PERIPARTUM CARDIOMYOPATHY AND SPOUSES' EXPERIENCES OF PERSISTENT UNCERTAINTY

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Abstract

Purpose: The purpose of this study was to explore the experiences of spouses whose wives had peripartum cardiomyopathy (PPCM).

Design & Methods: Participants were recruited for this phenomenological study through online sites Facebook and SavetheMommies. Fifteen men from four countries participated through semistructured phone interviews conducted between October 2019 and August 2020. Data were analyzed using a modified version of the constant comparison method.

Results: The overarching theme of spouses' experiences was *Living with the 'what ifs' of persistent uncertainty*. Four main themes were: *Feeling the shock, Facing the challenge, Figuring out a new normal,* and *Finding meaning*. Spouses had to deal with the fear of their wives' heart failure relapse or death, changed marital and parental roles, and unclear expectations of the future.

Clinical Implications: PPCM is a rare complication of pregnancy with uncertain implications for the future that can have a profound impact on the woman's spouse and family. Our findings should alert nurses and other health care professionals to the need for emotional, spiritual, and informational support of spouses or partners of women who have PPCM. Nurses should include spouses and partners in care and communication to make sure they are as informed as possible, have their questions and concerns addressed as needed, and receive adequate follow-up support.

Key words: Cardiomyopathies; Cardiovascular; Pregnancy complications; Qualitative research; Spouses; Uncertainty.

Peripartum cardiomyopathy (PPCM) is a form of systolic heart failure secondary to dysfunction of the left ventricule (Davis et al., 2020). It occurs during the last month of pregnancy or in the first 5 to 6 months postpartum. Incidence of PPCM in the United States is unknown; the rate reported in 2014 was 1 in 968 (or 10.3 per 10,000) live births (Kolte et al., 2014). Worldwide the incidence varies greatly from 1 to 100 in 20,000 live births depending on the country (Davis et al., 2020).

Etiology of PPCM is unknown. Autoimmune disorders, viral infections, and micronutrient deficiencies have been considered (Koenig et al., 2018), along with increased prolactin levels and low levels of hemoglobin (Cherubin et al., 2020). Women who are older, of Black African descent, or have preeclampsia or hypertension are at greater risk for developing PPCM when compared with the general childbearing population (Davis et al., 2020). Peripartum cardiomyopathy frequently goes undiagnosed until a woman has severe myocardial impairment because signs and symptoms of PPCM can mimic common discomforts of third trimester pregnancy, including fatigue, shortness of breath, and swelling in the ankles and feet. Underreporting and lack of awareness also contribute to misdiagnosis (Davis et al., 2020). About 72% of women with PPCM in North America returned to normal cardiac function within a year of diagnosis (McNamara et al., 2015). Women with long-term recovery are likely to have posttraumatic stress, depression (Donnenwirth et al., 2020), and anxiety (Rosman et al., 2019).

Literature Review

Studies of women with PPCM are numerous but little is known about the impact of PPCM on spouses or partners of these women. Only two studies, using the same 14 participants, focused on men and their partners' PPCM. Patel et al. (2019) found these men were overwhelmed by fear, experienced distressing uncertainty, felt helpless yet needed to be strong, and felt relief and acceptance while gaining a new perspective on life. Patel et al. (2018) found men felt most in control and prepared to become fathers when they were adequately updated on their partner's condition. Hess and Weinland (2012) analyzed postings from a web-based PPCM support group and found some women were concerned about the impact of PPCM on their spouse. The aim of this study was to explore the lived experiences of spouses of women who had PPCM.

Methods

Design

Due to the limited inquiry about spouses and PPCM, a qualitative phenomenological design was used. Phenomenology, as the theoretical framework, allowed for an in-depth exploration of the participants' lived experiences related to PPCM, including its meaning in their lives.

Recruitment & Consenting

The Human Research Committee at the lead author's university approved this study. Participants were purposively recruited using a networking strategy. A recruitment message was posted to the Facebook page, *Peripartum Cardiomyopathy (PPCM) Survivors Support* group (with about 2,500 users; facebook.com/ppcmPERIPARTUMCARDIOMYOPATHY), and on the *SavetheMommies* (2019) website (SavetheMommies.com). Inclusion criteria were spouses or partners, 18 years of age or older, whose significant other had been diagnosed with PPCM. Participants had to speak English and agree to audio-recording of a phone or online interview. Each volunteer received a consent form and a demographic information form via email. The demographic form asked for age, wife's age, marital status, occupation, education, religion, and timing of PPCM diagnosis. Each participant returned a signed consent form via email.

Data Collection & Analysis

Semistructured phone interviews were conducted between October 2019 and September 2020. The interviewer reviewed the demographics and inquired from the participant if there were any additional questions related to consent. The interview guide consisted of four main statements: (a) Describe events leading to your wife or partner's diagnosis of PPCM; (b) Describe your life since your wife or partner got PPCM; (c) How has PPCM affected your marital relationship?; and (d) What does living through this experience mean to you now? Probing questions were used to dig deeper. For example: How did you react when this happened to your wife?; When talking to another man whose wife has gone through this like you, what would you tell him? Interviews lasted an average of 36 minutes, ranging from 15 to 80 minutes, were digitally recorded, and transcribed verbatim.

Data were analyzed using a modified version of constant comparison (Kolb, 2012). This involved an iterative process of listening to the recordings, reading, rereading, and color-coding key words and phrases. Initial codes were expanded using a priori codes described by Patel et al. (2018; 2019). Next, a paper grid was drawn on to which each participant's codes were inserted to provide a way to visually align and compare codes, from the first interview to the second, to the third, and so on (Thalheimer, 2021). Main themes and subthemes were identified using this repetitive process. Another round of focused analysis confirmed the overarching theme.

Results

Description of Participants

All men who returned a consent form were interviewed. Fifteen men ranging in age from 32 to 48 years participated. Fourteen were interviewed orally and one returned the answers in written form because an interview was not feasible. Twelve men were college or postgraduates and three high school graduates. Twelve men were White, two Asian, and one was Hispanic. Ten men affiliated as Protestant, two Catholic, one Muslim, and two no religion. Three participants resided outside the

United States. Participants' occupations included health care, trades, information technology, the military, and law enforcement. Participants average age at their wives' PPCM diagnosis was 33 years. The length of time from diagnosis to interview ranged from 6 months to 16 years. All were married at diagnosis; at the interview 14 men were married and one was widowed. Six men were first-time fathers, six at second pregnancy, one at fourth, and two did not share that information. Three couples had twins at the PPCM birth. At time of diagnosis, 10 other children ranged in age from 10 months to 6 years; seven were 4 years of age or older. Seven women had symptoms of PPCM before giving birth; 11 were not diagnosed until after birth, ranging from 3 days to 4 months postpartum. Major medical or surgical events occurred: eight had a cesarean birth, three women had eclampsia or preeclampsia, two had a cardiac arrest, one had a grand mal seizure, one spent time on a ventilator, and two used a defibrillator vest during recovery. Of the couples that had twins, one couple experienced the death of a baby the day it was born: the second baby needed heart surgery 3 months later. One woman died from PPCM. According to their spouses, five women had postpartum depression. Three men said they experienced anxiety. Five couples chose permanent contraception; four were using temporary birth control; six men did not disclose their contraceptive status. Two couples had subsequent pregnancies.

Themes

The overarching theme is *Living with the 'what ifs' of persistent uncertainty*. The four main themes are *Feeling the shock, Facing the challenges, Figuring out a new normal,* and *Finding meaning*.

Living with the 'What Ifs' of Persistent Uncertainty

Pervasive in men's narratives (n = 12) were descriptions of uncertainty. *The scariest thing that I always played in my mind was what if something happened and I wasn't there? It's unsettling.* Another stated *We are really having a problem in terms of me focusing since well, we know that there's a possibility that it can happen again.* Men closer to the time of diagnosis expressed more uncertainty.

Feeling the Shock of the Diagnosis. The diagnosis of PPCM came as a shock. *O, Lord. I was shocked. And I started freaking out, because you know, they said she could die from this.* This initial shock led to distress, anxiety, and long-term uncertainty. One spouse described it in detail. *The first time I saw her, she was strapped down on the bed, and had a breathing tube, and was unconscious. It was like someone just punched me square in the stomach.*

Misdiagnosis and separation added to the shock of the diagnosis. Ten of the 15 participants indicated their wives' condition was initially misdiagnosed leading to delays in treatment. *It was ten days; it took ten days to actually do something about it. The Urgent Care was going to treat her for pneumonia. That is when she went to the emergency room. When they did the echo to her heart, they saw all the damage that was done to her heart.* Fear and shock were heightened when the men were ignored or excluded during care of their wives. *15-20 people rushed into that room. They kind of pushed me back. ... A nurse came up to me and stuck me in another room; and I sat there for like, like two hours, didn't know what was going on.* Another man said *They took [my wife] back into the emergency operating room. There was a set of doors, and a small hallway. I wasn't allowed to go in. I just had my head pinned to the side of the door to try and listen... I didn't get to cut the umbilical cord, wasn't there to support my wife. There's no other way to put it. It sucks.*

Peripartum cardiomyopathy frequently goes undiagnosed until the woman has severe myocardial impairment because symptoms often mimic normal third trimester pregnancy discomforts.

Facing the Challenges. Once the trauma of the diagnosis had subsided, these men began transitioning toward an uncertain future, facing the challenges associated with a wife on medications, with restricted activities, new financial burdens, marital stress, and difficulties with children. *That's been very challenging for my faith, personally. My reaction was to get angry [at God].* One man said *Post-death, what's the next thing? How do we go forward with this? How do we function as a family?* A husband with increased financial worries said *We actually spent a year and a half fighting with the insurance company. We didn't have that kind of money.*

To meet those challenges, most men accepted support from family, friends, social media groups, and professional counselors. Several men had Family and Medical Leave Act coverage, so they were able to take paternity leave. *I started meeting with the pastor to discuss this stuff. But since this pandemic stuff has started, we*

Spouses of women who have peripartum cardiomyopathy have a need for detailed information about the condition and potential for future health.

haven't really been able to go to church as much... so I started seeing a counselor, which we are doing virtual. One spouse admitted lack of support. *It is mostly just me and her.*

Several men reacted to the challenges of PPCM by hiding their personal feelings and struggles from their wives. *She's the one that almost died, so sometimes it's like, me bringing up my issues, is kind of, I don't know... I almost feel like my issues are not as bad. People don't realize that like, spouses go through so much too.*

Several spouses dealt with the impact of PPCM on their children. One man said two of his children, ages eight and six, went with him to counseling because his wife's PPCM was traumatic to all of them. He explained that his son initially internalized his feelings but was finally writing them down. His daughter continued to see the therapist. Another spouse said *[The kids] have definitely been impacted by it, especially our one son. He was very, very depressed. [He was] five at the time. He saw her in the hospital, and it really did impact him. He was usually scared, nervous.* Another man said he used his wife's illness to teach his children to pray, to model his faith in God, and to teach them to care for others.

Figuring Out a New Normal. The couples had to figure out a new way to live, trying to be realistic when still unsure of the future. Usually based on the rapidity of their wife's recovery, some men talked about life with optimism. One husband explained *We just tried to get our schedules back to normal as possible. She took a year off of teaching to be at home and recover and to get back to where she needed to be. I did a lot of hunting and fishing.* Another said his wife had made such good progress he no longer thought about her condition throughout the day.

When questioned about their marital relationship, several men stated their marriage was strengthened, whereas others admitted PPCM stretched their bonds. *Parts of it made [our marriage] stronger. But parts of it certainly were more affected. Our physical relationship was affected. We were Catholic so there was no contraceptive that we could use. Things like that, so physically it was difficult. But there were aspects of her, her determination that I saw for the first time. And she saw things in me that she may have not ever seen, to be supportive, and be there, do all these things, and remember all this stuff that the doctor said.*

One of the major uncertainties couples faced was future pregnancies. All were advised to avoid having more children. Of the nine men who spoke of contraception use, five couples had taken permanent steps to prevent pregnancy and four were using reversible contraceptive indicating indecision and increased risk for an unplanned pregnancy. Several men, especially those with PPCM during the first pregnancy, struggled intensely when told by their physician that future pregnancies were risky and inadvisable. *It was a little bit difficult because, personally, I wanted to at least have one boy. I'm the only boy in my family. And I felt the need to carry on the family name. But at the same time, I wouldn't want to risk putting her in any more danger. Her life was more important than anything else. So, it was a bit hard at first, but this is what we gotta do.* Two couples had another baby after the PPCM diagnosis; one woman had a mild relapse, the other had no complications. One of those couples was counseled to have an abortion but refused because of their religious faith.

Finding Meaning. *Finding meaning* was identified when each man was asked to describe the significance of living with a wife with PPCM. *We really need to value life; whatever way is given to you. And always be thankful. Be positive and always hope; have faith that God has a plan for everything.* Another said *I feel like we were meant for this to happen to us, so that we can go out and share her experience... It's a great feeling whenever you help somebody.* Per one man *I have a new-found appreciation for life.*

Most men were adamant that health care providers be made aware of the existence of PPCM and the importance of detecting it earlier. *There needs to be more care for the mothers, after babies are born. We're all so focused on the baby. It's almost like the mother, after a pregnancy, becomes an afterthought.* One husband proposed every pregnant woman have an echocardiogram during the third trimester; another suggested each woman get the BNP blood test, screening for heart failure.

Several couples were proactive in raising awareness about PPCM. *[My wife and I] even made a video about [PPCM] on our YouTube channel; about 7-to-10-minute video. I would talk about some symptoms and how it progressed, trying to tell people what [a woman might] feel.* They felt some good could possibly come from the PPCM experience. *If like just from us being involved in this, and we can help raise more awareness for this, if we can even just save one person's life, we want to take this bad terrible experience in our life and try and do good.* Even though only a few men said they took part in an online support group, they were very supportive of their wives' involvement in a PPCM Survivors Group on Facebook, or through *SavetheMommies.com.* One man expressed disappointment that few men used online support groups.

More quotes of themes and subthemes are included in Table 1 (Supplemental Digital Content at http://links.lww.com/MCN/A76).

Discussion

This exploration of spouses' experiences of living with wives who had PPCM supports the assumption PPCM can be traumatic for the spouse. Expectations of parenthood were altered, and the future appeared full of unknowns. Men's emotional distress, shock, and fears, as exposed in our study, have been documented in studies of obstetric near misses (Mbalinda et al., 2015), and studies of cesarean births with complications (Lindberg & Engström, 2013). Consistent with our participants' descriptions of being sidelined, other obstetric studies also reported men feeling ignored, secluded, isolated, uncared for, overlooked, uninformed, a spectator, abandoned, or invisible (Daniels et al., 2020; Etheridge & Slade, 2017; Hodgson et al., 2021; Lindberg & Engström, 2013; Mbalinda et al., 2015; Messner, 2018; Patel et al., 2018). Emotional distress (Patel et al., 2019) and delayed treatment because of misdiagnoses (Dekker et al., 2016; Hess & Weinland, 2012), coupled with sidelining, likely increased the uncertainty these men faced.

An important finding in this study is that the PPCM experience affects older children. We did not find any published studies about PPCM that included the issue of the impact of PPCM on other children in the family. Men in this study with older children not only had to deal with their own fears and questions, but also had to shepherd their children through this stressful time. This is a topic for future research.

Foremost on many spouses' minds was the uncertainty about subsequent pregnancies after PPCM, also an important topic of discussion among women with PPCM (Dekker et al., 2016; Hess & Weinland, 2012). In this study, some couples considered the advice of their physicians, their recovery status, fear of relapse, and other life circumstances, and permanently stopped the possibility of future pregnancies. Two couples used similar criteria to make the opposite decision and had more children. Other couples lived in ambiguity, on temporary birth control, or were using none. Some men may have hesitated to do anything permanent because they wanted more children with another partner if their wife died. This topic warrants future research.

Consistent with findings of spouses in other studies of obstetric emergencies, men in this study hid their feelings and reactions, believing they needed to appear strong (Daniels et al., 2020; Lindberg & Engström, 2013; Patel et al., 2019). Simmons (2019) described this as *facading*; a man puts his own emotions on hold as a way of being supportive to his wife. This may also be seen as a coping by avoidance (Etheridge & Slade, 2017). Some men expressed disappointment when sidelined by health care professionals but then hid their own inner struggles because they themselves had not gone through the actual event.

Uncertainty may be a stimulus for growth, for increased gratefulness for life itself, and for a greater consciousness of a life purpose (Clayton et al., 2018). For several participants, finding a meaning for their spouses' PPCM seemed to help calm their uncertainty about the future. Some expressed faith that God was at work in their lives; others believed they were to turn difficulty into good.

This study had several limitations. The sample was relatively homogenous, lacking spouses of wives of African descent (a risk factor for PPCM), spouses younger than 28 years of age, same-sex spouses, and spouses of wives who needed a heart transplant. More research is needed of a diversified sample. The varied length of time for each interview indicates some men may not have had adequate time to detail their experiences and were likely in different stages of crisis or grief. This may have changed the description of the lived experience. We do not know the prepregnancy mental health status of participants or if the couple had prenatal education or parental counseling. These factors could affect results.

Our findings expand understanding of the lives of people affected by PPCM. Each man's "what ifs" were based on his place in fatherhood, length of time since diagnosis, the severity of his wife's condition, her phase of recovery at the interview, the support he received, the decision about future children, his religious faith, and the ultimate purpose he found in his experience. Some faced addition-

CLINICAL IMPLICATIONS

- A serious complication of pregnancy such as PPCM, with uncertain implications for the future, can have a profound impact on the woman's spouse and family.
- Nurses should include spouses and partners in care and communication to make sure they are as informed as possible and have their questions and concerns addressed as needed.
- Health care providers need to give physical, psychological, and spiritual support to spouses whose wives are living with pregnancy-related heart failure.
- Couples moving into parenthood facing the uncertainties of PPCM benefit from accurate information and counseling. Maternity nurses can ensure they have appropriate referrals.
- Clinicians should offer couples postpartum debriefings and postnatal education focused on uncertainties of PPCM.
- A predischarge needs assessment after birth hospitalization should be conducted to determine available support for follow-up needs for recovery at home.
- A needs assessment should include the couple's children and offer appropriate pediatric support.
- Nurses should encourage women with PPCM and their spouses and partners to participate in a support group or counseling as needed. Social media groups such as where we recruited study participants may be a virtual option.

al uncertainty because they had older children who were affected by the mother's illness.

Clinical Implications

Our findings on persistent uncertainty among spouses of women with PPCM are relevant to health care providers in several ways. They could alert nurses and midwives that spouses need psychological support especially for posttraumatic stress, depression, and anxiety (Eddy et al., 2019). Couples moving into parenthood during the uncertainties of PPCM would benefit from accurate information, counseling, and spiritual care. Nurses might improve the situation through proactive promotion of postpartum debriefings and postnatal education (Daniels et al., 2020; Lindberg & Engström, 2013), and mental health screening (Kumar et al., 2018) specific to men.

Spouses feeling sidelined and ignored during a medical emergency is not a new finding. Similar results have been reported for several decades indicating important changes in health care are still needed (Hodgson et al., 2021). Men who tend to suppress their feelings need encouragement from health care providers to express themselves without feeling guilty or unmanly. Nurses can recognize in the words of our participants that women, men, and children need to be supported physically, emotionally, and spiritually. Research is needed on posttraumatic stress disorder and related mental health conditions among spouses of wives with PPCM, and the effect of PPCM on children. ✣

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References

Cherubin, S., Peoples, T., Gillard, J., Lakhal-Littleton, S., Kurinczuk, J. J., & Nair, M. (2020). Systematic review and meta-analysis of prolactin and iron deficiency in peripartum cardiomyopathy. *Open Heart, 7*(2), e001430. https://doi.org/10.1136/openhrt-2020-001430

Clayton, M. F., Dean, M., & Mishel, M. (2018). Theories of uncertainty in illness. In M. J. Smith & P. R. Liehr (Eds.), *Middle range theory for nursing* (pp. 49–82). Springer.

Daniels, E., Arden-Close, E., & Mayers, A. (2020). Be quiet and man up: A qualitative questionnaire study into fathers who witnessed their partner's birth trauma. *BMC Pregnancy and Childbirth, 20*(1), 236. https://doi.org/10.1186/s12884-020-02902-2

Davis, M. B., Arany, Z., McNamara, D. M., Goland, S., & Elkayam, U. (2020). Peripartum cardiomyopathy: JACC state-of-the-art review. *Journal of the American College of Cardiology, 75*(2), 207–221. https://doi.org/10.1016/j.jacc.2019.11.014

Dekker, R. L., Morton, C. H., Singleton, P., & Lyndon, A. (2016). Women's experiences being diagnosed with peripartum cardiomyopathy: A qualitative study. *Journal of Midwifery & Women's Health, 61*(4), 467–473. https://doi.org/10.1111/jmwh.12448

Donnenwirth, J. A., Hess, R., & Ross, R. (2020). Post-traumatic stress, depression, and quality of life in women with peripartum cardiomyopathy. *MCN. The American Journal of Maternal Child Nursing, 45*(3), 176–182. https://doi.org/10.1097/NMC.0000000000000614

Eddy, B., Poll, V., Whiting, J., & Clevesy, M. (2019). Forgotten fathers: Postpartum depression in men. *Journal of Family Issues, 40*(8), 1001–1017. https://doi.org/10.1177/0192513X19833111

Etheridge, J., & Slade, P. (2017). "Nothing's actually happened to me.": The experiences of fathers who found childbirth traumatic. *BMC Pregnancy and Childbirth, 17*(1), 80. https://doi.org/10.1186/s12884-017-1259-y

Hess, R. F., & Weinland, J. A. D. (2012). The life-changing impact of peripartum cardiomyopathy: An analysis of online postings. *MCN. The American Journal of Maternal Child Nursing, 37*(4), 241–246. https://doi.org/10.1097/NMC.0b013e31824b52ed

Hodgson, S., Painter, J., Kilby, L., & Hirst, J. (2021). The experiences of first-time fathers in perinatal services: Present but invisible. *Healthcare, 9*(2), 161. https://doi.org/10.3390/healthcare9020161

Koenig, T., Hilfiker-Kleiner, D., & Bauersachs, J. (2018). Peripartum cardiomyopathy. *Herz, 43*(5), 431–437. https://doi.org/10.1007/s00059-018-4709-z

Kolb, S. M. (2012). Grounded theory and the constant comparative method: Valid research strategies for educators. *Journal of Emerging Trends in Educational Research and Policy Studies, 3*(1), 83–86.

Kolte, D., Khera, S., Aronow, W. S., Palaniswamy, C., Mujib, M., Ahn, C., Jain, D., Gass, A., Ahmed, A., Panza, J. A., & Fonarow, G. C. (2014). Temporal trends in incidence and outcomes of peripartum cardiomyopathy in the United States: A nationwide population-based study. *Journal of the American Heart Association, 3*(3), e001056. https://doi.org/10.1161/JAHA.114.001056

Kumar, S. V., Oliffe, J. L., & Kelly, M. T. (2018). Promoting postpartum mental health in fathers: Recommendations for nurse practitioners. *American Journal of Men's Health, 12*(2), 221–228. https://doi.org/10.1177/1557988317744712

Lindberg, I., & Engström, Å. (2013). A qualitative study of new fathers' experiences of care in relation to complicated childbirth. *Sexual & Reproductive Healthcare, 4*(4), 147–152. https://doi.org/10.1016/j.srhc.2013.10.002

Mbalinda, S. N., Nakimuli, A., Nakubulwa, S., Kakaire, O., Osinde, M. O., Kakande, N., & Kaye, D. K. (2015). Male partners' perceptions of maternal near miss obstetric morbidity experienced by their spouses. *Reproductive Health, 12*(1), 23. https://doi.org/10.1186/s12978-015-0011-1

McNamara, D. M., Elkayam, U., Alharethi, R., Damp, J., Hsich, E., Ewald, G., Modi, K., Alexis, J. D., Ramani, G. V., Semigran, M. J., Haythe, J., Markham, D. W., Marek, J., Gorcsan III, J., Wu, W-C., Lin, Y., Halder, I., Pisarcik, J., Cooper, L. T., & Fett, J. D. (2015). Clinical outcomes for peripartum cardiomyopathy in North America: Results of the IPAC Study (Investigations of Pregnancy-Associated Cardiomyopathy). *Journal of the American College of Cardiology, 66*(8), 905–914. https://doi.org/10.1016/j.jacc.2015.06.1309

Messner, E. R. (2018). Overview of Transition to Fatherhood in the Context of Cesarean Birth. *International Journal of Childbirth Education, 33*(1).

Patel, H., Begley, C., Premberg, Å., & Schaufelberger, M. (2019). Fathers' reactions over their partner's diagnosis of peripartum cardiomyopathy: A qualitative interview study. *Midwifery, 71*, 42–48. https://doi.org/10.1016/j.midw.2019.01.001

Patel, H., Berg, M., Begley, C., & Schaufelberger, M. (2018). Fathers' experiences of care when their partners suffer from peripartum cardiomyopathy: A qualitative interview study. *BMC Pregnancy and Childbirth, 18*(1), 330. https://doi.org/10.1186/s12884-018-1968-x

Peripartum Cardiomyopathy Survivors. (2019, August 9). *Home* [Facebook Page]. Facebook. https://www.facebook.com/ppcmPERIPARTUMCARDIOMYOPATHY/

Rosman, L., Salmoirago-Blotcher, E., Cahill, J., & Sears, S. F. (2019). Psychosocial adjustment and quality of life in patients with peripartum cardiomyopathy. *The Journal of Cardiovascular Nursing, 34*(1), 20–28. https://doi.org/10.1097/JCN.0000000000000518

SavetheMommies. (2019, August 9). www.savethemommies.org

Simmons, S. (2019). *Moratorial fathering: Enduring sustained uncertainty in the transition to premature fatherhood* (PhD Thesis). University of Brighton, England.

Thalheimer, S. (2021). A little more in the world: Why Amish parents choose to send their children to public schools. *Journal of Amish and Plain Anabaptist Studies, 9*(1), 27–54.