pregnant

patients, at least during the prenatal period. When they do encounter prenatal depression, it is regarding whether or not to continue anti-depressant medications with a patient who had been depressed prior to pregnancy. And they generally prefer to refer the patient to psychiatrists.

### 3.3. “Just keep chipping away . . .”

Virtually all participants characterized prenatal behavioral risk assessment as challenging. Regardless of health care setting, gender, or professional title (MD versus NP or NM), providers felt constrained by lack of time. Nevertheless, most participants were not content merely to let other staff handle screening and referrals according to standard system protocols. Even though such protocols apparently allowed providers to defer prevention activities, most participants working in those systems felt responsible but uncertain as to how much they should take on themselves.

“We do have help . . . sometimes I struggle, should I do it or should I send her to the counselor? At times a patient will be upset with me, as if I’m pushing her out. I’m not, because I think the counselor has more expertise, better training, and better system follow-through. So at times I struggle with these two strategies. To do it myself or refer her, and I wonder how the patient will respond to whatever advice that I might give.” [OB/Gyn, HMO, male].

Despite difficulties of time and uncertainty about how much to do, providers acknowledged that their role in helping patients reduce risks is potentially critical. OB/Gyns and NP/NMs saw themselves as influential to the degree that even their silence conveys a message. In addition, they noted that all health care providers should help assess risks and facilitate change.

“Pregnancy is a very powerful thing for many women. People on the streets who are homeless, drug addicts, or sex workers, a lot of them are looking for hope, for a new beginning, and, in a way, the pregnancy can be viewed as that. Some of them will make it. Many will not, but we need to have faith in them and try to help them in every way we can.” [OB/Gyn resident, university, male].

“I don’t even realize the kind of power I have over them. It’s a simple one-liner, it takes me two seconds. And I think social workers are great in taking care of needs, but I think [patients] still look to me as the person driving the ship.” [OB/Gyn, private practice, female].

How far can providers go in their few precious moments with a patient? They cannot “fix” the patient’s life, but they can ask basic assessment questions, give basic risk-reduction messages, be supportive, and offer referrals. We might characterize this strategy as “just chipping away” at risk prevention—one patient at a time, one risk at a time. Not a technique, “just chipping away” is a policy, a mindset many

participants described, the idea that repeated assessments and repeated, brief intervention and follow-up, will help the patient, if not necessarily bringing immediate changes.

“[J]ust mentioning [risk]—that’s all it takes. You don’t have to think you’re going to solve it.” [OB/Gyn, private practice, male].

“The biggest challenge, for us physicians, is wanting to get everything totally cleared up and resolved in one visit. I have to think more globally and not consider it a failure if someone comes back and they’re still being abused, or they’re still drinking. My role is to be supportive and be there and have good communication during the individual 10-minute visit.” [OB/Gyn, HMO, female]

A number of participants emphasized the patients’ responsibility for change. Providers have little control over the change process; it might be luck, timing, or some indeterminable factors that make a patient ready to change. Participants indicated that each time they ask questions or give risk reduction messages, they are ready to meet the patient’s intention to change, and are helping set the stage for change, whenever that happens.

“This is a little tiny window [of time] . . . It makes a difference to talk to the women. It may not be our joy to see any change, but change may happen another time. In the meantime I want to keep her and her fetus as safe as possible.” [NM, community clinic and county hospital, female].

## 4. Discussion and conclusions

Participants confirmed the well-studied barriers to behavioral risk prevention, such as time constraints, lack of resources, and patients’ failure to disclose risks. But these focus group discussions went beyond these barriers to include methods that can help prenatal patients change.

Many participants’ suggestions reflect the philosophy of what are termed “brief motivational interventions”. Varying in content and approach, such interventions are influenced by the counseling style called “motivational interviewing”, in which the clinician does not try to persuade the patient, but takes into account her readiness to change [57] and helps her explore and resolve ambivalence [58]. Brief motivational interventions, applied in a variety of health settings [59], involve giving clear recommendations delivered in a supportive, non-threatening way; providing options; demonstrating empathy and a collaborative, non-judgmental approach; and emphasizing the patient’s freedom of choice and responsibility [60]. Our participants described normalizing the risk assessment and intervention process in order to approach the patient non-judgmentally, assessing the patient’s readiness to change, and using collaborative and problem-solving methods to provide options for the patient in decreasing her smoking. Many participants’ comments

illustrated an intention to enhance the patient's internal motivation to change behavior. Brief motivational interventions based on this philosophy have been shown to work in a number of primary care settings [61–63], and efforts to implement them for smoking cessation and drinking reduction suggest they hold promise in prenatal settings as well [64–66]. Components of such interventions are also reflected in the evidence-based “5As” construct (Ask, Advise, Assess, Assist, Arrange), developed for smoking cessation [67], adapted for use in pregnancy [68], and recommended by the American College of Obstetricians and Gynecologists [36,68]. The 5As have also been recommended for interventions with alcohol [69,70], but are less well-tested for drug or domestic violence risks during pregnancy. To some extent, then, our participants' techniques, while not demonstrating full adherence to published recommendations, are often rooted in the same patient-centered approach.

While postpartum depression is well-recognized, prenatal depression may deserve more attention than it currently receives. To the extent that prenatal providers do not discuss depression, they may miss opportunities to deepen relationships with patients, help prevent other risk behaviors, and screen for possible postpartum depression. Depression is a risk factor for domestic violence [71–73] and is associated with alcohol [74], illicit drugs [75], and postpartum depression [76,77]. Asking about depression may be easier for some providers than asking about risk behaviors, and so may be a means for opening a dialogue about other psychosocial stresses or factors in the patient's life. Education about depression's effects on women's lives may help many prenatal providers achieve greater understanding of patients' risks and options for approaching them.

Participants did not expect to accomplish risk reduction in any given prenatal visit. That their goal could be chipping away at risk behaviors arguably runs counter to the training and inclination of most OB/Gyns. As surgeons, OB/Gyns may be accustomed to quick solutions rather than gradual, subtle, unpredictable changes. But behavioral risks often require a long, nonlinear process of change for the individual [78]. Pregnancy may shorten, but not eliminate, this process. Therefore, the most realistic approach for prenatal providers is simply to take advantage of the opportunities pregnancy provides, to chip away, at each patient encounter, without expectation of specific results. In our previous research with DV victims and their providers, we found that this mindset is critical to providers' success and self-efficacy with DV prevention [48]. It is also consistent with research findings that asking about DV at each prenatal visit increases the likelihood of disclosure [25] and repeated messages over time increase smoking cessation rates [79]. It is noteworthy that others have suggested that, to support and simplify the task of behavioral risk prevention, providers should not be expected to adhere strictly to all particulars within the “5As”, but rather, might instead spend just “one targeted minute” on behavioral risks at each patient encounter [80].

#### 4.1. Methodological issues

The qualitative methods and purposive sampling used in this study allowed us to uncover rich information about prenatal providers' behavioral risk prevention. But these methods do not permit us to generalize. Our sample was self-selected and limited to the San Francisco Bay Area. Yet our findings are consistent with national surveys of primary care providers and prenatal providers reporting (1) regular screening for three of the four risks, but not DV [34,81] and (2) inconsistent performance levels of counseling and other risk prevention behaviors [35,36]. Consequently, our participants' qualitative explanations of these practices may enrich our understanding of the gap between guidelines and practice and suggest testable methods for reducing that gap.

#### 4.2. Conclusions

Our participants' most successful experiences suggest that assessment and counseling techniques directed at encouraging, enhancing, or supporting patients' motivation to change can become core elements in protocols that can be brief, structured, and tailored to individual patients, a patient-centered approach also found in many proven interventions. An increased awareness of the larger psychosocial context of pregnancy, including isolation, depression, and family members' behaviors, can expand both an understanding of specific patients' situations and the provider's repertoire of risk prevention strategies. Finally, providers can feel reassured that a small investment of time during each patient encounter can return a big payoff for the patient. A provider's silence may send a message to the patient that the provider either does not care or tacitly condones risk behaviors. On the other hand, the authority of the provider, the power of his or her white coat, infuses significant weight to even the briefest question or advice message [82]. By briefly, but routinely, addressing behavioral risks, the provider manifests an appreciation for the patient's self-directed change process and opens an opportunity to support that process. Just chipping away at behavioral risks may not simply be the only thing prenatal providers can do during brief appointments, but, in fact, it may also be the best practical approach to prevention.

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