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Becoming tobacco-free: Changes in staff and patient attitudes and incident reports in a large academic mental health and addictions hospital

Lilian Riad-Allen, M.Sc.¹, Sarah S. Dermody, Ph.D.¹, Yariisa Herman, D. Psych.¹, Kim Bellissimo, B.A.¹, Peter Selby, MBBS, CCFP, FCFP, MHSc, Dip ABAM^{1,2}, and Tony P. George, MD, FRCPC^{1,3}

¹Centre for Addiction and Mental Health, Toronto, Ontario, Canada

²Departments of Family and Community Medicine, Psychiatry and Dalla Lana School of Public Health Sciences, University of Toronto, Toronto, Ontario, Canada

³Divison of Brain and Therapeutics, Department of Psychiatry, University of Toronto, Toronto, Ontario, Canada

Abstract

Background and Objective—Complete tobacco bans in mental health facilities are thought to have the potential for adverse consequences. We evaluated staff and patient attitudes and adverse events associated with implementing Canada's largest, multi-site academic psychiatric hospital tobacco ban.

Methods—A total of 1,173 staff and 422 patients completed an anonymous attitudes survey at prior to implementation (baseline), and 4-6 months and 10-12 months post-implementation. The tobacco-free initiative was implemented in a phased approach, allowing the prospective measurement of changes in attitudes and adverse outcomes such as agitation over a 1-year period.

Results—We observed positive changes in staff and patient attitudes towards the tobacco-free policy for both staff and patients. Moreover, there was also a statistically significant decrease in patient agitation $F(2,99) = 3.25, p=0.04$, but no change $F(2, 21) = 1.09, p=0.35$ in fire-related incidents.

Discussion and Conclusions—We observed positive changes in staff and patients attitudes and significant decrease in patient agitation during the first year of this tobacco-free hospital initiative.

Scientific Significance—During the first year of this tobacco-free psychiatric hospital policy, implementation of a tobacco-free environment in a large mental health and addictions setting was feasible and perceived as desirable by the majority of staff and patients surveyed and a decrease in

Correspondence: Tony P. George, MD FRCPC, Professor of Psychiatry, University of Toronto, Chief, Addictions Division, Centre for Addiction and Mental Health (CAMH), 100 Stokes Street, BGB 3288, Toronto, ON M6J 1H4, tony.george@camh.ca, Phone: 416-535-8501 ext. 32662, Fax: 416-260-4171.

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incidents related to patient agitation was also observed. Further well-controlled studies with longer study durations are warranted.

Keywords

Tobacco Free; smoking ban; attitudes; aggression; psychiatric hospital

INTRODUCTION

While the general population continues to benefit from declines in smoking prevalence, individuals with mental illness and addictions continue to smoke at significantly higher rates,¹⁻⁵ smoke more heavily,^{3,4,6} and are disproportionately impacted by tobacco-related negative health outcomes⁷. Similarly, as the adoption of smoke-free (i.e., cigarette ban) or tobacco-free (i.e., ban of all tobacco-containing products) policies gain popularity in other areas, its implementation in mental health and addictions organizations continues to face resistance.^{2,6-9} This resistance, is attributed to a perception that patients smoke as a form of self-medication,^{4,10,11} that smoking abstinence will worsen psychiatric symptoms,^{6,7} and that persons with mental illness are uninterested in quitting smoking.² Additionally, smoking was used in psychiatric settings for behavioral modification,^{2,4,7,12} and was culturally accepted as a component of therapeutic recovery.^{2,7,12}

Accordingly, there is a misconception that tobacco bans are not feasible in such settings.^{2,7,8} However, evidence continues to challenge these assumptions. Results from prior literature reviews suggest that smoke-free initiatives correspond with improved staff and/or patient attitudes toward the policies.^{4,10} Several studies have demonstrated positive outcomes following the implementation of either smoke-free or tobacco-free policies on psychiatric hospital properties.^{6,7,11}

This study builds on prior research by evaluating the impact of a hospital-wide tobacco-free policy. Specifically, the effect of implementing such a policy were examined on the views held by a diverse sample of staff and patients, as well as objective measures (such as incident reports in response to patient agitation and fire risks). Importantly, unlike prior research, both patient and staff attitudes and objective measures were investigated prospectively at three time-points as the hospital transitioned to a partial tobacco ban (e.g., designated outdoor smoking areas) and then to a complete ban.

METHODS

Setting

The Centre for Addiction and Mental Health (CAMH), in Toronto, is Canada's largest public mental health teaching hospital (fully-affiliated with University of Toronto). CAMH serves over 31,000 patients annually, has approximately 550 inpatient beds, with 25 inpatient services and 100 outpatient clinics.¹² CAMH has approximately 2,700 employees.

CAMH's tobacco-free initiative

CAMH has been transitioning towards becoming a tobacco-free environment since 2005, first as a smoke-free campus (partial smoking ban, including designated smoking areas), then as a tobacco-free campus effective April 30, 2014. CAMH's transition to becoming tobacco-free has been iterative, which increased staff support at earlier implementation stages.¹² As perceptions of the initial response to the announcement of the new tobacco-free policy were negative, a phased approach incorporating staff and patient engagement and feedback was developed as described below.

The tobacco-free policy was implemented using an iterative approach, allowing for staff, patient, and external stakeholder engagement at every phase. During the first phase (up to November 2013), a partial smoking ban was in place. Smoking was only permitted in designated places on hospital grounds, and other tobacco-products were not regulated.

The partial smoking ban was loosely-enforced, and was implemented differently in some clinical areas. In contrast, the proceeding phase two ('soft launch': November 2013 – April 2014) and three ('hard launch': May 2014 – present) of the policy sought to reduce these inconsistencies, broaden the scope of the partial smoking ban to all tobacco products, build capacity, reduce tobacco triggers, and change the focus from enforcement to the development of compassionate clinical practices that foster a culture of adherence. Specifically, in the 'soft launch' (November 2013 – April 2014), there were no formal changes made to the hospital policy; however, several educational efforts and engagement opportunities (e.g., soliciting feedback from staff, patients, and advocate members) were made to prepare staff, patients, and the hospital community for impending policy changes during the 'hard launch.'

Finally, the full 'hard launch' of the tobacco-free policy was marked by restricting access to tobacco products on CAMH property, clinically managing tobacco use by assessment, treatment, and care planning, and engaging staff, patients, and families. Unlike a smoking ban, the tobacco-free policy prohibits the use of *any tobacco products* on CAMH property in any processed or unprocessed form including marijuana cigarettes and all electronic and/or water vapor cigarettes, and limits possession of such products on CAMH property. Furthermore, inpatients are not permitted to possess any tobacco products while receiving inpatient treatment at CAMH. Outpatients and staff are required to keep tobacco products out of sight at all times. As this phase marked a significant shift in practice, a number of communication materials, resources, algorithms, and practice supports were used to engage community stakeholders.

Study design and procedure

Staff and patients from inpatient and outpatient clinics were invited to participate using an anonymous survey. Using a repeated cross-sectional design, surveys were completed at three time points: (i) during the 'soft launch', occurring 2 months prior to implementing the full tobacco-free policy (March 1, 2014 to April 29, 2014), (ii) 4-6 months following the 'hard launch' of tobacco-free (September 1, 2014–November 6, 2014), and 10-12 months post-'hard launch' implementation (March 1, 2015–May 1, 2015). For staff, voluntary surveys

were distributed via an internal email (sent by the Public Affairs Office); for patients, surveys were distributed by their clinical teams or volunteers, and at various tobacco-free patient engagement sessions. Due to survey anonymity, a repeated-measures design was not possible.

CAMH staff involved with the survey established tables in CAMH's community center and in the lobbies of inpatient units. Patients were offered to participate in the survey, and responders completed survey materials. Moreover, inpatient units and outpatient clinics were asked to circulate and return completed surveys, which were received from all inpatient areas. Engagement sessions were done quarterly and were typically of 1-hour duration; food and coffee were provided to patients and staff.

The survey questions were adapted from published surveys examining changes in attitudes following smoke-free policy implementation.^{1,12} Surveys also requested self-reported smoking status. Patient survey questions were modified to evaluate patient experiences using accessible language. At all three time points, the same fifteen questions about their attitudes towards the tobacco-free policy were used. All questions were scored with a 5-point Likert scale (1=strong disagreement to 5=strong agreement). The program evaluation was exempted by CAMH's Research Ethics Board. Thus, committee review and informed consent were not required.

Key indicators were tracked, including patient agitation, and fire risks.^{2-5,8} These indicators were obtained pre- and post-launch of this policy via incident reports collected by CAMH's electronic incident management system, that records all hazardous (or nearly hazardous) events involving patients, staff, and/or visitors.

Data Analysis

Staff and Patient Attitudes

In order to compare attitudes on the fifteen questionnaire items across the three levels of time (baseline, 4-6 months, and 10-12 months), Kruskal-Wallis independent samples tests were performed. The test was also used to compare attitudes of smoking to non-smoking patients or staff at 10-12 months. For significant time effects, post-hoc tests were calculated using Mann-Whitney U pairwise comparisons. The tests are well-suited for ordinal dependent variables (Likert scales) that do not meet normality and homogeneity assumptions. The tests also assume independent observations—an assumption that could not be established in our data due to survey anonymity.¹ Staff and patient responses were examined separately, and statistical comparisons were not conducted as the questions and corresponding locus of control differed between the groups.

¹It is conceivable that the assumption was met for patient data, in light of the relatively large spacing of assessments during which the patient population would have changed and the modest subsample examined. In cases where staff (or patients) repeated the survey, this would result in smaller standard errors and, as a result, a greater likelihood of incorrectly rejecting the null hypothesis.

Key Indicators: Incident reports

In order to assess the impact of the tobacco free policy on incidents of patient agitation and fire risks, incident data was analyzed as follows; baseline incidents were obtained for the period 6 months prior to the soft launch of tobacco free, soft launch phase was calculated using the period of November 2013–April 2014, and the hard launch phase was calculated using incidents reported between May 2014–April 2015. Raw data points of average weekly incidents were compared across the three phases of implementation and analyzed using analysis of variance (ANOVA). In cases of significant findings ($p < 0.05$), post-hoc comparisons were examined using Tukey's Honestly Significant Difference tests. All analyses were computed using SPSS version 22.

RESULTS

Staff Responders

Staff ($N = 1,173$) responded to these surveys at baseline ($n = 454$), 4–6 months ('soft launch', $n = 356$), and 10–12 months ('hard launch', $n = 363$). Staff response rates relative to total employed staff were 15.8%, 12.3%, and 12.6%, respectively. Within this sample, there was approximately equal representation from clinical and corporate staff (51.5% vs. 48.5%, respectively), which is comparable to the staffing ratio at the hospital. Smoking rates between clinical and non-clinical staff were also compared, however, no significant difference were observed, X^2 ($df = 1$) = .02, $p = .89$, such that in both cases, staff smoked at a rate of approximately 9% (9.06% for clinical staff, 9.30% for corporate staff), a smoking prevalence that is lower than the general population in Ontario, where the smoking prevalence is 17.4% and lower than the smoking prevalence in healthcare providers (12.4%).¹³ Staff smoking rates and staff type were consistent between the cohorts.

Staff attitudes about the tobacco-free policy

Modal responses to each of the questions over time suggested that staff generally had positive attitudes about tobacco-free policies (i.e., mode responses of 4 or 5 representing 'agree' or 'strongly agree' for positive attitudes, respectively), with the following exceptions (see **Table 1** for means, modes, and standard deviations). Staff tended to agree or strongly agree at the three time points that more needs to be done to reduce tobacco use and second-hand smoke exposure. At the baseline and 4–6 months, staff agreed that tobacco-free policies will make tobacco-users feel stigmatized, but were ambivalent (mode = 3) at 10–12 months. Across the three time points, there was also ambivalence about effects of smoking cessation on client/patient symptoms.

The Kruskal-Wallis test revealed significant differences in several staff attitudes between the three time frames (see Table 1 for Kruskal-Wallis test statistics with p-values). Specifically, a significant difference ($p < .05$) was observed for Items 1, 3, 4, 7, 10, and 12–14. These attitudes concerned the importance of lowering tobacco use and second-hand smoke, the anticipated success of a tobacco-free policy (e.g., it will be successful and will open dialogue about smoking cessation, support/training is available to comply with the policy), and the effect of such a policy on patient symptoms.

Visual inspection of the mean responses for the aforementioned survey items with significant effects at each time point are consistent with the most favorable attitudes of the tobacco-free policy at Year 1, which corresponded with the 'hard launch.' These differences were significant for items 1, 7, 12, 13, and 14 based on significant ($p<.05$) Mann-Whitney U pairwise comparisons between baseline and both the 4-6 and 10-12 month time points. For the aforementioned cases, there was a significant increase in agreement (or significant decrease in disagreement) over baseline values. For the remainder of significant effects, agreement for item 10 was only statistically increased from baseline to the 10-12 month time point ($p=.02$). For questions 3 and 4, significant differences were only seen between the 4-6 months to 10-12 month time point ($p=.045$ and $p=.021$, respectively).

For select items (5, 8, 9, 15), smoking staff reported significantly less favorable attitudes toward the smoke-free policy during the hard-launch relative to non-smoking staff ($ps<.05$; see Table 3). Specifically, smoking staff were less likely to support the implementation of the policy, report that the policy would improve health of clients/visitors/staff, or reduce litter, and were more likely to report that the policy would stigmatize tobacco users than non-smoking staff.

Patient Respondents

In total, 422 patients responded to these surveys over the three time points (N=123 at baseline, N=106 at 4-6 months ('soft launch'), and N=193, 10-12 months. As expected, more patient respondents reported being smokers (30.6%) than staff respondents (9%; $\chi^2=126.4$, $df=1$, $p<.01$). The smoking prevalence reported by patient respondents is lower than would be expected within a psychiatric population, which could be due to underreporting their smoking status.¹⁴

Patient attitudes about the tobacco-free policy

Based on modal responses to each question over time, patient attitudes for a tobacco-free policy were generally positive such that they tended to agree with positive items (i.e., mode response of 4 or 5) and disagree with negative items (i.e., model response of 1 or 2 representing 'strongly disagree' and 'disagree', respectively), with the following exceptions (see Table 2 for descriptives). Patients tended to report ambivalence (mode=3) for the following items at specific time points: the importance of cutting-down or stopping smoking (#3; 10-12 months), the future success of a tobacco-free policy (#7; 10-12 months), worries that stopping smoking would make illness worse (#14; 10-12 months), and ability to get support to follow the policy (#12; 4-6 and 10-12 months). Furthermore, patients tended to agree during the pre-launch and soft launch that "tobacco free policies will make users of tobacco look bad" (#15, mode=4); however, they tended to report ambivalence at 10-12 months.

Responses to four of the questions significantly differed between the three observations: 5-7, and 9 (see **Table 2** for descriptive and Kruskal-Wallis test statistics with p-values). Specifically, these items concerned support of and adherence to the policy, anticipated success of the policy, and effects of the policy on tobacco waste. The post-hoc pairwise comparisons revealed that for all of these questions except #9, the significant increase in

agreement was only maintained from baseline to 4-6 months ($p<.05$). In these instances, while a non-significant finding was detected between baseline and 10-12 months, the mean responses for the aforementioned questions was higher at 10-12 months than at baseline, suggesting a trend towards increased agreement. For #9, increases in agreement were sustained from baseline to 4-6 months ($p=.001$), and again from baseline to 10-12 months ($p=.002$).

For many items (1, 3-10), smoking patients reported significantly less favorable attitudes toward the smoke-free policy during the hard-launch relative to non-smoking patients ($p<.05$; see Table 3). The differences supported that smoking clients were less supportive than non-smoking clients of making or adhering to a tobacco-free policy or considering ways to lower tobacco use on CAMH property, and less likely to report that the policy would be beneficial to clients/visitors/staff, would reduce tobacco waste, or get people to talk about stopping smoking.

Changes in incident data following policy implementation

Incidents related to patient agitation and fire risks were examined. Average weekly incidents for the time periods prior to the soft launch, throughout the soft launch, and one-year post hard launch were compared using ANOVA. Contrary to staff concern, CAMH experienced a statistically significant decrease in patient agitation incidents from baseline ($M=13.67$, $SD=5.36$) to 1 year post-hard launch ($M=10.72$, $SD=4.26$); $F(2, 99)=3.25$, $p=0.04$ (**Figure 1**). However, there was no significant change in incidents related to fire risks following the implementation of this policy, from baseline ($M=2.25$, $SD=1.91$) to 1 year post-launch ($M=1.60$, $SD=1.26$); $F(2, 21)=1.09$, $p=0.35$.

DISCUSSION

The purpose of this study was to evaluate staff and patient attitudes and key indicators of patient behavior (patient agitation and fire risks) related to the implementation of a complete tobacco ban at the largest Canadian public mental health and addictions teaching hospital. Consistent with the literature⁶ there was generally a high degree of support for the tobacco-free policy by both staff and patients. Importantly, many positive attitudes held by patients and staff remained stable over the course of making substantial changes to hospital-wide tobacco policies.

When significant changes in attitudes were observed, these were in the direction of increased positive attitudes towards the policy from baseline to the 'hard launch.' For staff, the changes were relatively more far-reaching as demonstrated by significant improvements in more attitudes than patients, and the tendency for such changes in support to remain at 10-12 months. In contrast, patient attitudes demonstrated fewer shifts over time, and only a few of these shifts were significant at the 10-12 month time point. The areas where significant differences were observed for patient respondents reflected support for the policy, statements of commitment to adhere with the policy, and a perception that the policy may contribute to reductions in tobacco waste. Support for these tobacco-free policies were generally higher in nonsmoking versus smoking staff and patients.

For staff respondents, areas where no changes were observed may reflect attitudes that have already reached a ceiling effect, as high levels of agreement (or disagreement for negative attitudes) were common. In the one discrepant instance, “Tobacco Free policies will make users of tobacco feel stigmatized”, a trend towards disagreement was observed (from 46% agreement to 40% agreement). As persons with mental illness and addictions already experience a higher level of stigma,¹⁵ staff working in this environment may be sensitive to this issue. Accordingly, it is important to address tobacco use in this patient population, as failure to address tobacco use could further stigmatization, contribute to an increased chronic disease burden, and worsen health inequities in this population.²

As a goal of this policy was to enhance patient care, another supportive finding is that for staff, there was a reduction in the opinion that cessation could exacerbate patients’ psychiatric symptoms; an area identified in the literature as being prohibitive to offering smoking cessation services to mental health patients ^{1,2,7,16,17}. While statistically comparisons were not conducted between staff and patient responses to this item, staff generally had ambivalent views about smoking cessation exacerbating patient symptoms, and patients indicated at baseline and 4-6 months that they did not worry that stopping smoking could worsen their illness. The reduction in staff concern over the impact of smoking cessation on recovery demonstrates an increase in staff education and awareness may have altered concerns, and would be expected to lead to increased smoking cessation and withdrawal management supports. While the goal of this policy is not to promote smoking cessation, staff education about the relationship between smoking and mental health supports motivational approaches for care planning and adequate management of nicotine withdrawal, and/or smoking cessation as per the patient’s goals.

Furthermore, there was a positive increase in staff knowledge about how to support a patient with their tobacco use and/or where to make a referral. This increase in staff capacity reflects the overall success of the implementation with regards to knowledge exchange and program development. Similarly, there was an increase in the opinion that staff can access to team/management support and training. This increase in available resources has previously been linked to an increase in positive attitude and support for organizational transitions.¹⁸ Finally, an increase in staff confidence was observed. This increased confidence by both smoking and non-smoking staff reflects an organizational culture shift that predicts staff buy-in and commitment to the implementation of this change.¹⁸

With regard to patient behavior, which was explored through the evaluation of incidents caused by patient agitation and fire risks, no negative impact was observed. In fact, consistent with the literature in this area suggesting that tobacco free policies reduce patient agitation,^{2,4,6,16} a decrease in patient agitation was observed. Possible reasons for this reduction include: adequate management of nicotine withdrawal, reductions in tobacco privileges between staff and patients, consistent communication of the expectations related to this policy, and supportive clinical practices that promote adherence vs. focusing on enforcement.

Limitations

These findings must be interpreted in light of several limitations. First, as the launch of the tobacco-free policy coincided with the launch of a new electronic medical record system, it was not possible to evaluate other measures related to policy implementation (e.g., length of stay, practice and program changes, discharge against medical advice, overall visit numbers). Future studies should compare these variables. Second, the current study represents respondents with lower smoking prevalence than would be expected of the Canadian population and patients with mental illness, and it is not possible to determine how representative the sample is of all patients and staff. Accordingly, an underrepresentation of smoking patients may have corresponded with more positive ratings of the policy because non-smoking individuals, particularly patients, generally had more positive attitudes about the tobacco-free policy. Thus, it is important that future work in this area consider the impact of such policies in the broader hospital community of smokers, non-smokers, and former smokers. Third, given survey anonymity, it was not possible to determine how individual attitudes changed over time. Also, by design, information about diagnosis or treatment intensity was unavailable. Thus, it was not possible to determine if these factors varied over time or were related to attitudes about the policy and associated outcomes (e.g., patient agitation). Future studies should increase responding by smoking participants and examine individual differences in attitudes.

Conclusions

Despite concerns that a complete tobacco ban at Canada's largest mental health and addictions hospital would not be feasible to implement, evaluations one year post-launch suggested increased staff support and reductions in behavioral incidents related to patient agitation. Organizations in the process of making this change may benefit from early staff and patient engagement, rigorous communication and education, a focus on clinical care over enforcement, and an iterative approach to policy change. Opportunities for patient engagement and feedback should also be considered.

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Figure 1.
Change in violence-related incidents as captured using CAMH's incident reporting system. Consistent with the literature, since the implementation of Tobacco Free, there has been a significant decrease in these codes, $F(2, 99) = 3.25$, $p = 0.04$, 12 months post launch.

Table 1

Patterns of responses by staff

#	Question	Time	Mean	Standard Deviation	Mode	Kruskal-Wallis Test Statistic and p-value
1	I believe more needs to be done at CAMH to reduce tobacco use and exposure to second hand smoke	Baseline	3.76	1.21	5	H(2)=29.58 p<.001
		6 Months	3.32	1.24	4	
		1 Year	3.50	1.18	4	
2	Smoking cessation is important for clients/patients	Baseline	4.16	1.00	5	H(2)=.194 p=.19
		6 Months	4.12	0.95	5	
		1 Year	4.16	1.01	5	
3	I believe that addressing tobacco use on CAMH property is important	Baseline	4.10	1.11	5	H(2)=6.15 p=.046
		6 Months	3.96	1.15	5	
		1 Year	4.17	1.11	5	
4	Having a patient cut down (as opposed to stopping smoking) would be an important goal for my patients	Baseline	3.83	0.92	4	H(2)=7.52 p=.02
		6 Months	3.68	1.10	4	
		1 Year	3.96	1.03	4	
5	I support the creation and implementation of a tobacco free policy at CAMH	Baseline	3.89	1.31	5	H(2)=1.21 p=.55
		6 Months	3.75	1.39	5	
		1 Year	3.87	1.34	5	
6	I will encourage the success of this initiative by informing staff, clients and visitors of this policy	Baseline	3.74	1.16	4	H(2)=4.22 p=.12
		6 Months	3.82	1.15	4	
		1 Year	3.82	1.18	4	
7	I am confident that the Tobacco Free policy at CAMH will be successful	Baseline	3.21	1.18	3	H(2)=26.00 p<.001
		6 Months	3.35	1.23	3	
		1 Year	3.49	1.25	4	
8	Tobacco Free policies will improve the health of clients, visitors and staff	Baseline	3.99	1.18	5	H(2)=2.93 p=.23
		6 Months	4.01	1.11	5	
		1 Year	4.05	1.14	5	
9	Tobacco Free policies will reduce tobacco litter	Baseline	3.91	1.19	5	H(2)=1.07 p=.59
		6 Months	3.88	1.18	5	
		1 Year	3.89	1.26	5	
10	Tobacco Free policies will open dialogue about smoking cessation	Baseline	3.80	1.07	4	H(2)=7.39 p=.03
		6 Months	3.85	1.06	4	
		1 Year	3.98	1.03	4	
11	Compliance with the Tobacco Free policy will reduce cues/triggers for those making a quit attempt	Baseline	3.74	1.18	4	H(2)=2.82 p=.24
		6 Months	3.77	1.16	4	
		1 Year	3.82	1.20	4	
12	I have access to team/management support or training required to comply with the Tobacco Free policy	Baseline	3.53	1.01	4	H(2)=51.32 p<.001
		6 Months	3.86	1.09	4	
		1 Year	3.90	1.01	4	

#	Question	Time	Mean	Standard Deviation	Mode	Kruskal-Wallis Test Statistic and p-value
13	When a client wants to stop smoking, I know where to refer him/her and/or how I can help him/her	Baseline	3.62	1.10	4	H(2)=17.98 $p<.001$
		6 Months	3.86	1.03	4	
		1 Year	3.89	1.10	4	
14	I am concerned that smoking cessation could exacerbate client/patient symptoms	Baseline	3.32	1.12	3	H(2)=17.32 $p<.001$
		6 Months	3.00	1.26	3	
		1 Year	3.04	1.22	3	
15	Tobacco Free policies will make users of tobacco feel stigmatized	Baseline	3.26	1.19	4	H(2)=5.68 $p=.06$
		6 Months	3.34	1.28	4	
		1 Year	3.08	1.30	3	

Table 2

Patterns of responses by patients

#	Question	Time	Mean	Standard Deviation	Mode	Kruskal-Wallis Test Statistic and p-value
1	I believe more needs to be done at CAMH to reduce tobacco use and exposure to second hand smoke	Baseline	2.73	1.20	2	H(2)=1.10 p=.58
		6 Months	2.85	1.18	2	
		1 Year	2.84	1.11	3	
2	Stopping smoking is important for me	Baseline	3.49	1.19	4	H(2)=3.04 p=.22
		6 Months	3.62	1.50	5	
		1 Year	3.42	1.22	5	
3	I believe that thinking about lowering tobacco use on CAMH property is important	Baseline	3.19	1.21	4	H(2)=4.21 p=.12
		6 Months	3.62	1.18	4	
		1 Year	3.33	1.21	5	
4	Cutting down (as opposed to stopping smoking) would be an important goal for me	Baseline	3.37	1.17	4	H(2)=1.29 p=.53
		6 Months	3.29	1.40	4	
		1 Year	3.30	1.20	3	
5	I support the making of a Tobacco free policy at CAMH	Baseline	3.15	1.39	4	H(2)=7.66 p=.02
		6 Months	3.50	1.50	5	
		1 Year	3.42	1.38	5	
6	I will add to the success of this policy by not smoking on CAMH property	Baseline	3.44	1.24	4	H(2)=7.05 p=.03
		6 Months	3.79	1.30	5	
		1 Year	3.83	1.24	5	
7	I think the Tobacco Free policy at CAMH will be successful	Baseline	3.10	1.23	4	H(2)=8.78 p=.01
		6 Months	3.24	1.23	4	
		1 Year	3.36	1.21	3	
8	Tobacco Free policies will lead to better health of clients, visitors and staff	Baseline	3.73	1.23	4	H(2)=2.59 p=.27
		6 Months	3.79	1.15	5	
		1 Year	3.61	1.20	5	
9	Tobacco Free policies will make less tobacco waste at CAMH	Baseline	3.63	1.28	4	H(2)=16.97 p<.001
		6 Months	4.06	1.04	5	
		1 Year	3.72	1.21	5	
10	Tobacco Free policies will get people talking about stopping smoking	Baseline	3.22	1.19	4	H(2)=3.53 p=.17
		6 Months	3.26	1.29	4	
		1 Year	3.32	1.20	5	
11	Following the Tobacco Free policy will lower temptations for those trying to stop smoking	Baseline	3.46	1.21	4	H(2)=2.84 p=.24
		6 Months	3.32	1.43	5	
		1 Year	3.59	1.19	5	
12	I can get support to follow with the Tobacco Free policy	Baseline	3.35	1.06	4	H(2)=1.79 p=.41
		6 Months	3.32	1.25	3	
		1 Year	3.47	1.02	3	

#	Question	Time	Mean	Standard Deviation	Mode	Kruskal-Wallis Test Statistic and p-value
13	If I want to stop using tobacco, I know where I can get help	Baseline	3.58	1.10	4	H(2)=.98 p=.61
		6 Months	3.85	1.26	4	
		1 Year	3.66	1.10	5	
14	I am worried that stopping smoking could make my illness worse	Baseline	2.39	1.07	2	H(2)=2.52 p=.28
		6 Months	2.26	1.42	1	
		1 Year	2.94	1.42	3	
15	Tobacco Free policies will make users of tobacco look bad	Baseline	2.86	1.22	4	H(2)=.67 p=.72
		6 Months	2.88	1.34	4	
		1 Year	3.11	1.18	3	

Table 3

Patterns of responses by patients and staff by smoking status during the ‘hard launch’ of the tobacco-free policy

Question #	Smoking status	Staff responses			Patient responses		
		mean	mode	Kruskal-Wallis Test Statistic and p-value	mean	mode	Kruskal-Wallis Test Statistic and p-value
1	Non-smoker	3.55	4	H(1)=1.27 p=.26	3.37	3	H(1)=18.60 p<.001
	Smoker	3.27	4		2.49	2	
2	Non-smoker	4.2	5	H(1)=1.66 p=.20	3.7	5	H(1)=2.36 p=.12
	Smoker	3.94	4		3.34	4	
3	Non-smoker	4.23	5	H(1)=1.17 p=.28	3.99	5	H(1)=21.72 p<.001
	Smoker	4.03	4		3.06	4	
4	Non-smoker	3.95	4	H(1)=.001 p=.97	2.96	3	H(1)=4.19 p=.04
	Smoker	3.89	4		3.45	4	
5	Non-smoker	4.06	5	H(1)=4.92 p=.03	4.16	5	H(1)=24.70 p<.001
	Smoker	3.45	4		2.94	2	
6	Non-smoker	3.89	4	H(1)=1.17 p=.28	4.23	5	H(1)=9.86 p=.002
	Smoker	3.61	4		3.51	4	
7	Non-smoker	3.6	3	H(1)=.19 p=.66	3.81	4	H(1)=7.65 p=.006
	Smoker	3.44	3		3.19	3	
8	Non-smoker	4.2	5	H(1)=6.29 p=.01	4.2	5	H(1)=15.24 p<.001
	Smoker	3.65	5		3.37	4	
9	Non-smoker	4.03	5	H(1)=4.53 p=.03	4.28	5	H(1)=8.18 p=.004
	Smoker	3.44	4		3.66	4	
10	Non-smoker	4	4	H(1)=.59 p=.44	3.96	4	H(1)=16.68 p<.001
	Smoker	3.93	4		3.06	4	
11	Non-smoker	3.89	4	H(1)=.28 p=.60	3.88	5	H(1)=3.306 p=.07
	Smoker	3.66	5		3.48	4	
12	Non-smoker	3.96	4	H(1)=.81 p=.37	3.61	3	H(1)=.31 p=.58
	Smoker	3.69	4		3.45	4	
13	Non-smoker	3.93	4	H(1)=3.43 p=.06	3.65	5	H(1)=.64 p=.42
	Smoker	3.43	4		3.89	4	
14	Non-smoker	3.05	3	H(1)=1.07 p=.30	2.82	3	H(1)=.23 p=.63
	Smoker	3.29	4		2.73	2	
15	Non-smoker	3.02	3	H(1)=8.37 p=.004	2.89	3	H(1)=2.47 p=.12
	Smoker	3.67	5		3.21	2	