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【Original Article】

Research on Second-Hand Smoke Prevention Measures at Medical/Welfare Related Universities

First Report: Actual Conditions of Second-Hand Smoke Prevention Measures and Knowledge and Awareness of Faculty Members

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Abstract

[Background] There exists no simultaneous research examining actual conditions of second-hand smoke prevention measures at a number of universities and knowledge and awareness of faculty members working there on them. Due to this, the actual situations of knowledge and awareness of faculty members on second-hand smoke prevention measures implemented at universities have not been clarified. Thus, we researched the current conditions of second-hand smoke prevention measures at medical/welfare related universities and knowledge and awareness of faculty members on them.

[Methods] We sent requests for cooperation to the research to the presidents of 21 universities with medical, nursing or welfare departments in Hyogo Prefecture and conducted a survey on anti-smoking conditions at 6 universities which agreed to cooperate. At the same time, we also targeted 861 faculty members at the 6 universities and researched their knowledge and awareness on second-hand smoke prevention measures. For the survey, we adopted the placement method utilizing anonymous automatic-recording questionnaires and conducted the survey from February to September 2011. The survey was implemented after ethical review by the university the researchers belonged to.

[Results] 502 of 861 faculty members (58.3%) at the 6 universities responded. For analysis, we only used valid responses from 495 people (57.5%). According to the anti-smoking classification, 3 universities (285 members belonged to) were non-smoking facilities and 3 universities (210 members belonged to) were smoking facilities. 73% of the faculty members at non-smoking facilities and 59.6% at smoking facilities properly understood their anti-smoking classifications. 21.5% of respondents from non-smoking facilities and 47.9% from smoking facilities answered that they were exposed to second-hand smoke, indicating a significant difference ($p < 0.001$).

[Conclusion] Although medical/welfare related universities are supposed to have many faculty members with medical expertise, 30% faculty members at non-smoking facilities and 40% at smoking facilities did not properly understand their universities' anti-smoking classifications. In addition, even at non-smoking facilities, where on-campus smoking is supposedly prohibited, second-hand smoke existed too.

Keywords: Medical/welfare related universities, second-hand smoke prevention measures, faculty members

Introduction

Since the enforcement of Health Promotion Law in 2003, schools have been designated as a place with a duty to take second-hand smoke prevention measures in order to protect non-smoking individuals. Therefore, necessity of second-hand smoke prevention measures has further increased especially in educational facilities with students including minors. Amid such situation, Hyogo prefecture has developed "Prefectural guideline for second-hand smoke prevention measures" on March in 2004. With an explicit statement for non-smoking on the premises such as universities and professional schools, the guideline has shown its concept that "Smoking on the premise shall be prohibited in order to improve the circumstance for students to be able to take proper actions based on correct information since university students make their way from minors to adults during their school days and the period is exactly when many people start smoking habit [1)]". Further, a goal has been set up to achieve 100% non-smoking within premises of universities and professional schools by 2005 [1)]. It has been a pioneering effort nationally in an aspect that certain target values for achieving smoking prohibition on the premises of universities were indicated mainly led by local governments. According to a result of "Implementation status survey of second-hand smoke prevention measures" conducted by health promotion section of health division in health and welfare department of Hyogo prefecture, however, the result was far from the achievement of 100% smoking prohibition on the premises of universities showing smoking prohibition measures implementation ratios of 28.8% and 36.1% [2)] as of 2005 and 2008 respectively in educational institutions such

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as universities and professional schools. In terms of smoking prevention measures for minors, on the other hand, with education of health disturbance caused by smoking including second-hand smoke for early elementary grades, smoking prevention education has become to be implemented strenuously based on enforcement of various policies [3] by individual local governments and the curriculum guidelines specified by the Ministry of Education [4]. As the result, a lot of survey findings have been reported that smoking ratios in minors have remarkably decreased [5, 6]. However, disputed trend in students to start smoking after enrollment in universities [7-10] has been a common phenomenon observed in universities nationwide. At present when the percentage of students who advance to universities or junior colleges has reached more than 50% level, it's not an exaggeration to say that health promotion activities at universities could make a great difference to health of graduates, i.e. citizens in the future [12]. However, while various efforts for second-hand smoke prevention have been made at many universities, few reports have reviewed current situation of second-hand smoke prevention measures implemented at universities as well as knowledge and awareness on such measures of their faculty members simultaneously, resulting in insufficient clarification of recognition degree of faculty members relating to second-smoke prevention measures implemented at universities.

Therefore, "actual conditions of second-hand smoke prevention measures" and "knowledge and awareness on them" were simultaneously surveyed in the study at medical/welfare related universities which are supposed to take responsibilities of education of students to actively work for medical welfare field in the future and to have higher level of knowledge on smoking.

Methods

1. Subjects and Methods of Survey

Based on data disclosed by the Ministry of Education, Culture, Sports, Science & Technology as of January 2011, survey cooperation requests were sent to presidents of 21 universities with medical, nursing, welfare faculties in Hyogo prefecture and the survey was conducted for 6 universities which agreed with the request and 861 of faculty members who belonged to the universities. Placement method based on anonymous self-administered questionnaire was used for the survey.

Further, it was required to precisely comprehend actual conditions of anti-smoking as well as second-hand smoke prevention measures in order to understand how faculty members recognized the actual conditions of such measures implemented by universities they belonged to. Therefore, we asked for answers about the actual conditions of second-hand smoke prevention measures to one person for each university selected from among students and faculty members in charge of health control of health control center or the like and those who were in charge of second-hand smoke prevention measures and knew well about the activities. The surveillance period was from February to September in 2011.

2. Contents of Survey

Totally 20 items of questions were setup as the contents of survey for faculty members including age, sex, occupation, professional qualifications of medical or welfare field, basic attributes including length of service, degree of recognition about second-hand smoke prevention measures of universities they belonged to, experience of second-hand smoke on the campuses, awareness on smoking by students in medical/welfare faculties as well by faculty members of medical/welfare-related universities, feeling at the time of second-hand smoke, knowledge on health effects caused by second-hand smoke, relationship between smoking trend in students and measures against smoking by students, stance for second-hand smoke prevention measures in the future, knowledge on responsibility of facility managers to take steps for second-hand smoke prevention measures required by Health Promotion Law, degree of recognition about guidelines of Hyogo prefecture for second-hand smoke prevention measures and target values indicated by them relating to smoking prohibition on the premises of universities, and interest in second-hand smoke prevention measures (Document 1). A question to ask the condition of second-hand smoke prevention measures implemented by universities was set up for the survey to understand the actual conditions of such activities of universities including anti-smoking measures (Document 2). In addition, "universities with implementation of smoking prohibition on the campus" in the study has been defined as "universities which have publicly announced any and all smoking prohibition on their premises including inside and outside of buildings".

3. Methods of Analysis

Descriptive analysis of each survey item was conducted for age, sex, profession, professional qualification for medical and welfare field, and length of service. Further, examination was conducted on difference in proportions between two groups, i.e. universities which have been implementing smoking prohibition on the premises (hereinafter refers to as on-the-premise smoking prohibition implementing school) and those which have not been implementing smoking prohibition on the premise (hereinafter refers to as on-the-premise smoking prohibition non-implementing school) based on responses from representatives of each university relating to the items of degree of recognition about second-hand smoke prevention measures of universities they belonged to, experience of second-hand smoke on the campuses, relationship between smoking trend in students and measures against smoking by students, stance for second-hand smoke prevention measures in the future. In addition, χ^2 tests were conducted on differences in proportions based on sex and medical-related professional qualifications for each result. Each amount of statistics has been shown by average value ± standard deviation with level of statistical significance at 0.05 or less. Missing values have been eliminated and not included in the analysis. SPSS 20.0J for Windows was used for the statistical analyses mentioned above.

Furthermore, free descriptions relating to reasons for choosing the direction for second-hand smoke prevention measures in the future were quantified by categorizing them into each group with similar descriptions. Subsequently, the second-hand smoke prevention measures were compared by their directions.

4. Ethical Consideration

With explicit description about outline, purpose and methods of the study, securement of confidentiality and anonymity of

data, and no disadvantage for rejection of participation in the study or suspension thereof on the explanation and consent documents distributed to universities and subjects for the survey, we regarded the collected consent forms from universities and survey slips from faculty members as their consents to the study. With an explicit description that participants may decline the study even along the way without any disadvantage, a copy of the survey response paper (consent form) and request form for consent withdrawal were sent by mail to universities which agreed with the survey. Further, analyses were conducted by separating off any information that could identify personal name based on the anonymous survey. The survey was approved (on August 24, 2011) by Ethics Review Committee of Kansai University of Social Welfare.

Result

As a result of request of cooperation to the survey in writing sent to presidents of 21 universities with a faculty of medicine, nursing or welfare in Hyogo prefecture, we received responses from 10 of them (47.6%) over whether they accepted the cooperation or not. However, the request of cooperation to the survey was sent again to presidents of 11 universities which hadn't responded previously. As the result, we received responses from 5 universities anew by which the final number of respondent universities reached 15 (71.4%) in total. We obtained consent from 6 universities (28.6%) among the respondent universities. Then, survey slips were distributed to 861 faculty members of the 6 universities and the questionnaire forms were collected from 502 respondents (58.3%) in total. Data of valid responses from 495 respondents (response ratio of 57.5%) were used for the analyses.

1. Outline of Subjects

Outline of subjects are shown in Table 1 separately by each anti-smoking measure. As a whole, all subjects are divided into 197 (40.1%) of men and 294 (59.9%) of women by sex, and 133 (27.1%)
in their 40's are classified as the most dominant group by age followed by 118 in their 30's and 105 in their 50's. 219 (44.7%), 261 (53.3%) and 10 (2.0%) were teachers, office staff and others respectively by classification based on occupation. In terms of qualification, 121 (25.1%) had medical/welfare related professional qualifications, while 361 (74.9%) didn't. Further, 338 (69.4%) with three or more service years consists more than half of all subjects, while those with less than three service years were 149 (30.6%).

Table1. Outline of Subjects

Item	smoking ban status	
	total smoking ban n=285	Not total smoking ban n=210
sex		(unanswered=4)
Male	99(35%)	98(47.1%)
Female	184(65%)	110(52.9%)
Age		(unanswered=5)
20-29	32(11.3%)	18(8.7%)
30-39	62(22.0%)	56(26.9%)
40-49	80(28.3%)	53(25.5%)
50-59	62(22.0%)	43(20.7%)
0-9	41(14.5)	36(17.3%)
70-	5(1.8%)	2(1.0%)
Occupation		(unanswered=5)
Teacher	125(44.6%)	94(44.8%)
Office worker	151(53.9%)	110(52.4%)
Others	4(1.4%)	6(2.9%)
Medical welfare employment qualification		(unanswered=13)
Yes	77(28%)	44(21.3%)
No	198(72%)	163(78.7%)
Length of the job		(unanswered=8)
>3years	95(34.1%)	54(26.0%)
<3years	184(65.9%)	154(74.0%)

2. Anti-smoking Measures Classification

As for classification of anti-smoking measures in 6 universities, three of them were on-the-premise smoking prohibition implementing schools, and remaining three of them were on-the-premise smoking prohibition non-implementing schools. The numbers of faculty members of the former schools were 285 and those of the latter were 210.

3. Anti-smoking Classification Recognized by Faculty Members

Anti-smoking classifications recognized by faculty members are shown in Table 2 by each anti-smoking measure which has been actually introduced by each university. Of all faculty members of three on-the-premise smoking prohibition implementing schools, 205 of them (73.0%) had recognized the on-the-premise smoking prohibition correctly and 62 of them (22.1%) had mistakenly recognized it, revealing that 76 (27.1%) of faculty members including 14 (5.0%) of those who responded they didn't know had not recognized the on-the-premise smoking prohibition. On the other hand, of all faculty members of three on-the-premise smoking prohibition non-implementing schools, 124 of them (59.6%) had correctly rec-

Table2.Smoking regulation recognized by teachers

smoking regulation status	total smoking ban 3	Not total smoking ban 3	
The number of the respondents	n		*p*
	281[2] (%)	208[2] (%)	
.smoking regulation recognizwd by teachers			
total smoking ban	205(73.0)	6(2.9)	p<0.001[1]
smoking ban in buildings	23(8.2)	124(59.6)	
smoking is allowed in smoking rooms	25(8.9)	20(9.6)	
smoking place is not directed	14(5.0)	55(26.4)	
unclear	14(5.0)	3(1.4)	

[1] pearson`s χ^2 analysis

[2] except unanswered

ognized anti-smoking classification introduced by the universities they belonged to, while 6 of them (2.9%) had recognized as on-the-premise smoking prohibition and 3 of them (1.4%) responded they didn't know.

Then, difference in ratios of correct recognition of anti-smoking classification by faculty members for each anti-smoking measure introduced by each university was compared between those who had medical/welfare related qualifications and those who didn't (Table 3). As a result, among faculty members of on-the-premise smoking prohibition implementing schools who had recognized the anti-smoking classification correctly, 50 of them (66.7%) had medical/welfare related professional qualifications while 150 of them (76.1%) didn't, showing significant difference recognized depending on with or without such qualifications ($p < 0.001$). On the other hand, among faculty members of on-the-premise smoking prohibition non-implementing schools who had recognized the anti-smoking classification correctly, 31 of them (70.5%) had medical/welfare related professional qualifications and 92 of them (56.8%) didn't, and it has been confirmed that ratio of those who had correctly recognized the indoor no-smoking introduced by on-the-premise smoking prohibition non-implementing schools was significantly higher in those who had medical/ welfare related professional qualifications ($p < 0.05$).

Further, as a result of comparison on difference in ratios of recognition of anti-smoking classification between sexes (Table 4), among faculty members of on-the-premise smoking prohibition implementing schools who had recognized the anti-smoking classification, 68 of men (68.7%) and 136 of women (75.1%), i.e. about 70% of both men and women had correctly recognized the on-the-premise smoking prohibition, showing no significant difference between sexes. Among faculty members of on-the-premise smoking prohibition non-implementing schools who had recognized the anti-smoking classification, however, 47 of men (48.0%) and 77 of women (71.0%) had recognized the anti-smoking classification correctly, showing significantly high ratio of correct recognition of the classification in women ($p < 0.001$).

4. Experience of Second-hand Smoke on the Campuses

Table 5 shows the status of experience of second-hand smoke on the campuses for each anti-smoking measure prac-

Table3. Teachers who have medical welfare system professional qualifications and those who do not were compared. Anti-smoking divisions that those teachers are aware of are as follows:

smoking regulation status	total smoking ban 3			Not total smoking ban 3		
Medical welfare employment qualification	Yes	No	*p*	Yes	No	*p*
	75[2](%)	197[2](%)		44[2](%)	162[2](%)	
Anti-smoking divisions that teachers are aware of						
total smoking ban	50(66.7)	150(76.1)		3(6.8)	3(1.9)	
smoking ban in buildings	1(1.3)	21(10.7)		31(70.5)	92(56.8)	
smoking is allowed in smoking rooms	10(13.3)	14(7.1)	p<0.001[1]	1(2.3)	18(11.1)	p<0.05[1]
smoking place is not directed	6(8.0)	6(3.0)		7(15.9)	48(29.6)	
unclear	8(10.7)	6(3.0)		2(4.5)	1(0.6)	

[1]pearson`s χ^2 analysis
[2]except unanswered

Table4.Smoking regulation recognized by teachers when sex compares.

smoking regulation status	total smoking ban 3			Not total smoking ban 3		
The number of the respondents[2]	Male	Female	*p*	Male	Female	*p*
	n			n		
	99(%)	181(%)		98(%)	109(%)	
Smoking regulation recognizwd by teachers						
total smoking ban	68(68.7)	136(75.1)		1(1.0)	5(4.6)	
smoking ban in buildings	8(8.1)	15(8.3)		47(48.0)	77(71.0)	
smoking is allowed in smoking rooms	15(15.2)	10(5.5)	n.s[1]	16(16.3)	3(2.8)	p<0.001[1]
smoking place is not directed	5(5.1)	9(5.0)		34(34.7)	21(19.3)	
unclear	3(3.0)	11(6.1)		0	3(2.8)	

[1]pearson`s χ^2 analysis n.s=not significant
[2]except unanswered

Table5. Passive smoking in the university

smoking regulation status	total smoking ban 3	Not total smoking ban 3	
The number of the respondents	n		*p*
	284[2](%)	209[2](%)	
passive smoking			
daily	8(2.8)	14(6.7)	
sometimes	53(18.7)	88(41.2)	p<0.001[1]
never	223(78.5)	107(51.2)	

[1]pearson`s χ^2 analysis
[2]except unanswered

Table6.Feelings when received passive smoking when compared between respondents who have medical welfare system professional qualifications and those who do not.

Medical welfare employment qualification	Yes	No	p
	n		
	46[2](%)	118[2](%)	
Feelings when received passive smoking			
Do not feel anything in particular	4(8.7)	25(21.2)	n.s[1]
It is disturbing, but it does not affect or damage my health	32(69.6)	75(63.6)	
It affects or damages my health, so I feel bad	10(21.7)	18(15.3)	

[1]pearson`s χ^2 analysis n.s=not significant

[2]except unanswered

Table7.Feelings when received passive smoking when sex compares.

The number of the respondents	Male	Female	p
	n		
	78[2](%)	89[2](%)	
Feelings when received passive smoking			
Do not feel anything in particular	20(25.6)	8(9.0)	p<0.01[1]
It is disturbing, but it does not affect or damage my health	48(61.5)	61(68.5)	
It affects or damages my health, so I feel bad	10(12.8)	20(22.5)	

[1]pearson`s χ^2 analysis

[2]except unanswered

ticed during the past 6 months. Those who responded they had experienced second-hand smoke routinely and occasionally were 8 persons (2.8%) and 53 persons (18.7%) in on-the-premise smoking prohibition implementing schools and 14 persons (6.7%) and 88 persons (41.2%) in the non-implementing schools respectively, showing significantly lower ratio of experience of second-hand smoke in on-the-premise smoking prohibition implementing schools ($p < 0.001$). However, those who had experienced second-hand smoke on the universities they belonged to during the past 6 months were 163 persons in the 6 universities, making up 33.1% of the whole respondents. Moreover, those who had experienced second-hand smoke while smoking prohibition on the premise was practiced were 61 persons, making up 21.5% of faculty members who belonged to on-the-premise smoking prohibition implementing schools. In other words, it has been proved the reality that second-hand smoke was observed even at higher education institutions such as medical/welfare related universities which educate specialists to work at medical/welfare related site in the future in spite of implementing smoking prohibition on the premise.

5. Sensation When Exposed to Second-hand Smoke

We asked 163 of those who responded they had experienced second-hand smoke routinely and occasionally in the universities they belonged to during the past 6 months about the sensation when they were exposed to second-hand smoke. As shown in Fig.1, the result shows that 66.3% of them responded they had felt it annoying but it had no harmful effect (damage) on health and 16.6% of them had complained its harmful effect (damage) on health with arduous feeling, revealing that more than 80% of them in total had felt adverse effect on health and arduous feeling as well. Further, as nearly 20% of them responded they had already been affected (damaged) by second-hand smoke with arduous feeling, it has been confirmed that there were faculty members whose health conditions were affected by second-hand smoke on the campuses.

Then, difference in ratios with regard to sensation when they were exposed to second-hand smoke was compared between

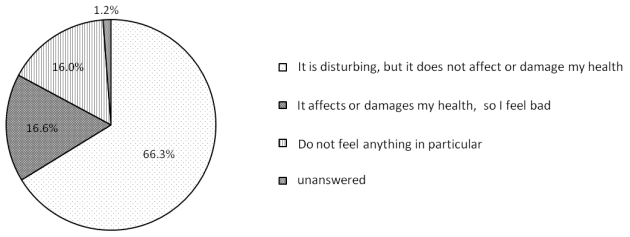

Figure1. Feelings when received passive smoking

respondents with and without medical/welfare related professional qualifications (Table 6). As the result, those who responded it had not affected (damaged) their health but annoyed them with and without medical/welfare related professional qualifications were 32 persons (69.6%) and 75 persons (63.6%) respectively, and similarly those who responded it had affected (damaged) their health and distressed as well, and those with and without the qualifications who did it had made them feel nothing special were 10 persons (21.7%) and 18 persons (15.3%) in the former case, and 4 persons (8.7%) and 25 persons (21.2%) in the latter case respectively, with no significant difference confirmed depending on medical/welfare related professional qualifications.

Further, differences of ratios in each item by sex were compared (Table 7). As the result, of all those who responded it had not affected (damaged) their health but annoyed them, 48 were men (61.5%) and 61 were women (68.5%), and similarly of all those who responded it had affected (damaged) their health and distressed them as well and those who did it had made them feel nothing special, 10 were men (12.8%) and 20 were women (22.5%) in the former case , and 20 were men (25.6%) and 8 were women (9.0%) in the latter case respectively, with significant difference confirmed between men and women ($p < 0.01$).

6. Awareness of Faculty Members on Second-hand Smoke of Students on the Campus

The faculty members were asked how they considered sec-

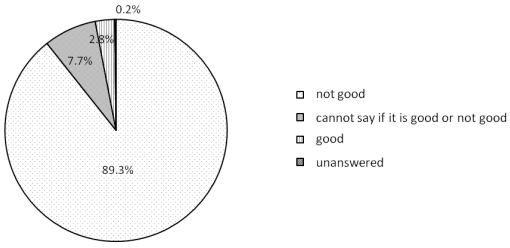

Figure2. Teachers' awareness concerning the fact that students receive passive smoking in the university

ond-hand smoke of students on the campuses of universities they belonged to. As shown in Fig. 2, the result indicates 89.3% of faculty members took it undesirable for students to be exposed to second-hand smoke on the campuses. In other words, it has been revealed that nearly 90% of faculty members think it unfavorable for students to be exposed to second-hand smoke on the campuses. On the other hand, it has been also revealed that there still exist some faculty members who don't mind if students are exposed to second-hand smoke on the campuses of universities they belonged to, even if the ratio was as low as 2.8%.

As a result of comparison of awareness on second-hand smoke of students on the campuses between faculty members with and without medical/welfare related professional qualifications (Table 8), of all those who considered it undesirable, 113 persons (93.4%) had professional qualifications and 316 persons (87.8%) didn't, and similarly of all those who responded yes or no and those who tolerated it, 6 persons (5.0%) had the qualifications and 32 persons (8.9%) didn't in the former case and 2 persons (1.7%) had the qualifications and 12 persons (3.3%) didn't respectively, with no significant difference recognized depending on the medical/welfare related professional qualifications.

Further, as a result of comparison by sex of awareness on second-hand smoke of students on the campuses between faculty members (Table 9), of all those who considered it undesirable, 173 were men (88.3%) and 266 were women (90.5%), and similarly of those who responded yes or no and those who

Table8. Teachers' awareness concerning the fact that students receive passive smoking in the university when compared between respondents who have medical welfare system professional qualifications and those who do not.

Medical welfare employment qualification	Yes	No	*p*
	n		
	121[2](%)	360[2](%)	
Awareness of Faculty Members on Second-hand Smoke of Students on the Campus			
good	2(1.7)	12(3.3)	
not good	113(93.4)	316(87.8)	n.s[1]
Cannot say if it is good or not good	6(5.0)	32(8.9)	

[1]pearson`s χ^2 analysis n.s=not significant
[2]except unanswered

Table9.Awareness of Faculty Members on Second-hand Smoke of Students on the Campus when sex compares.

The number of the respondents[2]	Male	Female	*p*
	n		
	196(%)	294(%)	
Awareness of Faculty Members on Second-hand Smoke of Students on the Campus			
good	3(1.5)	11(3.7)	
not good	173(88.3)	266(90.5)	n.s[1]
Cannot say if it is good or not good	20(10.2)	17(5.8)	

[1]pearson`s χ^2 analysis n.s=not significant
[2]except unanswered

Table10. Students' smoking conditions that teachers feel and the influences of passive smoking prevention measures at each university.

smoking regulation status	total smoking ban 3	Not total smoking ban 3	*p*
student's smoking	285[2](%)	209[2](%)	
Increased comparing with the past	18(6.3)	22(10.5)	n.s[1]
Decreased comparing with the past	120(42.1)	87(41.6)	
unclear	147(51.6)	100(47.8)	
The influences of passive smoking prevention measures	281[2](%)	206[2](%)	
Greatly affected	36(12.8)	9(4.4)	p<0.001[1]
Affected to some extent	88(31.3)	66(32.0)	
Not significantly affected	51(18.1)	69(33.5)	
unclear	106(37.7)	62(30.1)	

[1]pearson`s χ^2 analysis n.s=not significant
[2]except unanswered

tolerated it, 20 were men (10.2%) and 17 were women (5.8%) in the former case and 3 were men (1.5%) and 11 were women (3.7%) in the latter case respectively, with no significant difference confirmed between men and women.

7. Trend of Smoking among Students Perceived by Faculty Members and Effects of Second-hand Smoke Prevention Measures Implemented by Each University

Trend of smoking among students perceived by faculty members is shown in Table 10 by each anti-smoking measure. In terms of trend of smoking among students of universities they belonged to, ratios of the faculty members in on-the-premise smoking prohibition implementing schools and non-implementing schools who perceived the trend had shrunk than before were 42.1% and 41.6% respectively, and ratios of those who perceived the trend had strengthened than before were 6.3 % and 10.5% respectively, showing almost the same ratios with no significant difference observed depending on the anti-smoking measures. By a question whether they thought the second-hand smoking prohibition measures implemented by the universities they belonged to had influence on the trend of smoking among students, such a tendency has been recognized that faculty members of on-the-premise smoking prohibition implementing schools more likely perceived significant impact and those who belonged to the non-implementing schools more likely perceived less impact ($p < 0.001$).

8. Second-hand Smoke Prevention Measures to be Implemented or Continued Ultimately

The results shown in Table 11 are responses to a question about second-hand smoke prevention measures which should be implemented or continued ultimately in the future in the universities they belonged to. In case of faculty members of on-the-premise smoking prohibition implementing schools, the highest ratio of 75.7% of them responded on-the-premise smoking prohibition should be continued, followed by 13.7% of them preferring completely separate smoking and 9.9% of them preferring indoor no-smoking. In case of those who belonged to on-the-premise smoking prohibition non-implementing schools, the highest ratio of 45.9% of them responded on-the-premise smoking prohibition should be continued, followed by 28.2% of them preferring indoor no-smoking and 21.5% of them preferring completely separate smoking, revealing that faculty members of on-the-premise smoking prohibition implementing schools more likely recognized a need to continue the on-the-premise smoking prohibition as a trend for second-hand smoke prevention measures in the future ($p < 0.001$).

Then, as a result of comparison (Table 12) between faculty members with and without medical/welfare related professional qualifications about how they considered the second-hand smoke prevention measures to be implemented or continued ultimately in the universities they belonged to, it has been revealed that those who had medical/welfare related professional qualifications more likely recognized a need to continue the on-the-premise smoking prohibition ($p < 0.001$).

9. Reason for Selection Relating to Direction for Second-hand Smoke Prevention Measures in the Future

As 182 out of 493 respondents relating to direction for second-hand smoke prevention measures in the future described also about reasons of selection, a result of analysis of their descriptions is shown. Of 182 respondents, 104 selected to implement or continue on-the-premise smoking prohibition as a direction for second-hand smoke prevention measures in the future, followed by 39, 36 and 3 respondents who selected indoor no-smoking, completely separate smoking, and sepa-

Table11. Passive smoking prevention measures that should be implemented finally or continued to implement.

smoking regulation status	total smoking ban 3	Not total smoking ban 3	
The number of the respondents	n		*p*
	284[2] (%)	209[2] (%)	
The direction of the anti-smoking that should be implemented finally or continued to implement			
total smoking ban	215(75.7)	96(45.9)	p<0.001[1]
smoking ban in buildings	28(9.9)	59(28.2)	
smoking is allowed in smoking rooms	39(13.7)	45(21.5)	
smoking place is not directed	2(0.7)	8(3.8)	
free smoking	0	1(0.5)	

[1] pearson`s χ^2 analysis
[2] except unanswered

Table12. Passive smoking prevention measures that should be implemented finally or continued to implement when compared between respondents who have medical welfare system professional qualifications and those who do not.

Medical welfare employment qualification	Yes	No	
The number of the respondents	n		*p*
	121[2] (%)	359[2] (%)	
Passive smoking prevention measures that should be implemented finally or continued to implement			
total smoking ban	96(79.3)	204(56.8)	p<0.001[1]
smoking ban in buildings	13(10.7)	74(20.6)	
smoking is allowed in smoking rooms	11(9.1)	71(19.8)	
smoking place is not directed	1(0.8)	9(2.5)	
free smoking	0	1(0.3)	

[1] pearson`s χ^2 analysis
[2] except unanswered

Table13. The reasons of the selection regarding the orientation of passive smoking prevention measures in the future.

Categories that have been extracted from the contents of free description	Number of Descriptions	%
1)total smoking ban	104	(100.0)
Necessary for passive smoking prevention measures	47	45.2
Necessary for health	20	19.2
Smoking itself is annoying or unpleasant	14	13.5
Reasonable as a university of Medical Welfare system	12	11.5
Necessary for education	11	10.6
2)smoking ban in buildings	39	(100.0)
Possible occurrence of harmful effects caused by banning smoking in the site	13	33.3
Smoking is a personal freedom and rights	11	28.2
Difficult to ban smoking completely	8	20.5
No problem with the present situation	4	10.3
Banning smoking in the site is too compulsory	2	5.1
Health hazards are reduced by banning smoking in the building	1	2.6
3)smoking is allowed in smoking rooms	36	(100.0)
Possible occurrence of harmful effects caused by banning smoking in the site	13	36.1
Smoking is a personal freedom and rights	11	30.6
Difficult to ban smoking completely	7	19.4
Acceptable to separate smoking and non-smoking areas completely	5	13.9
4)smoking place is not directed	3	(100.0)
Other measures are unrealistic	2	66.7
Smoking is a personal freedom and rights	1	33.3

rate smoking respectively. In relation to the reason for selecting implementation or continuation of on-the-premise smoking prohibition as a direction for second-hand smoke prevention measures in the future, the highest ratio of 45.2% of respondents selected reasons belonged to a category of "necessity of second-hand smoke prevention measures", followed by 19.2%, 13.5%, 11.5% and 10.6% of those who selected categories of "necessity for health", "unpleasant and disturbing properties of smoking", "as a matter of course for medial/welfare related universities" and "necessity for education" respectively. Further, among reasons of those who selected implementation or continuation of indoor no-smoking, or completely separate smoking, and separate smoking, those reasons categorized into "possibility of adverse effect caused by on-the-premise smoking prohibition", "smoking as an individual liberty and right" and "difficulty in complete smoking prohibition" ranked high, and such reasons categorized into "necessity for second-hand smoke prevention measures", "necessity for health" and "necessity for education" weren't observed at all compared with descriptive contents of those who selected implementation or continuation of on-the-premise smoking prohibition.

*Words quoted by " " indicate category names.

10. Obstructive Factors for On-the-premise Smoking Prohibition

As for 96 of faculty members who desired on-the-premise smoking prohibition ultimately in the universities they belonged to where the on-the-premise smoking prohibition hasn't been introduced yet, factors shown in Fig. 3 are those responded by them as the hindrance to implementation of on-the-premise smoking prohibition by the universities they currently belong to. As the result, the most dominant reason accounting for 29.6% was that cooperation of faculty members with smoking habit wasn't obtained, followed by those accounting for 26.9% and 13.0% that increased smoking outside the premise could cause troubles for neighbors and that it was difficult to obtain assistance from top management with smoking habit, respectively. In Health Promotion Law, schools are designated as an institution with an obligation to take any measure as required to prevent second-hand smoke and so facility managers are imposed with a duty to make efforts to take second-hand smoke prevention measures. However, as a factor to prevent on-the-premise smoking prohibition from being introduced, such responses that it was difficult to obtain assistance from top management with smoking habit made up for more than 10% of the whole responses.

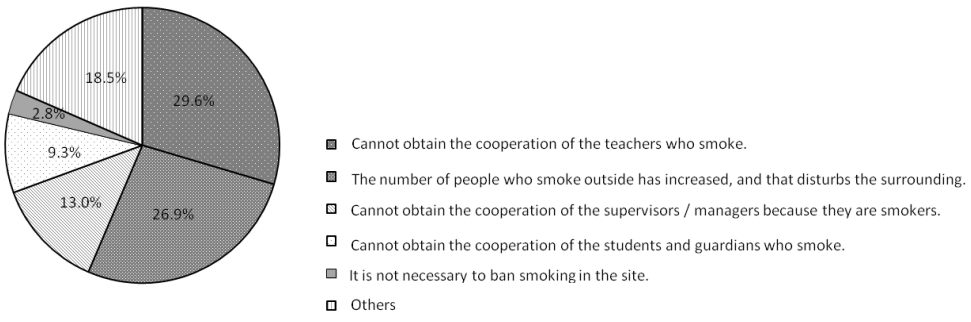

Figure3. Factors that prevent people from banning smoking in the site

Discussion

With faculty members who didn't correctly understand second-hand smoke prevention measures of each university accounting for approximately 30% and 40% of those who belonged to on-the-premise smoking prohibition implementing schools and non-implementing schools respectively, it has been revealed that there exist certain faculty members who didn't understood actual state of second-hand smoke prevention measures. In addition, as for experience of second-hand smoke during the past 6 months, from 20% to more than 40% of people were exposed to second-hand smoke on the campuses in both on-the-premise smoking prohibition implementing schools and non-implementing schools, revealing existence of second-hand smoke regardless the state of implementation of second-hand smoke prevention measures by universities. In other words, the result has suggested a reality that second-hand smoke still exists even under implementation of on-the-premise smoking prohibition. According to a survey conducted at public elementary, junior and senior high schools by Kiyohara et al. (2008), the number of those who were exposed to second-hand smoke in schools of on-the-premise smoking prohibition implementing group was less than one-tenth of that in schools of on-the-premise smoking prohibition non-implementing group, suggesting that the regulation of on-the-premise smoking prohibition had a great impact on reducing second-hand smoke [13]. With second-hand smoke observed in on-the-premise smoking prohibition implementing schools by around half of that in non-implementing schools, however, such great impact on second-hand smoke reduction by implementation of on-the-premise smoking prohibition wasn't recognized as did in public elementary, junior and senior high schools. It is believed that it was affected by differences between universities and public elementary, junior and senior high schools. Therefore, a lot of factors were thought to be associated with. For example, unlike public elementary, junior and senior high schools, universities don't have such institutions like the board of education to integrally decide and perform regulations, and unlike such institutions in which majority of educational object students are minors, they have not only students who haven't reached the age eligible to smoke but also those who have arrived in adulthood including more than half of them at eligible age for smoking, and so there are generous opinions on smoking by faculty members and students on the campuses [9, 12, 14]. As may be apparent from the result this survey, the fact that 30% of faculty members hadn't recognized the anti-smoking classification in on-the-premise smoking prohibition implementing schools was believed to be a factor to hamper publicizing on-the-premise smoking inhibition implementation. As there has been a report [11] that around 10% of students and faculty members hadn't acknowledged the on-the-premise smoking prohibition at the time two years after introducing on-the-premise smoking prohibition, this aspect was taken as a problem also in a survey conducted in universities implementing on-the-premise smoking prohibition, and therefore the result of the survey isn't an exception. It is believed such environmental characteristics of universities might have become factors to make faculty members difficult to acknowledge the anti-smoking classification correctly that faculty members work on in their individual rooms such as laboratories because universities don't have faculty rooms unlike elementary, junior and senior high schools and that school buildings are scattered in the broad premises, resulting in generating a circumstance prone to smoke even on the premises where smoking is prohibited. Further, judging from the fact that faculty members hadn't acknowledged the anti-smoking classification in spite of implementation of on-the-premise smoking prohibition, it was concerned that similar phenomenon had occurred in recognition among students. Therefore, it may be an urgent need to consider how to widely supply and notify information of second-hand smoke prevention measures in order to make students and faculty members correctly recognize anti-smoking classifications.

In terms of direction for second-hand smoke prevention measures in the future in the universities faculty members belonged to, it has been revealed that many of them had recognized it undesirable to expose students to second-hand smoke regardless the on-going anti-smoking classifications and considered it necessary to introduce on-the-premise smoking prohibition for second-hand smoke prevention measures to be aimed at in the future. The tendency was observed more significantly in those who have medical/welfare related professional qualifications. As many researchers of anti-smoking measures in school have mentioned, universities are positioned as a final stage for anti-smoking education and the faculty members are required to play a role to prevent students from starting to smoke [13, 15, 16]. Based on these aspects, this survey is believed to have provided a result to support a correct way for promotion of second-hand smoke prevention measures. On the other hand, however, some faculty members have selected an anti-smoking classification other than on-the-premise smoking prohibition as a direction for second-hand smoke prevention measures in the future. Moreover, responses which were belonged to such categories as to "assert liberty and rights to smoke" or "fear adverse effects by introduction of on-the-premise smoking prohibition" made up more than half of the reasons they selected anti-smoking classifications other than on-the-premise smoking prohibition. It was believed form these results that such a persistent socially-accepted idea that smoking was a personal liberty still remained actually even in medical/welfare related universities, making it difficult to introduce on-the-premise smoking prohibition. Nakai et al. (2008) has described difficulty for students after enrollment in universities to prohibit smoking on their own and importance of smoking prohibition support by universities, taking into consideration that smoking habit in students becomes addictive during a period before or after enrollment in universities [17]. It may be important for universities to make efforts to eliminate circumstances in which smoking is tolerated as many as possible as well as to prevent smokers from increasing by providing correct information to students and faculty members as well. Since students to graduate medical/welfare related universities will be involved in professions relating to people's health, it is a mission for universities to produce specialist personnel capable of not only keeping their own health but also taking actions in consideration of effects to surroundings and faculty members are expected to be the closest to students and to show a better role model as well. It is required for universities in the future to improve environments to take advantage of anti-smoking education which has been addressed through elementary and junior high schools to senior high schools and to make every

single faculty member practice educational involvement for anti-smoking activities with correct knowledge.
In addition, although the survey is a crossover one and the analyses were conducted on actual situation of second-hand smoke prevention measures and awareness and knowledge of faculty members, it can't be denied that various factors which weren't involved in this survey items may have some impacts on such awareness and knowledge. Therefore, the analyses were conducted only within a range of simple comparison based on respective perspectives of anti-smoking classification, sex and possession of medical/welfare related professional qualifications.

Conclusion

Even in medical/welfare related universities for which many faculty members with a lot of medical knowledge are supposed to work, events of second-smoke have been confirmed under on-the-premise smoking prohibition. In addition, 30% of faculty members of on-the-premise smoking prohibition implementing schools haven't correctly recognized the anti-smoking classification of the universities they belonged to.

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【短報】

Ａ大学病院精神科病棟における禁煙化への取り組み
～キーパーソンインタビューによる検討の結果～

片山 知美[1) 2)] 高橋 裕子[3)]

要　旨

諸言：大学付属病院精神科病棟の敷地内禁煙化実施率は60％を超えている。しかし、これらの病院では、禁煙化までにどのような困難があったのか、その困難は先駆に取り組んだ病院と同様のものであったのか、異なるのかは報告されていない。そこで、2009年に敷地内禁煙を実施したA大学病院精神科病棟における禁煙化までの取組みと現状についてのキーパーソンインタビューを実施した。

方法：東京都内にある60床の精神科病棟を有するA大学病院の禁煙化ワーキンググループメンバー1名に半構造化インタビューを行った。調査は2010年3月に行い、実施にあたっては調査実施時に筆者が所属していた施設において倫理審査委員会の承認を受けた。

結果：A大学病院では、禁煙外来の開設を契機とし、敷地内禁煙化実施について院長通達を出し、強い強制力のもと実施に至った。また、初期に禁煙化した精神科病院では、様々な禁煙治療や禁煙指導が行われていたが、A大学病院では、禁煙教育や禁煙指導を実施することなく禁煙化に成功していた。

結論：精神科における禁煙化導入では、入院患者への禁煙治療や禁煙指導を行わずとも、患者の精神症状が悪化することなく導入できる可能性がある。

キーワード：大学病院、精神科病棟、敷地内禁煙、キーパーソンインタビュ

緒　言

ＦＣＴＣが批准され[1)]、禁煙に対する関心が高まる中、わが国においては2003年に健康増進法が施行され、病院等医療機関でも受動喫煙防止措置を講じることが必要となった。2004年に改定された病院機能評価Ver.5では、病院における受動喫煙防止策や敷地内禁煙化が高く評価され[2)]、医療施設における受動喫煙防止についての認識が急激に高まり、敷地内禁煙や建物内禁煙を実施する病院が増加した[3)]。しかし、病院機能評価において精神科病棟は一般病棟と異なり敷地内禁煙や建物内禁煙は求められなかった。こうした様々なことが影響し、精神科病棟における受動喫煙防止策の取り組みは一般病棟より遅れた4)。また、2004年ごろ、すでに多くの一般病棟が喫煙室を撤去していたが、精神科病棟の敷地内禁煙に取り組んだ先進的な病院では多くの反対や困難に遭遇したことが報告されている[5),6)]。

大和らの報告によると、それから4年後の2008年6月時点で、大学付属病院精神科病棟の敷地内禁煙化実施率は62.3％であった7)。しかし、これらの病院では敷地内禁煙化に際して、どのような困難があったのか、その困難は先駆的な病院と同様のものであったのか、異なるのかは報告されていない。

そこで筆者らは、2009年に敷地内禁煙化を実施したA大

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学病院精神科病棟における禁煙化までの取組みと現状についてのキーパーソンインタビューを実施したので報告する。

方　　法

１．調査対象と方法

本調査では、東京都内にある60床の精神科病棟を有するA大学病院の禁煙化ワーキンググループ（以下、WG）に所属し、精神科病棟の敷地内禁煙化実施前から現在に渡り、当該精神科病棟の禁煙化に関わっている、精神保健福祉士1名をインタビュー対象者とした。調査方法には、半構造化インタビューを採用した。なお、調査は敷地内禁煙実施後4か月を経過した2010年3月に行った。

２．調査内容

インタビュー内容は、あらかじめ先行研究をもとに研究者間で検討した。具体的には、「禁煙化決定の契機」、「禁煙化決定までの主導者や推進者」、「主導者や推進者が禁煙化決定までに行った活動」、「禁煙化の推進組織の有無と結成方法」、「禁煙化発案から決定までに要した期間」、「禁煙化に対しての職員や入院患者の反応」、「禁煙化決定までの問題」、「問題への対策や解決方法」、「禁煙化の情報提供の仕方」、「禁煙化実施前の喫煙制限とその遵守状況」、「精神科病棟禁煙化実施前のその他病棟の喫煙対策状況」、「禁煙外来の有無」、「精神科病棟禁煙化の最終決定者」などについてであり、インタビュー対象者には自由に語ってもらった。

なお、インタビューデータは、逐語録を作成し、精神科病棟禁煙化実施前、および精神科病棟禁煙化実施後の段階別に整理し、それぞれの取組みを時系列に検討した。

３．倫理的配慮

インタビューでは、研究の目的、方法、所要時間、プライバシーの保護に関すること、インタビュー内容を録音すること、結果を公表する際には匿名性を保持すること等を説明し、調査への同意を得た。なお、研究実施にあたっては、研究実施時に筆者が所属していた施設の倫理審査委員会において承認を受けた。

結　　果

１．精神科病棟禁煙化実施までの経過

１）禁煙化決定の契機

禁煙化決定の契機は、禁煙外来の開設を間近に控え、保険給付の対象であるニコチン代替療法を実施するためには、病院の敷地内禁煙が要件であり、診療環境を整備しなければならないという事であった。

２）禁煙化決定までの主導者や推進者

禁煙化決定までの主導者や推進者は、院長および精神科病棟の1人の医師を中心とした計8名（精神科病棟の看護師長、解放病棟の看護主任、閉鎖病棟の看護主任、解放病棟の医師、精神科の中堅医師、研修医、精神保健福祉士）のWGであった。

３）主導者や推進者が禁煙化決定までに行った活動

主導者や推進者が禁煙化決定までに行った活動では、院長名で敷地内禁煙化導入について全職員に向けて通達を出したことが挙げられた。また同時期、看護部から看護師に対し勤務中のユニフォーム姿による喫煙を一切禁止するという内容の指示が出された。WGが行った活動としては、精神科病棟禁煙化までに会議を2回開いた。その内容は、すでに禁煙化を進めている病院への聞き取り調査、禁煙によって生じるおそれのある精神状態の変化への対応についてであり、禁煙補助薬の使用に関する検討では、精神症状への影響を考慮して用いないこととした。パイポは希望があれば持ち込みを許可することにした。患者に対し禁煙化導入の2週間前に禁煙化について患者全体に向けたアナウンスをおこない、さらに精神科病棟と精神科外来に禁煙化について掲示した。掲示内容はWGで検討し、①喫煙による健康への影響について、②当該病院はすでに敷地内禁煙化を実施していることについて、③精神科病棟（閉鎖病棟を含む）での禁煙化を実施することについての3点とした。

４）敷地内禁煙化導入について説明を受けた際の患者の反応

大きく動揺した者や、症状に影響を与えた者はいなかった。

２．精神科病棟禁煙化実施後の経過

１）敷地内禁煙化実施後の入院患者の症状変化

症状が悪化した入院患者はみられなかった。また、病棟禁煙化によって、禁煙に至った事例が2～3例確認され、症状の改善による退院が１名みられた。

２）敷地内禁煙を理由とした退院や入院拒否

敷地内禁煙を理由とした退院はみられなかった。敷地内禁煙を理由とした入院拒否は１名にみられ、他の喫煙可能な病院を紹介した。

３）敷地内禁煙化実施後の新規入院患者への対応

外来診療時に新規入院患者と家族に対し、主治医が精神科病棟を含めた病院敷地内が禁煙であることを説明し同意を得た。さらにその後、精神保健福祉士による入院準備の説明時にも再度、病棟が禁煙であることを伝え、同意の確認をとっていた。また入院時には、精神科病棟が禁煙化であることを明記した「入院のしおり」に基づく説明を行った。すなわち、患者は入院までに3度に渡る病棟敷地内禁煙についての説明を受けることとなった。

４）入院患者への禁煙治療の有無

入院患者向けの禁煙治療や禁煙指導は実施されなかった。理由は前述のとおり禁煙治療薬を利用しづらいとの判断がなされたことと、他の精神科を有する大学病院からの情報として、敷地内禁煙した際に禁煙治療を提供する必要はほとんどなかったとの情報があったことによる。

５）禁煙化に伴う病棟内の喫煙環境の整備と喫煙者への対応

病棟禁煙化に伴い、閉鎖病棟内にあった喫煙室は取り払われ、クリーンアップされた後に、電話ルームへと改修された。喫煙希望者には外出同伴者がいることを条件に外出による喫煙が許可された。

６）精神科病棟内における禁煙の遵守状況

隠れタバコは敷地内禁煙実施4か月の時点において、1件の報告だけであった。

考　察

今回調査を行ったA大学病院精神科病棟では、2006年から病院敷地内禁煙を実施していながら、精神科病棟では喫煙環境が存在した。しかし、禁煙外来の開設を控え、精神科病棟を含む病院敷地内禁煙を徹底せざるを得なくなったことが精神科病棟の敷地内禁煙化を急進させる契機になっていた。これは、日本における精神科病棟の禁煙化における先駆的施設では、精神患者の煙草が原因で発生した火災事故をきっかけとしていたことが報告されており[4,5]、このこととは大きな違いであった。またすでに多くの医療施設で敷地内禁煙が実施されているという社会的変遷も、気運を高めた要因であると考えられた。さらに、今回の精神科病棟の禁煙化は、院長からの通達という形で表明されており、禁煙化について病棟内で発案したり、禁煙化を検討したりするレベルではなく、強い強制力があったことは大きな推進要因である。同時期に看護部から指示された、勤務中のユニフォーム姿による一切の喫煙禁止も、職員の禁煙化への意識を高める要因になったと考えられた。

次に、敷地内禁煙化実施までの経過では、禁煙化を初期に実施した施設では、患者に向けた説明だけではなく、患者やその家族、さらには職員に向けた禁煙教育が行われたことが報告されている[4)~6)]。また、禁煙化までの間に、ポスターや広報誌等による喫煙の健康被害など様々な情報提供を行いながら、喫煙室の利用時間を段階的に制限していくなど、きわめて慎重に時間をかけて禁煙化を実施していた[4)~6)]。こうした慎重さの理由として、精神科病棟における禁煙化の実施に際しては、当初ニコチン依存性からの離脱症状の影響が危惧されたことがあげられよう。すなわち、入院患者へのストレス因子の増大による興奮、不眠、精神症状の増悪などが懸念され、特に20年以上の長期入院患者を抱える閉鎖病棟ではこうしたリスクを心配し、禁煙化の実行が難しいと言われていた。しかし、実際には先駆的に禁煙化を実施した施設において精神症状の増悪は予想外に少なく、逆に睡眠薬の使用量が減ったとの報告もあった[8)]。

今回調査を行った施設では、患者への禁煙教育や喫煙室の利用制限を行うことなく、精神科病棟の禁煙化を実施していた。また患者への禁煙治療や禁煙指導を実施せず禁煙化していた。実施後に禁煙が影響したと考えられる症状の悪化がみられた患者は確認されておらず、頓服治療を必要とした患者もいなかった。患者や家族、職員に向けた禁煙教育や喫煙室の利用制限を段階的に進めることが必須条件の精神科施設の禁煙化導入は、社会状況の変化の中ですでに必要ない場合もあると考えられた。これまで、患者への禁煙治療や禁煙指導を実施せず禁煙化を成功させた事例は報告されておらず、今後、精神科施設における禁煙化に関する貴重な資料になると考えら

れる。

また、入院決定において喫煙できない病棟への強制入院（医療保護入院など）が、喫煙者の精神科治療には逆行するとの意見もある。例えば、入院後喫煙できないことへの不満から精神症状が増悪し、保護室隔離が必要とされたケースがある。その一方で、入院決定にあたって喫煙できないことへの説明が十分行われることで、高度な治療環境が提供されるといった好イメージである場合もある。精神科病院で初期に禁煙化を実施した施設では、患者家族にとって、入院を契機に患者が禁煙に踏み切りやすい環境にある病院は信頼感が増す[5]と報告しており、今回調査を行った施設でも、禁煙に至った事例や、症状の改善による退院がみられるなど、禁煙化によって良い結果がもたらされていた。

精神疾患を抱える者を取り巻く生活環境は、一般の生活環境以上に喫煙者が多い[9),10)]が、2008年6月時点において、大学付属病院精神科病棟の敷地内禁煙化実施率は62.3%7)と報告されている。今後多くの精神科施設において禁煙化が進んでいくことが期待される。

今回の調査は単一の事例報告であり、すべての精神科施設における禁煙化推進の経過が一概に同じになるとは言えない。今後さらに、国公立・私立を含めた精神科病棟を含む多くの病院の敷地内禁煙化に関する調査を行い検討していく必要がある。

結　論

精神科における禁煙化導入では、入院患者への禁煙治療や禁煙指導を行わずとも、患者の精神症状が悪化することなく導入できる可能性がある。

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Approaches to Banning Smoking in the Psychiatric unit of A University Hospital

Results of the Examination of a Key Person Interview

【Abstract】

[Introduction] Implementation of measures to prevent passive smoking is progressing in numerous medical institutions, and currently hospitals that include Psychiatric Unit are working on becoming smoking ban. However, there are few research reports on the implementation of policies for becoming smoking ban in university hospitals that include psychiatric unit. Thus, a key person interview was conducted on the current situation and the approaches leading to the banning of smoking in the Psychiatric Unit of A University Hospital which implemented a policy for becoming smoking ban in 2009.

[Methods] A semi-structured interview was conducted with one member of the Smoking ban Working Group of A University Hospital, which has a Psychiatric Unit of 60 beds. The hospital is located in Tokyo. The research was conducted in March 2010. Implementation of this study was approved by the Research Ethics Committee of the institute the author belonged to at the time of the research.

[Results] It was suggested that the implementation of a smoking ban policy at A University Hospital was led by a strong mandatory power due to the notice that was issued by the Hospital Director to become a smoking ban prompted by the opening of a smoking ban outpatient visit section. No changes in symptoms that could be assumed to be caused by the effect of the banning of smoking were observed in any of the patients due to the implementation of a smoking ban policy at the Psychiatric Unit.

[Conclusion] The implementation of a smoking ban policy at the Psychiatric Unit of A University Hospital was prompted by an impending implementation of a measure to improve the treatment environment, the opening of a smoking ban outpatient visit section. Though the preparation period was short, they succeeded in making the Psychiatric Unit smoking ban.

Keywords: university hospital, psychiatric unit, smoking ban, key person interview

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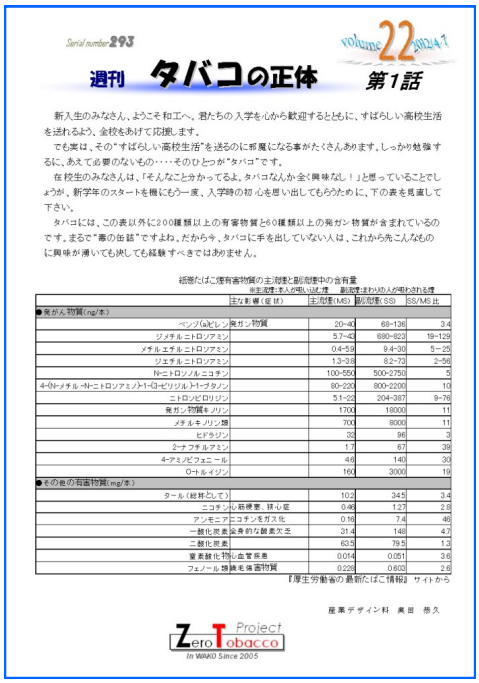
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週刊 タバコの正体　第1話

新入生のみなさん、ようこそ和工へ。君たちの入学を心から歓迎するとともに、すばらしい高校生活を送れるよう、全校をあげて応援します。

でも実は、その"すばらしい高校生活"を送るのに邪魔になる事がたくさんあります。しっかり勉強するに、あえて必要のないもの‥‥そのひとつが"タバコ"です。

在校生のみなさんは、「そんなこと分かってるよ、タバコなんか全く興味なし！」と思っていることでしょうが、新学年のスタートを機にもう一度、入学時の初心を思い出してもらうために、下の表を見直して下さい。

タバコには、この表以外に200種類以上の有害物質と60種類以上の発ガン物質が含まれているのです。まるで"毒の缶詰"ですよね。だから今、タバコに手を出していない人は、これから先こんなものに興味が湧いても決しても経験すべきではありません。

紙巻たばこ煙有害物質の主流煙と副流煙中の含有量

	主な影響(症状)	主流煙(MS)	副流煙(SS)	SS/MS比
●発がん物質(ng/本)				
ベンゾ(a)ピレン	発ガン物質	20~40	68~136	3.4
ジメチルニトロソアミン		57~43	680~820	19~129
メチルエチルニトロソアミン		0.4~5.6	9.4~20	5~25
ジエチルニトロソアミン		1.3~3.6	8.2~73	2~56
Nニトロソノルニコチン		100~550	500~2750	5
4-(N-メチル-Nニトロソアミノ)-1-(3-ピリジル)-1-ブタノン		80~220	800~2200	10
ニトロソピロリジン		5.1~22	204~387	9~76
発ガン物質キノリン		1700	18000	11
メチルキノリン類		700	8000	11
ピリジン		33	96	3
2ーナフチルアミン		1.7	67	39
4ーアミノビフェニール		46	140	30
Oートルイジン		160	3000	19
●その他の有害物質(mg/本)				
タール(紙巻として)		10.2	345	3.4
ニコチン	心筋梗塞、狭心症	0.46	1.27	2.8
アンモニア	ニコチンをガス化	0.16	7.4	46
一酸化炭素	呼吸的な酸素欠乏	31.4	148	4.7
二酸化炭素		63.5	79.5	1.3
窒素酸化物	心血管疾患	0.014	0.051	3.6
フェノール類	繊毛機能障害物質	0.228	0.603	2.6

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－２０１２．０４－

シャクヤクの花も咲き出し、熊本は初夏です。トビカズラの花が満開です。管理棟の前のグリーンカーテンで咲いています。

本来のアイラトビカズラは、数えるしか咲いていません。今年は大変おかしいです。皆様、心身の御健康をお祈りします。

近くの「エブリ」で「味噌天神饅頭」を売っています。１個１０５円。結構美味しいですよ。近くに来たら買って食べてみて下さい。

(写真と文)
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