

SMOKING TOLERANCE AND ATTITUDES TO ANTI-SMOKING POLICIES AT SELECTED WORKPLACES

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Abstract: *The aim of our research was, using an attitude questionnaire with Likert scale of evaluation, to analyze the rate of respondents' tolerance to smoking at the workplaces, depending on age, gender, place of work, as well as their smoking habits. The research sample consisted of 160 respondents, the teaching staff of a secondary school –The Gymnázium of J.Hollý in Trnava and The Primary School of Kornel Mahr and the employees of a private company Orange, Inc.residing in Bratislava. On the basis of our results can be stated that men are more tolerant to smoking at the workplaces and their attitude to anti-smoking policies is rather negative.The highest % of smokers have been seen in the age group of 21 to 30 years and the proportion of smokers in the school facilities was not significantly different from their share in a private company, but in a private company a large number of respondents deprived of this bad habit.*

Keywords: *smoking, attitude, anti-smoking policies*

Theoretical bases

Our society has been remarkably changing recently, this process of transformation has brought a lot of positive as well as negative features ,one of these is growth of smoking. Rising tendency can be noticed not only with adult smokers, but also with lower-age categories. Adult population do not realize their negative influence on children and teenagers. Those teenagers who are dependent on the influence of their environment, gangs, mass-media, family, who are followed by an amount of problems and stressful situations. It is the time when young people mature, learn how to live and can not cope with their lives, and in spite of their upbringing in a good family or an institution , they reach for a drug-a cigarette. On the contrary a lot of adult people start smoking in their late ages. Advertisements of tobacco firms, sponsoring attractive sports competitions , automobile races and related life style of freedom and adventure, encourage them. These are the reasons of some problems at workplaces, where smokers and their bad habits limit non-smokers.

Damaging effects of smoking are not unknown, its negative results are described on every cigarette package. And these negative effects influence not only smokers themselves, but also non-smokers who when amongst active smokers become passive smokers. Many studies support harmful effects of also passive smoking on health of people, on the presence of both cardiovascular or cancer diseases (e.g. Kademani et al., 2008, Karim-Kos et al., 2008, Foschi, 2008, Takasaki et al., 2008 etc.)

The subject of our research was to detect and analyze the factors that play a role when building up an attitude to smoking and anti-smoking policies at workplaces.

Hypotheses

We tried to verify a number of hypotheses using a questionnaire.

Hypothesis H1

We presume that men will have more positive attitude to smoking and will be more tolerant in anti-smoking policies than women. Our presumption came from a Japanese study, which showed that up to 57 % men, but only 16.6 % women are active smokers and living in a town has a negative influence on men smoking as contrasted to women. (Fukuda et al., 2005) and from a study Tsai et al., 2008, in which they found out that Taiwan men smoke out more cigarettes per day than women. We conclude that tendency of women not to smoke or smoke less can positively influence more positive attitudes to anti-smoking policies.

Hypothesis H2

Considering a working climate in a private company being more stressful, and smoking at schools being prohibited we presume there will be more smokers in a company than at schools, where smoking should be unacceptable, having bad educational influence on students and also attitude to smoking in a company will be more tolerant than at schools.

Hypothesis H3

According to the above mentioned studies, which located differences in tolerance to smoking regarding age in favour of younger women, we presume that age will influence the attitude to smoking and anti-smoking policies.

Hypothesis H4

We presume that smoking of parents influences the attitude of respondents to smoking and anti-smoking policies.

Research sample

We executed the presented research at two different school workplaces, at a secondary school – The Gymnasium of J.Holly in Trnava and at The Primary School of Kornel Mahr and at a private company Orange, Inc. residing in Bratislava. We also pre-

sumed that the results could be influenced by specific conditions of a town.

160 respondents altogether, 39 men and 121 women aged from 21-54 of it, participated on the research.

Selection of research sample was carried out by means of an available choice.

Research methods

The research was being executed from January-March 2007. We chose a questionnaire research method. We acquired our questionnaire by modification of the questionnaire in the work of Khanga and Choa, 2006. The questionnaire consisted of 22 statements, positive and negative ones in an equal ratio. Individual statements were divided into 2 areas (Table 1) according to a factorial analysis with Varimax rotation, 7 statements in Area 1 and 8 statements in Area 2, while the areas as well as positive and negative statements were mixed. The other statements did not show adequate relation to the previous two dimensions or represented independent dimensions. These were not possible to interpret (each dimension must have at least 3 statements), that is why they were eliminated from the analysis.

Each statement was scored from an absolute disagreement (1) to an absolute agreement (5) in the so called Likert scale. Negatively formulated statements were scored in the reversed order to keep positive scoring of statements.

Table 1 Monitored areas

Area 1	Attitude to smoking (statements 2, 8, 9, 14, 17, 19, 21)
Area 2	Anti-smoking policies (statements 1, 3, 5, 6, 7, 13, 18, 20)

We verified reliability of the created questionnaire by help of reliability index calculated by Cronbach alfa, the value of Cronbach alfa for dimension attitude to smoking was 0.87 and for dimension attitude to anti-smoking policies 0.84. Total questionnaire reliability was 0.89, which exceeded the critical value of 0.7, meaning the questionnaire can be considered highly reliable and can be recommended in other researches of a similar character.

Research organisation and process

Altogether 200 questionnaires were distributed, in which we were examining our respondents' attitudes to smoking and anti-smoking policies. The return was 80% of questionnaires so we evaluated 160 completed questionnaires.

Numeric values (1-5) were assigned based on the the degree of agreement, resp. disagreement with the given statements. They gave a cumulative score of a subject. Numeric value order reversed (5-1) with negative statements, positive attitude always had a highest value.

The sums of individual points of various areas were examined using a multi-factorial variable analysis as far as the respondents' influence of age, workplace, gender, smoking as well as smoking of their parents and their attitude to smoking and anti-smo-

king policies. We evaluated the research being carried out by a scale questionnaire with the help of a special software-statistic programme Statistica. As a basis for statistical evaluation of the questionnaire we needed the manual pointing of responses from all 160 questionnaires.

Results and discussion

Computer-processed research results were put into the Table with statistic test values (Tables 2-4) and graphs (Graph 1-5) for the both monitored areas.

Table 2 Influence of individual factors on attitude to smoking anti-smoking policies

Factor	Test	Value	F	p
Workplace	Wilks	0,988945	0,83282	0,436834
Age	Wilks	0,996339	0,27377	0,760888
Gender	Wilks	0,92252	6,25705	0,002459*
Smoking	Wilks	0,706038	14,16293	0,000000**
Gender*Smoking	Wilks	0,998214	0,06664	0,991825

Table 3 Influence of individual factors on attitudes to smoking

Factor	SS	MS	F	p
Workplace	9,212	9,2116	0,71071	0,40055
Age	6,92	6,9198	0,53389	0,466114
Gender	72,101	72,1015	5,56292	0,019634*
Smoking	455,933	227,9664	17,58853	0,000000**
Gender*Smoking	2,035	1,0174	0,07849	0,924546

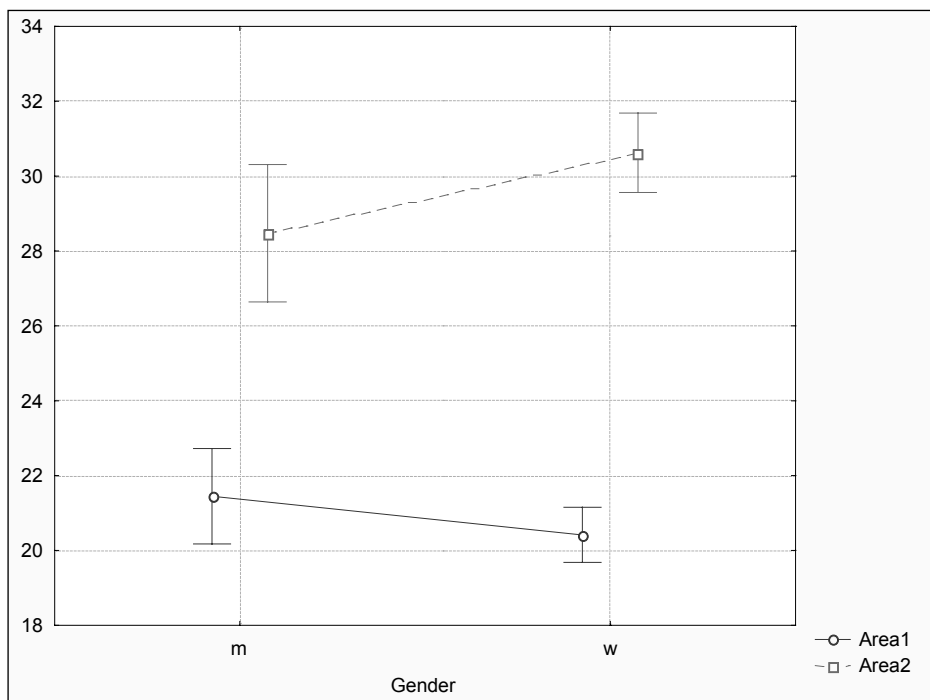
Table 4 Influence of individual factors on attitudes to anti-smoking policies

	SS	MS	F	p
Workplace	2,502	2,5021	0,10917	0,741548
Age	2,154	2,1536	0,09397	0,759614
Gender	16,331	16,3306	0,71255	0,399941
Smoking	1319,62	659,8099	28,78955	0,000000**
Gender*Smoking	3,184	1,5921	0,06947	0,93292

H1 We presume men will have more positive attitude to smoking and will be more tolerant to anti-smoking policies than women.

Considering Graph 1 and the level of significance of gender influence on the monitored attitude areas as well as an overall attitude listed in Tables 2-4 it can be

concluded that gender has an influence on attitude to smoking ($p=0.002459$) so our presumption H1 was confirmed. Evaluating individual areas we detected remarkably more negative relation of men to smoking (part 1- $p= 0.019634$), but this detection can be caused by a lower sample of men in the sample of respondents, for the results of foreign researches state that women smoke less cigarettes per day and start smoking in a later age, though they are more subject to socio-economic as well as cultural conditions of their environment (Khang, Cho, 2006, Tsai et al., 2008, An et al., 2008, Khang et al., 2008, Cho et al., 2008). In the second part ,in which we were looking on attitude to anti-smoking politics at the workplaces, we did not detect any statistically important gender influence on given attitude ($p=0.399941$) although on Graph 1 we can see little more positive attitude of women in this area. It follows that women reject smoking as such, but do not condemn and tolerate others smoking more than men.



Graph 1: Gender influence on attitude to smoking anti-smoking policies

Area 1 Attitude to smoking

Area 2 Attitude to anti-smoking policies

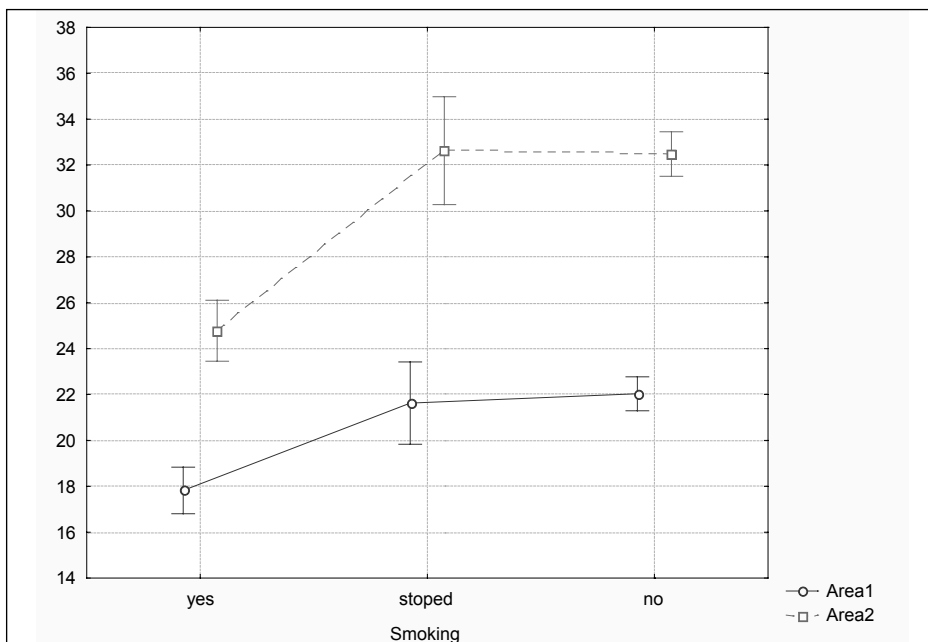
H2 Considering a working climate in a private company being more stressful and smoking at schools being prohibited we presume there will be more smokers in a company than at schools, where smoking should be unacceptable, having bad educational influence on students and also attitude to smoking in a company will be more tolerant than at schools. Evaluating this hypothesis, we assessed the number of respondents- smokers

at the workplaces but also the overall proportion of respondents who smoke, do not smoke, respectively, quit smoking. We summarized the results in Table 5.

Table 5 : Smoking of respondents according to the workplace

	áno v %	nie v %	prestali v %
School employees	28,8	63,8	7,5
Orange employees	33,8	46,3	12,5
Alltogether	31,2	58,8	10,0

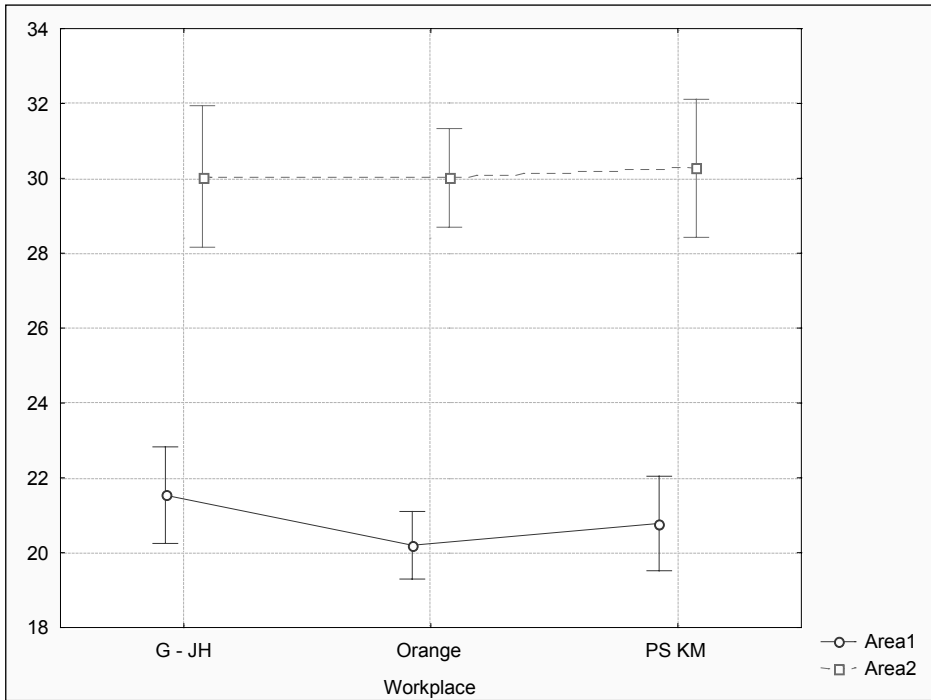
We found out that 31.2 % of the respondents smoke currently and 58.8 % of respondents are non-smokers. We were monitoring the proportion of respondents who smoked in the past, but currently do not smoke. Our research has shown that 10 % of respondents quit smoking, but no men. At schools where young people are educated and teachers should be an example for their students, we have seen up to 28.8 % of active smokers which surprised us. We also wanted to find out whether the respondents' own smoking affects their attitude to smoking of others and anti-smoking policies at the workplace. Therefore the influence of subject's own smoking on the monitored attitudes was subjected to the analysis. On the basis of Tables 2–4 and Graph 2 can be stated that the smoking of respondents statistically highly significantly influences their attitude to smoking, as well as to anti-smoking policies ($p = 0.0000$).



Graph 2: Influence of smoking of respondents on their attitude to smoking anti-smoking policies

Area1 Attitude to smoking
Area 2 Attitude to anti-smoking policies

We found that respondents-smokers statistically significantly more tolerate others smoking and have negative attitudes to all restrictions and limitations in this area, which of course is not so surprising. There is a positive finding though, respondents who quit smoking were the least tolerant towards smoking as such, as well as concessions to smoking at the workplace, to smoking of medical personnel and so on. Thus their own smoking significantly affects the attitude in this area. The rate of the workplace influence to this approach is shown in Tables 2 through 4 and Graph 3.



Graph 3: Workplace influence on attitude to smoking anti-smoking policies

Area1 Attitude to smoking
Area 2 Attitude to anti-smoking policies

Considering the level of significance and Graph 3 we can conclude that the workplace has no impact on whether respondents smoke or do not smoke. Not even in one area we found a statistically significant difference between workplaces i.e. hypothesis 2 was not confirmed.

However, finding the influence of smoking as such on the respondents we can point out how important it is to prevent the occurrence of addiction to smoking. We consider smoking of school employees very inappropriate, because smokers and their

tolerance of smoking may facilitate the development of this negative habit. One of the factors which influences smoking of respondents is their education (Cho et al., 2008). We are confound that school employees with higher education do not want to admit the harmfulness of this habit.

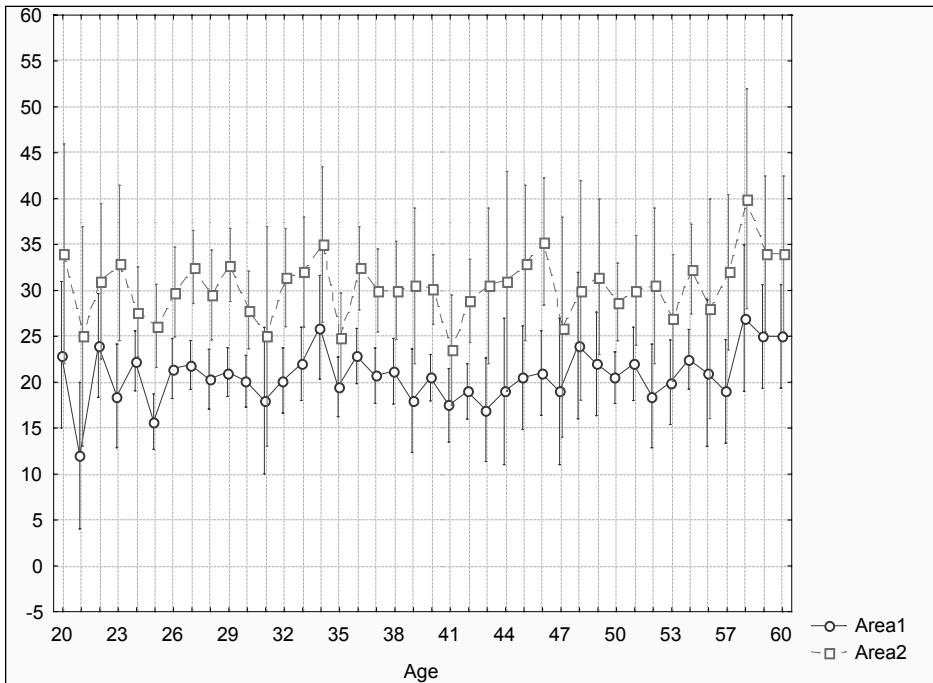
H3 Given the above mentioned studies that found differences in the tolerance of smoking in terms of age, in favor of younger women, we assume that age will affect the attitude towards smoking and anti-smoking policies.

Based on the results listed in Tables 2 through 4, Table 6 and Graph 4 can be concluded that age did not have statistically significant influence on the attitude toward smoking and anti-smoking policies ($p = 0.7608$), i.e. the H3 hypothesis was not confirmed. In contrast, we found the highest proportion of smokers in the age category of 21 to 30 years. Studies from Japan (Fukuda et al., 2005) and South Korea (Khang, Cho, 2006) show that in these countries the proportion of smokers in the younger age categories does not increase, and smoking mainly of women is particularly influenced by socio-economic conditions and also marriage.

We can conclude the retrograde trend of smoking in these areas, which would be needed also in our country.

Table 6 : Ratio of smokers in the monitored age categories

Age	21 – 30	31 – 40	41 – 50	51 – 54
Smoke in %	38	30	24	8



Graph 4 : Age influence on the attitude to smoking and anti-smoking policies

Conclusion

In the presented research we were examining the influence of various factors on subject's attitudes towards smoking and anti-smoking policies at the workplace. We intended to determine which one out of the monitored factors will influence people's attitude to smoking and anti-smoking policies. We were mainly interested in school employees, we were monitoring basic school teachers as well as secondary school teachers, whether their approach to this harmful habit will be more negative and whether they approve of smoking restrictions on public places, among teachers, doctors, etc. We determined there is still remarkable ratio of smokers at schools, smoking is constantly favoured in lower age categories and men's attitude to smoking is more negative. However smokers, or women-smokers tolerate smoking and refuse anti-smoking policies. There is a positive cognition though, people who quit smoking have even more negative attitude to smoking than non-smokers, so their tolerance to smoking statistically significantly falls.

TOLERANCIA FAJČENIA A POSTOJ K PROTIFAČIARSKÉJ POLITIKE NA VYBRANÝCH PRACOVISKÁCH

Abstrakt: Cieľom našej práce bolo pomocou postojového dotazníka s Likertovou škálou hodnotenia analyzovať mieru tolerancie respondentov k fajčeniu na pracovisku v závislosti od veku, pohlavia, pracoviska, ako aj ich fajčiarskych návykov. Výskumnú vzorku tvorilo 160 respondentov, pedagogickí pracovníci Gymnázia Jána Holého v Trnave a Základnej školy Kornela Mahra v Trnave a pracovníci akciovej spoločnosti Orange, a. s. Bratislava. Na základe zistených výsledkov môžeme skonštatovať, že muži sú tolerantnejší k fajčeniu na pracovisku a ich postoj k protifajčiarskej politike je skôr negatívny. Najvyššie % fajčiarov sme zaznamenali vo vekovej kategórii 21–30 rokov a podiel fajčiarov v školských zariadeniach nebol preukazne odlišný od ich podielu v súkromnej spoločnosti, avšak v súkromnej spoločnosti sa tohto návyku zbavilo väčšie množstvo respondentov.

Kľúčové slová: fajčenie, postoj, protifajčiarska politika