

FRIDAY, MARCH 11, 2010
11:00am-12:15pm

ABSTRACT PRESENTATIONS

Group 3

Gender Differences in Medical Student Knowledge of Contraception and Family Planning

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Objectives: Medical students, the future health care providers, need to have basic knowledge and understanding of contraception and family planning methods. Contraception management affects a number of disciplines including pediatrics, internal medicine, family medicine and obstetrics and gynecology. To date there is a paucity of data regarding medical student knowledge of contraceptive methods. Women's knowledge of family planning and use of contraceptives has traditionally been seen as more relevant than men's. In addition, there is a limited body of data regarding contraceptive knowledge among males. Our objective was to test the hypothesis that knowledge of contraception and family planning methods would differ by gender among medical students.

Methods: A cross sectional survey was conducted with second year New Jersey Medical School students from the class of 2012. Participants completed an IRB approved questionnaire about contraception knowledge and participant demographic information. Age, gender, marital status, and sexual orientation were recorded from the questionnaire. Twenty knowledge questions included in the survey were multiple-choice questions on topics of condom use, injectable contraception, emergency contraceptive methods, implantable contraception, intrauterine devices, oral contraceptive pills, the contraceptive ring, the contraceptive patch, non hysteroscopic and hysteroscopic sterilization methods, and the withdrawal method. Included was a question asking where the students had obtained their contraceptive knowledge. Students were also asked their perception of their contraceptive knowledge.

Results: After attending a board review lecture, 102 Students were approached to participate in the survey. 14 declined to participate. 18 surveys were not returned; 2 surveys were returned incomplete. 68 students returned completed surveys. Of the completed surveys returned, 29 were from females and 39 from males. 46.91% of the questions were answered correctly by the 68 students. Female medical students answered 46.72% of the questions correctly. Male students answered 47.05% of the questions correctly. Overall, students knew more regarding the contraceptive ring answering questions correctly 75.00% of the time. Students were not familiar with hysteroscopic sterilization; only 4 of 68 students were able to identify Essure® as a sterilization method. Females had a higher number of correct answers compared to males on topics of injectable contraceptives, oral contraceptive pills, contraceptive patch, contraceptive ring and withdrawal methods, where as males answered more questions correctly on the topic of condom use. Lectures were most frequently cited as the most important source of knowledge.

Conclusions: These data demonstrate that second year medical students were most knowledgeable regarding combined hormonal contraceptives. Results did not demonstrate that female medical students had greater knowledge about contraception and family planning methods than male medical students. Interestingly, level of knowledge regarding condoms was poor. There is clearly a need for teaching about contraception methods in detail during the pre-clinical years of medical school.

Maintenance of Knowledge, Behavior, Confidence and Professional Responsibility Regarding Oral Emergency Contraception after a Novel OB-GYN and Pharmacist Developed Educational Intervention on First Year Pharmacy Students

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Purpose: Half of all pregnancies in the United States are unintended and carry socioeconomic and physical ramifications. The use of oral emergency contraception (OEC) can significantly reduce the rate of unintended pregnancies. OEC is currently available behind the counter without a prescription to men and women ≥ 17 years old and with a prescription to those < 17 years old. Therefore it is important that pharmacists are confident and willing to provide OEC and to counsel patients about OEC use and answer questions. The purpose of this study is to determine whether changes in knowledge, behavior, confidence, and professional responsibility (KBCPR) regarding OEC following a novel educational intervention designed by faculty in the Department of Obstetrics and Gynecology and School of Pharmacy in first-year pharmacy students are maintained after 8 weeks.

Methods: Over 2 days in their introduction to Public Health course, 1st year pharmacy students participated in a 2 hour didactic session followed by a 2 hour interactive role-playing workshop led by a team of Pharmacy and Family Planning faculty and fellows. Pharmacy students completed a 33 item survey on KBCPR regarding OEC prior to ("pre"), immediately following ("post"), and 8 weeks ("8wks") after the educational intervention. Knowledge was assessed via true/false questions and BCPR questions via a 4- or 5-point Likert scale with cumulative knowledge and BCPR scores reported. Pre, post, and 8 week-sets were analyzed using repeat measures ANOVA.

Results: 144 of 188 students completed all 3 surveys. Of the 9 knowledge questions, there was a mean of 5, 8, and 7 correct at pre, post, and 8 wks respectively ($p < 0.0001$). In the behavior portion, the mean was 2.72, 3.51, and 3.16 on a scale of 1-4 at pre, post, and 8 wks respectively ($p < 0.0001$). On a scale of 1-5, the mean confidence was 2.36, 4.19, and 3.76 at pre, post, and 8wks respectively ($p < 0.0001$). Scores on professional responsibilities were already high at baseline, improved at post ($p < 0.0006$) and went back towards baseline at 8wks ($p = ns$). Regarding prescription concerns; pre, post, and 8 wks scores were 3.13, 3.71, and 3.39 ($p < 0.0001$) indicating concerns lessened from baseline scores.

Conclusion: A novel education intervention combining didactics and a small group interactive workshop was successful in improving KBCPR of student pharmacists in counseling patients about OEC. While some loss of KBCPR occurred between post and 8 week follow-up, significant improvements at 8 weeks over baseline were maintained. Future studies should focus on the effects of curricular interventions for pharmacy students in clinical practice.

National Survey of Ob-Gyn Chief Residents on Family Planning Training and Intentions to Provide Abortion

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Objectives: To provide an overview of training in abortion and family planning in US ob-gyn residencies.

Methods: We contacted program coordinators at each ob-gyn residency program in the US asking them to forward an electronic study invitation to their fourth year residents. Resident respondents completed a web-based survey including questions about abortion training during residency and intention to provide abortion after residency.

Results: 359 residents from 203 residency programs completed the survey for a response rate of 31%. However, the program coordinators at 42 of the 245 residency programs did not respond to any contact. Assuming that residents at these 42 sites were not invited to participate in the study, the response rate among invited residents is 37%.

More than half of respondents (56%) reported that training in elective abortion is “a routinely scheduled rotation” (routine) compared with 28% who reported that training was “available but not routinely scheduled” (opt-in) and 16% who said elective abortion was “not a part of residency training” (no training). Two-thirds of residents (66%) reported that training in therapeutic abortion (defined as abortion for maternal health reasons; or fetal anatomic or genetic anomaly) was a routine part of training. Four percent indicated that no training in therapeutic abortion was available.

Residents at programs with routine training in elective abortion inserted more IUDs, and performed more abortion and pregnancy options counseling than those with opt-in or no training in elective abortion. They also performed more uterine evacuation procedures (Table 1).

Table 1: Percent of residents who performed more than 20 uterine evacuation procedures

	Routine	Opt in	No training
Manual Uterine Aspiration	50%	22%	14%
Electric Uterine Aspiration	73%	57%	49%
Dilation and Evacuation	35%	4%	5%

(Comparisons of routine training to opt in and no training are significant at $p < .01$).

At programs with routine training, 42% of residents reported that the abortion training experience made them somewhat or significantly more likely to provide elective abortion after residency compared to 5% with opt-in training and 2% of residents with no training. Overall, 51% of residents with routine training intend to include elective abortion after residency, compared with 14% of opt-in residents, and 11% of residents with no training. The proportion of residents in all types of training who intend to include therapeutic abortion is higher: 76%, 61%, and 52% respectively.

Conclusions: Fifty-six percent of residents reported routine training in elective abortion representing an increase from the 48% who reported routine training in the last survey of ob-gyn residents in 2004 (Allen 2010). Residents with routine training in elective abortion perform more contraceptive and uterine evacuation procedures and report increased likelihood of providing both elective and therapeutic abortion after residency.

Impact of Formal Family Planning Training on Residents' Transferable Gynecology Skills

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Objectives: The purpose of this study was to assess the impact of formal, opt-out family planning training on transferable gynecology skills among ob-gyn residents at 56 US programs and 2 Canadian programs.

Methods: The Kenneth J. Ryan Residency Training Program provides technical and financial support to ob-gyn residencies to integrate abortion and contraception training. Since 2005 residents have completed web-based surveys before and after their rotation. Residents report clinical exposure to counseling, contraception, pre- and postoperative care, and abortion. Similarly, since 2006 Ryan Program directors have completed annual web-based surveys which assess resident skills and procedures in family planning training. Directors indicate how the rotation has impacted residents' competence in abortion, contraception and general gynecological skills.

Results: To date, 803 post-rotation resident surveys have been collected for a total response rate of 68%. Further, 100 program director surveys have been collected.

Given a list of basic skills taught in the family planning rotation, residents were asked to report the number of procedures and skills performed, as well as indicate which were the most useful for future practice. Eighty-five percent of residents reported pregnancy options counseling as the most useful skill taught in the rotation, followed by methods of uterine evacuation (76%), ultrasound skills (76%), methods of cervical dilation (66%) and pain management (53%). The table below provides details of the average number performed during the rotation.

Transferable Skill (taught in family planning rotation)	Mean Number Performed During the Rotation (reported by residents)
Pregnancy options counseling	19.2
Pelvic examinations	39.7
First-trimester ultrasound	22.9
Second-trimester ultrasound	10.0
Paracervical block	31.2
Mechanical cervical dilation	28.8
Analgesia management	13.2

Program directors also reported that residents increase competence in transferable gyn skills during the family planning rotation.

Transferable Skill (taught in family planning rotation)	Somewhat Increased Competence (percent of directors reporting)	Significantly Increased Competence (percent of directors reporting)
Outpatient surgery	32.6	58.7
Pain management for outpatient gyn surgery	15.2	73.9
Transcervical surgery	32.6	43.5
Sonographic assessment of early pregnancy	8.7	80.4
Sonographic measurement of second-trimester pregnancy	34.8	39.1

Conclusions: Participation in a formal, opt-out family planning rotation resulted in significant clinical exposure and increased competence in transferable gynecological skills for residents, reported by both residents and program directors.

A Review of Pap Smear Indications

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Background: In December 2009, the American Congress of Obstetrics and Gynecology revised guidelines regarding screening pap smears. While discussing patients in our resident continuity clinic, there seemed to be confusion over the current recommendations. The authors of this project suspect that our clinic performs many unnecessary pap smears, thus contributing to increased cost in medical care without proven patient benefit. Additionally, performing unnecessary pap smears can lead to unnecessary interventions that could potentially lead to adverse outcomes for the patient. The aim of this study is to assess adherence to the 2009 Pap Smear guidelines in our Ob/Gyn residency clinic. Additionally, our goal is to develop a tool to aid residents in deciding when a screening pap smear is appropriate.

Methods: A query was performed at the Hurley Medical Center Department of Pathology from Jan 1, 2010 through March 28, 2010 to determine the amount of pap smears performed in our resident clinic during aforementioned time frame. 220 pap smears were performed during this time period. 60 charts were selected at random for review. Age, previous and current pap smear results, date of last pap smear, previous HPV positive, hysterectomy with history of cervical dysplasia, and immunocompromise/HIV status were all reviewed to determine if the present pap smear was indicated. The study received IRB approval. Following the chart review, residents were presented the results and formally presented the 2009 guidelines. Additionally, residents and nurses were presented a pocket card to assist in the initial triage of patients presenting for a screening pap smear. A second chart review is scheduled to occur in the third quarter to test the effectiveness of our education.

Results: Of the 60 charts identified, 58 charts contained information sufficient for analysis. Mean age was 30.4 years. 38 (65.5%) of pap smears were indicated while 20 (34.5%) were not. 10 (50%) of pap smears were not indicated due to age under 21, 9 (45%) time interval less than two to three years, and 1 (5%) after a total abdominal hysterectomy without a history of abnormal pap smears. Of pap smears which were not indicated, pathology results included 15 (75%) negative intraepithelial lesion, 3 (15%) atypical squamous cells of undetermined significance, 1 (5%) low grade squamous intraepithelial lesion, and 1 (5%) high grade squamous intraepithelial lesion.

Conclusion: Adherence to the 2009 ACOG pap smear recommendations in our clinic needs improvement. One third of screening pap smears in the first quarter were not indicated. To decrease this rate, we led a concerted effort including resident didactic lectures and pocket card distribution for residents. By the end of 2010, our goal is to have less than 5% of non-indicated pap smears performed in our clinic.