

Stress in Residency

William N. Spellacy, MD

Obstetricians and Gynecologists would agree that residency programs are stressful. However, what is not defined is the extent of the stress. Does it vary by such factors as type of programs or sex of residents, and does it have any long-lasting, adverse effects on their lives?

Reducing stress in residency has been addressed by many groups. Dilts and Dilts suggested several ways including support groups, counseling, and being off work post call.¹ In New York State (Code 405), residents are restricted to work only 80 hours per week, 24 hours at one stretch, and must have 24 hours off each week.² Others have set up night-call teams to reduce the hours worked.^{3,4} The Accreditation Council on Graduate Medical Education (ACGME) in its recent "Institutional General Requirements" (II-C-8) note that institutions should provide residents with access to appropriate and confidential counseling, medical and psychological support services, and (II-D-2b) that duty hours and on-call time periods must not be excessive. Their goal also is to reduce stress in residencies.

Measuring stress in residency is done rarely. In a study by Chatterton and Dooley,⁵ published in this issue of *JSGI*, blood indicators of stress (LH, testosterone, cortisol, and prolactin) were measured in six male residents in early residency, after being on call and after a clinic session. The results showed that the first weeks of residency and being post call were especially stressful. These are very limited data on stress in residency, however, they are an important beginning.

Furthermore, additional information is needed. Other indicators of stress should be evaluated, such as ACTH, TSH, growth hormone, catecholamines, 24-hour urine cortisol, blood pressure, pulse, anxiety, and depression to name a few. Because more than half of all residents are women, they also need to be evaluated.⁶ Although there are several studies showing the impact of residencies on pregnancy outcomes,^{7,8} there are few data relating to ovulation, reproductive cycle,

premenstrual syndrome, and hormone levels (LH, FSH, estradiol, and progesterone). Individual stress events need to be quantified (eg, post call, difficult surgery, case presentations, and CREOG examinations). Once baseline data are available, then the effects of modifying residencies can be determined, such as on-call night teams, support group discussions, and faculty mentors. As the issue of residency stress becomes dissected and better understood, proven methods to reduce stress can be introduced into residencies, and the quality of our training programs will improve.

REFERENCES

1. Dilts, PV Jr, Dilts SL. Stress in Residency: Proposals for solution. *Am J Obstet Gynecol* 1987;157:1093-6.
2. Kelly A, Marks F, Westhoff C, Rosen M. The effects of the New York State restrictions on resident work hours. *Obstet Gynecol* 1991;78:468-73.
3. Carey JC, Fishburne JI. A method to limit working hours and to reduce sleep deprivation in an obstetrics and gynecology residency program. *Obstet Gynecol* 1989;74:668-72.
4. Seltzer V, Foster HW Jr, Gordon M. Resident scheduling: Night float programs. *Obstet Gynecol* 1991;77:940-3.
5. Chatterton RT Jr, Dooley SL. Reversal of diurnal cortisol rhythm and suppression of plasma testosterone in obstetric residents on call. *J Soc Gynecol Invest* 1999;6:50-4.
6. Jolly P, Ling FW. Applications for residency programs in Obstetrics and Gynecology. 1996-1997. *Obstet Gynecol* 1998;92:873-7.
7. Schwartz RW. Pregnancy in physicians: Characteristics and complications. *Obstet Gynecol* 1985;66:672-7.
8. Phelan ST. Pregnancy during residency: II. Obstetric complications. *Obstet Gynecol* 1988;72:431-6.