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Planning a family

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To write this article, we spoke to members of the supramolecular chemistry community, including the International Women in Supramolecular Chemistry network. We are not attributing anyone's name to their story to protect their anonymity.

We have all either been asked or seen others asked: “So when are you going to have children?” — at family gatherings, as a casual aside by colleagues or even by complete strangers. There is societal judgement around having children, not having children, when to have children and how many children to have. Even if we put aside the recent US Supreme Court decision to overturn *Roe v Wade*, 1973 and with it remove long-held rights around access to abortion in the US, there are numerous other ways in which reproductive choices are becoming weaponized, and what may seem to some an innocuous question is racialized, gendered and loaded.

In 1981 Ann Oakley wrote “most women now have their first babies in their early twenties”¹ but this is no longer true. Young and, particularly, teenage mothers have long been vilified², and according to the UK public in 2021, the childbearing window is very small, with the ideal age being 28. Indeed, half of all men in this survey believed 36 was too old for a woman to have a child (though much fewer believed the same for themselves).

Planning a family alongside a scientific career throws up particular challenges beyond managing pregnancy in the lab³. In the 2008 book *Motherhood, the Elephant in the Laboratory: Women Scientists Speak Out*, Ann Douglass assumed that people who become pregnant would continue to have families young, and advised⁴ her fellow scientists to “recognize that childhood is precious and fleeting and that science will be waiting for you with some awesome mysteries when your children become adults.”. Early academic careers tend to consist of multiple

precarious work contracts, which has been shown to affect fertility decisions⁵, as people delay having families until their careers are more stable. Post-doctoral funding is often time-restricted or comes with non-costed extensions, so either the research has to stop, or the researcher is replaced while parental leave is taken. There is evidence to show that men are much more likely to have a child while studying for a PhD or in their post-doc years⁶. This is possibly because, in addition to differences associated with pregnancy and childbirth, the larger burden of childcare responsibilities is likely to fall unevenly between two parents⁷. In many cases, this burden is gendered, allowing men to continue with their research. Concerns about fitting in a family is a contributing factor to the attrition rate of women in the chemical sciences⁸. We heard:

“Since tenure is something you usually get in your late 30s or even early 40s in [the country I am working in], the right time certainly doesn’t correlate to tenure for a female researcher who wants more than one child. With every thought you hear that biological clock ticking...”

“Towards the end of my PhD I started feeling anxious about whether or not an academic career path might prevent me from achieving other life goals, like settling down and starting a family. I also didn’t really feel

like there was anyone I could talk to about this — there were relatively few women academics in our department, and I wasn’t aware if they had kids or not. It’s also not something I felt able to talk to my lab mates about — although I was good friends with a few of them, it’s not the type of thing we ever spoke about. I know how much my partner loves kids, and

I always worried that my career choices might mean that we both miss out on the chance to have kids of our own. Although they have always tried to reassure me and never put any pressure on me, I’ve often felt like I was being selfish or prioritizing the wrong things.”

Infertility and loss

Linked to planning a family is the reality that it is impossible to precisely control the timing of having a child. It can take multiple attempts to conceive, and even when successful, things can still go wrong. Studies show fertility for women declines with age, whereas men’s fertility does not decline as much. In the USA, one in five couples deal with infertility (failing to get pregnant within one year of trying to conceive). After conception, up to one in three pregnancies end in miscarriage for me.”

“Towards the end of my PhD I started feeling anxious about whether or not an academic career path might prevent me from achieving other life goals, like settling down and starting a family.”

“I’ve taken risks by waiting as long as I have done to start our family. I’m relatively old for a first-time mum. I know that a lot of women have trouble getting pregnant and also that not every pregnancy goes to plan.”

a leader, I thought maybe it showed weakness. I felt like a failure as a woman, my one biological job and I couldn’t do it.”

Choices

We also heard from people who wanted to make a different choice:

“What if I don’t want to have children? Why do I feel as though people will think I am less of a woman, less of a person, or that I am missing out if I don’t have a family? Why do they think that automatically means I have no other interests in my life apart from work?

I know that women didn’t used to have a choice, but choice should imply it’s not an obligation?”

For those who do choose children, planning a family is not just about conception and a successful pregnancy. A research group leader will still have students and labs to be managed and supervised. Even on leave there needs to be a way to be contacted in an emergency

(defining what that emergency might be), to avoid putting unintentional strain on others. Furthermore, there is often gendered, hidden work⁹ needing cover:

“When dealing with colleagues who went on maternity leave it took me a while to stop being angry and realize why. I wasn't angry at my colleagues for having babies. I was angry at the extra workload that it was placing on me. It wasn't the teaching, it was the invisible work — the employment panels, the interview panels, the unofficial pastoral care, the community work. I had

to do my invisible work and all of theirs too. None of this is in my workload. They ask me as I'm seen as less likely to say no. But in trying to support my female colleagues I end up taking on more. Their choice to have a family rebounds on me. I'm angry, overworked, and exhausted. When they come back and their colleagues are angry it's going to affect their networks and opportunities.”

So what next?

One solution to support people thinking about planning a family is to address the issue of cover and parental leave. Ideally, we need to move beyond expecting colleagues to fill the gap. To support principle investigators (PIs), some universities employ a short-term post-doc to lead a research group. A more powerful solution would be to cover teaching for the person on parental leave and include additional cover for their colleagues. This would recognize the ability needed to lead a group, while acknowledging the time commitment necessary to take over that hidden labour. This way, early career researchers could gain valuable teaching experience, and those who are more experienced and invested in the research and department have time allocated to provide supervision to their colleagues' groups and manage their other duties. However, more solutions are needed for colleagues who are at earlier stages in their careers (see our blog post for some suggestions).

“My miscarriages were the loneliest places ever, the lowest I've ever been. Work was my distraction. I didn't want sympathy, or anyone to feel sorry

“I had so many mixed feelings when I miscarried. The worst part for me was not knowing that it was completely OK to feel them all or how many people have also had losses.”

“What if I don't want to have children? Why do I feel as though people will think I am less of a woman, less of a person, or that I am missing out if I don't have a family?”

“So many people struggle alone, I think. I didn't tell my colleagues about this miscarriage until after my daughter was born, and even then I only told a few of my close friends.”

(spontaneous abortion). In addition, pregnancies from older people and Black women have a much higher risk of stillbirth. Infertility and loss are often hidden and not spoken about; maybe because a traditionally male-dominated workplace makes having and talking about these experiences even more difficult. People talked a lot about their worries around infertility and pregnancy loss:

“I've taken risks by waiting as long as I have done to start our family. I'm relatively old for a first-time mum.

I know that a lot of women have trouble getting pregnant and also that not every pregnancy goes to plan.”

“I had never thought about fertility until I was trying to get pregnant, and then it was quite consuming. How much time do I have left to conceive? Have the chemicals in the lab affected me, what about all the radiation?”

“So many people struggle alone, I think. I didn't tell my colleagues about this miscarriage until after my daughter was born, and even then I only told a few of my close friends.”

“I had so many mixed feelings when I miscarried. The worst part for me was not knowing that it was completely OK to feel them all or how many people have also had losses.”

“My miscarriages were the loneliest places ever, the lowest I’ve ever been. Work was my distraction.

The first loss was quite early on, so it hurt but with the second it was 11 weeks, I was all ready to tell everyone. Had done all the Health & Safety stuff with the department all hush hush. I spent Mon–Wed in

the lab trying to pretend it was fine, when I was actually slowly bleeding to death. The note from the hospital just said I needed to have an operation, that was it. It was up to me to disclose anything else. I didn’t, I wasn’t comfortable telling this childless man I didn’t know.

I didn’t want sympathy, or anyone to feel sorry for me. I also didn’t tell my research group, hid it from everyone. I don’t know why, maybe because it showed I was fallible and I was trying to be this strong presence

Importantly, however, we need to think about how we change the scientific culture to make parenthood easier, rather than simply trying to make parenthood fit around the culture we have. Some of this may require major systemic change — either in science or wider society — such as removing precarity and normalizing shared parental roles and responsibilities. However, it is certain that to support people’s choices to have families or to not, we need to start talking more openly and sharing lived experiences¹⁰. Being open to, and less judgemental of, others’ choices is the only way to find better solutions and remove the often-hidden inequities in science.

Join in the conversation in our accompanying blog- post at <https://chemistrycommunity.nature.com/posts/fixing-a-broken-culture>.

Competing interests

The authors declare no competing interests.

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