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Couples' Notions About Preconception Health: Implications for Framing Social Marketing Plans

Megan A. Lewis, PhD,

RTI International, Research Triangle Park, North Carolina

Elizabeth W. Mitchell, PhD,

National Center on Birth Defects and Developmental Disabilities, Division of Birth Defects and Developmental Disabilities, Prevention Research Branch, Atlanta, Georgia

Denise M. Levis, PhD,

National Center on Birth Defects and Developmental Disabilities, Division of Birth Defects and Developmental Disabilities, Prevention Research Branch, Atlanta, Georgia

Karen Isenberg, MPH, and

RTI International, Research Triangle Park, North Carolina

Julia Kish-Doto, PhD

RTI International, Research Triangle Park, North Carolina

Abstract

Purpose—To understand couples' notions of preconception health (PCH) and to inform the development of social marketing plans focused on PCH.

Approach/Design—We used a social marketing perspective to understand how couples considered PCH as a product, its potential price, how it should be promoted, and in what type of places it should be promoted. These variables are typically referred to as the four social marketing P's.

Setting—Telephone interviews with couples recruited from a national database.

Participants—A total of 58 couples (116 individuals) were segmented by five couple segments based on pregnancy planning intention and current parental status in which the wife or partner was 18 to 44 years of age. The five segments were combined into three categories: couples who were planning pregnancies, couples who were not planning pregnancies, or couples who were recent parents (interconception).

Method—Couple-based structured interviews lasting approximately 45 to 60 minutes were conducted via telephone. Questions inquired about couples' experience with PCH and the four social marketing P's.

Results—Commonalities existed across the four social marketing P's for the different couple segments. Notable couple-related themes that emerged included the importance of couple

communication, support, and relationship quality. PCH was more relevant for couples planning a pregnancy, but nonplanning couples understood the benefits of PCH and related behaviors.

Conclusion—Couples may be an important target audience when considering social marketing approaches for PCH. Many couples perceived the relevance of the issue to important aspects of their lives, such as health, family, and their relationships.

Keywords

Preconception Health; Preconception Care; Couples; Social Marketing; Qualitative Research; Prevention Research; Research purpose: descriptive; Outcome measure: knowledge and perceptions about preconception health; Setting: community; Health focus: preconception health; Strategy: social marketing; Target population: middle- to low-income couples with a wife/partner of childbearing age

PURPOSE

Emerging evidence about the importance of preconception health (PCH) and preconception health care led the Centers for Disease Control and Prevention (CDC) to convene a Select Panel on Preconception Care in 2005 to advance strategic planning and research on PCH for women, men, and couples. The Select Panel called for consumer-focused research with couples that could inform social marketing campaigns and programs focused on raising awareness about the importance of PCH. The formative research described in this article addresses this call by focusing on couples' notions of PCH.

One way to enhance awareness, increase understanding, and change PCH behaviors is to use two key social marketing principles to develop effective messages, create strategies, and design programs that appeal to priority audiences.² The first principle is development of a marketing mix. This entails an analysis of how people view the potential benefits of a new behavior or outcome that a program is promoting (product); the potential barriers and social, psychologic, or actual costs of the new behavior (price); how the behavior is promoted in terms of specific messages or appeals (promotion); and the channels and venues in which promotion or behaviors should take place (place).³

The second key principle is audience segmentation. Audience segmentation involves breaking the target or priority population into more meaningful subunits by shared demographic, psychosocial, or behavioral variables relevant to PCH. Doing so is thought to increase the potential for subgroups to respond to the marketing approach in a similar manner. ^{2,4,5} When audience segmentation is considered in light of the four social marketing *P*'s, social marketers and public health professionals are better able to define a strategic approach for subgroups in a way that best meets their needs and desires. ^{4,5} Given the importance of planning pregnancies, ^{6–8} we used a segmentation strategy defined by couples who were planning a pregnancy, who were not planning a pregnancy, or who had recently had a baby. ⁹

As recognized by the Select Panel, couples are an important audience for PCH. This recognition is based on research demonstrating a strong correspondence between spouses' health practices, ^{10,11} including smoking, moderate drinking, physical activity, and dietary

intake. ¹² Correspondence in health practices has been attributed to the influence that spouses or partners have on each others' behavior. ¹¹ Further, when observational and intervention studies examine health behavior change over time, improvement in one partner's behavior is significantly linked to improvement in the other partner's behavior. ^{12,13} This finding is significant and strongest for smoking, drinking, and obtaining flu shots, and is still significant but less strong for physical activity. Intervention studies that attempt to change one spouse's risk behaviors (e.g., diet, physical activity, or smoking reduction) also appear to influence the partner's behaviors for important changes such as weight loss, ¹⁴ dietary changes, and smoking. ¹⁵ Consequently, focusing only on a woman's PCH-related behavior isolated from her partner's behavior could miss important opportunities for support, encouragement, and behavior change together for the interest of the family. Additionally, in a recent study focused on how to bundle messages for PCH behaviors, women reported that having good communication with a partner was among the most important things to consider before pregnancy. ¹⁶

To provide insight into couples' notions about PCH given the potential significance of pregnancy planning and couple-level behavior change for PCH, we sought to answer the following research questions centered on the four social marketing *P*'s. *I*: What do couples think about PCH? Are there terms, phrases, or words that make sense to them or that they use to describe this type of care or set of behaviors? *Price*: What motivates couples to engage in PCH behaviors? What are the barriers or challenges to engaging in these behaviors? *Promotion*: What types of messages would be most effective for couples to promote PCH-related behaviors? *Place*: What are couples' preferred channels for receiving information about PCH? Would they like to be able to receive PCH messages together? Where do the PCH-related behaviors take place? Finally, across all four domains, are there couple-specific themes that would impact how PCH should be positioned in social marketing campaigns for couples? And what differences or similarities are there for couple audience segments that might be planning a pregnancy, not planning a pregnancy, or recently had a baby?

APPROACH

Setting

Telephone interviews were conducted with couples who were married or in a committed relationship. Couples were recruited from a professional recruiting firm's national database. Interviews were conducted with both couple members at the same time. The discussions lasted approximately 45 to 60 minutes and were scheduled at the couple's convenience. Each couple member received \$35 for participating.

Participants

Couple members were screened at the time of recruitment and both had to agree to participate. Eligibility was determined on the basis of the woman. Inclusion criteria were being 18 to 44 years of age, English speaking, not currently pregnant, and not having a condition or having had undergone a sterilization procedure that would make the woman unable to get pregnant. Because the risks of poor birth outcomes are greater among women

with lower socioeconomic status (SES), ^{17–20} this study focused on couples with an annual income no greater than \$75,000. Couples with a higher annual income were not eligible. We chose this upper income bound to balance the challenges in recruiting couples, project resources allotted for recruitment, and number of couples needed for analysis. The recruitment screener collected demographic information on education level, race/ethnicity, health insurance status, employment status, number of children the couple had together, and length of the couple's relationship.

Audience Segmentation

At the time of screening, women identified their pregnancy plans within the next year, and if and when they had children. Responses were used to assign couples into one of five audience segments. Table 1 shows the definition of each segment and displays the total number of participating couples by segment. The five segments were selected from a literature review and secondary analyses by using data from the 2007 HealthStyles survey. Analyses to derive the segments are detailed in the article (in press) by Squiers et al., 22 and suggest the importance of the five audience segments for PCH shown in Table 1.23 It is common in PCH studies to use recent birth as a proxy measure of the interconception period, 13 as most recent parents are not actively planning to have another baby. Accordingly, we used birth within the last year to define our interconception segment.

Measures and Implementation

The interviews followed a semi-structured guide based on the four social marketing P's. Questions about "product" explored behaviors that couples felt were important when planning a pregnancy and when not planning a pregnancy, as well as knowledge of terms such as pregnancy planning, preconception health, reproductive life planning, preconception health promotion, and other terms that might be used to describe preconception behaviors. Questions about "price" explored the circumstances or situations that may make it easy or challenging for couples to discuss preconception behaviors, the roles each couple member could play in the behaviors as well as what they could do together, and the primary reasons they would or would not choose to engage in preconception behaviors. Discussions about "promotion" explored messages couples would recommend using to promote PCH. "Place" questions examined couples' trusted sources and channels for health information or where they might likely read or see health information. Each couple member was asked to respond to the discussion questions. Interviewers were instructed to probe each partner for his or her opinion to ensure that both members' opinions were represented and to determine agreement between partners on the main study questions.

Before the discussion, all participants were sent a consent form to review along with a list of 12 PCH behaviors (Table 2) to reference during the discussion. The list was not identified as a list of PCH behaviors to avoid biasing participant responses. Consent was obtained verbally at the beginning of the call. All discussions were audio-recorded and then transcribed. RTI International and CDC obtained all required ethical and administrative approvals before conducting the research.

Analysis Approach

Interview transcripts were coded with QSR NVivo 8.0 (QSR International, Doncaster, Victoria, Australia).²⁴ Codes were created from each interview guide question and categorized under the four social marketing *P*'s for each couple. Three themes emerged upon initial review of transcripts and were included in coding: couple communication, social support, and relationship quality, which were included as appropriate codes for each of the social marketing *P*'s.

Coding was done by a team of five interviewers who were trained by using the study codebook. The codebook contained definitions of each concept and examples that fit each code. Coders practiced coding the same text to establish reliability, and then were assigned different transcripts to code for analysis. The interrater reliability (Cohen kappa) was .97 or greater across codes, with the exception of one code that was .90. After coding the transcripts, a report was generated for each code by couple segment that addressed the research questions. The reports included all text that was identified by using a particular code. We also extracted quotes from coding reports to illustrate the findings. Initial analyses suggested there were few differences between the two planning and the two nonplanning segments, so we collapsed data across them for final analyses, which resulted in three segments: planner couples; nonplanner couples; and interconception couples (i.e., recent parents) who were the focus of final analysis and interpretation. These three segments are identified in the left column of Table 1.

RESULTS

A total of 58 couples (116 individuals) participated in the interviews. Their demographic characteristics are shown in Table 3. The length of the couples' relationships ranged from 5 months to 22 years (mean = 5.4 years, mode = 1 year or less, median = 4.25 years). Seventy-eight percent of couples had private or employer-based health insurance, 83% had a total annual household income between \$35,000 and \$75,000, and 17% had a total annual household income of less than \$35,000.

Analysis of the Four Social Marketing P's

The overall results across the segments and four social marketing *P*'s are summarized in Table 4 and discussed in detail below.

What Do Couples Think About PCH as a Product?

Most couples across all segments had not heard of preconception health or related terms that are commonly used by health care professionals (e.g., reproductive life planning and PCH promotion). Other terms and phrases for PCH that couples offered included the following: healthy lifestyle, do's and don'ts when planning a pregnancy, pregnancy planning, preparing for a pregnancy, and preparing your body for a pregnancy.

Couples classified as planners were more receptive to the idea of PCH and offered multiple suggestions for product descriptions: "I would call it like a mind and body prepregnancy

checklist. Like, you know, all, you know, are you mentally...and physically ready" (female, planner couple). "Just making sure you are as healthy and at an optimum level where you can conceive" (male, planner couple). Nonplanner couples referred to PCH as something that is part of the planning process for having children. Some couples did not believe they should practice all of the behaviors shown in Table 2 unless they were actively planning a pregnancy. "Because I guess that I'm thinking that a lot of people if you say 'preconception health' they think of conception as the planning. You know, even like 'I'm planning to have a child'...Well a lot of people don't really plan to have a child, they just, you know, it happens" (male, nonplanner couple). Interconception participants tended to think of PCH in more tangible terms than the other segments and tended to have more experience and knowledge about PCH, presumably because they had recently gone through conception and pregnancy.

Couples across segments had a general understanding of PCH behaviors and their importance. Specific behaviors that couples mentioned included following a healthy diet, exercising, taking prenatal vitamins, not smoking, not drinking, not taking drugs, and getting annual checkups. Frequent additions included reducing stress and getting finances in order before pregnancy. Couples emphasized "planning" or "healthy lifestyle" as important ways to think about PCH as a product.

Some couples reported discussing PCH behaviors with a health care provider (i.e., an obstetrician/gynecologist [OB/GYN] and other primary care providers [PCPs]) at annual visits, but they indicated that providers were not likely to initiate conversations unless the woman told her provider she wanted to get pregnant, was pregnant, had chronic health conditions (e.g., diabetes), or was older. For example: "Well, he just told me that, you know, like my health, like, you know, making sure I'm eating right and to take the prenatal pills and he was saying it's very important that I eat healthy because I could be at a high risk because of my age" (female, planner couple). This statement suggests a lower level of awareness among providers about PCH, except when there may be a higher risk pregnancy to consider.

What Do Couples Think About PCH in Terms of Price?

We examined both barriers and motivators to help describe the price of PCH, with the idea that the net price for couples considers both of these factors. Several themes emerged, with many similarities across the couple segments. Each segment reported similar barriers to discussing and engaging in PCH-related behaviors, including discomfort and embarrassment (e.g., weight, alcohol or drug use, and sexually transmitted diseases [STDs]), bringing up the idea of planning a pregnancy specifically, poor communication between partners, and poor relationship quality. "Well, or just if you have a couple that's maybe in a troubled relationship but they're still together, they're definitely not going to talk about these things and, but it's still possible to have a kid" (male, planner couple). "Couples that don't have communication, that's a barrier" (female, planner couple). "It's just hard to talk about things like that because they get defensible [sic] about it" (male, nonplanner couple).

Each couple segment also reported similar motivating factors for discussing and engaging in PCH behaviors. Planners and interconception couples frequently said that planning a

pregnancy could increase the focus on PCH behaviors and on the strong desire for partners to have a healthy baby and healthy family: "If they're planning on having a child in the next couple of years, there'd definitely be some motivation to try and make sure that you had a healthy baby and stayed healthy yourself" (female, planner couple). Other common motivating factors included being aware of the consequences of not engaging in PCH behaviors (such as the risk of birth defects or other problems), having a healthy relationship and good communication between partners ("Having a healthy relationship and also good communication between them to begin with" [male, planner couple]), having a family history of certain conditions that would necessitate a focus on PCH, and couples having more maturity because of greater age and more experience. Nonplanner couples focused more on personal health enhancement as a reason for practicing PCH and working together to practice these behaviors: "Probably like general health promotion because, I mean, there's a lot of stuff in media today and knowing that certain health behaviors are bad for your health" (female, nonplanner couple).

What Types of Messages Do Couples Think Would Be Effective to Promote PCH?

Planner and interconception couples suggested that messages about visiting the doctor for a checkup to make sure everything is okay, being prepared physically and emotionally, emphasizing the importance of these behaviors for the baby's health, and making sure the relationship was healthy were all important and should be conveyed. "I think wanting to have a happy family, wanting to be a family forever, is, you know, and, you know, not wanting to have a broken home, not wanting their kids to grow up looking at these unhealthy habits, wanting to set good examples for the baby as it grows up, wanting the baby to be healthy" (*female, interconception couple*). Nonplanner couples emphasized that PCH behaviors are important for health promotion in general, but are also helpful to practice "just in case" of pregnancy, and they emphasized financial readiness more so than planners. Nonplanner couples and interconception couples also highlighted messages about using effective birth control. Couples in both groups felt the messages should be different by gender and that messages for men should emphasize support and communication. All couple segments mentioned focusing on a healthy baby and a healthy family, and interconception couples added that becoming closer as a couple would be an effective message.

What Are Couples' Preferred Channels or Places for Learning About PCH?

Very few differences were identified between segments regarding preferred places or channels to promote PCH. Traditional channels and places mentioned included radio or TV commercials, public service announcements, billboards, bus ads, direct mail, and e-mail. Other media strategies included embedding PCH in a TV story line, using social media, and displaying banner ads on Internet sites. Men recommended promoting PCH at sports venues or events.

All segments emphasized the importance of a health care provider in raising awareness and promoting PCH behaviors. Health care providers (e.g., OB/GYNs or PCPs) were seen as the most reliable sources of PCH information. However, some differences in perceptions were noted about receiving PCH information from providers across the couple segments. Planner couples were very positive about receiving PCH information at routine checkups.

Nonplanner couples supported the idea of giving information about PCH to planners, (e.g., first asking, "Are you planning a pregnancy?") but felt PCH education would not be appropriate for those who were not planning a pregnancy. They believed that clinicians should tailor PCH conversations to the needs of a particular couple or woman.

What Couple-Level Themes Emerged as Important Across the Four Social Marketing?

Communication between partners was mentioned across all of the couple segments. Communication was referenced as important in terms of discussing pregnancy planning, discussing the importance of some of the PCH behaviors that might need to be changed to ensure a healthy pregnancy, and possibly being very difficult if couple members needed to disclose or discuss potentially sensitive information that might need to be addressed in terms of PCH, such as STDs, obesity or weight, or alcohol or other drugs. "You know, if one, or the both of them, are overweight or something like that, maybe they don't want to hurt the other's feelings...." (male, planner couple). Second, couples across segments emphasized the importance of a husband's support to his wife in encouraging PCH and behavior change: "...the support of a spouse can greatly affect the positive behaviors..." (female, interconception couple). Many participants acknowledged that the woman needed this kind of support if she was going to be able to make changes needed to plan a healthy pregnancy. "I think maybe if they were planning this together and they kind of had, 'Hey, we're in this together' kind of attitude and if they knew that it would, they were more likely to be successful with doing these things if they worked on them together, I think that, that would be pretty motivating" (male, nonplanner couple). Third, across all of the segments, couples mentioned the importance of being in a good or healthy relationship as the starting point for pregnancy planning because it would help facilitate communication, planning, and support between partners. "Well, it's also commitment to the relationship, it's commitment to the, you know, the baby that they're about to bring into the world, and it's probably going to provide a, you know, a better environment as well for their, you know, for the couple" (male, planner couple). Although these themes were mentioned across the four P's, most themes centered on the price of PCH and related behaviors.

CONCLUSIONS

This formative research fills a gap in the existing research on PCH, and how social marketing could be used to increase awareness of or change PCH-related behaviors. To our knowledge, this is the first article to use the couple as the conceptual and analytic unit, and to use social marketing principles to understand PCH in couples. Across the planning, nonplanning, and interconception couples, PCH can be seen as rooted in relationships, as evidenced by the emphasis couples placed on PCH being related to a healthy baby, mother, and family relationships. The couple-related themes that emerged across the segments and the discussion of the four social marketing *P*'s emphasized communication, support, and relationship quality as important factors that would enhance PCH in couples. Many similarities across the couple segments were evident when PCH was viewed through a "couples" lens. The issue of PCH was seen as more relevant for couples planning a pregnancy; however, nonplanning couples clearly understood the benefits of PCH and related behaviors. "Health" is not typically a strong motivation for many audiences, but in

this case, the health of the mother, baby, and family could be a force motivating couples to engage in PCH behaviors.

Despite previous analyses that demonstrated demographic and behavioral differences underlying our audience segmentation approach (see Squiers et al.²²), there were more similarities than differences across the segments for many of the four social marketing P's. Our segmentation approach was developed from data derived from individuals and then applied to couples. It is possible that if the segmentation approach had been developed from couple-level rather than individual-level data, we would have found more differences between segments. Couple-level data would take into account each spouse's or partner's standing on a variable and identify similarities or differences between couple members. For example, do they practice similar or different PCH-related behaviors? Do they hold similar or different beliefs regarding the importance of planning? Dyadic theory would suggest that when couples have corresponding beliefs and preferences they are more likely to work together to achieve better health for the family than couples with noncorresponding belief patterns.²⁵ We know of no studies that have examined couple-level data to help develop a segmentation strategy or have used quantitative couple-level data to examine these issues more generally. Couple segmentation could be an important avenue for future research on couples and PCH and one that could lead to finer nuances for a couple-based segmentation approach. Additionally, formative research underlying many social marketing campaigns relies on collecting both qualitative and quantitative data to define segmentation strategy.²⁶ Future research attempting to derive couple-based segments may benefit from a multimethod approach that uses qualitative and quantitative data.

Despite many similarities across the segments, several interesting differences emerged between groups. For example, the planner and interconception segments emphasized planning, the health of the baby as motivating, and messages focusing on the link between PCH and a baby's health, whereas nonplanners did not. Nonplanners emphasized PCH as being positioned to enhance personal health promotion, and de-emphasized planning, except when it came to financial readiness. Additionally, nonplanners and interconception segments emphasized the importance of using effective birth control when a pregnancy is not being planned, which was not mentioned by planners. Presumably, this difference is due to each segment's current planning status and speaks to the validity underlying our segmentation approach.

Several limitations of the research merit discussion. First, our sample was a volunteer sample drawn from a national database. Although this strategy allowed us to interview couples outside of a particular geographic region, those couples who would agree to be part of a recruiting firm's database could be very different from the general public in ways we cannot quantify. In addition, the denominator of potential couples screened to be a part of this research is not known, so there is no way to quantify any potential bias that might be due to low participation or to compare those who volunteered to participate versus those who did not. Second, although we were able to recruit African-American participants at a higher level than the population representation of this group, ²⁷ we were not able to recruit other race/ethnicity subgroups at a level equal to their population representation or at all. The small numbers we were able to recruit precluded any analysis based on race/ethnicity.

Third, we were not able to recruit couples at the very lowest levels of SES and those with less than a high school education who may be at highest risk. Future studies that can recruit a more diverse and representative sample of couples would be helpful in advancing the understanding of PCH among couples and how PCH should be positioned in social marketing campaigns.

IMPLICATIONS

Couples may be an important target audience when considering social marketing approaches for PCH. Many couples in this study perceived the relevance of the issue to important aspects of their lives, such as health, family, and their relationships. While couples are not typically a primary audience for social marketing, they could be a primary or secondary audience in a multistage social marketing plan for PCH that includes women, men, and couples. While nonplanner couples did not see the issue as potentially relevant, they may benefit from campaigns that raise awareness about the importance of PCH so that when they are ready they are equipped with the information needed to plan a healthy pregnancy.

Framing messages for PCH that focus on couples' relationships and family health could be effective, according to the couples we interviewed, especially if couples are planning a pregnancy. In addition, addressing potential barriers to PCH-related behavior changes that are rooted in the relationship, such as difficulty in communicating about sensitive issues, could be important for all couple segments. One potential messaging strategy for addressing these barriers is to position PCH in a way that highlights the exchange of these barriers for potential benefits, such as increased support and closeness, or decreased anxiety in terms of communication or planning. This suggestion is supported by a recent meta-analysis of marketing mix strategies.³ This meta-analysis showed that reducing perceived barriers, using innovative means to promote a product, and involving the social context were effective strategies across a wide array of behaviors. Many of the behaviors and conditions included in the meta-analysis are relevant to PCH, such as smoking, STDs, reproductive health, diabetes, and nutrition.³

There are several advantages to focusing on couples to promote PCH. First, couples may act in coordinated ways that fulfill "couple" interests, and this coordination and support can be used to enhance women's and men's PCH. ²⁸ Second, emphasizing the "coupleness" of PCH could strengthen the effectiveness of social marketing efforts in this area and enhance the effectiveness of interventions that have focused on women only. ²⁹ Third, given that so many PCH-related behaviors are shared between couple members, ¹³ addressing both couple members in a social marketing campaign could be an effective strategy for enhancing health.

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SO WHAT? Implications for Health Promotion Practioners and Researchers

What is already known on this topic?

Emerging evidence shows that a woman's health before pregnancy can affect maternal and birth outcomes; however, few people are aware of the importance of PCH. Social marketing can be used to increase awareness and change PCH-related behaviors. Increasing awareness about the importance of PCH is critical to enhancing the health of women, men, children, and families.

What does this article add?

This formative research supports the idea that couples across many different segments resonate with the importance of PCH. Using couples' motivation for a positive relationship and a healthy family could enhance efforts to promote awareness, change behaviors, and inform messaging strategies.

What are the implications for health promotion practice or research?

The findings from this research suggest that understanding couples' notions about PCH may be fruitful for positioning PCH in social marketing campaigns.

 Table 1

 Audience Segment Definition and Participation by Audience Segment

| Final Audience Segment | Definition | No. of Couples |
|---------------------------|---|-------------------|
| Planner | Couples who have not had a child and plan to have children | 11 |
| Planner | Couples who have had children (a year ago or more) and plan to have more children | 12 |
| Nonplanner | Couples who do not plan to have children | 12 |
| Nonplanner | Couples who have had children (a year ago or more) and are not planning to have more children | 11 |
| Interconception | Couples who have had a child in the past year | 12 |
| Total | | 58 |

Table 2

Preconception Health Behaviors

Talking to a doctor about pregnancy

Avoiding using illegal drugs

Eating a healthy diet

Exercising at least 30 min a day on most days of the week

Achieving a healthy weight

Avoiding drinking alcohol

Avoiding smoking cigarettes

Taking a multivitamin with folic acid

Being aware of family medical history

Being up-to-date with vaccines

Getting a flu shot

Screening for and treating sexually transmitted diseases

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Table 3

Demographic Characteristics of Participants*

| | Women, % (N = 58) | Men, % (N = 58) |
|-----------------------------------|----------------------|--------------------|
| Age, y | | |
| 18–24 | 12 | 10 |
| 25–34 | 57 | 51 |
| 35–44 | 31 | 27 |
| 45 and older | 0 | 10 |
| Race | | |
| Caucasian/white | 79 | 72 |
| African-American/black | 14 | 15 |
| Asian American | 0 | 0 |
| American Indian or Alaskan Native | 0 | 1 |
| Ethnic background | | |
| Hispanic | 5 | 10 |
| Non-Hispanic | 95 | 87 |
| Education | | |
| Some high school | 0 | 1 |
| High school graduate | 12 | 14 |
| Some college | 48 | 48 |
| College graduate | 40 | 36 |

 $[\]ensuremath{^*}$ Some percentages may not total to 100 owing to missing information.

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| | Couple Segments | | | | | |
|-----------|--|--|--|--|--|--|
| Four P's | Planners | Nonplanners | Interconception | All | | |
| Product | More receptive to the idea of PCH* | Less receptive to the idea of PCH | Referred to PCH in more concrete and tangible terms | Generally not aware of PCH | | |
| | | PCH behaviors irrelevant unless planning | More experience and knowledge to leverage | Understood potential importance of PCH | | |
| Price | Planning could increase PCH focus | Personal health promotion more motivating than baby's health | Planning could increase PCH focus | Many similarities in terms of barriers | | |
| | Negative consequences for baby's health strong motivating factor | | Negative consequences for baby's health strong motivating factor | Couple-focused themes emerged more frequently | | |
| | Consequences of poor planning motivating factor | | Consequences of poor planning motivating factor | | | |
| Promotion | Preconception care key for getting prepared | PCH behaviors important for health promotion | Preconception care key for getting prepared | Messages about healthy baby, mother, and family important | | |
| | | Emphasized financial readiness | PCH behaviors should be linked to baby's health | PCH could make couples closer | | |
| | PCH behaviors should be linked to baby's health | Emphasized importance of effective birth control | Emphasized importance of effective birth control | | | |
| Place | Positive about receiving information during routine healthcare visit | Do not want to receive information during routine healthcare visit | No different or specific place mentioned | Similar place and channels mentioned Healthcare setting important | | |

^{*} PCH indicates preconception health.