

Pressure to Delay Pregnancy and Pregnancy Complications in Women Surgeons

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Background

- The number of women in general surgery residency has steadily increased, and the number of women becoming pregnant during training has also increased.
- Multiple studies^{1,2,3} have reported increased risk of miscarriage and pregnancy complications amongst trainees during medical school and surgery residency.
- This is initially hypothesized to be a result of the increased age at first pregnancy of this population.
- Other factors that could contribute are hours standing, night shift, on-call hours, and overall work hours.
- Prior work suggests there is pressure to delay pregnancy until post-training.

Research Aim

We investigated commonalities amongst pregnancy complications and potential links to delaying family planning within the women surgeons population.

Methods

- Study of Physicians And Children: Expectations and Experiences (SPACE) Questionnaire 2021
- Recruitment through social media and national organizations
- Sub-analysis of women surgeons who had experienced at least 1 pregnancy (n=132 of total 3200 respondents).

SPACE
Study of Physicians And Children:
Expectations and Experiences

Are you a physician or studying to become one?

Participate in a research study to tell us more about your journey to build a family, however you define it! Seeking physicians and medical students of all gender identities and sexualities.

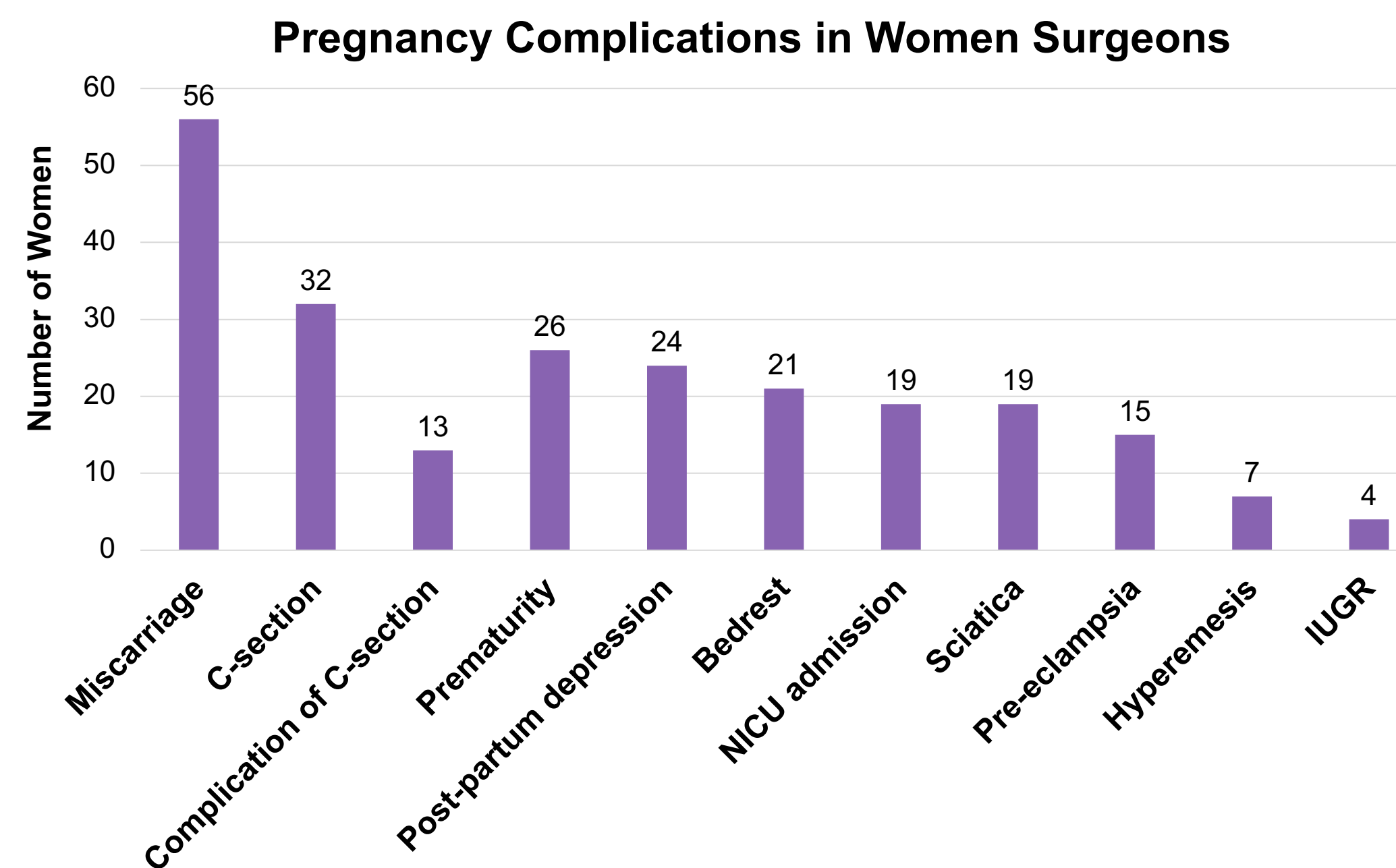
<http://bit.ly/AMWASPACE>

Supported by the American Medical Women's Association

Northwestern Medicine
Feinberg School of Medicine

Results: Pregnancy Complications

- Most participants were surgeons (63%) or residents (37%).
- Most had their first child during residency (53%).
- Average age at first pregnancy was 33 years compared to 27 years⁴ nationally for women.
- 70% had diagnosed infertility as compared to 20% nationally¹.
- Miscarriage rate of 26% in the national population¹ compared to women surgeons 42%.
- 14% had an unplanned c-section compared to 11% nationally¹.
- Prematurity rate 20% was compared to 10% nationally¹.



Citations

¹ Rangel EL, Castillo-Angeles M, Easter SR, et al. Incidence of Infertility and Pregnancy Complications in US Female Surgeons. *JAMA Surg.* 2021;156(10):905-915. doi:10.1001/jamasurg.2021.3301

² Rangel EL, Smink DS, Castillo-Angeles M, Kwakye G, Changala M, Haider AH, Doherty GM. Pregnancy and Motherhood During Surgical Training. *JAMA Surg.* 2018 Jul 1;153(7):644-652. doi: 10.1001/jamasurg.2018.0153. PMID: 29562068; PMCID: PMC5875346.

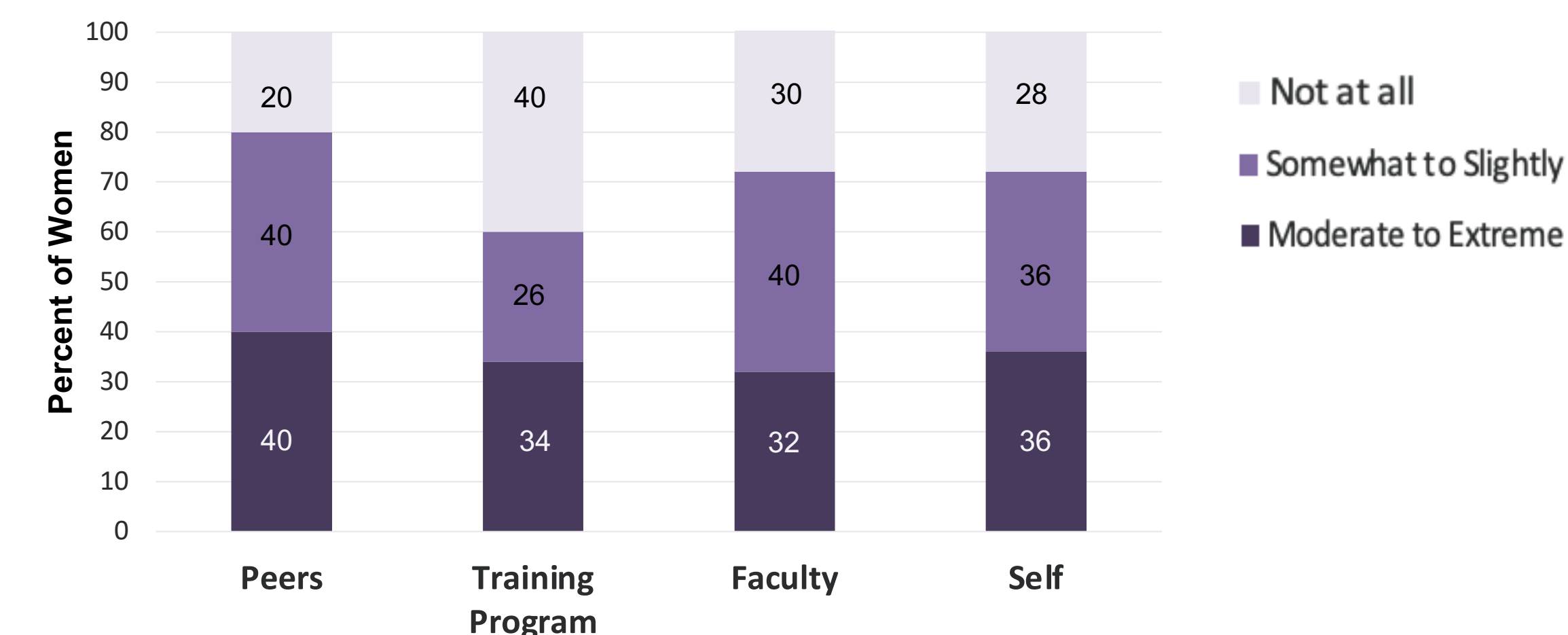
³ Sandler BJ, Tackett JJ, Longo WE, Yoo PS. Pregnancy and Parenthood among Surgery Residents: Results of the First Nationwide Survey of General Surgery Residency Program Directors. *J Am Coll Surg.* 2016 Jun;222(6):1090-6. doi: 10.1016/j.jamcollsurg.2015.12.004. Epub 2015 Dec 18. PMID: 26776357.

⁴ Cusimano MC, Baxter NN, Sutradhar R, McArthur E, Ray JG, Garg AX, Vigod S, Simpson AN. Delay of Pregnancy Among Physicians vs Nonphysicians. *JAMA Intern Med.* 2021 Jul 1;181(7):905-912. doi: 10.1001/jamainternmed.2021.1635. PMID: 33938909; PMCID: PMC8094034.

Results: Regret and Pressure

- 90% of respondents were concerned about their fertility declining during training
- 60% delayed childbearing until after training
- Of the participants who delayed childbearing, 90% regretted the decision.

Pressure to Delay Childbearing



Conclusions

- Women surgeons have more pregnancy complications.
- Over half of the sub-analysis respondents regretted delaying childbearing, and over half felt pressure to delay childbearing.
- Programs that wish to support the trend of increasing women surgeons will need to increase support for family-building.
- Next Steps: Comparison across medical sub-specialties. Perform statistical analysis.

Acknowledgements

Thank you to American Medical Women's Association, Association of Women Surgeons, and Northwestern Department of Surgery for their support.