

ORIGINAL ARTICLE

Sexuality education in Japanese medical schools

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The present study aimed to investigate current sexuality education in Japanese medical schools and the impact of position title in the Japanese Society for Sexual Medicine (JSSM). Questionnaires were mailed to urology departments in all Japanese medical schools. The responses were evaluated according to four factors: the number of lecture components, curriculum hours, degree of satisfaction with the components and degree of satisfaction with the curriculum hours. We also investigated differences in these four factors among three groups: Directors, Council members and non-members of the JSSM. The medians of curriculum hours and the number of the lecture components were 90.0 min and 7.0, respectively. The curriculum hours of the Directors (140.0 min) were significantly longer than those of the non-members (90.0 min; $P < 0.05$). The number of lecture components taught by Directors (9.5) was significantly higher than that of the Council (4.0; $P < 0.01$) and non-members (7.0; $P < 0.05$). More than half of the faculties were not satisfied with the lecture components and curriculum hours. This is the first study on sexuality education in Japanese medical schools. It showed the inadequacy of both curriculum hours and lecture components, and that the position title of department chair affects sexuality education in medical schools.

International Journal of Impotence Research (2017) **29**, 160–163; doi:10.1038/ijir.2017.14; published online 20 April 2017

INTRODUCTION

An epidemiological survey in 2002 revealed that 11 300 000 Japanese men aged 30–79 years were estimated to have moderate to complete erectile dysfunction.¹ The rapidly aging population of Japan leads us to anticipate a further rise in erectile dysfunction patients in the future.² Also, concern about sexuality in relation to topics such as prostatic cancer is increasing in Japan.³ Healthy sexuality is an important part of a healthy life,⁴ and patients prefer to receive sexual health information from knowledgeable medical doctors who are comfortable discussing sexual health.⁵

As the starting point for medical training, the undergraduate years are critically important.⁶ Adequate training in medical school is associated with feeling comfortable when addressing patient sexuality.^{5,7–11} To improve sexuality education, medical school programs need to analyze their current curricula.⁸ As well, identifying ‘champions’ is another strategy for increasing sexuality education.⁹ To create a standardized curriculum for sexuality education in Japan, we need ‘champions’ as core members who have a positive attitude about sexuality education. The department chair professors in all of the medical schools in Japan have the ultimate responsibility for formulating the curriculum of their respective medical schools. They allocate the time and the lecture components of their own departments. In Japan, none of the chair professors of gynecology and psychiatry are members of the Japanese Society for Sexual Medicine (JSSM), and only one chair professor of internal medicine is a director of the JSSM. Doctors of urology comprise the highest proportion of JSSM members at 91.5%, followed by internal medicine at 2.8%, surgery at 1.4%, gynecology at 1.2%, psychiatry at 0.5% and others at 2.5%. To keep the title of Director of the JSSM, directors must strictly attend Board of Directors meetings, educational programs and the annual meeting of the JSSM. In Japan, there has been no national study of sexuality education in medical schools. Also, the relationship

between sexuality education and position titles of JSSM members is unclear. We hypothesized that sexuality education in Japanese medical schools is insufficient and that the directors of the JSSM have a positive attitude toward sexuality education.

To test these hypotheses, we investigated the current state of sexuality education in Japanese medical schools and the effect of the position title of JSSM members on sexuality education.

MATERIALS AND METHODS

We performed an exploratory, cross-sectional descriptive study from January 2014 to February 2014. This study was approved by the academic committee and the Board of Directors of the Japanese Urological Association. Because no previous national study of sexuality education in Japanese medical schools has been undertaken, we devised a questionnaire based on previous research.^{7,9,11}

We mailed the questionnaires to chair professors of urology in all Japanese medical schools. During the period of this study, 80 medical schools were in operation in Japan. We received the reply questionnaires by facsimile. We evaluated the responses according to four factors: the number of lecture components according to Shindel and Parish (Table 1),⁷ the number of curriculum hours spent on sexuality education through the entirety of medical school, the degree of satisfaction with the components, and the degree of satisfaction with the number of curriculum hours in medical schools in Japan. Also, we investigated differences in these four factors among three groups, Directors, Council members (the Council is a subordinate group under the Directors) and non-members of the JSSM.

The responses in the reply questionnaires were entered into the database FileMaker Pro for Macintosh, Japanese version 12 (FileMaker, Inc., Tokyo, Japan). We used IBM SPSS Statistics for Windows, Japanese version 20 (IBM Japan, Tokyo, Japan) for statistical analysis. A P -value < 0.05 was considered to indicate statistical significance.

We used the Shapiro–Wilk test to check for normally distributed data and found that not all data were distributed normally. Also, we used the Kruskal–Wallis test and Steel–Dwass *post hoc* test to assess the differences in curriculum hours and the number of lectures between the three groups,

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Received 3 October 2016; revised 31 January 2017; accepted 1 March 2017; published online 20 April 2017

Table 1. Components of the lectures in descending order of frequency

1. Sexually transmitted infections	85.5%
2. Causes and correlates of sexual dysfunction (biological, psychological and social)	81.2%
3. Impact of medical illnesses and their treatments on sexual function	71.0%
4. Management options for sexual dysfunction	63.8%
5. Integrated, multifactorial diagnosis of sexual dysfunction	59.4%
6. Knowledge of the biology of sexual development at the molecular and organismal levels	58.0%
7. Reproductive biology (contraception, pregnancy and infertility)	58.0%
8. Anatomy and physiology of human sexual response	52.9%
9. Physical examination of the genitourinary/gynecological organs	49.3%
10. Management of pharmacologically induced sexual dysfunction	44.1%
11. Sexual history taking	39.1%
12. Awareness of variability of 'normal' sexual expression (gender identity, sexual orientation and so on)	27.5%
13. Sexuality in special populations (adolescent, aged and disabled)	22.1%
14. Sociological issues (ethnicity, race, culture, religion, sexual orientation and economic status)	15.9%
15. Awareness of ethical issues in sex, contraception and relationships	14.5%
16. Psychological influences on sexual development	13.0%
17. Basics of behavior therapy for sexual dysfunction	9.0%
18. Self-awareness and reflection on personal beliefs, values and attitudes toward sex, and how they may influence care of the patient	8.7%
19. Comfort with sexual language and terminology in a manner understandable to patients	5.8%
20. Lesbian/gay/bisexual/transgender sexuality and sexual health care for these populations	5.8%
21. Sexual abuse and violence	1.4%

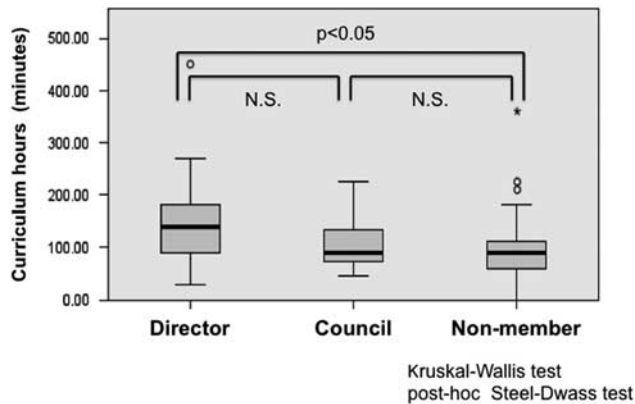


Figure 1. Curriculum hours in the three groups. The number of curriculum hours of the Directors was significantly longer than that of the non-members ($P < 0.05$) and also longer than that of the Council members, but not significantly so. There was no significant difference in curriculum hours between the Council members and JSSM non-members * and \circ are the outlier in box plot.

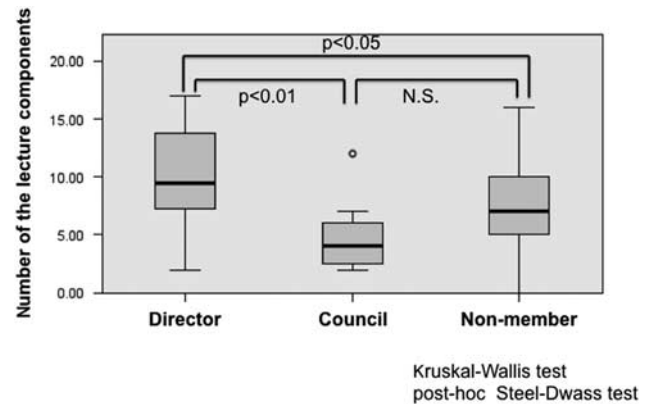


Figure 2. Number of lecture components in the three groups. The number of lecture components of the Directors was significantly higher than that of the Council members and the non-members ($P < 0.01$, $P < 0.05$, respectively). There was no significant difference in the number of lecture components between the Council members and JSSM non-members. \circ is the outlier in box plot.

Spearman's rank-correlation coefficient to assess the correlation between curriculum hours and the components, and the χ^2 -test to assess the difference in the degree of satisfaction between the three groups.

RESULTS

Response rate

Of the 80 medical schools, the urological departments of 69 medical schools (86%) responded, including 20/22 (90.9%) Directors, 9/9 (100%) Council members and 40/49 (81.6%) non-members of the JSSM.

Curriculum hours

The median of curriculum hours taught was 90.0 min. The medians of the curriculum hours taught by the Directors, Council members and non-members were 140.0, 90.0 and 90.0 min, respectively (Figure 1). The curriculum hours of Directors were significantly longer than those of the non-members ($P < 0.05$). However, although the curriculum hours of the Directors were longer than

those of the Council members, they were not significantly longer. There was no significant difference in curriculum hours taught between the Council members and non-members.

Number of lecture components

The median number of lecture components taught was 7.0. The median numbers of lecture components for Directors, Council members and non-members were 9.5, 4.0 and 7.0, respectively (Figure 2). The number of lecture components for Directors was significantly higher than that for Council members ($P < 0.01$) and non-members ($P < 0.05$). There was no significant difference in the number of lecture components taught between Council members and non-members. There was a significant positive correlation between curriculum hours and the number of lecture components taught ($r_s = 0.264$, $P < 0.05$, Figure 3).

Components of the lectures

The components of the lectures are summarised in the descending order of frequency at which they are taught in Table 1.⁷

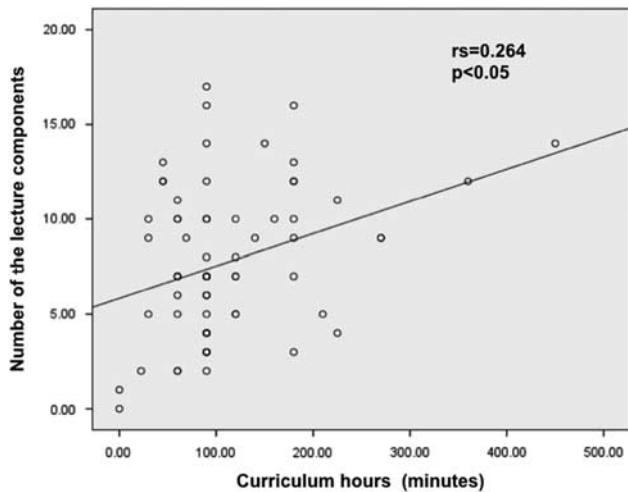


Figure 3. Correlation between the number of curriculum hours and the number of lecture components. There was a significant positive correlation between the curriculum hours and the number of lecture components using Spearman's rank-correlation coefficient ($r_s = 0.264$, $P < 0.05$).

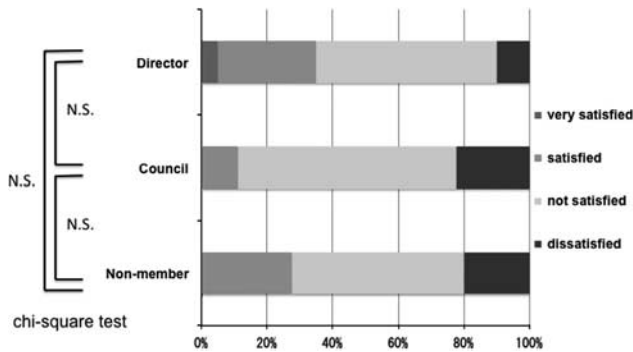


Figure 4. Degree of satisfaction with the lecture components in the three groups. There was no significant difference in the degree of satisfaction with the lecture components between the three groups.

The most common components included in the lectures were sexually transmitted infections (85.5%), causes and correlates of sexual dysfunction (81.2%), and impact of medical illnesses and their treatment on sexual function (71%). Thirteen of the twenty-one components listed in Table 1 were taught at a rate of $< 50\%$ in the medical schools. The least commonly taught components of the lectures were sexual abuse (1.4%), sexual minorities and sexual health (5.8%), and skills for comfort with sexual language and terminology (5.8%).

Degree of satisfaction

The degree of satisfaction with the components was very satisfied (1.5%), satisfied (26.5%), not satisfied (55.9%) and dissatisfied (16.5%) for the faculties. The degree of satisfaction in terms of the number of curriculum hours was very long (0%), long (0%), moderate (50%), short (45.6%) and very short (4.4%) for the school faculties. There were no significant differences in the degree of satisfaction with the components and the curriculum hours between the three groups (Figures 4, 5).

DISCUSSION

In the present study, we attempted to investigate the current state of sexuality education in Japanese medical schools. We found that

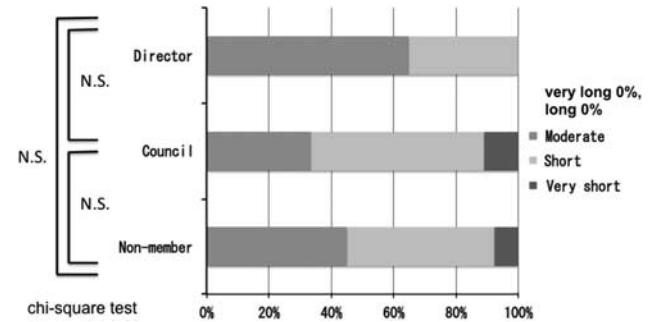


Figure 5. Degree of satisfaction with the curriculum hours in the three groups. There was no significant difference in the degree of satisfaction with the curriculum hours between the three groups.

the number of lecture components taught by Directors was significantly higher than that for Council members and the non-JSSM members. Also, the number of curriculum hours of the Directors was significantly longer than those of the non-members. This would appear to indicate that the Directors of the JSSM have a positive attitude toward sexuality education in Japanese medical schools. This is the first study, to our knowledge, to show that the position title of department chair affects sexuality education in medical schools. In other countries, 56.5–62.3% of medical schools provided at least 6 h of sexuality education.^{5,7–9,12,13} One-third of the schools (32.7%) devoted 11 or more hours to sexuality education, and only 13.2% schools provided < 2 h of sexuality education.¹³ The number of curriculum hours in Japan is obviously shorter than those in other countries.

As Table 1 shows, there appears to be bias in relation to the lecture components taught. Despite the fact that sexually transmitted infections, causes and correlates of sexual dysfunction, and the impact of medical illnesses and their treatment on sexual function are covered in over 70% of the medical schools, 13 of the 21 components are covered at rates of $< 50\%$. The least common components of the lectures were sexual abuse, sexual minorities and sexual health, and skills to enhance comfort with sexual language and terminology. Similar component results can be seen in other countries.^{5,7–9,12,13} The curricula in other countries included sexual dysfunction (75.9–94.1%), sexual orientation (47.1–79.2%) and sexuality in special populations (64.9–69.3%). However, the least covered curricula included sociocultural gender roles (39.8%), and sexual and reproductive rights (36.1%).¹³ We speculate that the low number of lecture components actually taught led to the low degree of satisfaction for the components overall. Coverage of the least taught components, such as sexual minorities and sexual abuse, should be increased. Ideal curricula innovation should focus on addressing trainees' attitudes and developing knowledge and enhancing practical, clinical skills with hands-on training with live or standardized patients.^{7–9}

A significant positive correlation between the number of curriculum hours and the number of lecture components was found in the present study. The number of lecture components increased directly with the increase in curriculum hours. However, it is difficult to secure sufficient curriculum hours for sexuality education in medical schools because of the wide variety of subjects taught in modern medicine. Although the number of curriculum hours was insufficient for the faculties in half of the medical schools, over 70% of the schools also indicated in their replies that the number of lecture components was insufficient. There were some limitations with regard to the questionnaires. First, despite questioning the urologists, we asked about a wide range of curricular components in the questionnaires, and thus it was difficult to assess the overall quality of the education received for each component. Second, we did not collect information in the

questionnaires on how much time is devoted to teaching each component of the curriculum. Third, we did not collect information on the students' perception of the curriculum. A greater effort must be made by the JSSM to achieve inclusion of sufficient components for sexuality education. To be effective, sexual health curricula need to be integrated longitudinally throughout medical training.⁹ Because no single department can educate a medical student on the entirety of sexuality education, a team-based approach is preferred.^{14,15} Because none of the chair professors of gynecology and psychiatry departments were members of the JSSM, an additional national survey of sexuality education in Japan is needed that includes departments of gynecology, psychiatry, pediatrics and basic medicine. In North American medical schools, psychiatry was the discipline most frequently involved, with 75.3% of the medical schools teaching sexuality under this discipline.¹² In Brazilian medical schools, gynecology was the discipline in which sexuality-related topics were most often taught (51.5%), followed by urology (18%) and psychiatry (15%).¹³

Online lectures, smartphone apps and web-based simulations are a priority as these tools incorporate many aspects of learning preferred by the modern student.^{16,17} These tools might be useful in improving sexuality education because the number of curriculum hours currently devoted to sexuality education is insufficient.

A comprehensive and uniform curriculum on sexuality education in medical school may enhance the capacity of tomorrow's physicians to provide sexual health care for their patients.⁷ It has been suggested that the International Society for Sexual Medicine could have a vital role in supporting sexuality education by providing a universal curriculum that can be used around the world.¹⁸ We also need a standardized syllabus and materials for sexuality education in medical schools in Japan that should be created mainly by the Directors of the JSSM. The academic committee of the JSSM has already established a standardized syllabus subcommittee that will create a syllabus based on the European Society for Sexual Medicine syllabus of sexual medicine found at <http://www.essm.org/education-certifications/certifications/the-efs-and-essm-syllabus-of-clinical-sexology/>.

This is the first national study of sexuality education in Japanese medical schools. The results of this study may have direct implications for the importance of sexuality education in the Japanese population. However, these results are based on a survey of medical schools only. Future research should also be done on graduate medical students to evaluate the effect of the present level of sexuality education on the care of their patients. Also, after the application of the suggested new sexuality curriculum based on the European Society for Sexual Medicine syllabus, we will need to evaluate changes in sexuality education among medical school students and graduate medical students and the potential effect these changes may have on patient care.

RESEARCH DATA SET

The data sets generated during and/or analyzed during the current study are available in the figshare repository, (https://figshare.com/articles/histogram_lecture_hour_pdf/4272749).

CONFLICT OF INTEREST

The authors declare no conflict of interest.

ACKNOWLEDGMENTS

These data on sexuality education are based on the results obtained from all medical schools in Japan. The authors are grateful for the cooperation of all Japanese urologists in collecting the data for this study.

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