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African-American and Latina Women Seeking Public Health Services: Cultural Beliefs regarding Pregnancy, including Medication-taking Behavior

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African-American and Latina Women Seeking Public Health Services: Cultural Beliefs regarding Pregnancy, including Medication-taking Behavior

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Abstract
***Objective**: to describe cultural beliefs and medication-taking-behavior about pregnancy in African-American and Latina women.*
***Design**: qualitative study using phenomenological methodology; face-to-face, semi structured interviews and focus group. Thematic analysis was done to obtain themes consistent with the research objective.*
***Setting**: Maricopa County, Arizona, Department of Public-health Programs, November 2008 through April 2009.*
***Participants**: women seeking public-health services in the greater Phoenix, Arizona.*
***Results**: fifteen adult women representing two ethnic groups (seven African-Americans and eight Latinas) participated. Themes derived from the interview data included: "The Dilemma: To Become or Not to Become Pregnant;" "The Ideal Stress-free World: Support System;" "Changing Worlds: Wanting Dependency;" and "The Health care System: Disconnection from Pregnancy to Postpartum."*
***Conclusions**: based on the cultural themes: 1. pregnancies were not planned; 2. healthy life-style changes were not likely to occur during pregnancy; 3. basic facts about the biology of sexual intercourse and pregnancy were not understood, and there was no usage of any preconceptional or prenatal medications; and 4. professional health care was not desired or considered necessary (except during delivery). These cultural beliefs can contribute to negative birth outcomes, and need to be considered by pharmacists and other health-care providers. The information gained from this study can guide the implementation of educational programs developed by pharmacists that are more sensitive to the cultural beliefs and points of view of these particular women. Such programs would thus be more likely to be favorably received and utilized.*

Introduction

Pharmacists are called upon to provide pharmaceutical care, patient counseling, disease management and medication therapy management. "The commonality among these services is the ability of the pharmacist to provide them and the direct interaction between the pharmacist and the patient[1]." In the area of women's reproductive health pharmacists have important roles, including providing counseling for oral contraceptives, assessing the effects that changes in maternal physiology during pregnancy may have on the pharmacokinetics of chronic medications, and identifying pregnancy or lactation-contraindicated drugs and offering alternatives[2-4]. Pharmacists are now able to directly dispense emergency contraception in several states[5-6]. Additionally, pharmacists have many opportunities to greatly impact the health of pregnant women. They may ensure the proper use of preconceptional folic acid and prenatal vitamins; provide education on the adverse effects of smoking and alcohol, and use motivational interviewing techniques to facilitate cessation of these behaviors; provide information on gestational diabetes mellitus; counsel on chronic medication use and potential adverse effects on the fetus; and communicate with and make referrals to other health-care professionals[7-9].

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While pharmacists have the opportunity to provide services to pregnant women, there are few studies that document these activities. Schrempp et al reported an absence of published data concerning pharmacist counseling of pregnant

and lactating women, and few publications concerning medication use in pregnant women[3]. Similarly, a recent literature review indicated that few studies exist that describe pharmacists' roles in reducing unintended pregnancies, leading the authors to suggest that pharmacists focus on ways to address this important public-health issue[10].

Negative birth outcomes remain a significant health concern. More than two women die every day in the United States from pregnancy-related causes[11]. African-American women are at especially high risk, nearly four times more likely to die of pregnancy-related complications than white women[12]. Some significant negative birth outcomes are low birth weight (LBW) and preterm births. Reports indicate that both of these parameters have greatly increased in the United States in recent years. In 2006 the rate of LBW rose to 8.3 percent, (it was 6.7 in 1984) the highest level in four decades, and the preterm birth rates rose to 12.8 percent. The preterm birth rate has climbed 20 percent since 1990. The infant mortality rate in the United States is also high, ranking 30th in international standings[13].

Various factors may further contribute to negative birth outcomes such as, the use of medications during pregnancy, the mother's stress level in low-income population, nutritional status, chronic diseases, acute diseases, illicit drug use, domestic violence, depression and environmental factors[14-19].

Studies have shown that pharmacists can provide better care when they have an understanding of the cultural meanings that are common to their patients[20]. This would include such things as awareness of the patients' perspective on their condition, the emotions they are experiencing, and the attitudes and cultural beliefs that they bring with them concerning their health and treatment. Pharmacists have tremendous potential to decrease the occurrence of negative birth outcomes, and this potential would be facilitated by awareness of patients' cultural beliefs concerning pregnancy. Increased knowledge about cultural beliefs would be expected to enhance the quality and effectiveness of health care that pharmacists can provide.

Objectives

The purpose of this study was to describe the cultural beliefs about pregnancy including medication-taking behavior of African-American and Latina in the greater Phoenix metropolitan area.

Methods

This was a qualitative study using Van Manen's phenomenological methodology[21]. This research method provides a way to assess people's experiences and their reflections on those experiences. It maintains that a human is a composite of many different life experiences, and it focuses on how one particular aspect of those many experiences are given meaning and significance. According to Van Manen, there are four fundamental themes, referred to as "existentials", that guide this research methodology: lived space (how one relates to the world), lived body (how the body is self-experienced), lived time (how one experiences time) and lived other (how one maintains interpersonal relations with others). The particular aspect in this study was the cultural beliefs surrounding pregnancy, including medication-taking behavior, in African-American and Latina women. Briefly, the study involved an in-depth, face-to face interview with each participant, and subsequent detailed analysis to determine themes that described the "lived" Van Manen existentials.

This study was approved by the Institutional Review Board of Midwestern University. Inclusion criteria were: female gender, self-identity as African-American or Latina, at least 18 years of age, and the ability to give a verbal interview. The recruitment was done during five months at two programs of the Maricopa County Department of Public-health (Healthy Start and Pregnancy Connection Programs). These programs offer case management services and community referrals to low income women and their families in the South Phoenix area. Participants in these programs were solicited for the study: African-American women from Healthy Start and Latina women from Pregnancy Connection.

At the beginning of each interview, the researcher explained the purpose of the study, provided example questions, reviewed the informed consent form, and addressed any questions or concerns. Participants were asked questions according to the following time frames: preconception (before becoming pregnant), conception (actively trying to become pregnant), prenatal (pregnant), delivery (giving birth), and postpartum (after giving birth). Examples of the questions included: "What are the ideal conditions that should exist for a woman who is considering becoming pregnant? Include such things as medication, food, physical health, and social conditions. Do you have any special tradition or ritual that a woman would perform before becoming pregnant?" The interviews ranged in length from 30 to 45 minutes and were audio-recorded. In addition to the individual interview, there were two focus-group interviews, also audio-recorded. One of them included African-American women and the other included Mexico-born Latinas.

The audio-recordings were transcribed and checked for accuracy by one of the researchers. The Spanish transcripts

were translated into English (with back translation to Spanish for validity), and all transcripts were numerically coded and kept in a secure location. Themes were identified using the framework of Van Manen's-lifeworld existentials[21]. The researchers reflected on the individual responses of the participants, the whole of each participant's experiences, and similarities and differences between participants to derive themes that most appropriately and accurately characterized the phenomenon under study. The approaches used in deriving the essential themes were holistic, selective and detailed.

In this study, considerations of rigor included credibility, fittingness, and auditability[22]. Credibility was addressed by providing rich, vivid and faithful excerpts from the transcripts. The analytical procedure included individual identification of themes and group discussion of them. Fittingness addresses how well the working hypothesis or proposition fits into a context other than the one from which it was generated. This is done in the discussion section by relating the connectedness of the study findings with existing literature on the topic. Auditability refers to the ability of another investigator to follow the decision or audit trail. In this study, steps used in the identification of themes were recorded and saved under separate files so that the investigators and readers could retrace the trail of the analysis, as needed.

Results

Fifteen women participated in the study: seven African-American and eight Latinas. The mean age for African-American women was 28 years (range: 21-39), and for Latinas it was 27 years (range 19-39). All of the African-American women were born in the United States, and five of them had lived in the Phoenix area since birth. All of the Latina women were born outside of the United States (Mexico, Guatemala, Colombia, and Honduras); they had lived in the US for a mean of six years. All of the participants had been delivery children.

The following are descriptions of the cultural beliefs regarding pregnancy at each of the time frames. There were common themes (Table 1), and in some instances there were themes that were unique to only one of the cultural groups (Table 2). In the following paragraphs the common themes are presented first, followed by any unique themes.

Preconception

There were two main themes that were common to both groups.

The Dilemma: To Become or Not to Become Pregnant

> *"No one is thinking well she wants to be pregnant, I don't want to be pregnant."*
>
> *"We didn't plan that pregnancy."*

The theme described the lack of planning and preparing for pregnancy. There was no thought given to prepare for a pregnancy, and consequently there was no desire to become pregnant. Learning that they had become pregnant was experienced as an unwelcome surprise. Since they were not thinking about becoming pregnant, there was no motivation to seek the care of a physician. Similarly, they did not think of taking any medication or vitamins including folic acid. Many did not think that any medications were necessary to use in this stage of their lives. All women stated that they had never discussed the topics of sexuality or reproductive health with their mothers, sisters, or other family or friends.

Challenge: Changing to Healthy Lifestyles

> *"She wants to start changing some of the things that she's doing with her lifestyle to get her body ready to carry a baby, and to have a baby." "She can't do drugs has to be drug free." "She should talk to her doctor first." "She does not need to take medications."*

The second common theme was that, even though there was some general awareness that certain behaviors could adversely affect pregnancy, the women were unwilling to make any changes in their lifestyles. For example, drinking or smoking. This belief was strengthened if they, or someone they knew, continued to engage in risky behaviors during pregnancy, but had a "healthy" baby.

There were three themes only found in the African-American women.

The Agony of Becoming Pregnant: Emotional and Financial Burden

> *"Make sure financially and mentally you're stable to take care of a child because it takes a lot financially and mentally to be able to handle a newborn."*

African-American participants described pregnancy as a troubling time regarding their mental health and financial situation. They were very apprehensive about the financial burden of having a newborn.

Lack of Planning: The Partner's Absence

> *"We might be with somebody at that time and they leave. You can still do it on your own; you don't need someone to do it with you."*

While a partner was needed to conceive the baby, it was not a guarantee that the partner would remain to help raise the child. This awareness was often expressed as the belief that

the partner was not needed to help raise the child, which helped to foster an image of a strong woman. Their acceptance of being pregnant was facilitated by the thought that the baby would provide them with love, and be the "loving partner" to them.

Readiness and Cleanliness of Home: The Dream

"The whole ideal is that if you are married, and you're settled, you are going to have less stress, you are gonna have less financial worries." "Well poverty is nothing to be ashamed about, but if in all that one is kept clean, practice good hygiene, eat your meals well-cooked/boiled, clean the utensils on which one is going to eat. Well, that also influences a lot on what pregnancy is."

Finally, the women expressed a need to have a "clean home" in order to have a baby. This concept was described as an ideal situation in which all stresses and worries associated with having a newborn were eliminated by being married and not needing to work outside the home. Then, they would have the time and the luxury to prepare a "perfect" environment to receive the newborn.

There were two unique themes in the Latinas.

The Crucial Necessity: Dual Support

"One should be married in order to have a baby."

Not only was a partner crucial, but the relationship had to be in the context of a marriage. The only accepted way of conceiving a baby was if the woman were married. There was a lot of shame associated with becoming pregnant outside of marriage.

The 30s Limit: The Challenge of Having a Healthy Child

*"Only, the truth is, if you were much older, past 30 or 35 years old, you need to take medications." "I am an older woman who decided [*not to terminate the pregnancy*] to have a family after the age of 30."*

Second, there was a belief that younger women had healthier and better pregnancies. It was critical, therefore, that Latinas became pregnant before 30 years of age. Lastly, if a Latina became pregnant after 30 years of age, it was then necessary to seek professional care and to take medications to improve the pregnancy. This was the only condition (except delivery) for which it was needed to seek professional help.

Conception

There was one common theme which was expressed uniquely by each group.

Lack of Knowledge: What Affects the Mother

"I was told I would never be able to have kids because I get cysts. You hear a lot of myths that if you have cysts you can't get pregnant." "My mother would tell me if you let someone give you a kiss, you are pregnant."

All participants were unknowledgeable regarding sexual reproductive health. Most of the African-American women thought that if they had any physical condition (e.g. ovarian cyst, asthma) they would not be able to get pregnant. Most of the Latina women believed that they could become pregnant if they kissed a man or shake hands. Participants had no medication experiences or cultural beliefs regarding medication use for the conception time.

There was one theme unique for African-American women.

The Ideal Stress Free World: Support System

"Be as stress-free as possible." "The most important thing would be that support system, to make sure you have people around you." "It would be ideal to have a support system and good, but I think that it does help a lot but it doesn't always happen that way."

When reflecting about the "ideal conditions that should exist for a woman who is in the conception time," African-American women stated the loneliness that they felt when they conceived. Their perception was that they lacked support and guidance from family, friends, and other social groups during this time. Their belief was that pregnancy would be much more stress-free and enjoyable if they had any kind of social-support system.

For Latina women there were two themes identified in this period of time.

The Disgrace: Becoming Pregnant without Marriage

"Well, over there, over there, over there in my town, if you come out pregnant, it's like you've soiled the family name." "The parents tell if you become pregnant I will throw you out of the house." "….my mother would always tell me, 'my daughter, please don't let me down.' Well, after, I came over here and unfortunately over here one turns really bad and well the things happened and I turned out to be pregnant over here and now I truly don't have the face to speak to my parents and face the situation."

There were considerable feelings of shame and broken moral principles associated with having sex before marriage and becoming pregnant outside of marriage. Latinas felt that

they betrayed their families when they had sex outside of marriage and so they isolated from their families if they were engaging in this activity.

Earth's Position: Defining Gender of the Child

"They say to have it (baby) on the months where there is a full moon, the baby comes, it could be a boy, they say, because of the belief in the moon. And others say because in the months when the moon is not as radiant, well it makes it… it be a girl. And when the moon is very full it makes it be a very strong boy, good looking and have good features. I say, those are just customs."

Latinas also expressed their desire to know the sex of the child, and believed it could be determined by the timing of intercourse with the lunar cycle and seasons of the year. This was important as Latinas preferred to have a boy; this would please their husbands and families, and also provide support for their golden years.

Prenatal

There were three common themes among the women.

The Paradigm of Food: Healthy Greens

*"Eat a lot of fruits and vegetables.""Salads, I ate a lot of salads for both my kids.""She [*participant's mother*] would try, and she was always: try this, try this, and just go over and beyond to make sure a pregnant person in our family was eating."*

The first common theme was the need to improve their nutrition by adding vegetables and fruits to their diet and eating more food. Their belief was that by making these changes to their diet, a healthy baby would be ensured.

Lack of Knowledge: What Affects the Baby

"I ate fruit a lot of fruit when I was pregnant with my kids and I don't understand cuz they don't like it, they don't eat fruit.""I had to eat everything with olive oil so that the baby was born clean."

A second common theme was their beliefs concerning what affects the infant. This was expressed in various ways: eating olive oil, for example, would produce a clean infant, or eating fruits would produce a baby who liked those fruits. Some participants related the belief that viewing a picture of a handsome, blue-eyed man during pregnancy would cause their babies to inherit those features.

Self-care: From Self-Medication to Replacing the Health-care System

"If you get a headache, and lying down and taking a nap or something doesn't work, then get a Tylenol or an Advil. Nothing too heavy."

The third common theme was self-care. Participants did not relate their physical needs to receiving care in the health-care system. If there was an acute sickness or routine ache or pain, the women would treat themselves. They associated going to a doctor with a serious condition, and since they did not view pregnancy as a disease there was no thought of going to a doctor while they were pregnant. Pregnancy was something that they could handle themselves.

A theme only found in African-American women was the following:

Self-Defense: Disconnected from the Child

"Then we are stuck with a kid that we have to take care of and be responsible for. If you're gonna go all the way. Not where you get to the point where it's difficult and it's hard and you say I can't do this and you're gonna bail out on it. By you end up putting the kid up for adoption or being put on someone else or you dispose of it. All kinds of things can come up or happen because you wasn't sure what you wanted to do." "It really puts a toll on you and that unborn child."

The theme described a need to disconnect from the child in order to decrease their stress. They wanted to remain emotionally detached from the baby, in this way they felt that they could better deal with the situation. Being detached allowed them the freedom to not think about the financial responsibilities, and so was less stressful. They would develop an emotional response to the infant when it was actually born, when it was impossible to further postpone the financial realities. Participants referred to the baby in detached terms, as if it were an object.

There were two unique themes for Latina women.

Spiritual Motivation: Maternity as a Gift from God

"Patience, above all, because God sends the children when He decides to send them not when one wants to get pregnant and cannot get pregnant."

The first unique theme was that pregnancy was a gift from God. An unplanned pregnancy was justified in a religious way: it was God's decision that the woman became pregnant, and for this reason she would care for the infant. They ascribed a spiritual meaning for becoming pregnant.

Changing Worlds: Wanting Dependency

"It is a custom that one should be married in order to

have a baby." "Well let's see, the majority of men in Mexico want to maintain the right to hit the woman since, treat her bad, treat her like she is nothing because for them we are nothing – we are just there to have children, their children. Well, it's not like, I'm not saying it is the majority but almost always in before times the majority would think like that – the woman was nothing." "The ideal is to have a stable couple that both of common accord would want to have a family."

The second unique theme was the need to be dependent on their partner. It was understood that a woman could not undergo having a baby and raising it by herself, that she was dependent on having a husband in order to do this successfully. Most of the Latina participants were not married during their pregnancies, and felt frustrated and wanted the male figure to be involved.

Delivery

All participants delivered their babies in hospital settings, and none expressed the belief to deliver the baby at home. There were four common themes.

Empowered vs. Powerless Women: Natural Delivery vs. Cesarean Section

"My grandmother and my mom (laughter) we didn't believe in pain medications so of course I come along both children no pain medications so that was you're strong you do this without the medication and that's kinda what I did. My sister on the other hand she had an epidural. I didn't because I took on the well my mom did it without medication and my grandmother did so I took that role yeah be strong get through it. I talked a lot the second time (laughter) but I got through it." "It is painful but it's not as painful as TV makes it out to be." "If you want to go the natural way more power to you." "*But, I was tough. Having a c-section is totally different. I wish I could have it normal instead*."

The first common theme was the desire to have a normal (i.e., vaginal) delivery, as this would show that the woman was strong, healthy, and successful as a woman. If a Cesarean was performed it was considered a huge failure of the woman's role as a mother, and words such as 'unable' and 'weak' were used to describe herself.

Medication Support: The Absence of Health-care Providers

"I ended up letting them give me an epidural. But, after I got the medication I'm thinking in my head, why did I ever go through all the other deliveries. I'm thinking, Why this is the first time….I should have had this medication a long time ago. And I also was afraid of what certain drugs would do to the baby as well….you should ask about the medication." "At the time I was in the hospital three babies were taken and they had caught the last one. A nurse was putting them on the black market and she was taking the last one out the hospital and they caught her."

Another theme was the lack of professional health-care support. For many participants the delivery was their first contact with the health-care system; all described their hospital experiences as negative. They did not receive information regarding medication use in this period of time, and felt that they were not treated with respect. They were there willingly, but they had suspicions and a lack of trust. The women had expectations of receiving professional support while in the hospital, but they experienced little communication from the hospital staff and no explanations of what drugs were being given to them or for what reasons.

Empowering Choices: Who My Support Is

"My mom and my aunt were in there. So, those were people I was comfortable with. So, those were the people that I wanted to be in there with me and I didn't even want the nurses to be in there.""It is such an emotional experience that you [are having and] it's important for you to have someone that's very close to you [and] that you're comfortable with [them] to be there. They're gonna support you through the whole thing."

Another theme was that the only power that participants still had was in whom to choose to be with them during the delivery process. So this choice became very important, as it allowed them to feel that they had some control. It was often bittersweet though, as commonly the persons who were most desirous to be present were not living close or were just not present in their life.

Confronting the Reality: Healthy Child or Not

"…the baby is healthy and complete, that is another immediate situation. Count the fingers to see if the little fingers are complete…. How the baby's face is."

The last theme involved confronting the reality of the baby. If the baby was not physically malformed, then it was 'normal' and this was a tremendous relief. It provided confirmation that the behaviors chosen during the pregnancy were not harmful.

Postpartum

There were three common themes among women.

The Health-care System: Disconnection from Prenatal to Postpartum

"and finding a doctor that's gonna be there for your child. Not one where every time you go in there you don't even see that doctor… they have so many patients that they are too busy to see you; or they will have a nurse come. I get all these questions, get all this stuff and the nurse goes and takes it back to him or her and they go over it and stuff. Then the nurse comes back and the nurse says the doctor says he wants to give you these prescriptions and she says take this and that. When I grew up the doctor knew exactly who I was every single time I came."

The first common theme was the continued disconnection within the health-care system. There was no connection from prenatal care doctors, delivery and post partum health care providers. If the baby was born 'normal' then there was no need to go to the doctor. Visiting the doctor was only considered if there was a serious medical condition.

The Challenges: Needing to Be Strong while Feeling Abandoned

"In my family my mother was a very strong woman and I consider myself a very strong woman and it's like duh duh duh I will not take pain medication, we will go through this [straight] forward." "…after the delivery, hormonal changes play a role again and there's like a play of very different emotions." "I tried to stay strong for my son. I try to stay strong for everybody around me and be there for everybody…I wasn't being there for me."

The second common theme was a feeling of being abandoned and that this feeling should not be publicly acknowledged, that mothers must be strong. New mothers should be happy and project happiness, but this was not what they were feeling.

Women's Ultimate Mission: The Recovering Process

"It is forty days in which we are at rest. We don't have any sexual intercourse. Not to get out of bed, but not to get up." "They [family] would wrap her, carry her, they would give her food in bed, and she would be attended to."

The third common theme was that they had achieved a mission that it was the role of all women to have a baby, and now they had done this. Then, there was the need for a recovery process from the delivery; this was expressed differently by the two groups. African-American women wanted to begin to work again very soon (within 1-3 days). This was because it would help ease the financial anxiety, and also because it allowed the mother time away from the baby. This "alone time" was a very important part of the recovery process for African-American women. In an ideal situation (the 'clean house' described above), they would like to take six weeks to rest and recover from the birth, but since this was not possible then going to work was the favored alternative. Latina women expressed their recovery as needing 40 days at home where they rested and all chores were done by others. They felt that they were damaged from the delivery, and that they must heal. The idea was that the "abdominal" organs were out of place and so they should wrap the entire abdominal area very tightly with cloths to put them back into their proper position. They abstained from sex, restricted their bathing and consumed chicken soup during this healing time.

There was one unique theme found in Latina women.

The Happiness of Having a Baby: A Family Commitment "Over There"

"We were all outside frantic and about ten minutes later we heard the baby girl cry. We were all happy."

The Latinas believed that if they had given birth in their country of origin that it would have been a most happy experience and that there would be a family commitment to raise the child. But, they delivered their babies here without the "ideal" family support then their happiness was an illusion.

The Essential Theme

The essential theme revealed throughout the different "lived world existentials" was the participants' inaccurate knowledege regarding physical, mental, and social aspects of pregnancy, from preconception to postpartum, including the sturdy belief that medications should not be taking during pregnancy.

Discussion

This qualitative study identified themes regarding African-American and Latina women's cultural beliefs about pregnancy. Participants lived in the metropolitan Phoenix area and were using services provided by the Maricopa County Department of Public-health. The essential theme revealed the participants' inaccurate knowledege regarding physical, mental, and social aspects of pregnancy, from preconception to postpartum, including the strong belief that medications should not be taking during pregnancy.

There were several main points from the study's data. One was that these women did not plan to become pregnant; all of the pregnancies of the participants were unplanned. This frequency of unintended pregnancies was much higher than that recently reported for a national average of approximately 50 percent [23]. For African-American women the unexpectedness of pregnancy contributed to their

perception of pregnancy as a burden. For Latina women the unwanted pregnancy had a spiritual connotation, it was God's decision. Additionally, it was not traditional to seek professional health care at any time during pregnancy, including not taking prenatal vitamins or supplements. They commonly were ignorant that they could become pregnant even when sexually active.

A second main point was a reluctance to change lifestyle behaviors before, during and after pregnancy. While some were aware of potential harm to the fetus if the mother smoked cigarettes or consumed alcohol, they were not convinced that it was true. They relied on their personal history of having given birth to a "healthy" baby even though they had continued to smoke or consume alcohol. This personal experience "gave them permission" to continue to smoke and drink during their second pregnancies. For others who believed that it was best to change unhealthy lifestyle behaviors, they were not convinced that making these changes would ensure that their newborns would be healthier.

A third main point identified was that there was a lack of knowledge regarding the basic biology of pregnancy, including how one becomes pregnant and what affects the mother and baby during pregnancy. The participants did not take prenatal vitamins, iron supplements, or folic acid. Rather, they substituted the 'taking' of vegetables, believing that this change in eating behavior would ensure a strong, healthy baby. Nevertheless, studies have shown that taking multivitamins before and during pregnancy can potentially prevent preterm birth[24.] Participants lacked knowledge regarding the benefits of dietary proteins and exercise. Many also did not consider the potential adverse effects of self-medication. Some participants were unaware that emotional aspects such as stress could adversely influence the baby. Chronic stress experienced during pregnancy has been reported to be associated with low birth weight in a low-income population of women[16].

The fourth main point revealed was the participants' disconnection to the health-care system. Participants did not mention prenatal care as an important aspect of pregnancy. Prenatal care is a key element in facilitating a safe pregnancy. Women who do not receive prenatal care are three to four times more likely to die than women who do[12]. The Healthy People 2020 goals include an objective to ensure that at least 90 percent of women receive "adequate prenatal care", defined as 13 prenatal visits beginning in the first trimester[25]. Participants did not seek professional health-care at any time during pregnancy except for the delivery. They did not use the health-care system because it was not perceived as necessary, it was not available to them, or they did not trust it. Participants had strong cultural beliefs that natural birth was an empowerment act of the women's life and duty. When participants had a C-section, there was a feeling of powerlessness among them, of not having control of the process, that the system did not support them. After the delivery, there was a lot of emotional distress when they have to continue to be strong and do things by themselves.

Demonstrating sensitivity to the cultural beliefs reported here can enable pharmacists to better gain the trust of these populations. By understanding where the patients are coming from, better pharmaceutical care, patient counseling, disease management and medication-therapy management can be provided. In addition, practitioners can help and empower women during their reproductive time at each step of the process, and there are some key points to consider to be sure that pharmacists provide care relevant to cultural beliefs. Table 3 lists some suggested actions that pharmacists can take to help correct the misperceptions that are held, and potentially reduce negative birth outcomes.

Limitations

The participants in this study were women living in the south area of Phoenix and using public-health services. The results may not generalize to other socioeconomic and/ or cultural groups of women. There was no response bias. The sampling was appropriate for this methodology.

Conclusion

The results in this study provide valuable information that may be used to guide interactions of health-care professionals with these women to improve pregnancy outcomes. Some of the key points for pharmacist and other health-care providers to keep in mind when working with African-American and Latina Women Seeking Public Health Services are 1. pregnancies are not planned; 2. healthy life-style changes (not smoking or drinking alcohol) are not likely to occur during pregnancy; 3. basic facts about the biology of sexual intercourse and pregnancy are not understood, and there is no usage of any preconceptional or prenatal medications; and 4. professional health-care is not considered necessary (except during delivery). The study results can be used by pharmacists to implement educational, referral, and informational programs that are more sensitive to the cultural beliefs and points of view of this population of women. They would thus be more likely to be favorably received and utilized. In order to protect future generations by decreasing negative birth outcomes it is important to increase practitioner's understanding of women's cultural beliefs during pregnancy.

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Table 1
Summary of the Common Themes

Time Frame	Common Themes
Preconception	- The Dilemma: To Become or not to Become Pregnant -The Challenge: Changing to Healthy Lifestyles
Conception	-Lack of Knowledge: What Affects the Mother
Prenatal	-The Paradigm of Food: Healthy Greens -Lack of Knowledge: What Affects the Baby -Self-Care: From Self Medication to Replacing the Health Care System
Delivery	-Empowered vs. Powerless Women: Natural Delivery vs. Cesarean Section -Medication Support: The Absence of Health Care Providers -Empowering Choices: Who my support is
Postpartum	-The Health Care System: Disconnection from Prenatal to postpartum -The Challenges: Needing to be Strong While Feeling Abandoned -Women's Ultimate Mission: The Recovering Process

Table 2
Summary of the Unique Themes

Time Frame	African American	Latina
Preconception	-The Agony of Becoming Pregnant: Emotional and Financial Burden -Lack of Planning: The Partner's Absence -Readiness and Cleanliness of Home: The Dream	-The Crucial Necessity: Dual Support -The 30s Limit: The Challenge of Having a Healthy Child
Conception	-The Ideal Stress-Free World: Support System	-The Disgrace: Becoming Pregnant Without Marriage -Earth's Position: Defining Gender of the Child
Prenatal	-Self-Defense: Disconnected From The Child	-Spiritual Motivation: Maternity as a Gift From God -Changing Worlds: Wanting Dependency
Postpartum		-The Happiness of Having a Baby: A Family Commitment "Over There"

Table 3
Pharmacists' roles for helping to improve pregnancy-related outcomes in African-American and Latina women seeking public health services

Overall Issue Addressed	Provide information/education on the following general topics[1]:	Suggested activities
Lack of Knowledge	-Women's reproductive health -Basic biology of reproduction -Contraception methods -Prenatal care -Healthy pregnancy -Basic postnatal care -Importance of physician visits during all pregnancy-related times -Nutritional aspects during pregnancy -Effects of smoking and alcohol during pregnancy	-Educational talks in the community (schools, churches, community centers) -Brochures in pharmacy -Refer to appropriate clinics/ services and health-care professionals -Individual counseling in pharmacy -Motivational interviewing (e.g., smoking cessation) -Partner with local social services agencies (e.g., family planning clinics) -Partner with public health programs (e.g., Women Infant Children, Family Planning, and Healthy Start) -Partner with School-based Health Centers
Lack of usage of medications, vitamins, and supplements	-Importance of pre-conceptional, prenatal, and postnatal folic acid vitamins, and other supplements -Importance of physician visits during all pregnancy-related times -Gestational diabetes mellitus, hypertension and other conditions -Acute medication use during pregnancy -Chronic medication use during pregnancy -Treatment of pain during delivery -Safe use of over the counter medications	-Educational talks in the community (schools, churches, community centers) -Brochures in pharmacy -Refer to appropriate clinics -Individual counseling in pharmacy -Individual counseling in hospital during delivery

[1]Information provided should be sensitive to cultural beliefs, use non-technical language, and be bilingual as needed.