

## ORIGINAL ARTICLE

## AN EVALUATION OF A UNIVERSITY-BASED TOBACCO FREE POLICY INITIATIVE: COMPLIANCE, BARRIERS, AND FACILITATING FACTORS OF POLICY ENFORCEMENT

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## ABSTRACT

Universiti Teknologi MARA started the Tobacco Free Campus Initiative (TFI) policy in January 2016. However, no study has been done to evaluate the TFI policy compliance, barriers, and facilitating factors after 6 years. Thus, this study aims to examine the TFI policy's compliance, barriers, and facilitating factors in the policy enforcements. Compliance to the TFI policy was evaluated using the environmental checklist using the Georgia University Evaluation Toolkit. Environmental checklists derived from Georgia University Evaluation Toolkit were used as a reference during the field observations to evaluate on the compliance part. Focus group discussion was done with 5 key informants identified through purposive sampling and an interview was also conducted with the person in charge of the TFI policy. Key questions related to evaluating barriers and facilitating factors were asked and recorded for the development of themes. Findings showed that there were non-compliance issues to the policy as indicated by the amount of cigarette butts found in multiple locations, presence of smoking odour, and observed violators. Main barrier identified was lack of support, and the main facilitating factor identified were the implementation of TFI buddies. Overall, the compliance is still seen to be lacking, and barriers as well as facilitating factors identified should be examined and addressed by the stakeholders to allow for policy improvement.

**Keywords:** tobacco free campus, tobacco free policy evaluation, policy enforcement, university, Malaysia

## INTRODUCTION

Tobacco smoking is recognized worldwide as a major preventable cause of disease and is associated to 8 million deaths per annum<sup>1</sup>. An estimation made by WHO predicts that if this pattern is not reversed, tobacco smoking will be responsible for 10 million deaths per year by 2030, with 70% of them occurring in developing countries<sup>2,3</sup>. As a result of this growing health concern, as well as the high prevalence of smokers among the university students<sup>4,5</sup>, tobacco-free campus policies have started to be incorporated in the education system. Universiti Teknologi Mara (UiTM) launched their Tobacco Free Campus Initiative (TFI) in January 2016 in three of its campuses, namely UiTM Sungai Buloh (Dental and Medical faculty), UiTM Selayang (Medical Faculty), and UiTM Teluk Intan (Medical Faculty).

The TFI initiative is a policy which designates those facilities and areas up to fifty meters (50m) surrounding such facilities in Sungai Buloh, Selayang and Teluk Intan of Universiti Teknologi MARA are no smoking or tobacco use areas. "Tobacco Use" includes personal use of any tobacco product, with intentions or not. They include smoking, as well as the use of an electronic cigarette or any other device intended to simulate smoking and the use of

smokeless tobacco, including snuff; chewing tobacco; smokeless pouches; any other forms of loose-leaf, smokeless tobacco; and the use of unlit cigarettes, cigars, and pipe tobacco. "Smoking" means inhaling and expelling the smoke of any tobacco product (including e cigarette), mimicking tobacco products (e.g., vape) and includes the holding of or control over any ignited tobacco product/ mimicking products (e.g., vape). This policy is enforced to all workers, students, visitors, contractors, and all individuals entering the campus. Those who are in violation of the policy should be reminded of the policy and asked to comply by immediately discarding the tobacco product<sup>6</sup>.

However, although the UiTM tobacco free campus policy has been in place for 8 years, no study has been done to evaluate the compliance to the policy nor the factors affecting its implementation. Hence, the objective of this study was to assess the UiTM's tobacco free policy's procedures and practices in the campuses of UiTM Sungai Buloh, in the context of its compliance, and to identify the barriers and facilitating factors in the enforcement of the policy.

## METHODS

This study used a qualitative method to

evaluate the compliance, barriers, and facilitating factors of the policy enforcement. Compliance was assessed through field observations, while barriers and facilitators were assessed through a focus group discussion and an interview with relevant key personnel.

### **Compliance**

Compliance to the TFI policy was observed for two weeks using three components: 1) seen smokers, 2) cigarette butt discovered on campus, and 3) smoking odour identified on campus. A Georgia Tobacco Free Colleges & Universities toolkit checklist was utilized which included sites on campus (parking lots, the main entrance and exits, the residential college, academic buildings, restrooms, cafeterias, the health care facility, and the student centre) to check for TFI infractions. Any observed or reported violators were recorded in a logbook for result reporting. Compliance surveillance was conducted by 3 observers who were trained to use the Georgia Tobacco Free Colleges & Universities toolkit checklist. The observers included 1 postgraduate student and 2 undergraduate students from the Faculty of Dentistry who were familiar with the layout of the campus and had full access to all the assigned sites for observation. The Georgia Tobacco Free Colleges & Universities toolkit was adopted for this study as it provided comprehensive guidelines in evaluating tobacco-free policy specifically in university campuses.

### **Barriers and Facilitators**

A focus group discussion with a team of policy enforcers (Campus Police) and the primary person in charge of the creation and execution of the TFI policy was conducted to assess the facilitators and obstacles to policy enforcement. The questions posed concerned the policy, their acceptance of it, the help they need, and the challenges they encountered implementing it.

### **Participants**

Purposive sampling was done by identifying six key informants: one TFI policy's person in charge and five Campus Police of UiTM Sungai Buloh including the chief of the Campus Police department. The interviews were conducted by our research team in a form of a focus group discussion held inside a meeting room. Eligibility criteria for the Campus Police were those who worked in the campus for a minimum period of 3 years (inclusion criteria). This was to make sure that the participants were those with a permanent work post in UiTM and had undergone the training provided prior to the TFI policy launching. The selection of participants from the Campus Police team was done by the Head of

Campus Police based on the requirements given by the research team prior to the discussion. The person in charge of the TFI policy is a public health medicine specialist with 15 years of experience who also specialises in occupational health. She is the director of the Centre for Occupational Safety, Health, and Wellbeing (CoSHAW) and has participated in both the policy's initial development stage as well as its implementation.

### **Data Collection**

During the interview and the focus group discussion, two audio recorders were used to record the information given. Period of both sessions lasted around 45 minutes in length. Key questions were developed based on topic areas and measures derived from our research questions and objectives. As with any focus group discussion method, the process of information gathering got deeper and wider as it went on. The interviewer would move on to the next key question once data saturation was reached and no new information was obtained.

### **Data Analysis**

Data was transcribed manually by the research team and subsequently coded by two independent researchers. Analysis followed a directed content approach, which used existing research to identify key concepts as initial coding categories. When the derivation of the initial coding was done, all transcripts were subsequently coded. Data that could not be coded with these initial categories were analyzed later, with codes were refined and new codes were developed during this process. The coding by the two independent researchers were compared, minor differences were discussed, and important improvisations were made to the codebook. All transcripts were then coded for a second time using the revised codebook. All final codes were examined for patterns and organized into groups to develop themes and sub themes.

## **RESULT**

The result is presented in a document analysis (checklist) of the field observation on the policy's compliance. For the barriers and facilitators, final themes were derived based on the findings obtained from the conducted interview and focus group discussion.

### **Compliance**

Among all the three places observed, the basement carpark, campus entrances, and bus stops were identified to show presence of violators, smoke odor, and cigarette butts. Observed violators were seen smoking cigarette at multiple places inside the campus including, the

basement carpark of the dental faculty, the main entrance and exit of the campus, as well

as the bus stop in front of the campus (Table 1). No violators were seen in other locations

**Table 1: Checklist on observed violations on campus**

Observed Violation	Observed violators	Smoke Odor	Cigarette butts
<b>Location of Violation</b>			
Basement carpark in dental faculty	√	√	√
Main entrance and exit of the campus	√	√	√
Bus stop in front of the campus Academic buildings	√	√	√
Residence college for staffs and students Cafeterias		√	√
Student centre			
UiTM Healthcare Centre			
Toilets		√	√

Table 1 shows a checklist of the presence of smoke odor in the campus. There were several locations that have been marked yes which included parking lots (both in dental and medical faculty buildings), main entrance and exits of the campus, bus stop in front of the campus, academic buildings, residence college for staffs and students, and toilets. Cigarette butts/litters were also found at the same places.

**Barriers and Facilitators**

These two items were presented from the perspectives of both TFI’s key person (TFI’s person in charge) and the policy enforcers. Table 2 shows the themes that emerged as the barriers and the facilitating factors of the TFI policy enforcement.

**Table 2: Main categories and themes**

Category	Themes	Sub-themes
<b>Barriers</b>	Lack of Support	Lack of support from enforcers Additional workload for enforcers Peer issues
<b>Facilitators</b>	Additional Support	Top management TFI Buddies New app development

**Barriers**

**Lack of support from the enforcers**

The enforcers’ lacked assistance was a barrier, as mentioned by the Key Person. This problem can be solved by including enforcement in the job description, however this move can only be authorized by the ministry owing to the faculty’s limited capacity to execute such policies.

*“Implementation wise, we don’t have monitoring from the Campus Police. Maybe they don’t have the time. It’s not really with the manpower. There’s just more work for them. Unless there’s black and white in their job scope, they will do it. But to add to their job scope, it is related to the police minister. We cannot just simply add this thing to their job scope”. (Key person)*

**Additional workload for the enforcers**

When asked about this issue to the Campus Police, all of them agreed that the policy enforcement is somewhat burdensome as more efforts are

needed by them to ensure the effectiveness of the policy. This TFI policy is said to be an additional workload to their existing job scopes.

*“With the current job scope, for me, it’s a bit of a barrier because we need to do additional task which is to create a subunit on health. If we only process the report and send it to our own legal unit, it’s fine, but instead we need to send it to PKD Gombak (Pusat Kesehatan Daerah Gombak), submit report, and go to the court as witness”. (CP 1)*

**Peer issue**

Another barrier that has been identified by the key person was peer issue. According to her, the enforcers might find it difficult to reprimand their own friends as they worry this would spark misunderstandings among them.

*“Because they said they have friends, they are scared to reprimand. They are afraid to lose friends, the other staff.” (Key person 1)*From

the perspective of the Campus Police, they admitted that peer issue is one of the main factors stopping them from fully enforcing the policy. They feel uncomfortable if they have to confront their own peers.

*“When it comes to peer issues, that is also a big barrier because they are people and friends that we know”. (CP 3)*

#### **Facilitators**

##### **Additional supports from the top management**

Other than the support from the top management, cooperation from both parties (students, staffs), is crucial to ensure the policy can achieve its full enforcement.

*“I think the most important support is from the top management. Not just rector, but from each department. Because tobacco policy cannot be from only top down, it needs both bottom up and top down. The bottom up means from the staff, students, and from the top management meaning from the registrar, rector, and dean”. (Key person 1)*

##### **Additional supports from the TFI Buddies**

Both sides have referenced TFI friends as peer support groups several times. TFI buddies are trained personnel or students who help enforcers execute policy and report policy infractions.

*“We don’t only train the healthcare providers, but we also train the peer support groups. So these peer support groups are the ones that we call TFI buddies. These support groups are the ones who will make reports to Campus Police or to have link with Campus Police for them to be aware of any cases.” (Key person 1)*

According to the Key person, the TFI buddies are also recognized as the intermediate person between the Campus Police and the smokers. They are the campus staff and students who attend a one-day training as a necessary requirement to join the TFI buddies’ program.

*“From all the barriers, we have concluded on why we need the TFI buddies because they are the intermediate person between the Campus Police and the smokers. These are the normal staff, normal students, who attend a one-day training, but they can already advice smokers. Otherwise, there will be a gap between the Campus Police and the smokers because they don’t usually see the Campus Police. It’s the TFI buddies who are more likely to be around”. (Key person 1)*

From the perspective of the Campus Police, one of the enforcers have also added that having TFI buddies would be the best method in ensuring the policy enforcement.

*“Like I said, if we were to do a thorough enforcement, it’s best if there’s a person in*

*charge in every building to ease us because there’s usually no problem in the open areas such as car parks, it’s always at the areas like in between cars, stairs, vacant rooms at the basement. They are all hotspots”. (PB 3)*

#### **New App Development**

When asked on the other initiative that could be made to facilitate in the policy enforcement, the Key person has stated that an app could help to act as an intermediate medium between the enforcers, smokers, and the reporters.

*“I have asked for a grant to develop like a work system in this campus, like an app or a link which can provide the location of the smoker. The link will go directly to the Campus Police, and they will then contact the person in charge. This will allow the PB to also go to the site instantly and give warning”. (Key person)*

The enforcers have also been asked if they would agree on the development of a new app to assist them. One of the enforcers agreed as such initiative is helpful in terms of reporting cases to enforcers.

*“Yes, it’s good to have an app. It also helps in terms of the reporting to the enforcers”. (PB 5)*

#### **Other opinions from the Campus Police**

On the enforcers note, they considered the policy as a valuable effort in ensuring that the smokers would not smoke in the public places, however, it does not eradicate the problem of smoking in more secluded areas.

*“In general, I can say that people do respect the policy. We don’t see them smoke at the CTC, hallway, seating places, but if we go to the stairs or toilet, there will be stench of cigarettes”. (CP 1)*

Most of the smokers would follow the rules since they are aware that, being in the hospital, it was vital to make sure the patients did not feel exposed to potentially harmful substances that could possibly degrade their health conditions and complications.

*“Usually if we reprimand the smokers not to smoke, for example staff or patients, they will understand because they know they are in the hospital”. (CP 2)*

Almost everyone in the UiTM facility notices the ‘no smoking’ sign plastered all over campus.

*“The signboards also help, usually when we show them the signs they will understand”. (CP 4)*

#### **DISCUSSION**

Although many colleges and universities have



adopted policies prohibiting all kinds of tobacco use on campus, this study adds to the growing evidence that the lack of explicit enforcement may impede the public health intent of the bans. Issues related to enforcement impedes the progress toward achieving a tobacco-free campus policy. Similar findings can be seen in two studies, where enforcement was identified as one of the most significant obstacles to the implementation of a tobacco-free policy, along with current campus social norms regarding smoking in universities<sup>7,8</sup>. Consistently, a study done in China also revealed that smoking by law enforcers, ineffective enforcement and low penalties for violators, lack of awareness of the public smoking law among the general public and law enforcement officials, and societal cultural norms are some of the obstacles impeding the effective implementation of smoke-free policies<sup>9</sup>. Additional workload is said to be one of the challenges as well. This may be due to the fact that this Campus Police is not primarily tasked to enforce the smoke-free regulation in hospitality venues and that their primary objective is to combat crime. In fact, based on conversations with the Key person as well as the enforcement officers, one of the most significant barriers across all agencies is that implementing tobacco control policies is not in their main job scope. This is found to be consistent with other study<sup>10</sup>.

Upon conducting field research, it was discovered that parking lots and garages were the most popular locations for smoking. On campus, it has been observed frequently that people smoke in the underground parking garages and discard their cigarette ends on the ground. This finding confirms that smoking behaviour has shifted from the campus core to the campus periphery, where parking facilities and staff and faculty buildings are located, as observed in previous research<sup>11</sup>. Therefore, it is probable that campus members who are aware of the policy but still choose to smoke on campus will do so in areas where their behaviour cannot be detected. Another possible explanation is that smokers may adhere to the TFI policy in areas where student activities are concentrated but instead choose to smoke in parking lots that are isolated from campus activities and lack surveillance. The TFI policy may also place social pressure on those who choose to violate the policy<sup>12</sup>. On the other hand, they might smoke while driving to campus and throw out the cigarette butts after they park their cars, as observed by other studies<sup>13,14</sup>.

When the key informants were asked what they perceived to be the most significant barriers to successfully implementing a campus-wide smoke-free policy, major theme includes the lack of support from the enforcers and policy limitation. Often lack of resources and inadequate sensitization are cited as relatable to these issues, as reported in these studies<sup>9,15</sup>. According

to Hoe et al., (2021), Inadequate sensitization of the enforcement personnel rendered them incapable of completely enforcing the tobacco control regulations<sup>9</sup>. Additionally, interpersonal issues continue to be a barrier because of the discomfort they would feel if they approach the violators, who are also their friends<sup>16</sup>. It was reported that they frequently do not approach a violator because they do not feel secured, lack authority, and fear of upsetting the individual<sup>16</sup>.

In terms of facilitating factors, another study found that top management, which conveys the meaning of establishing the significance of staff participation from top to bottom and vice versa, was consistent. In a systematic review done by Wynne et al. (2018), integration of policy enforcement into existing systems and duties, such as assigning enforcement responsibilities to all staff, is considered as one of the strategies for ensuring effective policy implementation<sup>17</sup>. Moreover, Rath et al. (2019) found that colleges have 3.9 times the likelihood of passing a 100% smoke- or tobacco-free policy if every unit or department in the faculty emphasised the significance of a 100% smoke- or tobacco-free policy on campus<sup>18</sup>.

Both the Key person and all enforcers agreed that developing a new app would help them in establishing the policy. The app is suggested to have a link between the enforcers and the TFI buddies. The TFI buddies will assist the enforcers in reporting the violators' location through the app. This initiative has also been mentioned in a study by Fallin et. al, where having an online portal will help to report on the hot spot areas<sup>11</sup>. A Tobacco-free Ambassador Program study conducted by Ickes et al. (2015), was successful due to education and enforcing the policy near campus hotspots<sup>19</sup>. The Ambassador Program is a sustainable strategy to improve compliance on college campuses<sup>20</sup>. It helped to reduce observed tobacco use by 65% and 35% reduction in cigarette butts found on campus hotspots. Thus, it is hopeful by really establishing the roles of the TFI buddies, it will give the similar outcome as The Ambassador Program.

This study was done in 2020 and represents the first study to evaluate the tobacco free policy campus in the local setting of universities in Malaysia. Thus, the study provides an evidence-based outcome which can act as a point of reference for other institutions looking to establish a TFI policy. Findings from the study will tell policy planners on where to increase their efforts to improve the existing policy. For example, if the findings on the awareness are found to be low, this will tell the policy

planners to redirect their current attempts to focus more on raising the TFI policy awareness. Findings on the facilitators will assist the policy planners to enforce initiatives that will also help in improving the policy's effectiveness. This in turn will lead to a very strong TFI policy and enforcement strategy that can help universities to further deploy the TFI policy across its' campuses.

## CONCLUSION

Efforts to ensure compliance require support for such policies at all levels remain a challenge. Low compliance indicates lack of effectiveness in the enforcement part. This study proves that although support for such policies is good, there are still some areas requiring improvement. To implement a strong and effective tobacco policy, monitoring from the stakeholders is needed to ensure more compliance, and enforcement can be achieved in the long term.

**Competing Interests:** The authors declare no conflict of interest.

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