



Health Campaign to Prevent High Sugar Intake Among West Java Teenagers

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ABSTRACT

Health Campaign aims to prevent the excessive consumption of sweet foods and beverages among teenagers in West Java. It addresses a common issue among adolescents the tendency to consume sugary intake excessively, despite being aware of its negative effects. The purpose of this study is to encourage a healthier and more balanced lifestyle among teenagers who habitually consume excessive amounts of sweet foods and drinks. The data collection methods used include interviews, structured analysis, questionnaire distribution to teenagers in the West Java region, and literature review. This study applies theories related to campaigns, healthy lifestyles, communication, and media, structured through the AISAS approach (Attention, Interest, Search, Action, Share). The campaign visuals are designed in the form of photography and cartoon illustrations, incorporating metaphorical elements to strengthen the message being delivered. Through this final project, it is hoped that the health campaign can positively influence the lifestyle of teenagers in West Java, making it healthier and of higher quality.

1. Introduction

Excessive sugar consumption is a growing public health concern in Indonesia, especially among adolescents. According to the International Diabetes Federation, Indonesia ranked fifth globally in diabetes cases in 2021 with 19.5 million affected, projected to increase to 28.6 million by 2024 (Rokom, 2024). Non-communicable diseases like diabetes often result from high sugar intake combined with unhealthy diets and sedentary lifestyles (Jauhanita et al., 2024). Adolescents aged 13–18 are particularly vulnerable due to their frequent consumption of sugary snacks and beverages, often purchased at or near schools. The Indonesian Pediatric Society reports a 700% increase in diabetes mellitus among children over the past decade, with rising cases of type 2 diabetes linked to lifestyle factors (Kemenkes, 2018). In major cities, 1,645 adolescents suffer from diabetes, and in West Java, a province with the largest adolescent population, 202 children under 15 have required dialysis due to kidney failure linked to high sugar consumption (Taufik, 2023). Common high-sugar products favored by youth include candy, cakes, soft drinks, bubble tea, and sweetened juices (Betaditya et al., 2022). Excessive sugar intake alongside low physical activity leads to health risks such as diabetes, obesity, heart disease, and kidney damage.

Given the critical importance of practicing a healthy lifestyle related to sugar consumption among secondary school students from an early age, this design research aims to propose a design for an integrated campaign. The campaign will focus on enhancing understanding of the recommended limits for sugar intake so that students can consciously limit their consumption to avoid excess.

This campaign were created with the targets of West Java adolescents aged 13–18 to encourage healthier eating and lifestyle habits. At this developmental stage, behavior change is achievable and can foster long-term health benefits. Using persuasive and educational media designed with the AISAS model, the campaign aims to reduce excessive sugar consumption and promote wellness among youth.

2. Method

This research employs a qualitative approach for data collection. The first data collection method involves conducting a structured interview with a medical doctor who is an expert in the field of public health. This aims to understand the phenomenon of excessive sugar consumption within the dense and highly diverse population of West Java. The second method is distributing a questionnaire to a minimum of 100 respondents aged 13 to 18 years old using the Google Form platform. This is done to investigate their consumption patterns, preferences, and the extent to which they practice a healthy lifestyle regarding appropriate sugar intake.

2.1. Structured Interviews

Interviews were conducted to understand the factors behind teenager's dependence on excessive consumption of sweet foods and the health risks caused by this behavior.

2.2. Questionnaire Distribution

A survey was distributed to a minimum of 100 teenagers aged 13 to 18 years, using purposive and snowball sampling techniques. The questionnaire aimed to assess their consumption patterns, preferences, and awareness regarding sugar intake. Data collection was conducted both online and offline to ensure broader reach and participation.

3. Results and Discussion

3.1 Interview Results

Based on interviews conducted with a doctor whose research focuses on public health on November 19, 2024, it was found that non-communicable diseases (NCDs) such as diabetes and kidney failure, which were once predominantly found in older adults, are increasingly being diagnosed in adolescents. Excessive sugar consumption damages organs like the pancreas by overburdening insulin production, potentially leading to serious medical conditions requiring treatment. According to nutrition experts, the recommended daily sugar intake is 30–50 grams, equivalent to 1–1.5 tablespoons, which includes sugar from various sources such as carbohydrates, fruits, sweets, and sugary beverages. A public health specialist emphasizes that prevention efforts must begin early, particularly among adolescents who gain autonomy in food choices and often have pocket money to purchase sugary products. While insufficient sugar intake may impair cognitive focus and learning performance, excessive consumption poses significant risks including diabetes, dental decay, stroke, cardiovascular diseases, and other complications. Effective prevention relies on comprehensive health education and literacy programs, especially in densely populated regions like West Java, where dietary patterns are diverse. Health campaigns should promote awareness of sugar content on product labels and support policies such as taxation on high-sugar products to reduce excessive consumption. Nutritionists also highlight the addictive nature of sugar, which can lead to habitual overconsumption. Therefore, educational initiatives aimed at adolescents are critical to fostering self-awareness and responsibility, enabling them to make healthier dietary choices and reduce sugar intake to maintain long-term health.

3.2 Questionnaire Results

Based on the online questionnaire, total of 58 girls and 42 boys (age 13 to 18) agree to become respondents and fill the questionnaire voluntarily. In specific, 73 respondents were the student in Junior High, while 27 respondents were in Senior High. At first, the two categories split to see whether older group having better understanding to sugar consumption, however, this assumption is not significant. From the questionnaire, it was found out that: Although 90% of them are conscious about checking the

nutrition facts label on available packaging, 50% admit that they consistently consume excessive sugar (Figure 1); The majority of respondents are unaware of the daily sugar intake recommended by the Ministry of Health (Figure 2, left); The vast majority of respondents (93%) are aware that excessive sugar consumption is detrimental to health (Figure 2, right).

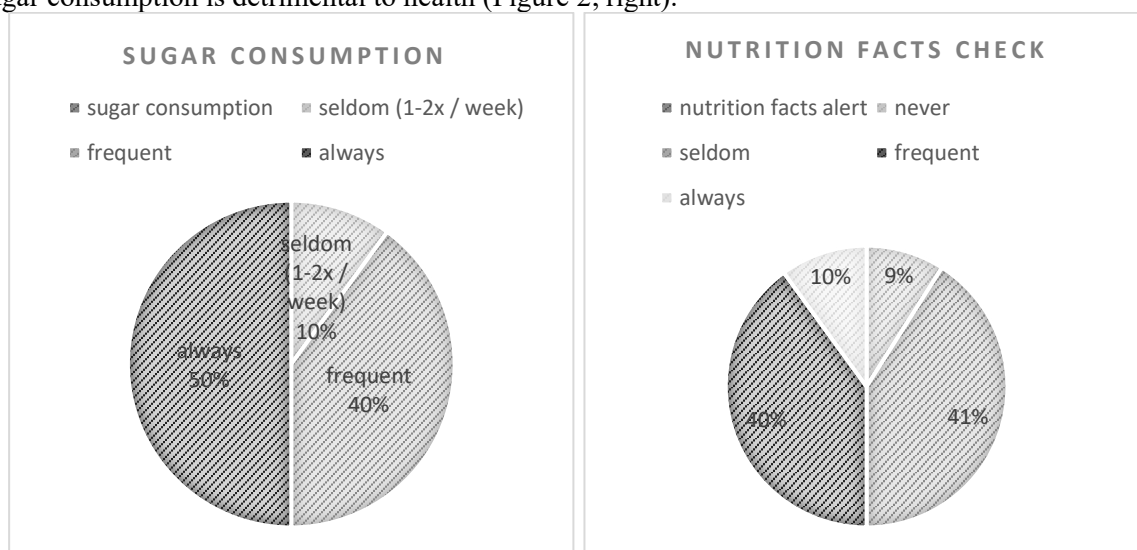


Figure. 1 Sugar consumption level (left); nutrition facts checking (right)

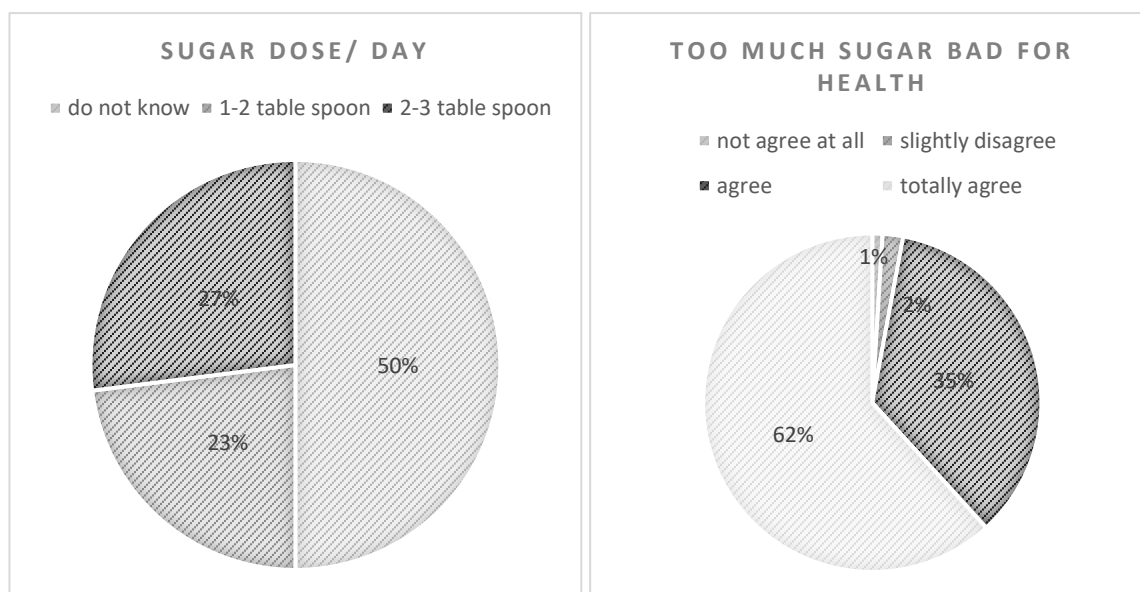


Figure. 2 Sugar dose (left); opinion about sugar intake (right)

This is evident from the frequency of sweet intake and the lack of knowledge regarding the recommended daily sugar consumption. Therefore, to enhance self-awareness, it is necessary to design a campaign aimed at preventing excessive intake of sweet foods and drinks, using appropriate and targeted information. Additionally, the campaign should emphasize repetition of key messages through social media, YouTube, and alternative media platforms.

3.3 Campaign Design

The campaign targets adolescents who excessively consume sugary foods and drinks, often as a form of self-reward, which can lead to sugar dependency. It encourages them to manage blood sugar levels through healthier lifestyles. The campaign, branded as KUY, promotes early blood sugar checks and awareness about the health impacts of sugar, guiding teens to enjoy sweetness wisely. This concept serves as the foundation for the produced work, which includes campaign materials designed to raise awareness, educate, and motivate adolescents to make healthier choices regarding sugar consumption.

The resulting work reflects this message through engaging visuals, relatable language, and strategic use of media platforms favored by teens.

Logo

The campaign logo (Fig. 3 used across various media and serves as a visual identity to strengthen the message of preventing excessive consumption of sugary foods and drinks. The logo uses a Gestalt style, making it clean, trustworthy, meaningful and easy to recognize. The word “Kuy” is a playful reversal of “Yuk”, a casual Indonesian expression often used by teens aged 13 to 18 to invite others in a friendly way. In this logo KUY not only reflects the teen friendly language but also carries a health message “Kurangi Gula Yuk” (“Let’s Cut Down on Sugar”) delivered in a light yet meaningful way.



Figure. 3 Campaign Logo: KUY

Mascots

The mascots (Fig 4) are designed to strengthen the KUY campaign identity and act as friendly characters that connect with teens to encourage healthy habits early on. The first mascot, Seli, is a red blood cell that represents blood sugar levels, while the second mascot, Guli, represents sugar or sweet foods that teens love. Guli is shown as Seli’s friend, because people still need sugar as an energy source for daily activities, but it must be consumed wisely. Their relationship reflects true friendship supporting and complementing each other while keeping healthy limits. Mascots are mainly used at the action stage of the campaign to deliver a more personal and emotional appeal, helping teens relate to the message and remember it easily.



Figure. 4 KUY mascots: Seli (left) and Guli (right)

Instagram

This campaign uses Instagram as its main platform (screen shot feeds provided in Fig 5), following the AISAS framework (Attention, Interest, Search, Action, Share) to engage teenagers at every stage of their journey. To attract attention, three feed posts feature eye-catching visual metaphors about sugary consumption to spark curiosity. To build interest, another three posts offer relatable and interactive content, such as Q&A sessions and early glimpses of the campaign’s narrative. The search stage is supported by three informative posts about daily sugar limits, health risks of overconsumption, and signs of sugar addiction, paired with the hashtag #KurangiGulaYuk to encourage further exploration. In the action phase, three “Kuy Beraksi” posts motivate teens to adopt healthier habits by suggesting fun physical activities and balanced ways to manage sugar intake. Finally, in the share stage, three posts provide simple, shareable tips designed to help teens spread the message and inspire their peers to join the movement.



Figure. 5 KUY Instagram Feeds

Instagram Reels & TikTok

Short, attention-grabbing teaser videos are designed to spark curiosity and raise awareness about the campaign's message. These videos (thumbnails provided in Fig 6) use relatable scenarios, catchy captions, and engaging visuals to appeal to teens, making them easy to watch, remember, and share across multiple platforms like Instagram, TikTok, and WhatsApp to maximize reach and engagement.



Figure. 6 KUY Instagram Reels and TikTok

YouTube

One-minute short narrative videos showcase a character's journey from excessive sugar consumption to adopting healthier habits, illustrating relatable struggles and practical steps. These videos support the Interest, Search, and Share stages by sparking empathy, providing informative tips within the story, and encouraging teens to share the inspiring message with their peers across social platforms, uploaded in KUY's YouTube channel (Fig. 7)



Figure. 7 Campaign Logo: KUY

Poster & Infographic

The poster and infographic (Fig. 8) are an additional item, which supports the Action phase of the

campaign by providing on-the-spot education for visitors on how to read nutrition labels, empowering them to make informed choices and avoid excessive sugar intake. Positioned in physical campaign booths, the stand is equipped with visual guides, sample product labels, and interactive demonstrations to help teens practice identifying sugar content in everyday products. This hands-on approach not only reinforces the campaign's message but also encourages immediate action by teaching practical skills that teens can apply in their daily lives.



Figure. 8 KUY's poster and infographic

X Banner

The banner (Fig. 9) provides additional logistical information to support the campaign booths, clearly displaying the booth's opening and closing hours as well as the availability of free blood sugar testing at specific locations. This banner helps visitors easily identify when and where they can access the services and encourages more participation by highlighting the free health check feature, making the booth more approachable and informative for teens and the public.



Figure. 9 KUY's X-Banner

Booth/Stand

The pop-up stand is designed at a size of 1.5m x 1.5m (Fig. 10), providing enough space for 1–2 health workers to support outreach activities when conducting educational sessions at institutions or community organizations. Portable and easy to transport, the stand serves as a consultation corner where visitors can discuss their health with medical staff, learn about early symptoms of diabetes, check their blood sugar levels, and get advice on managing excessive sugar intake. The stand is made to match the campaign's visual identity, using durable PVC or AVP materials, making it not only functional but also visually consistent with the KUY campaign message.

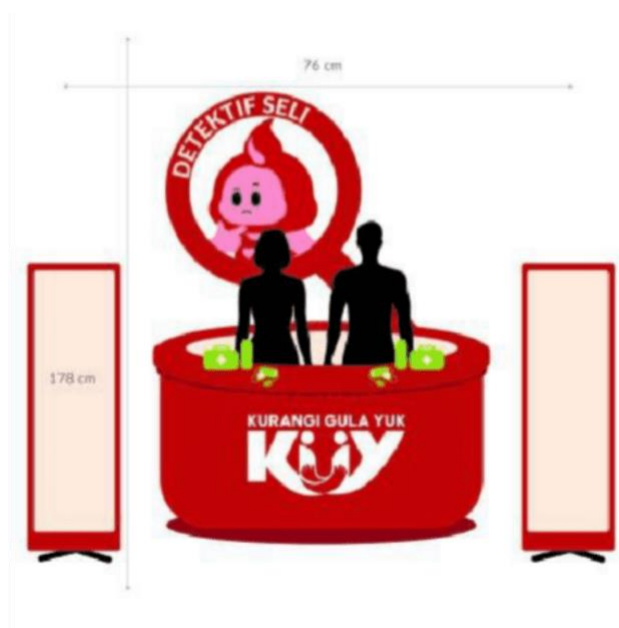


Figure. 10 KUY's Pop Up Stand

Flyer

The flyer (Fig. 11) is used as a supporting medium to provide information to visitors who come for a blood sugar check. It contains education about sugar consumption and explains the purpose of the campaign, which is to encourage visitors to adopt a healthier and more balanced lifestyle. Through this flyer, visitors not only learn about the blood sugar check service but also understand the importance of reducing excessive sugar intake in daily life.

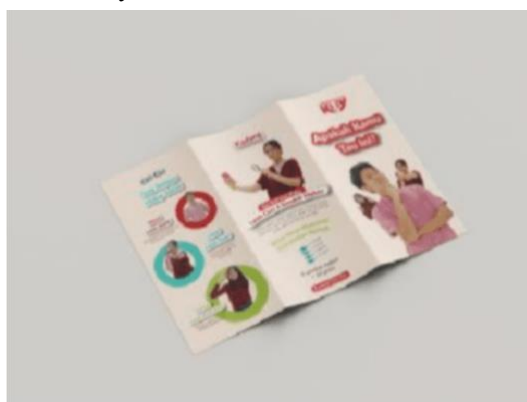


Figure. 11 KUY's flyer

Merchandise

The KUY campaign includes supporting media that represent the **action stage**. These merchandise items (Fig. 12) were given to the teenagers aged 13–18 who are still in school. That's why the items chosen are functional, such as tote bags, water bottles, keychains, and stickers, which also serve as souvenirs from the campaign. Besides being keepsakes, these items help reinforce the campaign's message and indirectly motivate teens to start living a healthy lifestyle early on. They also help improve interaction between health educators and teens.



Figure. 12 KUY's merchandise

Overall, The KUY (Kurangi Gula Yuk) campaign was created to reduce excessive sugar consumption among teenagers in West Java by promoting healthier lifestyle habits in a friendly and relatable way using teen slang. Based on questionnaire data, teens aged 13–18 show high sweet intake and lack awareness of recommended daily sugar limits, highlighting the need for targeted education to build self-awareness and prevent overconsumption. To address this, the campaign combines appropriate and relatable information with repeated key messages delivered through social media, YouTube, and other platforms popular among teens. It features free blood sugar checks to raise awareness and encourage responsibility, with social media as the main platform offering interactive content like challenges and infographics. Offline activities such as booths, merchandise, and health sessions in schools or public spaces are also held, supported by banners and posters to remind teens to read labels and manage their sugar intake. The campaign uses a narrative approach and follows the AISAS model (Attention, Interest, Search, Action, Share) to keep teens engaged and make the message impactful.

4. Conclusions

Teenagers in West Java are still prone to excessive sweet consumption, highlighting the need for a campaign that encourages a healthier and more balanced lifestyle. The KUY (“Kurangi Gula Yuk”) campaign was developed as a friendly and approachable movement, using casual language to resonate with teens and position itself as a supportive peer. Central to the campaign is a blood sugar check activity, designed to instill a sense of responsibility in teens to take care of their health by limiting sugar intake and adopting healthy habits.

Social media serves as the main platform, chosen based on survey findings showing high engagement among teens, and allows the campaign to deliver interactive and educational digital content like challenges that appeal to the target audience. The campaign also incorporates alternative media, such as booths and merchandise, to facilitate direct interaction with teens and support health workers in delivering educational sessions in schools and public spaces. Print media, including x-banners, infographics, and posters, complement these efforts by providing clear information on reading labels and visual support at campaign booths. By applying a narrative approach and the AISAS (Attention, Interest, Search, Action, Share) model, the KUY campaign were intended to create relevant, engaging, and impactful content that encourages teens to make better choices for their health.

This research limitation is still in the prototype phase; therefore, the presented results are a conceptual overview and their effectiveness within the target community has not yet been empirically validated. As this is being written, the process of implementing the social campaign in secondary schools in Bandung City is still underway.

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