

# Clinical Team Meetings of Physicians and Nurses to Promote Patient-Centered Medical Care : Current Status in Obstetrics and Gynecology Ward of University or General Hospitals and Major Women's Hospitals in Japan and Factors Influencing the Prevalence

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## Abstract

Clinical team meetings in hospitals organized and held by physicians and nurses, where treatment and psychosocial issues of patients are discussed, decided, and shared, are important for patient-centered medical practice. This study surveyed the current status of clinical team meetings in obstetrics and gynecology ward of university or general hospitals and major women's hospitals in Japan, and factors influencing the prevalence of team meetings were investigated. Questionnaires were sent to directors of nursing in 670 hospitals. Response rate was 49 percent. Only 11 percent (37/328) of the respondents answered that they held team meetings of physicians and nurses regularly once a week. Twenty percent of the respondent hospitals held team meetings at least once a month. Eighty five percent of respondents who did not hold team meetings answered that they felt the need for such team meetings. Among the respondents who felt the need for team meetings, 10% answered that they hesitated to propose such team meetings to medical staff. National university hospitals had a higher prevalence of team meetings that were held at least once a month and a higher number of obstetrics/gynecology physicians than hospitals of other different types, suggesting that the number of obstetrics/gynecology physicians was a possible factor that determined the presence of team meetings. However, multivariate logistic regression analysis demonstrated no relationship between the presence of team meetings held at least once a month and the number of obstetrics/gynecology physicians. Instead, a significantly positive relationship between the presence of team meetings held at least once a month and the number of obstetrics/gynecology nurses was noted by the analysis. In conclusion, it may be considered that the more nurses are in hospitals, the more team meetings will be prevalent in women's hospitals in Japan.

**Key words;** clinical team meetings, obstetrics/gynecology, women's hospitals, Japan, patient-centered care, what type of factors?, multivariate logistic regression analysis

## Introduction

The situation in the field of medical practice has been changing dramatically. With the advancement of new

technologies and apparatus, medical treatment has become very complicated, and consequently medical incidents and accidents may occur more easily than before, and malpractice may even occur, if treatment

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steps are not taken appropriately and deliberately. Indeed, there has been a rush of medical malpractice claims in Japan recently<sup>1,2)</sup>. To minimize the likelihood of such things, detailed information regarding therapeutic procedures has to be shared among medical and nursing staff. With the increasing number of incurable chronic diseases, psychological support for patients is needed more than before. Physicians in the 21<sup>st</sup> century are expected to provide support beyond "curing disease" and psychological support must be shared by all hospital staff.

To perform medical treatment safely and successfully, satisfying patients both physically and psychologically, teamwork and collaboration between medical and nursing staff are necessary. Researchers have demonstrated that collaboration has positive outcomes for both patients and staff<sup>3,4)</sup>. To make teamwork and collaboration work well, appropriate settings are required in addition to mutual respect among the staff. Clinical team meetings that are organized and held regularly by physicians and nurses, where treatment and psychosocial issues of patients are discussed, decided, and shared among the medical team, is one such setting. At the hospitals in the United States, clinical rounds are held everyday at the bedsides with physicians, nurses, pharmacist and other co-medical staff. Then meetings are held once a week to discuss long-term plans, psychosocial issues and discharge plan. The meetings include physicians, nurses, social workers, physical therapists, clergy and anyone involved in the patient care. However, given the historical hierarchical nature in the relationship between physicians and nurses, nurses may encounter difficulty in proposing team meetings here in Japan. Therefore, such clinical team meetings are thought to be uncommon in Japan.

The present study surveyed current conditions of team meetings of physicians and nurses in major women's hospitals in Japan. Questionnaires were sent to nursing directors, but not to physicians, of obstetrics and gynecology (Ob/Gyn) department or Ob/Gyn ward in hospitals. Multivariate logistic regression analysis was carried out to investigate factors influencing team meetings being held.

## Materials and methods

Between June and August 2,000 we mailed question-

naires to nursing directors of the Ob/Gyn department or Ob/Gyn ward of university or general hospitals and major women's hospitals in Japan. The questionnaires asked the participants about the presence of team meetings of physicians and nurses, the type of hospital, the number of Ob/Gyn physicians, the number of Ob/Gyn nurses, and the number of beds in the Ob/Gyn department or Ob/Gyn ward (Table 1). Team meetings of physicians and nurses were defined in the questionnaires as regularly held meetings organized by physicians and nurses where treatment and psychosocial issues of patients were discussed, decided, and shared among medical and nursing staff. Questions regarding team meetings were asked as follows. First, does your hospital, Ob/Gyn department or Ob/Gyn ward hold team meetings? If yes, how often are the meetings held, once a month, weekly or every day? If you do not hold team meetings, do you desire to hold them? A section for any free comment regarding team meetings among physicians and nurses was also provided in the questionnaires. The hospitals to which we sent questionnaires consisted of 1) all national university hospitals, 2) all public university hospitals, 3) all private university hospitals, 4) all national or public general hospitals with more than 400 beds that include

Table 1. Contents of the questionnaire.

Please answer the following questions and return the questionnaire anonymously.

1. Type of your hospital
  - 1) national university hospital 2) public university hospital
  - 3) private university hospital 4) national or public general hospital
  - 5) private general hospital 6) private individual women's hospital
  - 7) hospital not classified as one of the categories listed above.
2. Number of Ob/Gyn physicians in your hospital ( )
3. Number of Ob/Gyn nurses in your hospital ( )
4. Number of beds in the Ob/Gyn department or Ob/Gyn ward in your hospital ( )
5. A team meeting of physicians and nurses is defined as a regularly held meeting organized by physicians and nurses where treatment and psychosocial issues of patients are discussed, decided, and shared among medical and nursing staff.  
Does your hospital hold team meetings?      yes    no  
  
If yes, how often are the meetings held?  
1) once a month 2) weekly 3) every day  
If you do not hold team meetings, do you desire to hold them?  
yes    no
6. If you have any free comment regarding team meetings among physicians and nurses, please write it here :

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Thank you for your cooperation

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Ob/Gyn ward, 5) all private general hospitals with more than 400 beds that include Ob/Gyn ward, 6) all private individual women's hospitals with more than 40 beds, and 7) other hospitals with more than 400 beds that included Ob/Gyn ward but was not classified as one of the categories listed above. Hospitals were selected from a hospital directory prepared by the Ministry of Health and Welfare's Health-Policy Project (Igaku-Shoin Ltd., 2000). A total of 670 hospitals were surveyed in the present study. The questionnaires were returned anonymously.

### Statistical analysis

We used Fisher's exact probability test to examine differences in the prevalence of team meetings among hospitals of different types. Analysis of variance and multiple comparison test using the Tukey method were applied to determine differences in the number of Ob/Gyn physicians, Ob/Gyn nurses, Ob/Gyn beds among the hospital groups. When comparing only one pair, we used Student's unpaired t-test. To investigate factors influencing the presence of team meetings, multivariate logistic regression analysis was conducted using all 328 respondent hospitals. We specified the number of Ob/Gyn physicians (continuous), the number of Ob/Gyn nurses (continuous), the number of Ob/Gyn beds (continuous), and the type of the hospitals (7 categories) as independent variables (covariates). The presence of team meetings was a dependent variable

(holding team meetings at least once a month=1, not holding team meetings=0). Statistical software, SPSS 10.0 J was utilized for data analysis.

### Results

The questionnaires were mailed to a total of 670 hospitals, of which 328 responded (response rate: 49%). Table 2 shows the number of hospitals to which the questionnaires were sent, the number of respondent hospitals and response rates according to hospital type. Only 11 percent (37/328) of the respondents answered that they held team meetings of physicians and nurses regularly once a week. Twenty percent (66/328) of the respondents answered that they held team meetings of physicians and nurses at least once a month. Differences in the prevalence of team meetings were observed among hospitals of different types. Table 3 shows the percent of respondent hospitals that held team meetings at least once a month among the respondent hospitals according to hospital type. Forty percent (10/25) of the national university hospitals held team meetings of physicians and nurses at least once a month. This prevalence (40%) was significantly higher than that of private university hospitals (10%) ( $p=0.01$ ), national or public general hospitals (20%) ( $p=0.03$ ), private individual women's hospitals (11%) ( $p=0.04$ ), and others (18%) ( $p=0.03$ ). The national university hospitals and the private university hospitals had a significantly greater number of Ob/Gyn physicians, compared with other

Table 2. The number of hospitals to which questionnaires were sent, respondent hospitals and the recovery rate according to hospital type.

	The number of hospitals to which questionnaires were sent	The number of hospitals which responded	Recovery rate (%)
National university hospitals	34	25	74
Public university hospitals	17	6	35
Private university hospitals	36	30	83
National or public general hospitals	232	122	56
Private general hospitals	138	53	73
Private individual women's hospitals	62	18	29
Others	151	74	49
Total	670	328	49

types of hospitals ( $p < 0.001$ ). However, there was no difference in the number of Ob/Gyn physicians between national university hospitals that held team meetings at least once a month ( $n=10$ ) and those that did not ( $n=15$ ) (data available, but not shown). Furthermore, when we combined all types of respondent hospitals, there was no difference in the number of Ob/Gyn physicians between the hospitals that held team meetings at least once a month ( $n=66$ ) and those that did not hold team meetings ( $n=262$ ). There were no differences in the number of Ob/Gyn nurses or Ob/Gyn beds among hospitals of different types. (Table 3)

Multivariate logistic regression analysis using all respondent hospitals ( $n=328$ ) demonstrated a significantly positive relationship between the presence of team meetings (whether or not holding team meetings at least once a month) and the number of Ob/Gyn nurses ( $p=0.031$ ). However, there was no relationship between the presence of team meetings and the number of Ob/Gyn physicians, that of Ob/Gyn beds or the hospital type. (Table 4)

Eighty percent (262/328) of the respondent hospitals did not hold team meetings. However, 222 (85%)

respondents answered that they felt the need for such team meetings. Among the respondents who felt the need for team meetings, 10% answered that they hesitated to propose such team meetings to medical staff.

In the section provided for free comments, some respondents complained about the hierarchical nature of relationship that remained dominant among medical professionals, especially physicians. Some respondents indicated that although they felt a need for team meetings, they thought that it was not possible to hold such team meetings, due to a lack of time. Among the respondents who felt no need for team meetings, some answered that they discussed patients' issues with physicians during ward rounds, and that they did not think it necessary to hold team meetings.

## Discussion

We surveyed the directors of nursing, but not physicians regarding the current status of team meetings. This was because we speculated that nurses seemed to be more interested than physicians in promoting collaboration between nurses and physicians,

Table 3. The percent of respondent hospitals that held team meetings at least once a month according to hospital type and the number of Ob/Gyn physicians, Ob/Gyn nurses, and Ob/Gyn beds in them.

Type of respondent hospitals	The percent of respondent hospitals holding team meetings at least once a month	The number of Ob/Gyn physicians (Mean $\pm$ S. D.)	The number of Ob/Gyn nurses (Mean $\pm$ S. D.)	The number of Ob/Gyn beds (Mean $\pm$ S. D.)
National university hospitals (n=25)	40*	16.2 $\pm$ 6.1 <sup>†</sup>	24.4 $\pm$ 11.3	42.1 $\pm$ 24.7
Public university hospitals (n=6)	17	7.2 $\pm$ 4.9 <sup>†</sup>	30.6 $\pm$ 11.2	33.6 $\pm$ 25.8
Private university hospitals (n=30)	10*	11.7 $\pm$ 6.2 <sup>†, ‡</sup>	32.2 $\pm$ 14.1	48.6 $\pm$ 25.3
National or public general hospitals (n=122)	20*	4.7 $\pm$ 6.1 <sup>†, ‡</sup>	25.9 $\pm$ 11.3	39.9 $\pm$ 24.5
Private general hospitals (n=53)	25	4.9 $\pm$ 6.1 <sup>†</sup>	26.7 $\pm$ 11.3	40.3 $\pm$ 24.5
Private individual hospitals (n=18)	11*	5.0 $\pm$ 6.0 <sup>†, ‡</sup>	39.1 $\pm$ 11.6	54.3 $\pm$ 24.4
Others (n=74)	18*	4.4 $\pm$ 6.0 <sup>†, ‡</sup>	29.0 $\pm$ 11.7	40.5 $\pm$ 15.2
Total (n=328)	20			

※ : The prevalence of team meetings held at least once a month in the national university hospitals was higher than that of private university hospitals, national or public general hospitals, private individual hospitals and others ( $p=0.01-0.03$ , Fisher's exact probability test).

† : The number of Ob/Gyn physicians in the national university hospitals was greater than all the other types of hospitals ( $p < 0.001$ , Tukey method).

‡ : The number of Ob/Gyn physicians in the private university hospitals was greater than that of national or public general hospitals, private general hospitals, private individual hospitals and others ( $p < 0.001$ , Tukey method).

Table 4. Predictor variables for holding team meetings. Multivariate logistic regression analysis (n=328).

Variable	B	Wald	p	Exp (B)	95% C. I. for Exp (B)
The number of Ob/Gyn physicians	0.011	0.093	0.761	1.012	0.939–1.089
The number of Ob/Gyn nurses	0.035	4.631	0.031	1.036	1.003–1.069
The number of Ob/Gyn beds	−0.010	0.646	0.422	0.990	0.965–1.015
Hospital type	−0.006	0.006	0.9421	0.994	0.849–1.164

B : estimated coefficients, Wald : Wald statistic, Exp (B) : odds ratio, 95% C. I. : 95% confidence interval

and to aim to increase the recovery rate of the questionnaires. The present survey achieved a reasonable response rate of 49%. The survey demonstrated that the percent of women's hospitals that held team meetings of physicians and nurses was very low. The national university hospitals had the highest prevalence rate of team meetings.

The number of people engaged in medical service in Japan is small compared to that in the United States, and per capita workload on nursing and medical staff may be higher. Consequently, nursing and medical staff is too busy to perform extra work. Some nurse respondents in the survey indicated that they had no spare time to hold team meetings. It may be necessary to increase the number of workers in medical service in Japan to hold team meetings in hospitals.

Apart from lack of the workforce, there seems to be another problem. Among nurse respondents who expressed the necessity of team meetings, 10% answered that they hesitated to propose such team meetings to medical staff. In the section provided for free comments, some respondents complained about the hierarchical relationship that remains dominant among professionals, especially physicians. Nurse-physician relationship has been discussed and researched for decades<sup>5-9)</sup> and has been an issue of great interest especially to nurses. Stein<sup>5)</sup> described the doctor-and-nurse relationship as demonstrating clear agreement between doctors and nurses that the relationship was hierarchical, with doctors being superior to nurses. Stein *et al.*<sup>7)</sup> revisited this issue and described that the doctor-nurse relationship had been affected by a number of important social changes, such as deterioration of public esteem for doctors, recognition of their fallibility, and increasing esteem for and value of nurses in their own right, rather

than as assistants or handmaidens. Stein *et al.* concluded that doctor-nurse relations had improved. However, Heenan<sup>10)</sup> reported that almost 50% of nurses were dissatisfied with their relationships with doctors. The dissatisfaction of nurses may affect collaboration with physicians and lack of collaboration in the staff may lead to deterioration of patients' care. Poor nurse-physician relationships may influence the nurses' morale<sup>11)</sup>.

To propose holding team meetings of physicians and nurses and to make such meetings successful and fruitful, it is necessary that nurses express their opinion freely. The expansion of higher education and 4-year university-based education has gradually been provided for nursing students in Japan. There are now over 100 universities that include nursing courses as of 2002 in Japan. In those universities, professors with registered nurse license educate the nursing students. Learning from nurse professors, today's nurses want nursing to become an autonomous health profession, and they want to work cooperatively with physicians as equal partners.

The present survey showed that both the prevalence of team meetings and the number of Ob/Gyn physicians in the national university were higher than that of hospitals of other types, suggesting that the number of Ob/Gyn physicians was a possible factor that determined the presence of team meetings. However, multivariate logistic regression analysis demonstrated no relationship between the presence of team meetings and the number of Ob/Gyn physicians. Instead, a significantly positive relationship between the presence of team meetings and the number of Ob/Gyn nurses was found, suggesting that the number of Ob/Gyn nurses was a factor influencing team meetings to be held. The result may be explained as follows; in the national university hospitals, physicians are with less hierarchical nature, and nurses

are with higher education level. The result of the present study suggests that the increasing number of nurses working in hospitals, especially nurses with higher education level eventually facilitates an increase in the prevalence of team meetings in Japan.

There are limitations of the present study. First, the status of nurses in the hospitals and the educational levels of the nurses were not surveyed and these factors were not included in the multivariate logistic regression analysis to examine what determined the prevalence of team meetings. These factors may also have had some effect on the result. Secondly, how physicians in the hospitals think about the physician-patient-nurse relationship also seems to be important. In the present study, we did not survey the physicians' perspective, worrying that the response rate would have been poor, if we had asked physicians' opinion. This study investigated methods of changing physicians' perception of nursing/nurses, showing that nurses are an asset to patients and physicians as well. Without examining the physicians' view, precise evaluation would be difficult. A study that surveys physicians and nurses at the same time is needed to further promote patient-centered medical care in Japan.

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## 患者中心の医療を推進するための医師，看護師による臨床チームミーティング —日本の大学病院，総合病院の産婦人科病棟並びに主要な産婦人科病院における チームミーティング開催の実態とそれに影響を及ぼす因子—

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患者中心の医療を行うには，患者に施す治療や患者の持つ心理・社会的な問題点を病院の中で医師と看護師が一緒になって話し合い，決定し，共有し合う場としての臨床チームミーティングが重要である。この研究は，日本の大学病院，主要な総合病院の産婦人科病棟，並びに主要な単科の産婦人科病院においてどの程度チームミーティングが開催されているか実態を調査すると共に，そのチームミーティング開催を決定づける因子が何であるかを明らかにすることを目的とした。総計670の病院の産婦人科病棟看護師長にアンケート票を送付し，チームミーティング開催の有無及びその頻度，チームミーティング非開催の場合その開催の希望の有無，産婦人科医師の数，産婦人科に勤務する看護師の数，産婦人科病床数，病院の種類などにつき無記名で回答・郵送を依頼した。回収率は49%であった。医師と看護師により行われるチームミーティングを1週間に1度定期的に開催しているのは回答した病院のわずか11%に過ぎなかった。20%の病院では少なくとも月に1回チームミーティングを開催していた。チームミーティングを開催していない病院の85%ではチームミーティングを開催することを望んでいたが，その10%では医師にチームミーティング開催を言い出すことは躊躇されると回答した。国立大学病院の産婦人科病棟では他の種類の産婦人科病院（病棟）に比べ，少なくとも月に1度チームミーティングを開催している割合が高く，また産婦人科医の数も多く，産婦人科医数が，少なくとも月に1度チームミーティング開催を規定している因子であることが示唆された。しかしながら，multivariate logistic regression分析を用いた検討では，少なくとも月に1度のチームミーティング開催と産婦人科医数の間には関連性は認められず，産婦人科勤務の看護師数との間に関連性が見られた。以上のことより，病院に勤務する看護師数が増えるに従い，チームミーティング開催の頻度が増すものと考えられた。