"I’m used to doing it by myself”: exploring self-reliance in pregnancy

Blair C. McNamara1*, Abigail Cutler2, Lisbet Lundsberg3, Holly Powell Kennedy4 and Aileen Gariepy5

Abstract

Background: Self-reliance (the need to rely on one’s own efforts and abilities) is cited as a potential coping strategy for decreased or absent social support during pregnancy. Little data exists on how women view self-reliance in pregnancy.

Methods: We recruited women from urban, walk-in pregnancy testing clinics from June 2014–June 2015. Women aged 16 to 44 and at less than 24 weeks gestational age were eligible. Participants completed an enrollment survey and in-person, semi-structured interviews. We used framework analysis to identify key concepts and assess thematic relationships.

Results: Eighty-four English-speaking women completed qualitative interviews. Participants averaged 26 years of age and 7 weeks estimated gestational age. Most identified as Black (54%) or Hispanic (20%), were unemployed or homemakers (52%), unmarried (92%), and had at least one child (67%). Most did not intend to get pregnant (61%) and planned to continue their pregnancy and parent (65%). We identified self-reliance as a prevalent concept that almost half (48%) of participants discussed in relationship to their pregnancy. Self-reliance in pregnancy consisted of several subthemes: 1) past experiences, 2) expectations of motherhood, 3) financial independence, 4) decision making, and 5) parenting.

Conclusions: Self-reliance is an important aspect of women’s reproductive lives and is threaded through women’s past and current thoughts, feelings, experiences and decisions about pregnancy. Women’s belief in their own self-reliance as well as a recognition of the limits of self-reliance merits further research, especially as a potential strategy to cope with decreased or absent social support during pregnancy.

Keywords: United States, Pregnancy, Self-reliance, Decision making, Social support

Background

Social support is defined as the receipt of resources, information, or emotional care through personal relationships [1, 2]. Increased social support during pregnancy and the postpartum period has been associated with decreased psychological distress during pregnancy [1, 3], faster progression of labor, higher Apgar scores, higher birthweight [2, 4], and reduced depression among new mothers and women who have abortions [1, 5–7]. Similarly, decreased or absent social support and increased psychological distress are linked to a variety of negative mental and physical health outcomes for pregnant women [1, 8, 9], including low birth weight and preterm delivery [3, 10–13], and postpartum depressive symptoms [14, 15].

When social support is low or absent, some have posited that pregnant women use resilience, optimism, and self-reliance as coping strategies [9, 16–20]. Resilience, defined as an ability to ‘bounce back’ after adversity, may act as a protective factor against psychologic stress and decreased social support during pregnancy [9, 16]. Optimism – described as a prospective belief that even without social support, a woman will be able to succeed using her own assets and abilities – has been found to be associated with decreased postpartum depression among pregnant women with low social support [17, 18]. Self-reliance is a similar but distinct concept from resilience or optimism and conveys a dependence on personal resources and abilities as opposed to those of...
Women may employ these potential coping strategies at various points in their reproductive lives and these strategies may intersect and overlap. An optimistic attitude can be a component of self-reliance, and resilient women can also be distinctly self-reliant, or intentionally reliant on others. Few studies have specifically examined self-reliance during the perinatal period, and focused on narrow, non-U.S. populations. Self-reliance has been described as a positive coping strategy for life stress and lack of social support among pregnant HIV-positive women in sub-Saharan Africa [19] and for first-time parents’ experiencing home-based post-natal care in Sweden [20].

Given the lack of research evaluating self-reliance among pregnant women, we address the concept of self-reliance as described by a diverse urban cohort of women following confirmation of a new pregnancy. Women discussed experiences with self-reliance as it related to previous and current pregnancies, the expectation of motherhood, finances, decision-making about the pregnancy, and parenting experiences.

Methods
We report on qualitative findings from a study conducted to explore the impact of a new pregnancy on women’s lives [21]. The overarching study recruited women presenting for pregnancy testing or abortion care at clinics in New Haven, CT, from June 2014 to June 2015. The data presented here were restricted to participants from pregnancy testing sites only, in order to focus on women with new pregnancy diagnoses who had not yet made a decision about how to resolve the pregnancy. Clinical staff referred interested women with positive pregnancy tests to the research team, who screened them for eligibility. Women were eligible if they were Spanish- or English-speaking, at a gestational age of < 24 completed weeks, 16–44 years old, and completed study enrollment within 1 week of their positive pregnancy test. Refer to Fig. 1 for a flow diagram of those participants screened, eligible, and enrolled in the study. Detailed study methods have been previously published [21]. In the state of Connecticut, pregnant women under the age of 18 are able to make all decisions regarding their pregnancy without parental input or consent. As such, our Institutional Review Board waived the need for parental consent for participants under the age of 18. Eighty-four participants completed in-depth qualitative interviews in English and are the basis of this analysis. Women who chose to participate in Spanish were analyzed separately and are not included in this investigation to ensure cross-language credibility [22].

All 84 participants completed an enrollment survey that collected demographic information (including age, race and ethnicity, relationship status, parity), measures of pregnancy intention, and plans for pregnancy termination or continuation. Enrolled participants were offered the opportunity to complete a one-on-one interview or a focus group interview (four women chose a group interview, which occurred as two two-person groups). Interviews were conducted by skilled research team interviewers using a semi-structured interview guide (Additional file 1: Figure S2) to ask participants open-ended questions about pregnancy intentions, initial and current thoughts and feelings after receiving a positive pregnancy test, and how they felt the pregnancy would impact their life, decisions, and relationships. All interviews were audio-recorded and transcribed, while maintaining confidentiality of the participants. We ascertained pregnancy outcome information (e.g. miscarriage, abortion, delivery) for each participant during a follow-up monitoring interview or through medical record review. We categorized pregnancy outcomes as
miscarriage, abortion, or delivery. All participants provided written consent and received $50 cash as compensation for participation in the qualitative interviews. The study protocol was reviewed and approved by the Yale University Human Research Protection Program.

We used framework analysis to identify key concepts from our data and to assess thematic relationships [23]. We identified codes to evaluate common and dissimilar conceptual threads among interview transcripts. Four researchers (BM, AC, AG, LL) initially coded the same six interviews and then met to assess inter-coder reliability and generate a shared coding strategy and code list. Two independent coders (BM, AC) then coded the remaining transcripts and met regularly to assess discrepancies in coding. A senior methodologist and software expert (HPK), provided content-checking and guidance on all analysis. We then grouped codes thematically to draw conclusions about interactions and context in the interviews, and then re-evaluated the text using these themes. We used Atlas.ti (Berlin, Germany) to manage and code the transcripts.

**Results**

At enrollment, participants averaged 26 years of age and 7 weeks estimated gestational age (EGA) (Table 1). Most identified as Black, non-Hispanic (54%) or Hispanic (20%). The majority reported less than or equal to a high school education (59%), were unemployed or homemakers (52%), were unmarried (92%), and had at least one child (67%). Some reported a previous history of depression (26%) or anxiety (25%). Previous miscarriage was reported by 40% and previous abortion was reported by 41%. When asked about the period just before becoming pregnant (pre-conception perspectives), 61% indicated they did not intend to get pregnant, 32% reported that they did not want to get pregnant and 25% indicated the pregnancy was not planned (Table 2). When asked about how they felt after learning they were pregnant, 29% reported that it was the wrong time to have a baby, 31% said the pregnancy was undesired, and only 13% said they were not happy with the pregnancy news (Table 2). At enrollment,

| Table 1 | Participant characteristics and sociodemographics, N = 84 |
|---------|----------------------------------------------------------|
| Age, mean (SD) | 26.1 (6.3) |
| Estimated gestational age at enrollment, weeks (SD) | 7.2 (3.1) |
| Race-Ethnicity, n (%) | |
| Black, non-Hispanic | 45 (54.2) |
| White, non-Hispanic | 13 (15.7) |
| Hispanic | 17 (20.5) |
| Multiracial, Other | 8 (9.6) |
| Education, n (%) | |
| 12 years/GED or less | 49 (59.0) |
| Some college or college degree | 34 (41.0) |
| Employment, n (%) | |
| Unemployed/homemaker | 43 (51.8) |
| Full time/part time | 40 (48.2) |
| Relationship status, n (%) | |
| Single, never married | 42 (50.6) |
| Married | 7 (8.4) |
| Living with partner, not married | 19 (22.9) |
| Separated/divorced/widowed | 15 (18.1) |
| Previous diagnosis of depression, n (%) | 22 (26.2) |
| Previous diagnosis of anxiety, n (%) | 21 (25.0) |
| Previous abortion, n (%) | 34 (41.0) |
| Previous miscarriage, n (%) | 32 (39.5) |

| Table 2 | Measures of pregnancy context among participants, N = 84 |
|---------|----------------------------------------------------------|
| Intention, n (%) | |
| Intended to get pregnant | 17 (20.2) |
| Intentions changing | 16 (19.1) |
| Did not intend to get pregnant | 51 (60.7) |
| Wanted, n (%) | |
| Wanted to have a baby | 23 (27.4) |
| Mixed feelings | 34 (40.5) |
| Did not want to have a baby | 27 (32.1) |
| London measure of unplanned pregnancy, n (%) | |
| Planned | 17 (20.2) |
| Ambivalent | 46 (54.8) |
| Unplanned | 21 (25.0) |
| Timing, n (%) | |
| Right time to have a baby | 27 (32.1) |
| Ok but not quite right | 33 (39.3) |
| Wrong time | 24 (28.6) |
| Desired pregnancy, n (%) | |
| Yes | 38 (45.2) |
| No | 26 (31.0) |
| Not sure | 20 (23.8) |
| Happy about pregnancy, n (%) | |
| Happy | 54 (64.3) |
| Neither happy/unhappy, not sure | 19 (22.6) |
| Unhappy | 11 (13.1) |
| Pregnancy plans, n (%) | |
| Parent | 55 (65.5) |
| Abortion | 15 (17.9) |
| Adoption | 2 (2.4) |
| Unsure | 12 (14.3) |
65% planned to parent, 18% planned abortion, 2% planned adoption, and 14% were unsure.

We identified self-reliance as a common and complex theme woven throughout women’s discussions about their pregnancies. When discussing their reactions, expectations, and decision-making about their pregnancies, approximately half of women (n = 40, 48%) spoke of self-reliance (specifically the need to rely on one’s own efforts and abilities), rather than those of others. Discussions of self-reliance overlapped with related discussions about prior pregnancy experiences, prior parenting experiences, current children, relationships, social support, decision making about the pregnancy, and maternal health. We found the theme of self-reliance to consist of several intersecting subthemes: 1) past experiences of self-reliance, 2) expectations of motherhood, 3) financial independence, 4) decision making about this pregnancy, and 5) self-reliance in parenting. Social support, or lack thereof, was a pervasive element of all subthemes, and was intimately related to women’s discussion of self-reliance.

Past experiences of self-reliance
Many of our participants were already intimately familiar with the notion of self-reliance during pregnancy secondary to the absence of a partner or other social support in previous pregnancies or current experiences as mothers. For some, their previous experience with the reality of self-reliance may have led to decisions to parent, and for others the decision to terminate. For example, several women who were already mothers noted the following.

I'm used to doing it by myself. I'm used to being the parent alone, not having to share, except for doctors’ appointments and delivery day. (Age 35)

I mean I [parented other children] by myself, and they're doing good. (Age 38)

Some participants noted both difficulty and gratification as parents who were already self-reliant. One woman who planned to continue her current pregnancy said:

My daughter, her father's not... in her life... as much as he should be... I'm doing everything, everything on my own. With schoolwork and parent teacher night, report card night, family support night, all of that. I mean I don't mind ... I love that she [will] always come to see me, the person that was there. (Age 26)

Participants cited experiences raising children without social support and necessitating self-reliance as reasons why they believed parenting their expected children would be successful. Participants spoke of sacrifice and challenges in being self-reliant parents, but many also described feeling fulfilled by that role.

Similar descriptions were also offered by women planning abortion, perhaps related to their desire to care for and support the children they were already parenting. For example, one woman who planned to terminate (and did) expressed pride in her ability to be self-reliant for her young son:

I do everything I can, for my son to have a good life. So I work...I basically do everything on my own for him... to see him in the morning wake up and smile and say 'Mommy', it's just a good feeling. (Age 21)

Expectations of motherhood
Some participants took as a given that they would have to be self-reliant in both pregnancy and motherhood; for many women, self-reliance was a necessary element of both.

You're the mother... you have a mother and father but at the end of the day if it doesn't work, you're the mother. This is your child. So whether he is excited about it or not, I have to do what I have to do as a mom for my child. (Age 30)

He's the man and I'm the woman. And at the end of the day, when you have a child, all the care for that child is based on the woman. (Age 37)

Some participants described motherhood as a responsibility that required overcoming lack of social supports and embracing self-sacrifice in order to fulfill their duties as mothers.

You're having a baby, it's going to be a struggle sometimes but you have to be able to provide and I'm not the type of person who, who just go and ask somebody, 'hey can you, can you help me and stuff...I just, you know, feel like I would need to provide for my child. I don't need nobody else to provide. (Age 30)

For some women, the idea that the responsibility of parenting would ultimately (and sometimes inevitably) fall to them stemmed from a social norm that fathers are less duty-bound and reliable than mothers.

And then at the end of the day, it's mommy's baby always. Like, he could get up and say whatever. Men can do whatever they wanna do, he's not obligated to stay here whether we're married, engaged, together or not. (Age 29)
Financial independence

Many women also referred to financial independence as a marker of self-reliance, and the reason why they were making the decision to parent, irrespective of their partners’ input on the matter.

Yeah, I pay the high rent bill. He pays the cable and the gas and they don’t add up, so I got the say. This is how the world works! (Age 20)

I can make my own decisions. I work, I make my own money, pay my own bills, so my decision is my decision. If you’re not with it, don’t be around…. I don’t care. He probably wouldn’t be happy, he’d probably be a little discouraged, upset or something. But it’s my decision. (Age 21)

Discussions about financial independence also overlapped with discussions about the influence of family on pregnancy decision-making and lack of social support from family, and sometimes shaped a participant’s plans to share (or not) the news of the pregnancy with others.

[It’s] not that I don’t care what anyone has to say, but I don’t care what their opinions on it…if they have something negative to say I’m gonna say well…did you take care of any of my other kids? Would you like to pay a bill out of my house? Would you like me to write you a grocery list for us? … I don’t feel the urge to tell everyone cuz I’m like…this isn’t their baby. My household isn’t their household, I’ve been on my own since I was eighteen, I’ve lived in my own place, I’ve had my own car…if they find out, they find out. If they don’t I could care less. (Age 21)

Conversely, several participants expressed that they did not see themselves as self-reliant because they lacked financial independence and stability. Some women voiced that they did not want to have to rely entirely on themselves in pregnancy or motherhood, which led some to question if continuing the pregnancy was the right decision. Several participants who felt this way also told researchers that they were planning abortion.

I don’t want to be struggling…out here with two kids and then, you know, who knows? Me and my boyfriend only been together for a couple months… I’m not trying to do it by myself and I’m not trying to struggle and…I want to be more, I want to have a better job and stability. I don’t want to be living on food stamps….I’m just trying to be better, like better us, before having another kid. (Age 23)

And if I’m not stable myself, then I’m not gonna bring somebody into this world and have them struggle with me …. Stable, as um, financially having a roof over my head… mostly being prepared for it. I’m not at all. (Age 20)

Decision-making about this pregnancy

First, women displayed self-reliance simply in discussing decisions about their pregnancy. Many women expressed that they were relying solely on their own counsel to contemplate their decisions.

Uh to be honest I could really care less what anyone else thinks because uh I’m 18. I’m gonna be 19 next month, and I mean, I’m an adult. I have to do what I have to do. I feel like [it’s] my decision. I mean they can’t really have no say, cause it’s my decision so. (Age 18)

I can do what I wanna do, I don’t have to be pressured into doing anything or listening to somebody. (Age 21)

Furthermore, conceptualizations of absent or low social support and the need for self-reliance influenced the way some women approached making decisions about their pregnancies. Women cited self-reliance when considering whether or not to continue their pregnancies, including what it would mean to be single parents. For some participants, the knowledge that they would need to be self-reliant and even single-parents (either for the first time or again) influenced their plans to terminate, and for others this same knowledge appeared to factor into and reinforce their plans to parent.

Although a few women stated that their decisions depended in part on their partner’s wishes, more women expressed the sentiment that their partners’ opinions and roles were more or less irrelevant; in other words, they felt confident in their ability to be self-reliant and make decisions about continuing or terminating the pregnancy whether or not their partners stayed involved.

But then I realized that I wanted this child no matter who the father is. So…I was like whatever, either you’re gonna be in our lives or not. It’s not gonna change anything, I’m gonna keep my baby. (Age 23)

When asked how the father’s feelings about the pregnancy impacted her decision to parent, one participant said:
The physical reality of pregnancy also shaped women’s perspectives on self-reliance and their pregnancy decision-making. Women saw their pregnancies as ultimately belonging to them, and so all decisions would be made accordingly. Two women who planned to parent expressed this sentiment:

*Men tend to be, you know, like (soft laugh), they don’t know. We’re the ones that carry [the pregnancy], that do all the work.* (Age 24)

**Self-reliance in parenting**

Some women acknowledged that although a possibility, being self-reliant as a single mother without social support was not ideal. Many participants who planned either abortion or adoption pointed to the value of having a partner in parenthood.

*Right now I’m single, I don’t have anybody… you know I’m not ready for that (e.g. being a single mother) yet.* (Age 21)

*To be a good mother I think it takes a partnership. Of course single mothers do it, but I think a man and a woman should raise a child, not just a man or a woman.* (Age 25)

*I know a lot of families don’t stay together. But for me myself, to be able to provide for the child on my own… And if I’m not stable myself, then I’m not gonna bring somebody else into this world and have them struggle with me.* (Age 20)

Similarly, a few participants expressed that their previous experience as single parents influenced their strong preference for having partner support in the current pregnancy.

*I was by myself, had the baby by myself, took care of him by myself, until now… So, I just, kinda don’t want to go through that again, but I know that I’m with him now, that it might be different and that he might actually be there for me, but I don’t want to like have the baby thinking that. Oh, he’s there now and he’ll be with me and this will be a better pregnancy and stuff.* (Age 25)

One participant who planned to parent expressed that while her preference would be to have partner support, she was prepared to parent by herself if necessary.

*I see women do it all the time where you know they go through everything by their self… I just feel like… what mother doesn’t want a father there for her child?… And so I feel like that’s a big part for me. But I mean either way I’m going to do what I have to do.* (Age 30)

**Discussion**

In this analysis of a racially and ethnically diverse urban population of women with new pregnancies, we identified self-reliance as a prevalent theme that emerged in discussions with women about how they felt the pregnancy would impact their lives, decisions, and relationships. Our findings suggest that both self-reliance and an awareness of the limits of self-reliance can have a substantial impact on a woman’s thoughts, feelings, and decision-making about a pregnancy. Experiences with and examination of self-reliance as it related to social support, previous pregnancies and experiences, expectations of motherhood, financial independence, decision making about the current pregnancy, and self-reliance in parenting, all contributed to a woman’s assessment of her new pregnancy.

Our findings advance understanding of self-reliance, especially as a potential response to lack of social support, in several ways. To our knowledge, this study is the first evaluation of women’s thoughts and expressions regarding self-reliance at the time of pregnancy diagnosis. We identified two previous studies that specifically report on self-reliance related to pregnancy [19, 20]. However, both studies were conducted in the postpartum period, and may be subject to recall bias. Ashaba et al. report on coping strategies used during pregnancy and childbirth by women living with HIV in Uganda (n = 20). They conducted postpartum qualitative interviews and identified self-reliance, mostly as it relates to financial independence and parenting, as one of five coping strategies these women used to navigate challenges during pregnancy and beyond [19]. In the second study we identified, Johansson et al. identified self-reliance as one of three main themes that emerged with first-time Swedish parents following same-day discharge from the hospital after child-birth (n = 21). In this study, the concept of self-reliance pertained to parents who needed to rely on their own instincts about newborn care at home, as opposed to asking for help or receiving assistance from healthcare professionals [20]. While helpful in defining some aspects of self-reliance and identifying it as an important theme among postpartum women,
these two studies are limited to non-U.S. populations and are retrospective in nature. Our findings build on these smaller studies and clarify how self-reliance may function in a larger, urban, U.S. population of women in early pregnancy, prospectively contemplating pregnancy and parenting. We believe that characterizing self-reliance among pregnant women, often in the presence of limited or absent social support, is novel and an area that warrants further inquiry and analysis.

Strengths of our study include employing a qualitative approach using semi-structured interview questions, which allowed participants to express varied and at times contradictory emotions, thoughts, and feelings, which added complexity and richness to our data. The diverse racial and ethnic representation of our participants is also a strength, given prior research that has shown that the effects of social support and self-reliance vary across ethnic and cultural groups [24, 25]. Additionally, this study includes women in early pregnancy with varying pregnancy contexts (intention, wantedness, planning, timing, desirability, happiness) and outcomes (miscarriage, abortion, delivery), and therefore provides important perspectives not often captured in research about pregnancy. Our study may be limited by the lack of specific questions designed to evaluate self-reliance. Instead, the theme of self-reliance emerged from women’s discussions about their thoughts and feelings towards a new pregnancy. Another limitation of our study may be that our participants were recruited from a single geographic area; however, this region is diverse and generally representative of demographics in the United States [26].

Additional research is needed to explore self-reliance during pregnancy as there may be different and more complex sub-themes. It remains unclear whether self-reliance is a fixed character trait or rather a transient state of being that can be learned or cultivated over time. Future investigations into self-reliance in pregnancy could aid understanding of whether self-reliance is a fixed character trait or rather a transient state of being that can be learned or cultivated over time. We believe that characterizing self-reliance among pregnant women, often in the presence of limited or absent social support, is novel and an area that warrants further inquiry and analysis.

Conclusion
Our findings suggest that self-reliance is an important aspect of women’s reproductive lives and choices. It’s a prevalent concept that is threaded through women’s thoughts about pregnancy, and may be an important coping strategy women employ to buffer the negative effects of diminished or absent social support. In the end, self-reliance may only take women so far in the absence of social support and financial resources. While healthcare providers can try to cultivate individual patient factors (self-reliance) that may be protective against negative maternal and neonatal outcomes, we must also consider the environment and supports that our healthcare systems and government provide for vulnerable women. As of 2015, 13% of all women aged 15–44 in the United States remain uninsured [29], and over 15 million women living below 250% of the federal poverty level are in need of publicly funded contraceptive services and supplies [30]. The current political climate poses further threats to family planning and preventive healthcare for underserved women [31–33], as well as to maternity and newborn care [34, 35]. Systems can either support or chip away at self-reliance, and in the face of shrinking benefits and worn safety nets, a woman’s self-reliance simply may be not enough.

Additional file

Acknowledgements
The authors would like to thank Yale School of Medicine, Department of Obstetrics, Gynecology, and Reproductive Sciences for their support, as well as all of our research subjects for their candor and participation.

Funding
Dr. Gariepy was supported by funding from NIH CTSA UL1 TR000142, NIDA Yale Drug Abuse Addiction and HIV Research Scholars 5K12DA033312, and the Albert McKern Scholar Awards for Perinatal Research, which also supported Dr. Lundsberg, during the conduct of the study. Funding sources had no involvement in the study or manuscript.

Availability of data and materials
Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

Authors’ contributions
All authors have contributed significantly to the development of the manuscript as well as to the analysis of the data described. BM and AC transcribed the qualitative interviews and were responsible for generating a code and theme list. LL and AG coded a small set of interviews to ensure inter-coder reliability. HPK served as an advisor and instructed the group in using Atlas.ti. The manuscript was primarily written by BM, with significant editing contributions from all authors. All authors read and approved the final manuscript.
Authors' information
Blair McNamara, BS, Medical student MS4, Yale School of Medicine.
Abigail Cutler, MD, Clinical Instructor, Department of Obstetrics, Gynecology, and Reproductive Sciences, Yale School of Medicine.
Lisbet Lundborg, PhD, Associate Research Scientist in Obstetrics, Gynecology, and Reproductive Sciences, Yale School of Medicine.
Holly Powell Kennedy, PhD, CNM, FACNM, FAAN, Executive Deputy Dean & Helen Varney Professor of Midwifery, Yale School of Nursing.
Aileen Gariepy, MD, MPH, FACOG, Assistant Professor of Obstetrics, Gynecology, and Reproductive Sciences and Assistant Clinical Professor of Nursing, Yale School of Medicine.

Ethics approval and consent to participate
Yale Institutional Review Board approval was obtained for this study and all study participants gave written informed consent. The Institutional Review Board waived parental consent for participants under the age of 18, as in the state of Connecticut pregnant women under the age of 18 do not require parental input or consent for any decisions regarding their pregnancy.

Consent for publication
Not applicable.

Competing interests
The authors declare that they have no competing interests.

Publisher’s Note
Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Author details
Yale School of Medicine, 333 Cedar Street, New Haven, CT 06510, USA.
Department of Obstetrics, Gynecology and Reproductive Sciences, Yale School of Medicine, New Haven, CT, USA.
Department of Obstetrics, Gynecology and Reproductive Sciences, Yale School of Medicine, New Haven, CT, USA.
Yale School of Nursing, West Haven, CT, USA.
Department of Obstetrics, Gynecology and Reproductive Sciences, Yale School of Medicine, New Haven, CT, USA.

Received: 15 March 2018 Accepted: 24 September 2018
Published online: 05 October 2018

References
1. Harris LF, Roberts SCM, Biggs MA, Roca CH, Foster DG. Perceived stress and emotional social support among women who are denied or receive abortions in the United States: a prospective cohort study. BMC Womens Health. 2014;14:76.
2. Feldman PJ, Dunkel-Schetter C, Sandman CA, Wadhwa PD. Maternal social support predicts birth weight and fetal growth in human pregnancy. Psychosom Med. 2000;62:715–25.
3. Dunkel Schetter C. Psychological science on pregnancy: stress processes, biospsychosocial models, and emerging research issues. Annu Rev Psychol. 2011;62:531–58.
4. Turner RJ, Grindstaff CF, Phillips N. Social support and outcome in teenage pregnancy. J Health Soc Behav. 1990;31:43–57.
5. Collins NL, Dunkel-Schetter C, Lobel M, Scrimshaw SC. Social support in pregnancy: psychosocial correlates of birth outcomes and postpartum depression. J Pers Soc Psychol. 1993;65:1243–58.
6. Negrón R, Martín A, Almog M, Balfiez A, Howell EA. Social support during the postpartum period: mothers’ views on needs, expectations, and mobilization of support. Matern Child Health J. 2013;17:616–23.
7. Major B, Cozarelli C, Sciacchitano AM, Cooper ML, Testa M, Mueller PM. Perceived social support, self-efficacy, and adjustment to abortion. J Pers Soc Psychol. 1990;59:452–63.
8. Lamacra GA, do C Leal M, Shelham A, Vettore MV. The association of neighbourhood and individual social capital with consistent self-rated health: a longitudinal study in Brazilian pregnant and postpartum women. BMC Pregnancy Childbirth. 2013;13(1).
9. Keating-Leifer R, Wilson ME. The experience of becoming a mother for single, Unpartnered, Medicaid-eligible, first-time mothers. J Nurs Scholarsh. 2004;36:23–9.
10. Norbeck JS, Anderson NJ. Psychosocial predictors of pregnancy outcomes in low-income black, Hispanic, and white women. Nurs Res. 1989;38:204–9.
11. Dejn-Karlsson E, Hanson BS, Östergren P-O, Lindgren A, Sjögren N-O, Marsal K. Association of a lack of psychosocial resources and the risk of giving birth to small for gestational age infants: a stress hypothesis. BJOG Int J Obstet Gynecol. 2000;107:89–100.
12. Borders AEB, Grobman WA, Amsden LB, Holl JL. Chronic stress and low birth weight neonates in a low-income population of women. Obstet Gynecol. 2007;109(2 Pt 1):331–8.
13. Razoulet C, Kaiser B, Sellener F, Epiney M. Relation between perceived stress, social support, and coping strategies and maternal well-being: a review of the literature. Women Health. 2013;53:74–99.
14. Howell EA, Mora P, Leventhal H. Correlates of early postpartum depressive symptoms. Matern Child Health J. 2006;10:149.
15. Mautner E, Stern C, Deutsch M, Nageli E, Greimel E, Lang U, et al. The impact of resilience on psychological outcomes in women after preeclampsia: an observational cohort study. Health Qual Life Outcomes. 2013;11:194.
16. Grote NK, Bledsoe SE. Predicting postpartum depressive symptoms in new mothers: the role of optimism and stress frequency during pregnancy. Health Soc Work. 2007;32:107–18.
17. Lobel M, DeVincent CJ, Kamner A, Meyer BA. The impact of prenatal maternal stress and optimistic disposition on birth outcomes in medically high-risk women. Health Psychol. 2000;19:544–53.
18. Ashaba S, Kaida A, Burns BF, O’Neill K, Dunkley E, Psaros C, et al. Understanding coping strategies during pregnancy and the postpartum period: a qualitative study of women living with HIV in rural Uganda. BMC Pregnancy Childbirth. 2017;17. https://doi.org/10.1186/s12884-017-1321-9.
19. Johansson K, Aarts C, Darj E. First-time parents’ experiences of home-based postnatal care in Sweden. Ups J Med Sci. 2011;115:131–7.
20. Gariepy A, Lundborg LS, Vlardo N, Stanwood N, Yemenk K, Schwarz EB. Pregnancy context and women’s health-related quality of life. Contraception. 2017;95:491–9.
21. Squires A. Methodological challenges in cross-language qualitative research: a research review. Int J Nurs Stud. 2006;43:287–87.
22. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. BMC Med Res Methodol. 2013;13:117.
23. D’Anna-Hernandez KL, Alman B, Flores A-M. Acculturative stress negatively impacts maternal depressive symptoms in Mexican-American women during pregnancy. J Affect Disord. 2015;176:35–42.
24. Guendelman S, Malin C, Herr-Harthorn B, Noemi Vargas P. Orientations to motherhood and male partner support among women in Mexico and Mexican-origin women in the United States. Soc Sci Med. 2001;52:1805–13.
25. Kolko J. Normal America. In: Is not a small town of white people. FiveThirtyEight; 2016. https://fivethirtyeight.com/features/normal-america-is-not-a-small-town-of-white-people/. Accessed 8 Jan 2018.
26. Hodnett ED, Fredericks S, Weston J. Support during pregnancy for women at increased risk of low birthweight babies. Cochrane Database Syst Rev. 2010;CD000198.
27. Ickovics JR, Kershaw TS, Westdahl C, Magripiles U, Massey Z, Reynolds H, et al. Group prenatal care and perinatal outcomes: a randomized controlled trial. Obstet Gynecol. 2007;110(2 Pt 1):330–9.
28. Jones RK, Jerman J. Abortion incidence and service availability in the United States, 2014. Perspect Sex Reprod Health. 2017;49(1):17–27.
29. Contraceptive Needs and Services, 2014 Update Guttmacher Institute 2016. (2017) 18:393. https://www.guttmacher.org/report/contraceptive-needs-and-services-2014-update. Accessed 8 Jan 2018.
30. FiveThirtyEight; 2016. https://fivethirtyeight.com/features/normal-america-is-not-a-small-town-of-white-people/. Accessed 8 Jan 2018.
31. Hodnett ED, Fredericks S, Weston J. Support during pregnancy for women at increased risk of low birthweight babies. Cochrane Database Syst Rev. 2010;CD000198.
33. Grossman D. Sexual and reproductive health under the trump presidency: policy change threatens women in the USA and worldwide. J Fam Plann Reprod Health Care. 2017;43:89–91.
34. Carroll AE. Why is US maternal mortality rising? JAMA 2017;318:321–321.
35. No One Benefits If Women Lose Coverage for Maternity Care. Guttmacher Institute. 2017. https://www.guttmacher.org/gpr/2017/06/no-one-benefits-if-women-lose-coverage-maternity-care. Accessed 8 Jan 2018.