

Public Health Policy, Non-Communicable Diseases (NCDs) and Food or Substance Control: A Halalan-Tayyiban Perspective

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Abstract: Non-Communicable Diseases (NCDs) such as diabetes, cancer, and heart disease are among the top public health threats facing the world today. Meanwhile, alarming rate of NCDs, other health and mental problems strongly linked to sugar and tobacco consumptions in Muslim majority countries is on high record. This paper considers this NCDs prevalence in these countries as ironical in view of wholesome, ethical and healthy *Halalan-Tayyiban* dietary life styles stipulated for Muslims. Hence, it becomes crucial to: review the existing Public Health Policies (PHP) targeted at control of NCDs; further explore the links between food or substance consumption and NCDs; and offer *Halalan-Tayyiban* perspectives. This paper aims to highlight the existing public health approaches and policies aimed at controlling NCDs and their risk factors; identify the gaps and concerns in these policies; highlight and draw more attentions to alarming rate of NCDs and related public health threats especially in Muslim countries; and offer *Halalan-Tayyiban* perspectives after a critical review of the concept. As an integrated literature review study, the paper explores relevant literatures and studies on different aspects of the subject. In order to be moderately restrictive, papers and studies written or published between 2010 and 2023 were selected. Relevant keywords were searched in notable online databases like Scopus, Web of Science, Google Scholars, Academia.edu etc. Some gaps have been identified in the existing PHP targeted at control of NCDs and its risks factors. These gaps include needs for public health policies to be more comprehensive and culturally relevant, faith-based,

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populations tailored, and integrated with Social Determinant of Health (SDH) amongst others. Also, to control the alarming rates of NCDs and related risk factors which are ironically identified in Muslim majority countries: this paper explore the two inextricably linked concepts of Halal and Tayyib; and established that their convergences can inform an effective *Halalan-Tayyiban* based PHP approach. Hence, a *Halalan-Tayyiban* perspective, approach and recommendations are offered for various stakeholders in public health policies especially in Muslim majority countries.

1. Introduction

Foremost among threats to public health goals are Non-Communicable Diseases (NCDs) and this is highly worrisome due to the established links of NCDs to food and other substance consumptions. For instance sugar, tobacco and alcohol consumption has been linked to various health threatening conditions like obesity, overweight and many non-communicable diseases like diabetes mellitus and cardiovascular (Kass *et al.*, 2014; Kavita-Jetly *et al.*, 2021; Manaf *et al.*, 2019; Mohamed Nor *et al.*, 2021; Nantha, 2014; Okuda *et al.*, 2020). In particular and highly perturbing is the high prevalences of NCDs and other public health problems associated with obesity, cigarette smoking and poor dietary patterns which have been on the rise in Muslim dominated countries such as Malaysia and Saudi Arabia (Hanim *et al.*, 2021; Kavita-Jetly *et al.*, 2021; Manaf *et al.*, 2019; MOH, 2023). This article considers this prevalence as an irony considering the fact that Islam advocates a wholesome and ethical *Halalan-Tayyiban* dietary system for Muslims.

Food and other substance control have featured prominently amongst public health policies and regulations targeted at tackling NCDs worldwide (Malik & Hu, 2022). However, some inadequacies, gaps and challenges have been identified in these public health policies aimed at controlling food and substance consumptions or abuses (Kavita-Jetly *et al.*, 2021). Considerable policy gaps, ethical issues and concerns have ensued over the years which are challenging effective control of food and substance consumptions especially in Muslim majority countries. For instance, studies have emphasised need for comprehensive public health strategies that are culturally-relevant, faith-based and populations tailored. (Aboul-Enein, 2017; Amri *et al.*, 2022; Kass *et al.*, 2014; Kavita-Jetly *et al.*, 2021). Therefore, a review of public health policies implemented through food or substance control and targeted

at reducing NCDs and their risk factors is the focus of this article. Conclusion and recommendations are offered from the viewpoints of *Halalan-Tayyiban* perspective.

1.1 Objective

The aims of this paper are: to highlight the existing public health approaches and policies aimed at controlling NCDs and their risk factors related to food or substance consumption; examine relationship between food or substance consumption and NCDs; highlight and draw more attentions to alarming rate of NCDs and related public health threats especially in Muslim countries: identify the gaps and concerns in existing public health policies; review *Halalan-Tayyiban* concept to examine how it can be well integrated into Public Health Policy (PHP) targeted at NCDs through control of foods and substance consumptions.

1.2 Methodology

As an integrated literature review study, the paper explores relevant literatures and studies on different aspects of the subject matter which include literatures on: public health policies related to food and substance consumption control; NCDs and related risk factors that are linked to food and substance consumption or abuse; and *Halalan-Tayyiban* approaches to public health control. In order to be moderately restrictive, papers and studies written or published between 2010 and 2023 were selected. Relevant keywords were searched in notable online databases like Scopus, Web of Science, Google Scholars, Academia.edu, etc.

2. Public Health Policies targeted at NCDs through Food or Substance Control.

Public health policies are multi-sectoral and multidisciplinary laws, regulations, and actions that are critical to protecting the health of populations and meeting specific health goals with the involvement of complex networks of individuals and organizations in a society (Asfour Omar & Jabbour Samer, 2020; Behzadifar *et al.*, 2022; Columbia, 2021). They range from formal legislation to community outreach in the form of policy development, health monitoring, information sharing, resource mobilization, assurance and evaluation across sectors such as insurance, education, agriculture, transportation, sports, business etc. (Asfour Omar & Jabbour Samer, 2020; Columbia, 2021). Topping the list of most ravaging public health threats facing the world according to WHO (after air pollution) are Non-Communicable Diseases (NCDs) such as diabetes, cancer, and heart disease (Friedrich, 2019; Hazazi & Wilson, 2022; Ten Threats to Global Health in 2019, n.d.). These illnesses and their risk factors are not only causing more than 70% of deaths worldwide but sometimes

exacerbate mental health issues leading to suicide among young people, sleep deprivation, difficulties, or poor sleep quality among children and adolescents (Friedrich, 2019; Khan *et al.*, 2021). Studies have also linked these non-communicable diseases and mental illnesses to excessive consumption of sugar especially Sugar-Sweetened Beverages (SSB), cigarette and other substance addictions or abuse (Khan *et al.*, 2021; Krieger *et al.*, 2020; Malik & Hu, 2022; Teng *et al.*, 2020; WHO, n.d.). As part of public health measures to reduce these NCDs, different approaches and policies have either been developed, proposed or implemented by policy makers, public health officials and advocates (Krieger *et al.*, 2020; Manaf *et al.*, 2019). Some of these policies can be categorised as financial or fiscal, informational, environmental or availability public health policies (Goiana-da-Silva *et al.*, 2020; Kass *et al.*, 2014; Krieger *et al.*, 2020).

a. Financial or Fiscal Public Health Policies

Financial or fiscal policies are targeted at increasing the price of Sugar Sweetened Beverages (SSBs), tobacco and nicotine products relative to healthier options and implemented through: tax imposition or increments; restrictions on price or volume promotions; incentives for purchase of unsweetened beverages e.g., restrictions on use of food stamps for SSB. Several countries have introduced SSBs taxation, though its implementation has received mixed reactions (Hanim *et al.*, 2021). For instance, in Malaysia, the SSBs tax levy of 40 cents per 1 litre for beverages containing more than 5 grams of sugar per 100ml and fruit juices with 12 grams of sugar per 100 ml was introduced in 2019. In the United States sugar tax popularly called soda taxes are implemented at state or city levels rather than as a nationwide tax. In 2017, Saudi Arabia which has the fifth-largest resident consumers of calories from SSB globally introduced the largest SSB tax worldwide - a 120% tax on energy drinks and a 50% tax on soft drinks (Alsukait *et al.*, 2020).

b. Informational Public Health Policy

Information targeted public health policy seeks to reduce the public's exposure to marketing of SSBs, tobacco and nicotine products while increasing awareness of the health risks that their consumptions pose (Krieger *et al.*, 2020). It also requires menu calorie labelling, front-of-package and advertising warning labels and marketing restrictions to children (Kass *et al.*, 2014; Krieger *et al.*, 2020). Malaysian Control of Tobacco Product (Amendment) Regulations 2018 requires health warnings, with a graphic picture and accompanying text appear on each unit package of cigarettes, occupying 50% of the front of the package and 60% of the back of the package. The text of the warning is in Malay on the front panel and

English on the back panel. Also, virtually all forms of tobacco advertising, promotion and sponsorship are prohibited in Malaysia. However, due to the lack of definition of “tobacco promotion” in the law, some forms of tobacco promotion may not be covered under the ban (Campaign For Tobacco Free Kids, 2020).

c. Environmental Public Health Policies

Environmental or availability policies are such as requiring a healthy drink in kids’ restaurant meals and limiting proximity of fast-food restaurants to schools (Kass *et al.*, 2014; Krieger *et al.*, 2020). This organizes and structures the environment to make the healthy choice more accessible, hence the easier choice. Malaysia Control of Tobacco Product Regulation 2004 under the Food Act 1983 prohibits smoking in government premises, air-conditioned eateries, shopping complexes, hospitals or clinics, educational institutions or higher educational institutions, airports, and public vehicles or public transport terminals, among others. In 2019, smoking ban from indoor restaurants in Malaysia was extended to open-air eateries. Also, on 12 June 2023, the Ministry of Health (MOH) tabled The Control of Smoking Product for Public Health Bill 2023 in the Parliament. The bill includes the generational end game (GEG) smoking ban, which bans tobacco sales to those born on 1 January 2007 or later.

3. Relationship between Food or Substance Consumption, Non-Communicable Diseases (NCDs) & Mental Health

Obesity, smoking and unhealthy diet have been recognized as strongly impacting burden of diseases as more than 5% of the causes of death have been related to such lifestyle (Grout *et al.*, 2022; Pooneh *et al.*, 2020). The risk of developing a NCDs such as diabetes or cardiovascular diseases becomes higher with continuous exposure to unhealthy food and smoking (MOH, 2023). Sugar consumption has been strongly linked to various health threatening conditions like obesity, overweight and many non-communicable diseases like diabetes mellitus and cardiovascular (Alsukait *et al.*, 2022b; Hazazi & Wilson, 2022; Kass *et al.*, 2014; MOH, 2023; Mohamed Nor *et al.*, 2021; Nantha, 2014; Okuda *et al.*, 2020). Hence, sugar consumption has attracted substantial attention and concerns in public health regulatory policies primarily because of the strong role of high free sugar foods in causing health deficiencies (Malik & Hu, 2022). This includes: displacing intakes of nutrient-rich foods and thus diluting micronutrients in the diet; the linkage between sugar and dental caries development; and the possible contribution of excessive free sugars intake to the obesity (OB) epidemic (Farajian *et al.*, 2016).

Free sugars are defined by the World Health Organization (WHO)/Food and Agriculture Organization (FAO) as all monosaccharides and disaccharides added to foods by manufacturers, cooks or customers, and sugars naturally present in honey, syrups, and fruit juices (Okuda *et al.*, 2020). Also, Sugar-Sweetened Beverages (SSBs) are defined as beverages with added sugar and include sports drinks, sugar-sweetened tea and coffee, fruit drinks and punches, low-calorie drinks, soft drinks, and electrolyte-replacement drinks (Kass *et al.*, 2014; Malik & Hu, 2022; Teng *et al.*, 2020). Khan *et al.* (2021) study examines the association of carbonated soft drink and fast-food intake with stress-related sleep disturbance among adolescents across 64 countries. Evidence from the study shows that unhealthy dietary behaviours like the consumption of high-calorie carbohydrate-rich foods, are associated with sleep deprivation, sleep difficulties, and poor sleep quality among children and adolescents. A 12-country study with children aged 9 to 11 years reported an association of higher consumption of sugar-sweetened beverages with short sleep (Khan *et al.*, 2021). In Asia, some studies have been undertaken to investigate the association between intake of sugar or SSBs and health problems like obesity, diabetes and cardiovascular risks. It is instructive that Asians are likely to suffer from diabetes at a relatively low body mass index (BMI) or waist circumference in comparison to Europeans, and fat distribution varies among Asian countries (Okuda *et al.*, 2020). In a bibliography of clinical research undertaken by Ghee (2016) covering the years 2000 till 2015 and involving 265 articles, results of serial population studies showed that the prevalence of obesity increased rapidly in Malaysia in the last decade of the twentieth century. This is attributed to the rising availability of food per capita, which had begun two to three decades ago (Ghee, 2016).

4. Public Health Policy and High Prevalence of NCDs in Muslim Majority Countries: Gaps and Insights

World Health Organisation (W.H.O) has recommended various public health measures and policies to control consumption that causes deadly diseases. Many countries have either domesticated some of these policies or evoked different ones. For instance, the World Health Organization (WHO) has recommended that consumption of sugar should not surpass 10% of total daily total calories (Asfour Omar & Jabbour Samer, 2020). Also, WHO has implemented the Framework Convention of Tobacco Control (FCTC) which Malaysia and Saudi Arabia ratified in 2005 and 2004 respectively. These two countries feature amongst top and leading Muslim majority countries in economy and Sustainable Development Index (SDI) (DinarStandard, 2022; IsDB, 2021; Shaikh & Hassan, 2020). Prevalence of NCDs and their risk factors in Malaysia, Saudi Arabia and other Muslim majority countries like

Indonesia indicates some of these policies have been less effective since their introductions (Manaf *et al.*, 2019).

4.1 Malaysia

In Malaysia, cardiovascular diseases, chronic respiratory diseases, cancer, and diabetes are the leading causes of death and disease burden (Manaf *et al.*, 2019; Mat Din *et al.*, 2021; MOH, 2023). Similar to other countries, the rising prevalence of NCDs in Malaysia is driven by lifestyle-related risk factors such as physical inactivity, tobacco use, excess sugar consumption and unhealthy diet (Kavita-Jetly *et al.*, 2021; Manaf *et al.*, 2019; MOH, 2023; Teng *et al.*, 2020). Despite huge efforts to alert the population about high sugar intake being a major risk factor to the rise of obesity, daily intake among the Malaysian's adolescents is still above WHO recommendation (Teng *et al.*, 2020). Similarly, despite ratifying Framework Convention on Tobacco Control (FCTC) and enforcing various types of policies, prevalence of cigarette consumption is still high in Malaysia (Kavita-Jetly *et al.*, 2021; Manaf *et al.*, 2019). The Malaysia Control of Tobacco Product Regulations 2004 which was issued under the Food Act of 1983 have been amended several times, obviously due to its inadequacies. In 2018 the prohibition on smoking in air-conditioned restaurants was amended to consider all "eating place"- restaurants, dining areas, etc., in Malaysia as a non-smoking zone. According to the country's M.O.H, about 98% of Malaysian adult have or are affected by at least one NCD risk factors which are partly attributable to underlying social and environmental determinants (MOH, 2023).

4.2 Saudi Arabia

In Saudi Arabia, another leading OIC and Muslim majority country, the situation is particularly alarming as more than half of the adult population is overweight and one out of five people are obese (Alluhidan *et al.*, 2022). The rate of NCDs have increased the death in the country (Alluhidan *et al.*, 2022; Hazazi & Wilson, 2022). NCDs are responsible for 73% of all deaths, with cardiovascular diseases in the lead, accounting for 37% of total deaths, followed by cancer at 10%, diabetes at 3%, respiratory diseases at 3%, and other NCDs at 20% (Hazazi & Wilson, 2022). The prevalence of overweight and obesity in Saudi Arabia is estimated by its Ministry of Health to be 38% and 20% respectively in 2019, while the current estimation of obesity is up to 36% (Alqahtani *et al.*, 2023). Overweight and obesity rates in Saudi Arabia are high across all age groups but they are increasing rapidly among children and adolescents. The Saudi Arabia's crude prevalence of overweight/obesity among age 5 to 19 years is one of the highest in the world (Alsukait *et al.*, 2022a).

Over the past two decades, four national initiatives which include wide range of policy measures in compliance with WHO objectives to control the NCD epidemic have been introduced in Saudi Arabia (Hazazi & Wilson, 2022). Asfour Omar and Jabbour Samer (2020) studied the impact of introduction of 120% tax on energy drinks and a 50% tax on soft drinks on the consumption of sugar-sweetened beverages (SSB) among school children in Saudi. The outcome of the study shows that the implementation of tax on SSB alone is not sufficient to reduce the consumption; hence, other preventive measures, such as raising awareness about the adverse effects of SSB on health and restricting the availability of SSB in schools, are suggested (Asfour Omar & Jabbour Samer, 2020).

4.3 Gaps and Call for Paradigm Shift

Significant gaps identified in some of these policies by literatures (Aboul-Enein, 2017; Amri *et al.*, 2022; Behzadifar *et al.*, 2022; Hazazi & Wilson, 2022; Kass *et al.*, 2014; Kavita-Jetly *et al.*, 2021) include:

- I. Existing public health policies and strategies are not comprehensive, culturally-relevant, faith-based and populations tailored (Aboul-Enein, 2017).
- II. Inadequate integration of a multitude of nonmedical factors known as Social Determinant of Health (SDH) in public health policy (Amri *et al.*, 2022).
- III. Failure or inadequacy in addressing ethical concerns such as promoting social justice, minimizing threats to liberty, privacy etc (Holland, 2023; Kass *et al.*, 2014; Md Tahir *et al.*, 2022).
- IV. Insufficient inter-sectorial and multi-sectoral collaboration with the other government agencies and the private sector (Amri *et al.*, 2022; Hazazi & Wilson, 2022) Lack of detailed information regarding policies, strategies, effective evaluation and monitoring programmes (Hazazi & Wilson, 2022).
- V. Weakness in early detection and low NCD prevention programmes like physical activity, healthy nutrition etc. (Hazazi & Wilson, 2022).
- VI. Limited scholarly consideration of the healthcare system's response to NCD management - general gap between evidence-based research in health systems and its implementation in public health policy-making (Behzadifar *et al.*, 2022).

As a paradigm shift and in view of peculiarity of some of these gaps, according to Aboul-Enein (2017), many studies have emphasised the importance of a more comprehensive health strategies and interventions that are culturally relevant, faith-based, populations and communities tailored. In this regard and due to the prevalence of public health problems

associated with obesity, smoking and poor dietary in Muslim communities, faith-based health and dietary approaches applicable to Muslim populations is proposed by this study. Hence, a *Halalan-Tayyiban* perspective to public health policy targeted at control of food and substance consumption is reviewed by the researcher.

5. Halālan-Tayyiban Concept

Allah says in Holy Quran (2:168): “*O ye people! Eat of what is on earth, Lawful and good; and do not follow the footsteps of the evil one, for he is to you an avowed enemy*”. In this verse instruction, the consumption of halal and wholesome foods are addressed to all human beings. The word “eat” in the Quran texts is in the command form and contains orders, guidance, and instructions making this verse the main foundation of *Halālan-Tayyiban* as an important concept and practises (Mustaffa, 2019). However, juristic interpretation of the pattern of this command in the Quranic text “to eat” indicates *Ibāḥah* (optional rules) and the substance to consume is compulsory to sustain human life, wellbeing and must be halal (lawful) and *tayyib* (good) (Al-Ulama, 1992).

Halālan and *Tayyiban* include what a pure soul ascertains in consumption as untainted and devoid of harmful consequences through taste, experiences, and other methods of determination. *Halalan-Tayyiban* is a combination of halal and *tayyib* which are usually viewed by scholars from various but convergent perspectives. According to Mustaffa (2019) while *Halalan-Tayyiban* means something lawful and good the meaning of halal embody something that brings goodness and does not bring any harm. It is argued that halal is a decision made under Islamic law while *tayyib* is proof brought forward by someone

5.1 Halal

According to Al-Qardawi (2013), halal means the lawful or that which is permitted, Allah has allowed it's doing and no restriction exists with respect to it. Al-haram which literally means the prohibited or unlawful is that which the Law-Giver (Allah) has prohibited; anyone who engages in it is liable to incur the punishment of Allah in the Hereafter as well as a legal punishment in this world. The halal concept is about Shariah compliance of food and substance for consumption and absent of prohibition. According to Kamali (2013), it may also be described “as an act, object or conduct over which the individual has freedom of choice and its exercise does not carry either a reward or a punishment”. Fundamental jurisprudence principle of halal is: “nothing is haram except what is prohibited by a sound and explicit *nas* (textual evidence), i.e. verse of the Quran or a clear, authentic, and explicit

sunnah (practice or saying) of Prophet Muhammad (PBUH).” (Al-Qardawi, 2013). According to Al-Qardawi 2013: “If the *nas* is not sound, for example in the case of a weak hadith, or if it is not explicit in stating the prohibition, the original principle of permissibility applies”.

5.2 *Tayyib*

The concept of *Tayyib*-“good,” serves as a well-founded and affirming characterization of the Halal’s essence — “permissible.” This entails the purity of consumables, freedom from impurities, non-harmful nature, beneficial to the human body, mind and soul (Yahaya & Ruzulan, 2020). The exegeses of *Qurtubi* contend that the concept of *Tayyiban* in this context is an emphasis on the need and importance of halal consumption in food and drink (Al-Qurtubi, 2006) Allah did not make anything halal without it being *tayyib* (pure) nor anything haram which was not *khablith* (impure) thus *tayyib* has intrinsic and a natural inclination to halal

The word ‘*tayyib*’ as repeatedly mentioned in the al-Quran consists of three meanings, *al-tāhir* (pure and clean), *al-halal* (halal) and *al-mustalidh* (goodness) (Mustaffa, 2019). For instance, Malaysian *Halalan-Tayyiban* standards include transportation of goods/cargo chain activities (MS 2400-(1:2010); warehousing and other related activities (MS 2400-(2: 2010); and, retailing (MS 2400-(3). These standards convey the basic meanings of halal in accordance with Syariah requirements” while defining *Halalan-Tayyiban*, on the other hand as “assurance and guarantee that both aspects of *Halālan* and *Tayyiban* are integrated into holistic and balanced requirements that fulfil the condition, situation and application needs”.

It may be concluded that halal represents the fulfilment of the Syariah requirements leading to the permissibility of an object or action while *Halalan-Tayyiban* covers a more holistic approach (*Difference between Halal and Halalan-Toyyiban*, n.d.). The distinctions between *Halal* and *Tayyib* in term of definition or focus and fundamental principle are depicted in Table 1.

Table 1. The distinctions between Halal and Tayyib.

	Halal/Haram	<i>Tayyib</i>
Definition and Fundamental Principle	Halal means the lawful or that which is permitted, Allah has allowed it’s doing and no restriction exists with respect to it (Al-Qardawi, 2013).	<ul style="list-style-type: none"> • Quality assurance. • Suitability for consumption • Wholesomeness • Health benefits

Halal/Haram	Tayyib
<p>“Nothing is haram except what is prohibited by a sound and explicit <i>nas</i> (textual evidence), i.e verse of the Qur‘ân or a clear, authentic, and explicit sunnah (practice or saying) of Prophet Muhammad (PBUH).” (Al-Qardawi, 2013).</p>	<ul style="list-style-type: none"> • Purity of consumables, their freedom from impurities, and their non-harmful nature (Yahaya & Ruzulan, 2020).

6. Halalan-Tayyiban Based Public Health Policy Approach to Control of Foods and Substance Consumptions.

In view of the identified gaps and call for paradigm shift identified in Section 4.3, which include the need for culturally relevant and faith based public health policies, approaching control of food and substance addictions from *Halalan-Tayyiban* perspectives is recommended by this paper. Its recommendations and conclusion on public health policy in relation to NCDs, food and substance control will be based on *Halalan-Tayyiban* perspective derived from convergence of Islamic jurisprudence on the issues involved. This *Halalan-Tayyiban*'s approach to consumption entails good food and drinks that have a great impact on the purification and radiance of the soul, the purity of the heart, its enlightenment, and the strength of its insight, as well as the acceptance of worship and supplication (Maktabah al-Kuwait al-Islamiyyah., 2020).

Smoking for instance is inextricably linked to the examination of the Quran, Hadith, and Ijtihad (Labib *et al.*, 2023). There are differences in methods used by experts as well as in interpreting the texts by *Fuqaha* leading to different views regarding the law of smoking (Marpaung *et al.*, 2022). Basically, as a result of the principle of “nothing is haram except for what is prohibited by a sound and explicit Quranic text or sunnah” religious scholars differ in their rulings on smoking. Those who view smoking as useful uphold its permissibility while others who view smoking as harmful or not useful conclude that it is haram (Khayat, 2018). It can be deduced from the opinions of different Islamic scholars and schools of thought that smoking is neither explicitly or directly prohibited nor expressly permissible by the Quranic text or sunnah. Nevertheless, in certain circumstances smoking is prohibited or reprehensive based on causal severe damages to health, wealth, in the mosque or while reading the Quran which violate reverence to Allah (Khayat, 2018). This is undoubtedly congruent with the *Tayyiban* aspect of *Halalan-Tayyiban* concept and practices

which has informed the decisions of many Muslim countries' bodies of Islamic scholars to declare smoking as haram (prohibited).

In 1996, Muslim scholars in Amman concluded that smoking is against the teachings of Islam after they reflected on the evidences on smoking and examined Islamic teachings on health promotion and healthy lifestyles (World Health Organization, 2011). Also In 1999, major Muslim scholars asserted that the harmful health effects of tobacco make its consumption contradictory to Islamic teaching because protection of the mental and physical integrity of individuals is one of basic tenets of Islam. Dr Farid Wasil, the Grand Mufti of Egypt declared that smoking is Haram (forbidden) in Islam because of its damaging effects to human health (World Health Organization, 2011). In 2009 and 2010, the Indonesian Ulama Council (MUI) and the Muhammadiyah Central Leader in Indonesia respectively issued a *fatwa* that smoking is haram (Hamzah & Akbar, 2021; Haris *et al.*, 2022). These *Fatwas* were based on the fact that cigarettes contain elements that are detrimental (*mudharat*) for oneself and others (Hamzah & Akbar, 2021). In 1995, the *Fatwa* committee of the National Council for Islamic Religious Affairs of Malaysia issued the edict that declared smoking as haram in Islam due to its harmful effects. In 2015, the council also issued a fatwa declaring electronic cigarettes as haram (prohibited). Kingdom of Saudi Arabia is an Islamic country that considers tobacco smoking a religiously and socially sinful practice (Alotaibi *et al.*, 2019).

Similarly, other food and substance addictions like excessive sugar consumption can be approached from *Halālan Tayyiban* perspective. Islam unequivocally frowned at excesses and wastefulness in all consumptions due to the harms it portends for human life. Hence, if it is correct that one of the harmful things is to eat food on top of other food, then it is haram (Kagee, 2017). Experts agree that the calories contained in Sugar-Sweetened Beverages (SSBs) provide little to no nutritional value and less satiety, as compared to solid food while SSB intake leads to unhealthy weight gain due to high total energy intake, with little nutritional value (Ghee, 2016; Kass *et al.*, 2014). The high availability of SSBs has contributed to Malaysian's rising health problems such as diabetes, obesity and other non-communicable diseases (Teng *et al.*, 2020). Islam highly recommends that food be of higher nutritional value and a pure nature, as denoted in the statement of Imam Mālik as food enjoyed by one who eats lawful foods without any expression of detest in any way (Kagee, 2017). Although the creatures on the surface of the earth are meant to serve humanity, As-Shatibi (1997) however, explicates that everyone is responsible for what and how the substances are used and consumed. The food and drink consumption must be in line and compliance with the Shariah. In the same vein, the mind to believe in Allah, life for existence

for an appointed time, intellect to comprehend information, family to dignify humanity, and wealth for catering to needs are all *amanah* (trust) that are answerable in this world and Hereafter.

In conclusion, it is very instructive and important to note that though the Quran does not specifically mention prohibition of unhealthy consumption such as excess sugar and smoking, but it gives *Tayyiban* behavioural guidance that can be applied in curbing these acts. The jurisprudence references (Quranic Text and Sunnah) for Halal/Haram fundamental principle are highlighted alongside jurisprudence reference for *Tayyiban* behavioural guidance in Table 2:

Table 2. Jurisprudence References for Halal Fundamental Principles and Tayyiban Behavioural Guidance.

Jurisprudence References for Halal Fundamental Principle: (Natural usability and permissibility of things - nothing is haram except what is prohibited by a sound and explicit Quranic text or sunnah)	Jurisprudence Reference for <i>Tayyiban</i> Behavioural Guidances
1 "It is He who created all that is in the earth for you...." (2:29).	1 "O mankind, eat from whatever is on earth [that is] lawful and good and do not follow the footsteps of Satan. Indeed, he is to you a clear enemy (2:168)."
2 "He has subjected to you, from Himself, all that is in the heavens and all that is on the earth.... "(45:13).	2 "Don't throw yourself into danger by your own hands..." (2: 195)
3 "Do you not see that Allâh has subjected to you whatever is in the heavens and what is on earth, and has showered upon you His favours, both apparent and unseen? (31:20)".	3 "Eat and drink and do not commit excesses; indeed, He does not love those who are excessive" (7:31)
4 <u>Hadith</u> : The Prophet (s.a.w) said: What Allâh has made lawful in His Book is halal and what He has forbidden is haram, and that concerning which He is silent is allowed as His favour. So, accept from Allâh His favour, for Allâh is not forgetful of anything. He then recited, "And thy Rabb is not forgetful." (19:64).	4 "Do not kill yourselves for God Almighty is most merciful to you" (4:29)
	5. Prophet Muhammad (P.B.U.H) said: "The strong believer is better and more beloved to Allah than the weak believer, while there is good in both" [Muslim].

Jurisprudence References for Halal Fundamental Principle: (Natural usability and permissibility of things - nothing is haram except what is prohibited by a sound and explicit Quranic text or sunnah)	Jurisprudence Reference for <i>Tayyiban</i> Behavioural Guidances
	6 The Prophet (p.b.u.h.) has advised against overeating: “Don’t indulge in over-eating because it would quench the light of faith within your hearts”

7. Recommendation

In order to integrate *Halalan-Tayyiban* principles into public health policies, effective strategies should be designed, tested and implemented by involving all stakeholders. Hence, the following recommendations which are based on the reviewed literatures and the researchers’ insight are highlighted for stakeholders in public health policy:

7.1 Government and Policy Makers

Literature indicates that various fatwas on prohibition of smoking are not really reflected in the government public health policy. This can be deduced from the prevalence of smoking, excess sugar consumption and other unhealthy lifestyles among Muslims which are indicative of growing lifestyles that are in contrary to *Tayyiban* behavioural guidance of the Quran. Hence, the government should be more strategic and deliberate in aligning *fatwas* of the individual country’s scholars’ body with public health policies through collaboration, sensitisation, implementation and enforcement.

Policy makers should actively involve religious bodies like JAKIM in Malaysia and local mosques in all facets and stages of Public Health Policies design and implementation. This will better prepare and position religious leaders and Islamic scholars to support and implement culturally and religiously relevant health programmes. Also, through this strategy, the conscience and faith of the populace will be appealed or explored to enhance effectiveness of public health policies and initiatives.

7.2 Religious Bodies and Scholars

On the part of the religious departments, bodies and scholars in Muslim dominated countries, it has become imperative to give stronger considerations to the Quran behavioural guidance concerning public health perspectives and *fatwas*. Limiting religious discussion and conversation on food and substance consumptions strictly to only explicit or direct *nas*

(textual evidence) has proven inadequate to curb the epidemic of NCDs and other public health threats in the Muslim community. A paradigm shift becomes essential considering established evidences linking consumption of certain foods or substances and unhealthy lifestyles to direct or indirect destruction of lives. With these, threats to public health will be considered by Muslims as a harm not only to their spiritual and physical health but also as a threat to their faith, religious duty and community. Also, this paper recommends more efforts towards worldwide harmonisation of Islamic scholars' thoughts on banning of tobacco smoking in the light of overwhelming evidence of its public health threats.

7.3 Educational Institutions and Agencies

More *Halalan-Tayyiban* education and awareness should be integrated in all levels of education as both preventive measure and to stem the rising tide of Non-Communicable Diseases (NCDs) and their risk factors. Islamic schools in particular and at all levels should integrate the concept of *Halalan-Tayyiban* in their academic and extra-curricular activities. The social media should be effectively utilised to drive awareness of *Halalan-Tayyiban* integrated public health policies amongst the adolescents. More attention should be giving to non-medical factors of public health threats or Social Determinants of Health (SDH) such as socio-economic status, social justice, educational background etc.

7.4 The Environment

It is also recommended that the environment should be structured in a way that will make the healthier, wholesome *Halalan-Tayyiban* choices and lifestyle to be more accessible, affordable and appealing. This includes strict implementation of public health policies that limit or prohibit sales of SSB in school cafeterias and mosques while encouraging consumption of more healthy food and beverages through meal tickets and subsidized meals for such food. The food banks in the mosques and other religious facilities should be required or encouraged to store not only halal but *Halalan-Tayyiban* foods. Also, public places and facilities should be designed to facilitate and encourage more physical activities and lifestyles such as walking, recreation and sports for all categories of age brackets. There must be conscious efforts by the governments to ensure that these principles are consistently upheld in policy decisions and governmental arms.

7.5 Academic (Research)

Future research should examine extraneous socio-cultural factors that are responsible for possible sugar addictions, prevalence of tobacco smoking and other NCDs' risk factors in Muslim majority countries despite *Halalan-Tayyiban* injunctions.

8. Conclusion

Excess sugar consumption, tobacco smoking and other unhealthy dietary lifestyles have been established as risk factors strongly linked to increasing rate of deadly Non-Communicable Diseases (NCDs) which are becoming epidemic globally. In particular, there is alarming prevalence of NCDs and their risk factors in Muslim countries. This is ironical and contrary to expectations in view of the wholesome, ethical and healthy *Halalan-Tayyiban* dietary life styles stipulated for Muslims and non-Muslims. This integrated review, which studies existing Public Health Policies (PHP) targeted at controlling these NCDs' risk factors, has identified gaps and concerns regarding these policies, hence their ineffectiveness. Amidst other general gaps and concerns, these policies beg for culturally relevant, faith-based and population-oriented alternatives and approaches to encourage healthier consumption, hence curbing NCDs prevalence.

Therefore, a review of the concept of *Halalan-Tayyiban*, its perspective on NCDs' risk factors and public health becomes imperative for this paper. After the reviews of these subject matters the researchers concludes that factoring of both explicit *nas* (textual evidence) of halal or haram injunctions and Quran *Tayyiban* behavioural guidance is crucial in designing and formulating PHP targeted at NCDs' risk factors. Hence, considering the current realities (increasing public health threats of NCDs and their risk factors in Muslim majority countries), this paper offers some important recommendations for all stakeholders. As a paradigm shift, it calls for a more faith based and culturally relevant *Halalan-Tayyiban* public health policy targeted at curbing NCDs epidemic through control of excess sugar consumption and tobacco smoking. This is aimed at stemming the ravaging tide of Non-Communicable Diseases (NCDs) by preventing and controlling their risk factors. Hence, integration of *Halalan-Tayyiban* consumption ethics and lifestyle in PHP related to food, tobacco smoking control is highly essential especially in Muslim majority countries.

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