

## Training in the Departments of Urology and Surgery for Gynecologists in Japan

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### ABSTRACT

**Background** The authors wanted to understand the current situation concerning Japanese obstetricians' and gynecologists' ideas for and against training in other departments.

**Methods** We sent questionnaires to obstetrics and gynecology (Ob-Gyn) specialists via a social networking service (SNS) in Japan. They answered anonymously using Google Forms over the internet.

**Results** The respondents comprised 120 Ob-Gyn specialists, and their age ranges of 28–29, 30–39, 40–49, and 50 or more, were 5.8%, 73.3%, 15.8%, and 5.0%, respectively. Only five Ob-Gyn specialists (4.2%) had experience in other departments, specifically gastrointestinal and urology. Ninety percent of them responded that they thought training in other departments was useful for developing clinical and surgical skills. In addition, 91.0% of respondents thought that surgical knowledge and skills were necessary in the clinical practice of gynecology, while 94% stated training in urology was also necessary. However, 49.2% of respondents answered that they may feel stress training in other departments where there were many issues, including a lack of personnel and difficulties securing cases.

**Conclusion** Many Ob-Gyn specialists think training in other departments is necessary, but potential problems include proper training implementation and stress management for residents. If additional training is enforced, greater flexibility in each facility will be required.

**Key words** gynecologist; obstetrician; questionnaires; training

Understanding clinical anatomy is indispensable not only for obstetricians and gynecologists but also for gastrointestinal surgeons and urologists. Obstetricians and gynecologists primarily focus on the uterus, the adnexa,

the vagina, and the vulva. However, in the surrounding pelvic area, organs such as the bladder, ureter, urethra, bowel, and anus are located. Therefore, it is often necessary to perform medical treatment cross-sectionally over a wide range of clinical specialties. Moreover, wide-ranging complications during the perioperative period may include organ injury, requiring close clinical management. Therefore, knowledge of other departments is essential when delivering medical care in an outpatient clinic. However, medical residents receive limited training outside their speciality, and there are few opportunities to learn directly about the clinical management of other pelvic organs. Furthermore, there is no opportunity for training in other departments during training periods for acquiring a specialty of obstetrics and gynecology (Ob-Gyn), and knowledge of gastrointestinal surgery and urology is not considered essential for specialists.

We conducted a nationwide survey to collect the opinions of obstetricians and gynecologists about training in other departments. Questions about the necessity for training, their desire for training, and problems with training in other departments were asked. The responses obtained from 120 Ob-Gyn specialists were tabulated. The following paper reports on the experience of obstetricians and gynecologists training in other departments and their thoughts about training in related departments in Japan. The purpose of this study was to identify problems of other departments' training and how to start efficiently at many facilities in the future.

### MATERIALS AND METHODS

We sent random questionnaires to 120 Ob-Gyn specialists via a social networking service (SNS: Facebook, mailing lists and Line groups which the author and co-author were using) in Japan. They answered anonymously using Google Forms over the internet. All participants gave verbal informed consent.

### RESULTS

#### Respondent's characteristics

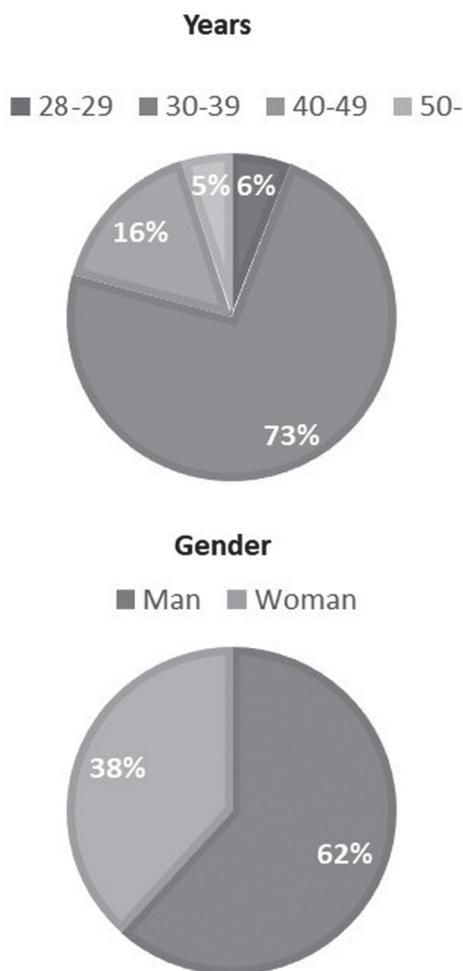
The respondents comprised 120 Ob-Gyn specialists from the following departments - Oncology: 41.7%,

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Received 2019 March 1

Accepted 2019 April 26

Online published 2019 June 20



**Fig. 1.** The respondents were 120 Ob-Gyn specialists, and their age ranges of 28–29, 30–39, 40–49, and 50 or more, comprised 5.8%, 73.3%, 15.8%, 5.0%, respectively. The ratio of male to female was 6:4.

Perinatal: 28.3%, Reproductive: 19.2%, Women’s health: 9.2%, and others: 1.6%. An Ob-Gyn specialist is accredited after passing a written and oral exam in the sixth year from initial training. Their age ranges of 28–29, 30–39, 40–49, and 50 or more, were 5.8%, 73.3%, 15.8%, and 5.0%, respectively (Fig. 1). The ratio of male to female was 6: 4. The percentages of employees at university hospitals and city hospitals were 55.8% and 41.7%, respectively. There were only five Ob-Gyn specialists (4.2%) who had training and experience in the departments of gastrointestinal surgery and urology beyond their initial training.

#### Questions about gastrointestinal surgery

Ninety one percent of respondents thought that gastrointestinal surgical knowledge and skills were necessary for clinical practice in gynecology (Fig. 2). The main

reason given was the importance of anatomical knowledge before operations (90.9%). In addition, 81.8% answered that it is necessary to control complications, 75.5% cited the need to know surgical techniques, and 41.8% said it was necessary to ensure patients’ informed consent. About 80% of all respondents wished to train in surgery, with 53.1% wanting to train over a period of 3–6 months, and 19.8% wanting more than 6 months (Fig. 3). When asked why they wished to acquire surgical techniques, 94.1% of respondents answered that it was necessary to repair bowel injuries, 76.2% answered to conduct a resection and anastomosis of the bowel, 67.3% answered to manage the ileus, and 53.5% answered to manage a stoma (Table 1).

#### Questions about urology

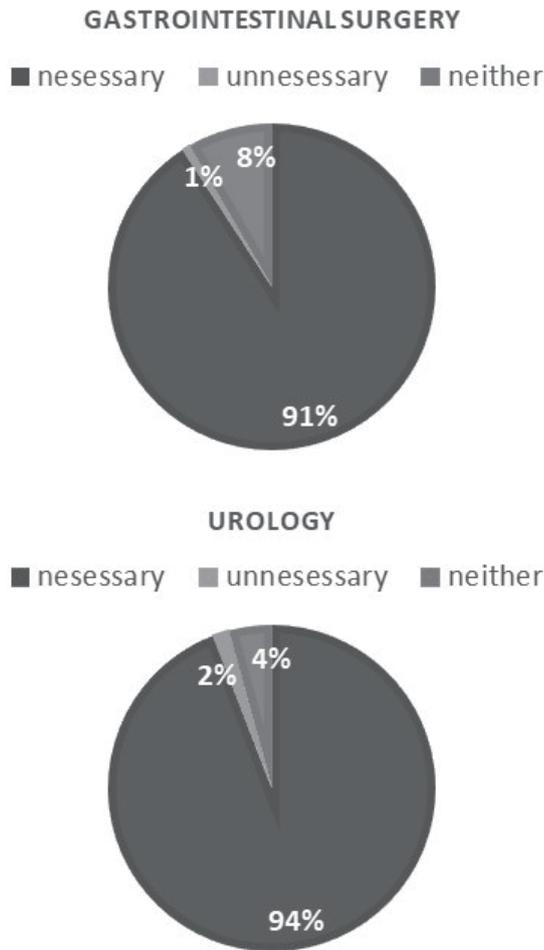
Ninety four percent of respondents answered that urological knowledge and skills were necessary for Ob-Gyn clinical practice (Fig. 2), while 90.1% answered that such skills were needed for surgical techniques, 88.3% for anatomical knowledge, 73.9% to treat complications, and 39.6% and 38.7% for patients’ IC and in the outpatient clinic, respectively. Approximately 88% wished to train in urology departments, which was greater than the number requesting training in gastrointestinal surgery. The most desirable training period was deemed 3–6 months at 43.6%, followed by 1–3 months at 40.6%, and more than 6 months at 11.9% (Fig. 3). The most common urology content they wanted to master was repairing an injured bladder (90.8%). Furthermore, 86.2% wished to learn ureter injury repair, 75.2% wanted to acquire skills in ureteral stent placement and management, 50.5% wanted to know more about bladder removal/urination disorder, 45.9% about bladder/ureteral resection, and 45% wanted to understand hydronephrosis evaluation/residual urine measurement, specifically which items are required for perioperative and outpatient care (Table 1).

#### Optimum periods

Most answered that the optimum period for training in other departments was immediately after acquiring a specialty (65.8%), while 11.7% answered that during the initial training was best.

#### Stress

When questioned whether they experienced stress about training in other departments, 49.2% of the respondents answered positively (Table 2). However, 19.2% answered that they did not feel stressed at all. The most frequent identified stressor was lack of understanding of medical treatment flow and treatment policies in other



Details	%
Anatomical knowledge	90.9
Complication management	81.8
Surgical techniques	75.5
Informed consent	41.8
Terminal patients	33.6

Details	%
Surgical techniques	90.1
Anatomical knowledge	88.3
Complication management	73.9
Informed consent	39.6
Outpatients	38.7

**Fig. 2.** Ninety one percent of respondents thought that knowledge and skills of surgery and 94% thought that knowledge and skills in urology were necessary for the clinical practice of gynecology. The reasons are detailed here.

departments at 68.2%, while 53.0% answered that they found the differences between departments stressful. Also, about 30% thought that the differences in the patient population, and the effect on duty and work systems, would be more stressful. Five Ob-Gyns who experienced training in the Department of Urology or Surgery thought stress was not a serious problem.

**Problems**

When asked about problems related to training in other departments, there were many concerns about a lack of personnel and how to secure cases (Table 2). Furthermore, understanding the surroundings, the needs of the resident doctor, and the reception guidance system were also highlighted.

**DISCUSSION**

The questionnaire was randomly distributed to Ob-Gyn specialists online, and 120 responses were received.

Many respondents were supposed to obtain departmental gastrointestinal surgery and urology training, but encountered several problems.

Obstetricians and gynecologists focus their clinical practice on the uterus, adnexa, vagina, and vulva. However, urology focuses on the bladder and ureter, while gastrointestinal surgery focuses on the digestive organs, rectum, and anus. There are few opportunities to learn directly from a supervisor in either of these related specialties. If complications arise, consultations with other departments are sought. However, although Ob-Gyn residents could learn indirectly by attending other specialty’s surgical sites, the opportunity never arises. During the three years spanning from 2014 to 2016, complications arising due to laparoscopic surgery for gynecological disease were 2.35% (4064/172919) and 1.22% (2104/172919) at perioperative and postoperative periods, respectively, with bladder and ureteral injuries cited in 334 cases and gastrointestinal injuries cited in

## Gastrointestinal Surgery



## Urology

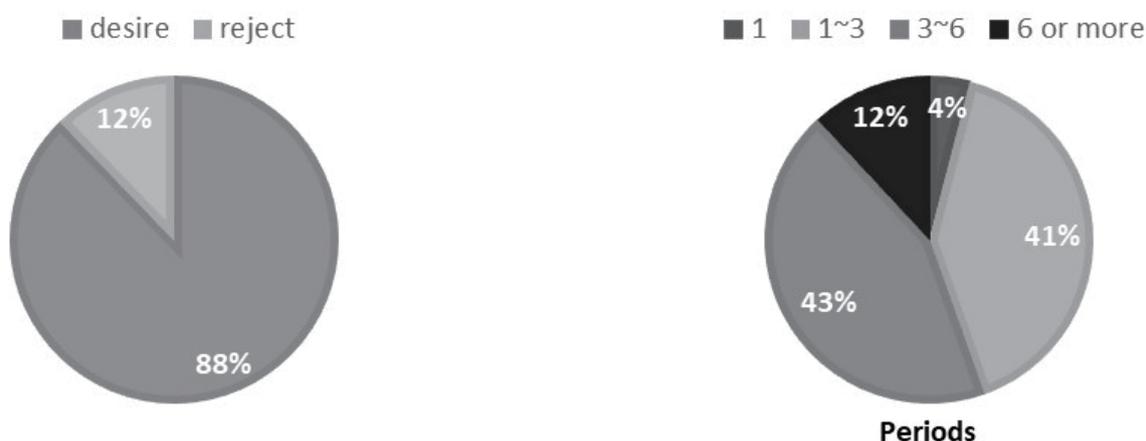


Fig. 3. The figure shows which departments respondents wished to train in and the duration of training desired.

260 cases.<sup>1</sup>

Furthermore, a major difference in complication rates between two different hospitals indicated that is explained partly by challenges in training residents and the low operative volume of surgeons who were educated in sufficient methods.<sup>2</sup> In addition, despite a higher level of surgical acuity and the performance of additional and more complex procedures, surgical morbidity has been shown to be lower in patients undergoing total laparoscopic hysterectomy by gynecologic surgeons with a higher level of subspecialist training.<sup>3</sup> Training in laparoscopic surgery is preferable, but there have been no reports of training in other departments.

The first author of this paper is an Ob-Gyn specialist and, seven years after graduation, trained in urology and gastrointestinal surgery for three months each. The training that all authors received was not only in surgery but also involved general medical examinations and

treatment for outpatients. It is rare for other departments to conduct training after obtaining Ob-Gyn specialists; the training was very useful and allowed for a deeper understanding of the entire disease from various fields and the long-term follow-up of complications. There have been many clinical scenarios where this experience was used in Ob-Gyn clinical practice. However, very few of the authors' colleagues have experienced training in other departments. Thus, this questionnaire was circulated to acquire greater knowledge of obstetricians' and gynecologists' training, and desire for training, in other departments in Japan.

Most respondents to this questionnaire were gynecologists in their thirties and active in clinical practice. Although training in other departments is regarded as important for Ob-Gyn, the fact is, only about 5% of teaching hospitals implement this. The Ob-Gyn specialists who had experienced training in other departments

**Table 1. Reasons for acquiring surgical technique training in gastrointestinal surgery and urology**

Gastrointestinal surgery		Urology	
Details	%	Details	%
Repair of vowel injury	94.1	Repair of bladder injury	90.8
Vowel resection and anastomosis	76.2	Repair of urinary injury	86.2
Management of ileus	67.3	Management of ureteral stent	75.2
Management of stoma	53.5	Management of bladder prolapse	50.5
Liver and spleen resection	9.9	Bladder and ureter resection	45.9

**Table 2. Respondents' concerns about stress and problems for training**

Stress		Problems	
Details	%	Details	<i>n</i>
Medical treatment flow and treatment policy	68.2	Guidance systems	11
Differences between treatments	59.1	Human resources	10
Differences between departments	53.0	Understanding from coworkers	5
Effect on duty and work systems	33.3	Discretionary power after training	3
Differences in patient population	30.3		

had a meaningful experience, and described how they used their experiences in clinical practice after training. They reported their training was especially useful for perioperative management and outpatient clinical practice.

According to the results, the main reason training in other departments was the need for effective perioperative management. Gastrointestinal surgical management of malignancies was particularly important to understand, especially bowel tract anatomy how to manage this during surgery independently. Moreover, ileus and stoma management skills were considered important in palliative care settings. Meanwhile, many respondents indicated that knowledge of urology was necessary for clinical practice in outpatient departments, in addition to the anatomical knowledge needed to manage complications such as dysuria and pelvic organ prolapse. Pelvic organ prolapse is a condition frequently encountered in routine practice and greatly undermines a patient's quality of life. Moreover, damage to the urinary tract is the most stressful Ob-Gyn complication.

Furthermore, 86.2% responded that they want to master repairing ureteral injury, and 75.2% wished to master the placement and management of ureteral stent, which suggests that Ob-Gyn problems often involve a lot of stress and injury to the ureter. In any case, knowledge of other departments is very important for comprehending pelvic anatomy and assessing complications

in an outpatient context. Therefore, it is important to improve the quality of Ob-Gyn medical training by providing opportunities to learn in other departments.

Opinions were divided about the optimal training duration. Most answered that training should be offered after obtaining specialization (65.8%). However, if an Ob-Gyn resident transfers to another department with insufficient knowledge and experience of the specialization, appropriate medical treatment may not be possible. The initial researcher found that transferring to a new environment makes it easy to ask questions; however, it is likely that non-specialist residents in training will be assigned chores which will not provide a valuable learning experience. Training under circumstances where independent medical care can be offered as an obstetrician and gynecologist would make the training more fulfilling.

In university hospitals, traditional hierarchies between doctors are generally more rigid than in city hospitals. Understanding professors and supervisors is important when conducting training to extend experience beyond traditional hierarchies. For obstetricians and gynecologists, although training in other departments is useful, we cannot be sure whether doctors from other departments will benefit from Ob-Gyn training. For example, it may sometimes be necessary to resect the uterus or ovary during surgery for a total bladder resection and rectal amputation, and yet this may not

always be the case. However, when assessing such complex surgical procedures, understanding uterine anatomy is sometimes insufficient. Understanding pelvic anatomy as a gynecologist is useful in other departments; therefore, there is much potential in developing reciprocal inter-departmental advice and training.

As mentioned above, the barriers between departments remain high. There seem to be many Ob-Gyn specialists who find these barriers stressful. About half of the questionnaire's respondents believed that training in other departments would be stressful, but most cited differences such as medical treatment flow and treatment policies. Although each department focuses on bodily organs that are close to each other, their clinical interventions and treatment methods are quite different; therefore, their clinical expertise may not be fully utilized. However, clinical learning involves acquiring knowledge and skills from a different clinical area; therefore, the significance of learning from other departments lies in overcoming this stressor. Meanwhile, concerns about difficulties in delivering medical treatment, due to a lack of personnel in one's own clinical area and having to work overtime, became obvious. There is no doubt that training content needs further discussion. In university hospitals, the number of duties and salary system depend upon each department; therefore, various adjustments may be possible to overcome these difficulties.

It is also necessary to discuss how doctors trained in other specialties should treat organs outside their specialty; in other words, how to manage their discretionary rights to intervene clinically. For example, is it permissible for a trainee to independently repair intestinal damage and detain a ureteral stent all by himself? It will still be necessary to cooperate with other departments during the onset of complications, and to discuss and decide the clinical details and direction in advance.

One of the limitations of this study is that although

there are many respondents in their 30s the number of respondents from other age ranges is considerably lower because of the use of SNS and the questionnaire was circulated among people from the same generation as the first author. However, there were no differences found between ages in terms of opinion. Secondly, this objective focused on only about 5% of all Ob-Gyns in Japan. If this study would also include more specialists over the age of 50, other results may appear. However, the generation most involved in surgery in the clinical field is aged around 30, and, in that sense, I think that prospects implied from the results of this study for the future are to be expected.

Many Ob-Gyn specialists think training in other departments is necessary, but there are concerns about multiple problems, including proper implementation, and stress for residents. If training is enforced, greater flexibility in each facility will be required.

*The authors declare no conflict of interest.*

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