

## Pediatric and Adolescent Gynecology: The Science



By the time this editorial appears in print, the 31st Annual Clinical and Research Meeting of the North American Society for Pediatric and Adolescent Gynecology (NASPAG) in Chicago will have come and gone. At the time I write this editorial, I am eagerly anticipating that meeting. My network of colleagues and friends from around the country and around the globe has grown to be a real community. My NASPAG colleagues have encouraged my professional growth, and they have brought an increasing rigor to the science of pediatric and adolescent gynecology (PAG). They have been vocal and tireless advocates for young girls, adolescents, and young adult women. And, importantly as it relates to the *Journal of Pediatric and Adolescent Gynecology* (JPAG), the official journal of NASPAG and the International Federation of Pediatric and Adolescent Gynecology, the science in our field has progressed.

NASPAG itself has grown, matured, and changed since I attended my first meeting. The early meeting that I recall most vividly was the one where I presented my paper with my 4-month old son in a Snuggli carrier on my chest. That son just turned 29 in January, and I suspect like many of you, I date important events in my life in relationship to how old my kids were at the time. I honestly don't recall how he behaved during that presentation. But my presentation was well received. The scholarly work and studies that I had been doing in the area of PAG were recognized as important. When I think back on it, what I do recall is a vivid memory that it is hard to travel alone with a baby, how nervous I was in making a presentation, and how warmly I and my baby were received by a developing and new group of colleagues in obstetrics/gynecology and pediatrics from around the country. I had found a professional home in NASPAG—a home where my focus on the gynecologic problems of young girls and teens was acknowledged as important. PAG was a new subspecialty at the time. Every year for the past 30 years, I have attended the NASPAG meeting with anticipation and eagerness. It is there that I am challenged with new knowledge and information. It is there that I hear of the exciting work that my colleagues are pursuing. I attend the meeting so that I can learn to take better care of my patients, so that I can continue to teach the latest findings in PAG, and so that I am challenged with additional questions that deserve additional scholarly research. After the meeting, and between meetings, I turn to JPAG to read the details of my colleagues' work, knowing that the studies have received rigorous peer review to improve their presentation, acknowledge their limitations, and highlight their importance. Science and knowledge are moving forward.

In 2010, I was fortunate to help organize and be a part of a meeting at the National Institute of Child Health and Human Development to consider the research agenda for JPAG. For that meeting, in assessing the science of PAG, I looked at the types of articles that were published in JPAG, considering articles published from 1996 to that date. It was not until 1996 that JPAG began to be indexed in PubMed. Many of the publications in JPAG were case reports and small case series, as is the case in many scientific research areas where the science is young. Figure 1 shows the mix of types of articles published in the journal at that time. For comparison, the closely allied topic of adolescent medicine has a longer tradition of science and scholarship. The mix of article types published in the *Journal of Adolescent Health* from its inception to 2010 is shown in Figure 2, revealing more comparative studies, clinical trial, randomized clinical trials, and multicenter studies than were published in JPAG. To assess where JPAG is today, I redid my assessment of article types, with a focus on the interval from 2010 to the present (see Fig. 3). Over an interval of only half the duration, approximately the same number of articles have been published in JPAG, with approximately the same profile of types of articles, indicating a doubling of the pace of productivity and scholarship in PAG. However, of real importance, the number of published studies supported with National Institutes of Health funding has doubled, over half the time interval. The science of what we do has been gaining recognition and funding, at a time when such funding is not easy to get.

The National Institute of Child Health and Human Development Scientific Vision Statement, published in 2012, includes a focus on reproduction that recognizes the importance of life stage transitions including puberty. We continue to search for knowledge and understanding about the gynecologic conditions that occur in childhood, adolescence, and young adulthood. We need to better understand the pathophysiology, microbiology, pharmacology,

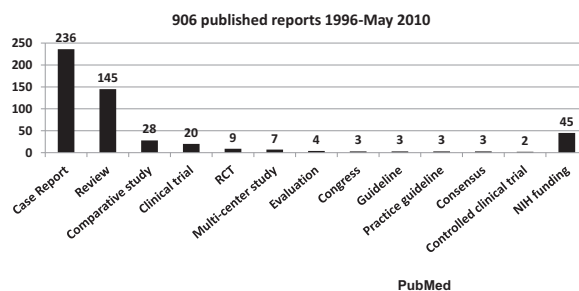
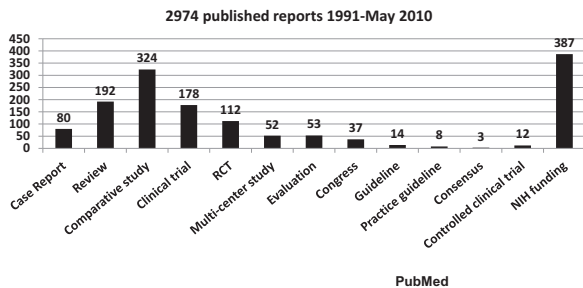


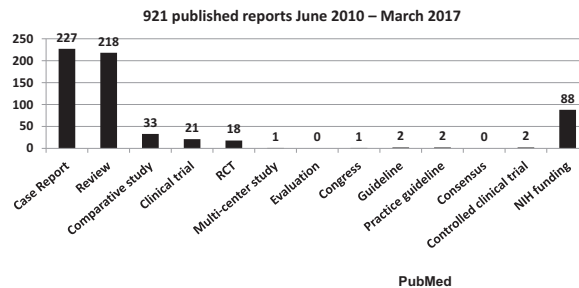
Fig. 1. *Journal of Pediatric and Adolescent Gynecology* publications 1996-2010. NIH, National Institutes of Health; RCT, randomized controlled trial.



**Fig. 2.** *Journal of Adolescent Health* publications 1991-2010. NIH, National Institutes of Health; RCT, randomized controlled trial.

embryology, genetics, and psychology of medical conditions that we see in our clinical practices. PAG is truly a multidisciplinary field; to understand medical conditions that occur in children and adolescents, we need the perspectives of pediatrics that focus on development, and we need the perspectives provided by gynecologists with an awareness of adult reproduction and sexual function. We strive to understand childhood antecedents of adult diseases. The NASPAG Annual Clinical and Research Meeting highlights the research that is ongoing, and JPAG publishes much of that research.

Girls and teens deserve better gynecologic care than they are now getting. We need to elucidate mechanisms of disease, the natural history of diseases, and the genetics of



**Fig. 3.** *Journal of Pediatric and Adolescent Gynecology* publications 2010-2017. NIH, National Institutes of Health; RCT, randomized controlled trial.

gynecologic conditions to develop effective therapies to improve health. We need to work across and between disciplines. We need to develop consortia, collaborations, and partnerships among clinicians, researchers, patients and advocates, government, and industry. NASPAG and JPAG are a part of the process of pushing the boundaries of our knowledge and understanding. Onward through science!

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