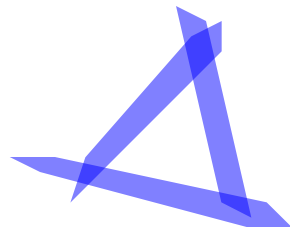


A survey of attitudes associated with smoking, periodontal disease, and implant therapy

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Tokyo Medical and Dental University

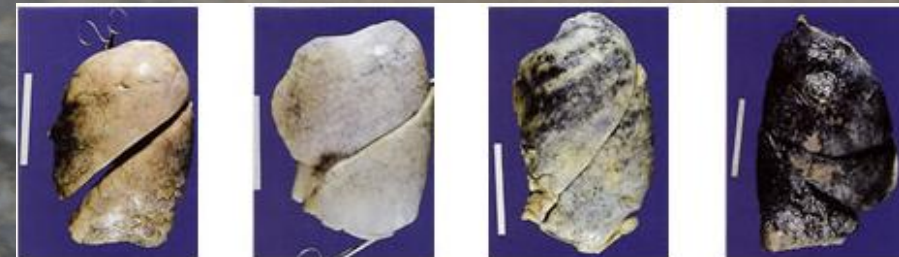


Background

- Smoking is a risk factor for various diseases, including periodontal diseases.

Haber J, Kent RL.

Cigarette smoking in a periodontal practice.
J Periodontol. 1992;63(2):100-6.





Smoking affects dental implant

- **Smoking was identified as a risk factor for survival rate of dental implants.**

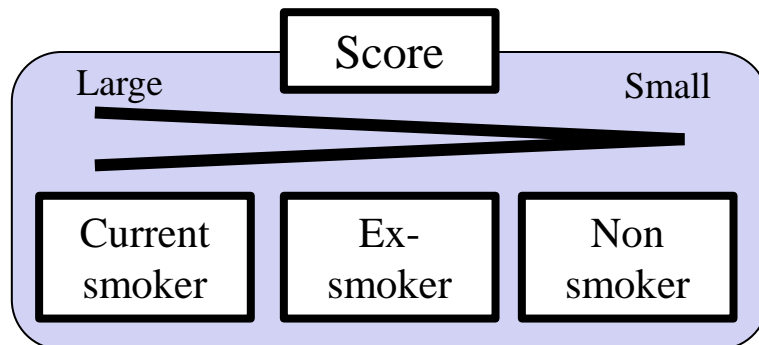
Strietzel FP, Reichart PA, Kale A, Kulkarni M, Wegner B, Kuchler I.
Smoking interferes with the prognosis of dental implant treatment: a
systematic review and meta-analysis.
J Clin Periodontol. 2007; 34: 523–44.





The Kano Test for Social Nicotine Dependence KTSND

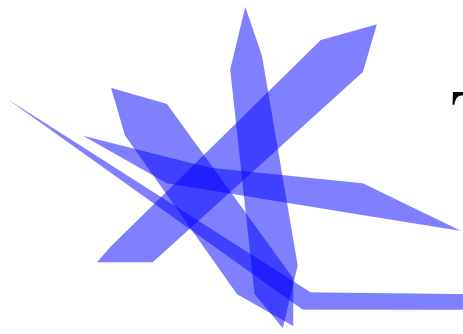
- Anybody and Everybody
- Reflects 3 factors
 - Undervaluing the harm caused by smoking
 - Justifying smoking as acceptable cultural and social behavior
 - Overvaluing the favorable effects of smoking



- Q 1: Smoking itself is a disease**
- Q 2: Smoking is a part of culture**
- Q 3: Tobacco is one of life's pleasures**
- Q 4: Smokers' lifestyles may be respected**
- Q 5: Smoking sometimes enriches people's lives**
- Q 6: Tobacco has positive physical or mental effects**
- Q 7: Tobacco has effects to relieve stress**
- Q 8: Tobacco enhances the function of smokers' brains**
- Q 9: Doctors exaggerate the ill effects of smoking**
- Q 10: People can smoke at places where ashtrays are available**

Yoshii C, Kano M, Isomura T, Kunitomo F, Aizawa M, Harada H, Haradam S, Kawanami Y, Kido M. Innovative questionnaire examining psychological nicotine dependence, "The Kano Test for Social Nicotine Dependence (KTSND)". J UOEH. 2006; 28: 45–55.





The Kano Test for Social Nicotine Dependence KTSND

Various factors affect the KTSND.

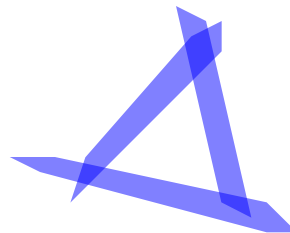
- Smoking experience
- Occupation
- Circumstance.





Purpose

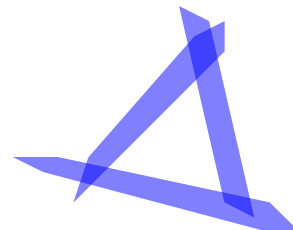
- The purpose of the current survey was to investigate the attitude of patients towards smoking and their knowledge of risk factors for periodontal disease and dental implants.





Subjects and Methods

- The study subjects
 - Patients who visited the Tokyo Medical and Dental University Hospital for oral implants
- Investigation period
 - From January 2012 to December 2012.



Questionnaire

A survey of attitudes associated with smoking, periodontal disease, and implant therapy

Sex : M or F Age : _____

1) Are you a smoker?

A. Current smoker B. Ex-smoker C. Non-smoker

2) Do you think smoking is a risk factor of teeth and periodontal tissues?

1.Definitely Yes 2.Probably Yes 3.Probably No 4.Definitely Yes

3) Do you think smoking is a risk factor of dental implants?

1.Definitely Yes 2.Probably Yes 3.Probably No 4.Definitely Yes

Q 1: Smoking itself is a disease	1.Definitely Yes	2.Probably Yes	3.Probably No	4.Definitely Yes	3
Q 2: Smoking is a part of culture	1.Definitely Yes	2.Probably Yes	3.Probably No	4.Definitely Yes	0
Q 3: Tobacco is one of life's pleasures	1.Definitely Yes	2.Probably Yes	3.Probably No	4.Definitely Yes	3
Q 4: Smokers' lifestyles may be respected	1.Definitely Yes	2.Probably Yes	3.Probably No	4.Definitely Yes	2
Q 5: Smoking sometimes enriches people's lives	1.Definitely Yes	2.Probably Yes	3.Probably No	4.Definitely Yes	2
Q 6: Tobacco has positive physical or mental effects	1.Definitely Yes	2.Probably Yes	3.Probably No	4.Definitely Yes	1
Q 7: Tobacco has effects to relieve stress	1.Definitely Yes	2.Probably Yes	3.Probably No	4.Definitely Yes	0
Q 8: Tobacco enhances the function of smokers' brain	1.Definitely Yes	2.Probably Yes	3.Probably No	4.Definitely Yes	1
Q 9: Doctors exaggerate the ill effects of smoking	1.Definitely Yes	2.Probably Yes	3.Probably No	4.Definitely Yes	2
Q 10: People can smoke at places where ashtrays are available	1.Definitely Yes	2.Probably Yes	3.Probably No	4.Definitely Yes	0

→ Smoking states

→ Knowledge for periodontal disease

→ Knowledge for dental implant

KTSND = 14

Statistical Analysis

A survey of attitudes associated with smoking, periodontal disease, and implant therapy

Sex : M or F Age : _____

1) Are you a smoker?

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Q 7: Tobacco has effects to relieve stress

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Q 8: Tobacco enhances the function of smokers' brains

1.Definitely Yes 2.Probably Yes 3.Probably No 4.Defineitely Yes

Q 9: Doctors exaggerate the ill effects of smoking

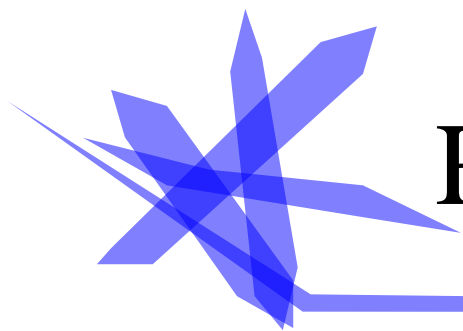
1.Definitely Yes 2.Probably Yes 3.Probably No 4.Defineitely Yes

Q 10: People can smoke at places where ashtrays are available

1.Definitely Yes 2.Probably Yes 3.Probably No 4.Defineitely Yes

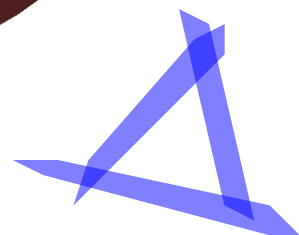
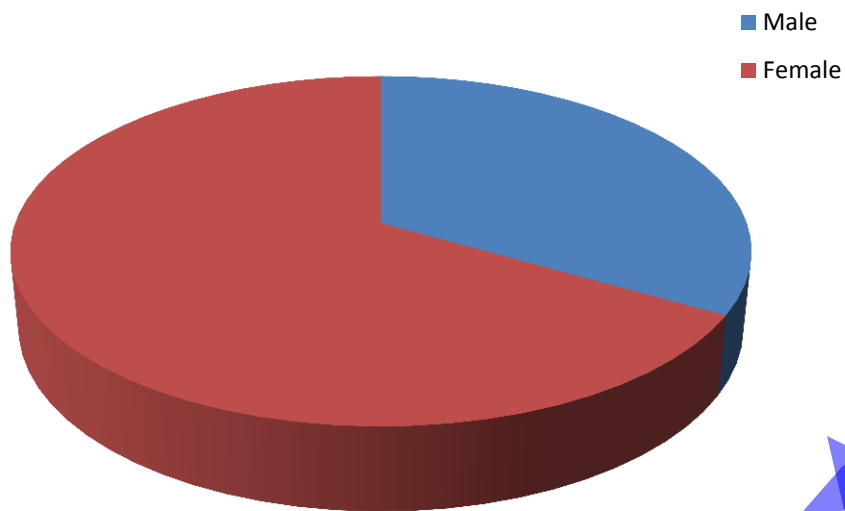
→ Smoking states

KTSND



Results

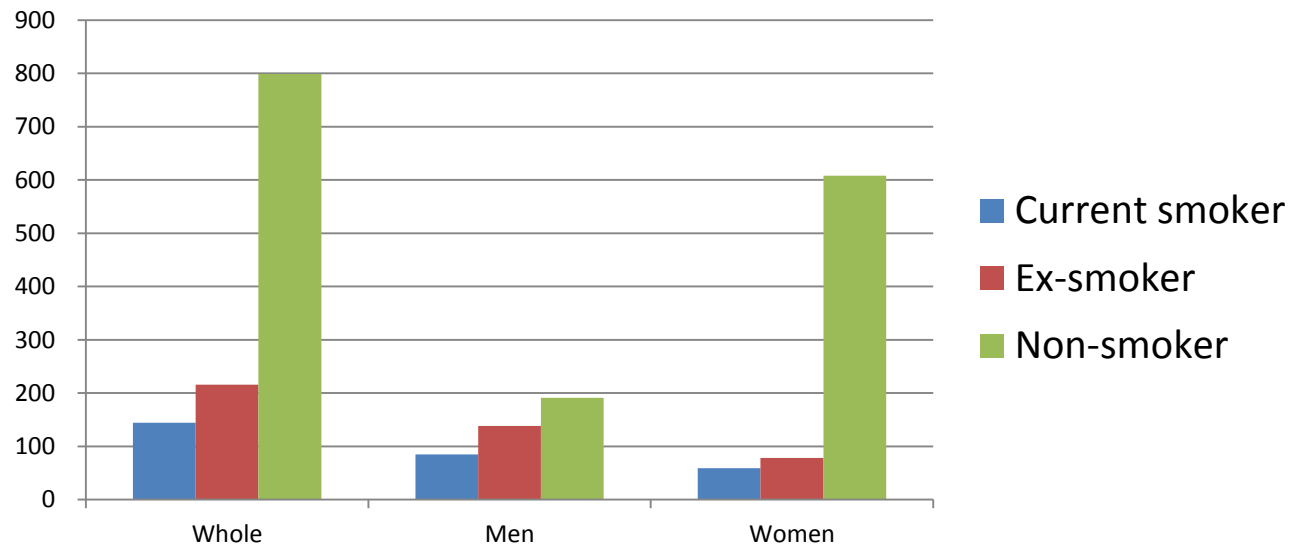
	People
Total	1585
Respondent	1159
Male	386
Female	773
Mean age	54.1





Smoking status

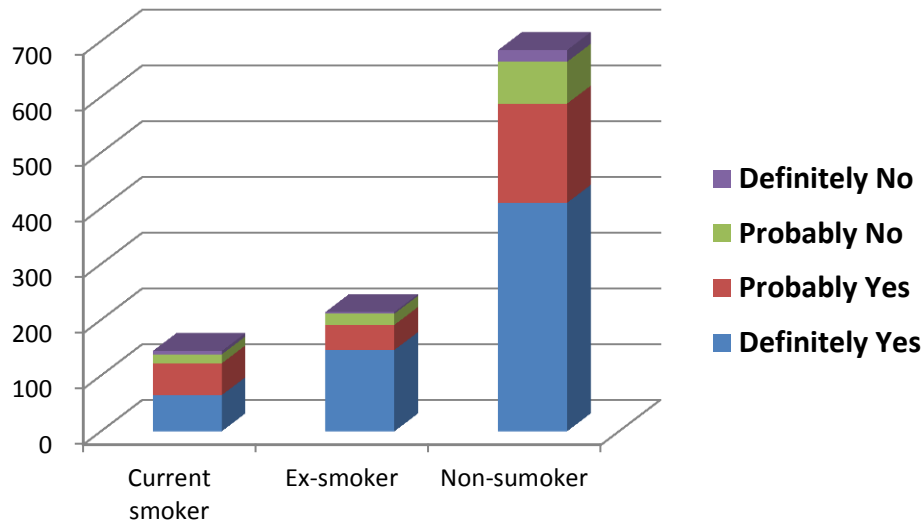
	Current smoker (%)	Ex-smoker (%)	Non-smoker (%)	Total (%)
Whole	144 (12)	216 (19)	799(69)	1159
Men	85 (21)	138 (33)	191 (46)	414
Women	59 (8)	78 (10)	608 (82)	745



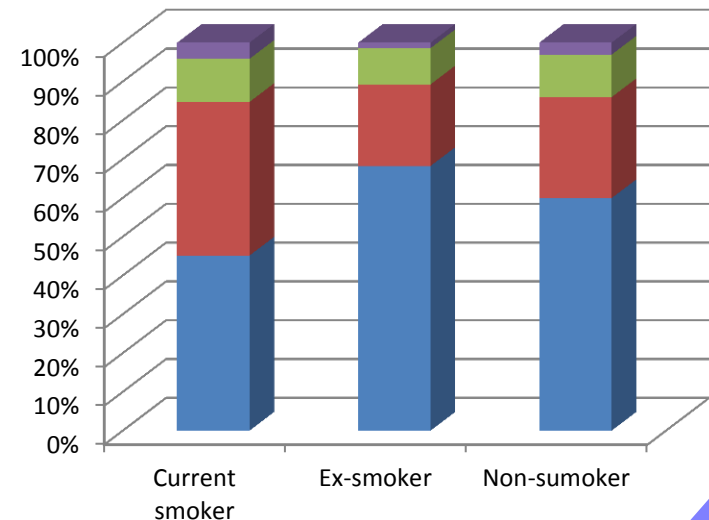
Knowledge of risk factors for periodontal disease

Knowledge of smoking rerated to periodontal disease	Current smoker (%)	Ex-smoker (%)	Non-smoker (%)	Total (%)
Definitely Yes	65 (45)	146 (68)	410 (60)	621 (59)
Probably Yes	57 (39)	45 (20)	178 (26)	282 (27)
Probably No	16 (11)	20 (9)	75 (11)	113 (11)
Definitely No	6 (5)	3 (2)	21 (3)	31 (3)

<Actual number>



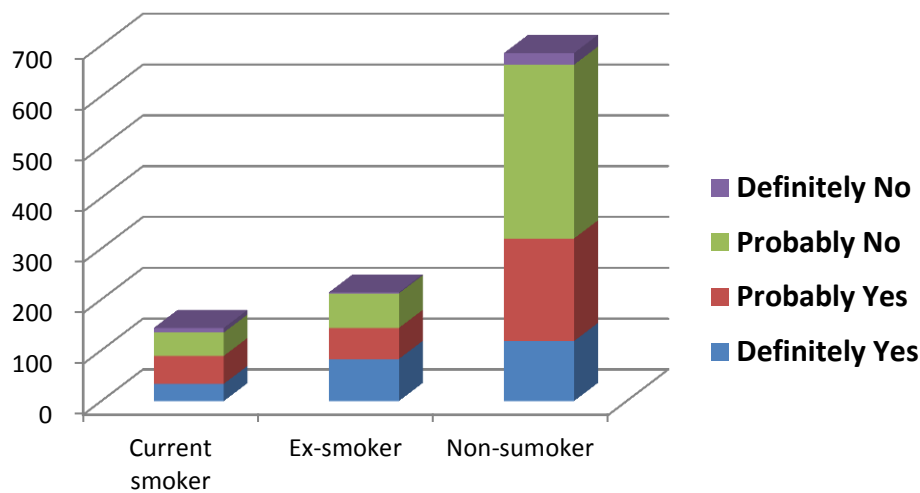
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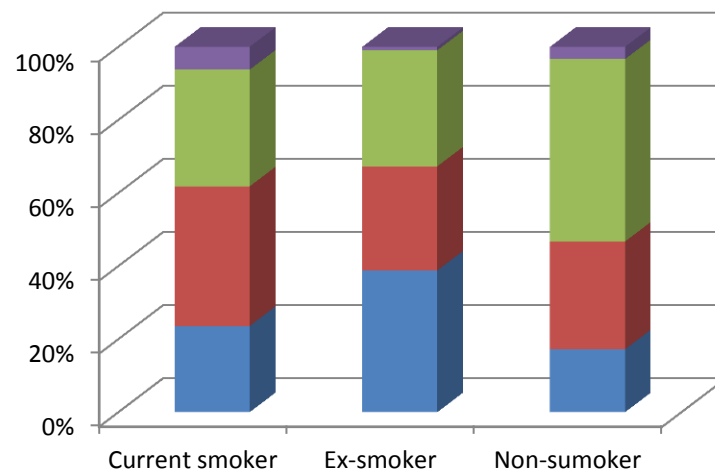
Knowledge of risk factors for dental implants

Knowledge of smoking rerated to dental implant	Current smoker (%)	Ex-smoker (%)	Non-smoker (%)	Total (%)
Definitely Yes	34 (23)	83 (39)	118 (17)	234 (23)
Probably Yes	55 (28)	61 (28)	202 (30)	318 (31)
Probably No	46 (32)	68 (32)	342 (50)	456 (44)
Definitely No	9 (6)	2 (1)	23 (5)	34 (3)

<Actual number>



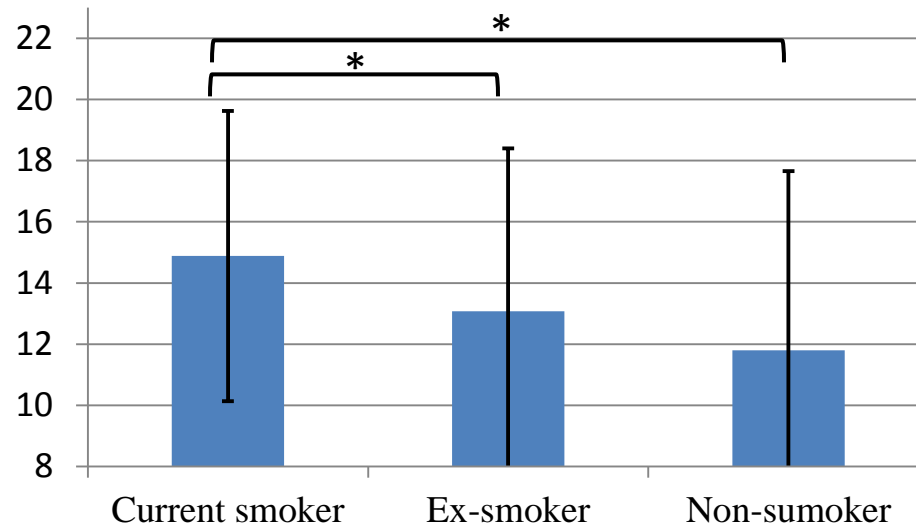
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KTSND scores

	Non-smoker	Ex-smoker	Current smoker
KTSND	11.80 ± 5.85	13.07 ± 5.33	14.88 ± 4.74





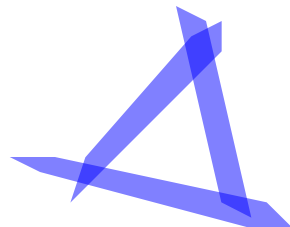
Discussion

The Health, Labor, and Welfare Ministry reported that the percentage of current smoker was **20.1%** in 2011, higher than **12%** in this study.

They also reported that the percentage of men who current smoker (**32.4%**) was higher than the percentage of women who current smoker (**9.7%**).

This research showed similar results about a higher percentage of men (**21%**) than women(**8%**) who current smoker.

The reason, current smoker is low in this study, included, the male-to-female ratio of this study was **1:2**. And the patients that visited the University Hospital were often referred by other general practices, and thus, they had already received instructions regarding dental treatments.



Smoking could be a risk factor for various diseases

- Smoking could be a risk factor for various diseases, periodontal and dental implants.

Haber J, Kent RL. Cigarette smoking in a periodontal practice. J Periodontol. 1992;63(2):100–6.

Strietzel FP, and more: I. Smoking interferes with the prognosis of dental implant treatment: a systematic review and meta-analysis. J Clin Periodontol. 2007; 34: 523–44.

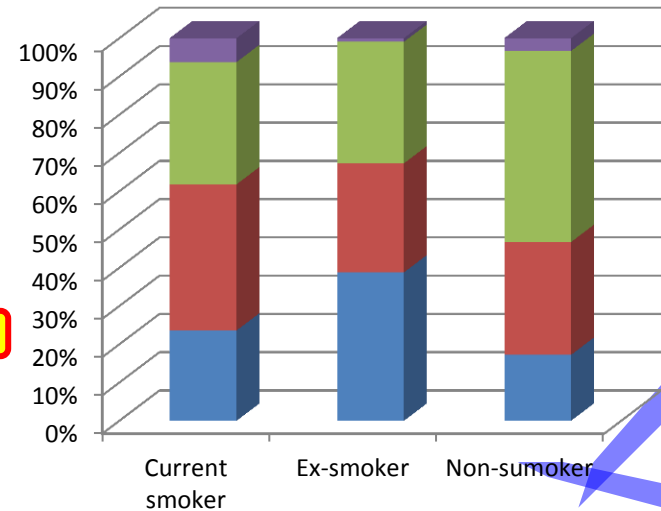
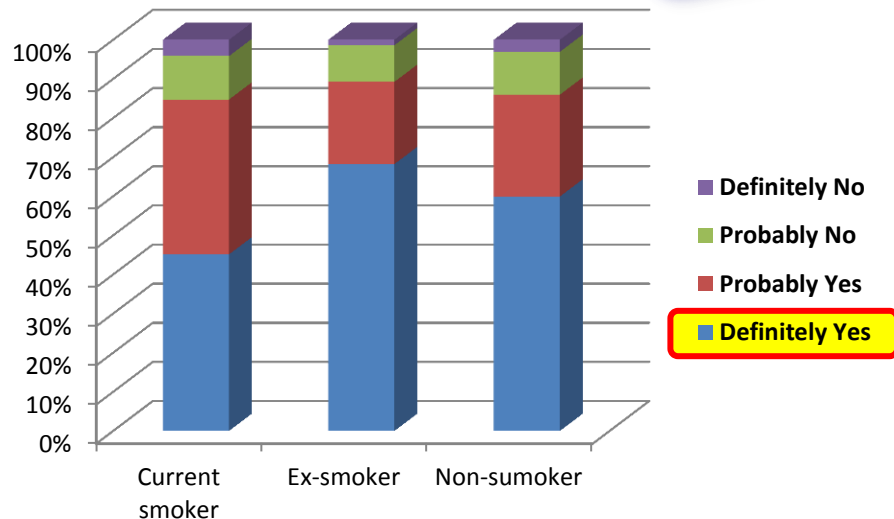
<Acknowledged rate of a risk factor>

For periodontal disease

59%

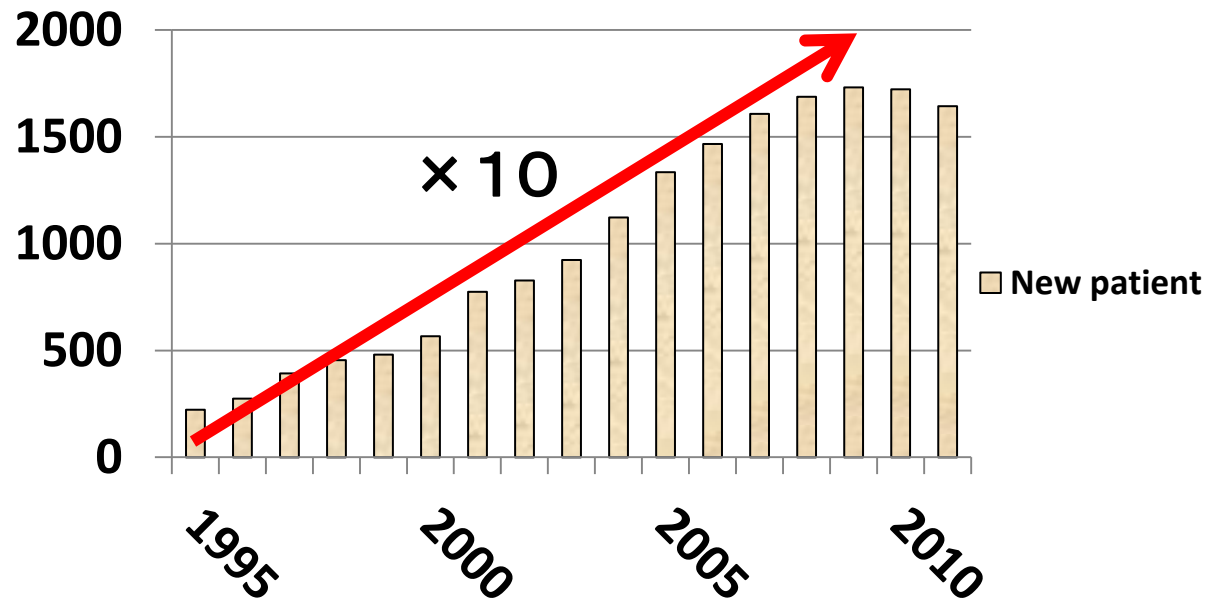
For dental implant

23%

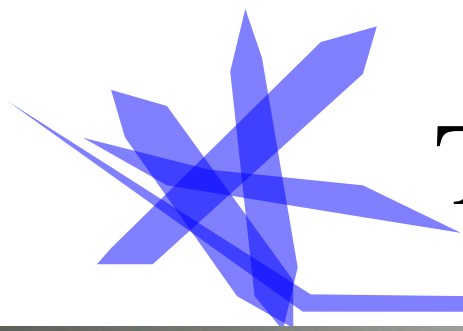


Why is the low?

A investigation about new patients
in Tokyo Medical and Dental University for dental implant



It is too rapid to purvey sufficient information about dental implant therapy to patients. The difference in knowledge regarding dental implants between doctors and patients was very large, and almost all patients were unaware of risk factors for dental implants.



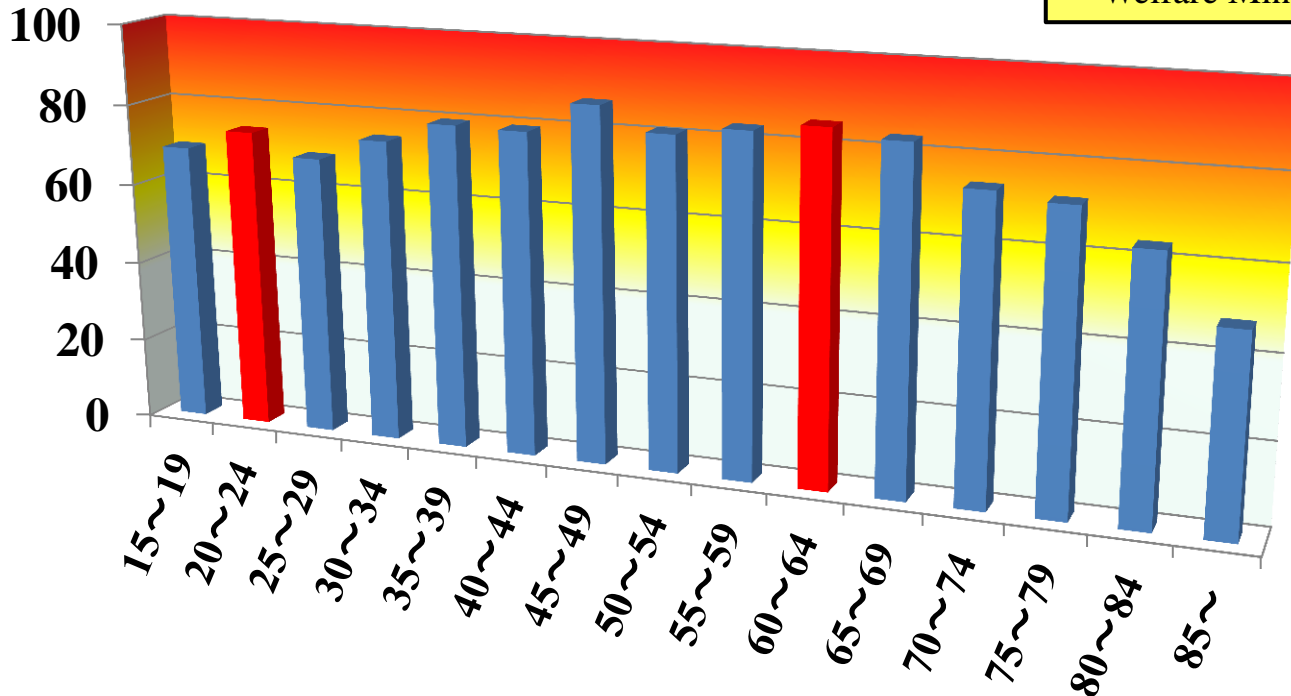
The KTSND

	Non-smoker	Ex-smoker	Current smoker
Yoshii et al.	12.2 ± 5.3	12.2 ± 4.9	18.0 ± 5.0
Yoshii et al.	10.5 ± 5.6	12.9 ± 5.9	19.0 ± 4.6
Takai et al.	13.4 ± 4.4	-	18.9 ± 3.8
Yamamoto et al.	13.8 ± 4.7	-	16.0 ± 3.8
This study	11.80 ± 5.85	13.07 ± 5.33	14.88 ± 4.74

Rate the patients got periodontal disease (%)

(%) The rates of patients are incredible high.

The Health, Labor, and Welfare Ministry in 2012.



On the basis of these results, the Japanese Society of Periodontology has recommended smoking cessation as a factor, which positively decreases periodontal diseases; therefore, patients who visited the clinic recognized smoking as a risk factor for periodontal disease in informed consent with doctor.



Conclusion

- Current smoking rate in this study was low (12%).
- 59% of patients recognized smoking as a risk factor for periodontal disease whereas 23% recognized it as a risk factor for dental implants.
- The KTSND scores in this study were comparatively low. Therefore, patients who visit dental clinics could better understand and practice smoking cessation with sufficient informed consent.