

## RESEARCH ARTICLE

# Investigating the effects of food insecurity, self-efficacy, and locus of control on obesity in an emerging markets

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## Abstract

Increasing rates of obesity are affecting many countries around the world, including developing regions such as Indonesia. One of the factors contributing to obesity is a lack of food security, which involves a lack of control over when food will be available. Food insecurity is linked to low self-efficacy and can lead consumers to overeat high-energy-density foods and drinks when available. This research empirically tested the relationships between people's intention to diet and exercise with the locus of control and general and specific health self-efficacy resulting from the lack of food security in Indonesia, employing a mixed-methods approach comprising a qualitative approach in Study 1 ( $n = 23$ ) and a quantitative approach in Study 2 ( $n = 1494$ ). The results indicate that study participants were struggling to maintain healthy diets and lifestyles and attempted various strategies to compensate for their poor diets. Moreover, the results suggest that food insecurity negatively influences individuals' self-efficacy, subsequently influencing people's intention to exercise and eat healthily. Our findings carry important policy implications for developing economies. Governments should ensure the availability of nutritious food for their populations, especially for the poor. Predictable, nutritionally sound foods are essential to prevent overeating high-energy-density foods. We recommend that governments develop mixed downstream and midstream approaches, such as mentoring programs, to develop self-efficacy and address obesity.

## KEYWORDS

food insecurity, Indonesia, locus of control, obesity, self-efficacy

## Practitioner Points

- Addressing barriers such as food insecurity could potentially result in better weight management in Indonesia. Healthy food options are more costly and, in many cases, out of reach for low-income families in Indonesia. Improved policies to enable healthier diets are needed, especially for the poor.

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- Governments should develop a mixed downstream and midstream approach, such as a mentoring program to develop self-efficacy and address obesity.
- An effective mentoring program should pair a mentor with an individual at risk of being overweight.

## 1 | INTRODUCTION

The prevalence of obesity and overweight is on the rise worldwide, as evidenced by several studies (Nettle et al., 2017; Wang et al. 2011). This trend has evolved into a significant global public health challenge (Kemper & Ballantine, 2017; Nettle et al., 2017; Zheng et al., 2019). Shockingly, one-third of the world's population is reported to be overweight, and a staggering 62% of these individuals reside in developing countries (Ng et al., 2014; ODI, 2014; Tschirley et al., 2015). Moreover, more than 80% of all cases of cardiovascular disease, often linked to obesity, are now occurring in developing countries (Population Reference Bureau 2005; WHO, 2017). To illustrate, in Southeast Asia, the prevalence of overweight varies from 4.9% in Timor-Leste to a staggering 46.3% in Malaysia, while the prevalence of obesity ranges from 1.6% in Vietnam to 14.2% in Malaysia (WHO, 2011). Recent surveys also revealed that 24.4% of Indonesians were overweight (WHO, 2011).

In developing countries, the challenging issue of food insecurity is often intertwined with socioeconomic conditions (Fuster, 2017; Gupta & Sharma, 2021; Weaver & Hadley, 2009) and its subsequent impact on consumption behavior (Rodhain & Gourmelen, 2018). Food insecurity is defined as “the uncertainty and insufficiency of food availability and access that are limited by resource constraints, and the worry or anxiety and hunger that may result from it” (Wunderlich & Norwood, 2006, p. 49). Similarly, Anderson (1990, p. 1560) defined “Food insecurity exists whenever the availability of nutritionally adequate and safe foods or the ability to acquire acceptable foods in socially acceptable ways is limited or uncertain”. Intriguingly, food insecurity has been identified as a primary driver of obesity in non-human studies, such as in birds (Nettle et al., 2017). In such conditions of scarcity, consumption behavior is geared toward storing fat as a buffer against potential future food shortages (Nettle et al., 2017). These findings suggest that individuals experiencing food insecurity are more likely to overeat, aiming to store energy as fat. Consequently, those with a history of food scarcity and low control over their diet are more inclined to adopt consumption patterns associated with energy-dense foods to stockpile energy (in the form of fat) for future uncertainties. Indeed, several studies in developed countries have shown a strong correlation between food insecurity and obesity among women from lower socioeconomic backgrounds (Adams et al., 2003; Franklin et al., 2012).

It's important to note that food insecurity can result from both perceived and real food scarcity. Individuals who have endured past famines or periods of starvation may be more prone to perceiving food scarcity (Dhurandhar, 2016; Moore et al., 2002). Despite improvements in food supply in modern times, ingrained habits

related to food consumption, such as a preference for high-energy-density foods, may persist among those who have experienced food insecurity, whether personally or through their cultural backgrounds and traditions. This phenomenon is particularly relevant in developing countries, where memories of poverty, famine, or war are more likely to linger. Notably, Black and Macinko (2008) found that residing in disadvantaged communities increased the risk of obesity more significantly than individual-level socioeconomic status, due to the propensity for storing and hoarding behaviors as a “defense” mechanism.

A crucial aspect of food insecurity is the low locus of control that consumers have over food availability, meaning they perceive little ability to control their access to food (Rotter, 1966). This diminished locus of control may be associated with a psychological concept known as self-efficacy, which is defined as “people's beliefs about their capabilities to exercise control over their level of functioning and over events that affect their lives” (Bandura, 1997, p. 257). Therefore, we hypothesize that individuals experiencing food insecurity are more likely to exhibit low levels of general self-efficacy and specific self-efficacy related to health behaviors.

Past studies on obesity have not delved into the impact of food insecurity on an individual's self-efficacy. This study aims to fill this important gap by focusing on Indonesia, a developing country where many individuals experience food insecurity that could influence their perception of their abilities to succeed, both in general and in specific situations, such as maintaining a healthy body weight. The study has three primary objectives: (1) Explore the association between food insecurity and individuals' self-efficacy in Indonesia; (2) Examine the effect of general self-efficacy on healthy eating and the locus of control regarding weight; and (3) Test the mediating effect of specific self-efficacy and weight locus of control on individuals' diet quality and intention to consume high-energy-density foods, as opposed to low-energy-density but nutritious foods on people's intention to exercise and eat healthily. This study explores both self-efficacy and locus of control. While both locus of control and self-efficacy deal with personal beliefs about influence, they differ in scope and stability. Self-efficacy focuses on specific tasks, whereas locus of control applies to broader domains like health or social interactions. However, unlike self-efficacy, locus of control might fluctuate over time and across different areas of life (AbuSabha & Achterberg, 1997).

This study offers several theoretical and practical contributions to the existing literature on food security and food well-being (Block et al., 2011; Kemp et al., 2013). Firstly, it provides novel empirical evidence that food insecurity affects an individual's ability to accomplish tasks. Secondly, it offers fresh insights into the factors influencing obesity in developing countries, equipping policymakers and social

marketers with more tools to combat the obesity epidemic. Suggests that a fundamental cause of obesity globally is an increased intake of energy-dense foods high in fat and sugars, coupled with the increase in physical inactivity due to the increasingly sedentary nature of many forms of work, changing modes of transportation, and increasing urbanization. In contrast, food security is achieved when every individual consistently possesses physical, social, and economic means to acquire an ample supply of safe and nutritious food that aligns with their dietary requirements and preferences, promoting an active and healthy lifestyle. At the household level, food security pertains to applying this principle to families, with a specific emphasis on the well-being of individuals within those households (FAO, 2009).

Developing countries often employ downstream approaches to address obesity, focusing on tactical interventions like projects and campaigns aimed at influencing specific behaviors related to social challenges such as smoking and overeating (French, 2007). Less commonly utilized are midstream (which focuses on helping people improve their ability to deal with poor social conditions and immediate threats to their well-being) and upstream (which focuses on the causal agents and determinants of social problems) strategies (French, 2007; Kotler & Lee, 2008; Venturini, 2016). The results of this study can shed light on which approach is more effective in preventing and addressing health issues in Indonesia.

Finally, this study contributes to the ongoing debate about whether a downstream policy approach is sufficient to address the obesity problem in developing countries, where a majority of the population experiences food insecurity.

## 2 | THEORETICAL FRAMEWORK

### 2.1 | Perceived self-efficacy

This study utilized Bandura's self-efficacy theory, as developed in Bandura (1997). Perceived self-efficacy refers to an individual's perceived capability to learn and perform actions at specified levels (Bandura, 1997). It's important to recognize that every individual possesses a limited capacity to master every aspect of human life; thus, people vary in their capacities and expertise. For instance, an Olympic athlete may have a high sense of physical efficacy but a low level of parenting efficacy (Bandura, 2006).

Research has demonstrated that self-efficacy contributes significantly to an individual's motivation, achievement, and self-regulation (Ashford et al., 2010; Bandura, 1997; Schunk & Pajares, 2009). According to self-efficacy theory (Bandura 1986), perceived self-efficacy can be categorized into several types: mastery experiences (e.g., overcoming obstacles), vicarious experiences (e.g., learning through observation), verbal persuasion (e.g., encouragement from significant others like a teacher), and emotional and physiological states (e.g., positive emotions). Additionally, Maddux (2005) introduced 'imaginal experiences' or visualizing yourself behave in a certain way as a means to enhance

self-efficacy. Consequently, concerning health-related behaviors, individuals' ability to control their intention to diet and exercise is significantly influenced by experiences that shape their self-efficacy beliefs. It is essential to customize perceived self-efficacy scales to the specific domain of functioning that is the focus of interest (Bandura, 2006). This study employed self-efficacy theory developed by Bandura (1997). Perceived self-efficacy refers to perceived capabilities for learning and performing actions at designated levels (Bandura, 1997).

Self-efficacy has been shown to contribute to individuals' motivation, achievement, and self-regulation (Ashford et al., 2010; Bandura, 1997; Schunk & Pajares, 2009). In the context of family nutrition, gatekeepers play a key role in determining the nutrition of their children. Nursanti et al. (2023) found that parents play a critical role in shaping their children's eating habits, which can have a lasting impact on their nutritional well-being. Research suggests that parents' choices about the availability and types of food in the home, as well as their own eating behaviors, positively influence children's food intake and quality (Decker, 2012). Additionally, mothers with higher self-efficacy are more likely to raise children with healthy nutritional status (Solikhah et al., 2021). Hence, regarding health-related behavior, individuals' ability to control their intention to diet and exercise will be significantly influenced by experiences that shape self-efficacy beliefs.

### 2.2 | Food insecurity

Food insecurity affects nearly 795 million people globally (Science Daily, 2017; Seligman et al., 2010). This situation arises when a household report being unable to afford balanced meals, running out of food, or reducing the size of meals. At its most severe level, adults report experiencing hunger throughout the day due to a lack of food (Seligman et al., 2010).

Studies have indicated that food insecurity is associated with various health issues, including an increased risk of obesity (Adams et al., 2003; Dinour et al. 2007; Martin & Ferris, 2007; Pan et al., 2012; Sridharan & Viswanathan, 2008), chronic diet-related diseases (Seligman et al., 2010), and diminished academic performance and social skills in children (Jyoti et al., 2005). Furthermore, food insecurity has been linked to mental health conditions such as depression, anxiety, and a lack of self-efficacy (Heflin et al., 2005; Kollanoor-Samuel et al., 2012; Weaver & Hadley, 2009; Whitaker et al., 2006). Kollanoor-Samuel et al. (2012) discovered that food insecurity, in combination with other psychological factors like self-efficacy, influences the willingness of low-income patients to access healthcare. Nettle et al. (2017) suggest that a significant driver of obesity is food insecurity rather than food abundance. An experiment involving non-human subjects demonstrated that fat reserves increased when access to food was limited, leading to the conclusion that the body responds to a lack of nutritional intake by triggering a mechanism that stores body fat (Nettle et al., 2017).

### 3 | METHODOLOGY

We employed a mixed-methods approach, comprising a qualitative approach in Study 1 and a quantitative approach in Study 2. We chose mixed methods for this research due to the complex perceptions surrounding food insecurity, self-efficacy, and obesity.

Study 1 utilized formal qualitative methods for an initial exploration of how food insecurity affects healthy eating among Indonesian populations. This design was strategically chosen, considering the limited understanding of variables contributing to obesity in this context (Mama et al., 2015; Rodhain & Gourmelen, 2018). Qualitative methods possess inherent strengths in elucidating the lived experiences of individuals and uncovering the nuanced meanings and perceptions surrounding complex social phenomena such as food insecurity and healthy eating patterns (Malterud & Ulriksen, 2011). By prioritizing the exploration of these subjective realities, Study 1 aimed to explore previously unidentified factors and dynamics that may contribute to obesity within the Indonesian context, thereby fostering a more comprehensive understanding of this multifaceted issue.

In Study 2, we utilized a quantitative survey to investigate the effect of food insecurity on self-efficacy and individuals' intentions regarding exercise and diet.

## 4 | STUDY 1: QUALITATIVE APPROACH

### 4.1 | Method and data collection

We utilized qualitative one-on-one interviews to delve into in-depth opinions and perspectives concerning various issues related to food insecurity and health-related behavior (Satia et al. 2000; Shepherd and Achterberg 1992). Through these interviews, we aimed to explore the inner thoughts and feelings of the participants, allowing us to gather comprehensive and detailed information about the phenomenon (Jin & Sparks, 2017; Kruesi et al., 2017).

In Indonesia, we conducted 60- to 90-min interviews with 23 individuals from low-income families currently experiencing food insecurity in their lives (Table 1). After obtaining study approval from the Human Ethics Committee, we reached out to participants through non-profit organizations that collaborate with a university in Surabaya, Indonesia, to serve these populations. All interviews followed a standardized set of questions and were conducted in Surabaya, Indonesia, by the authors and several trained interviewers. With participants' consent, we recorded all interviews and later transcribed them verbatim with the assistance of an experienced transcriber. To ensure anonymity, we used only the respondent's first name. Transcripts were then segmented into paragraphs, and each paragraph was thoroughly examined by the author to generate categories, which were subsequently analyzed using Excel spreadsheets (Glaser et al., 1968; Gough & Conner, 2006).

**TABLE 1** Informants Profile (Qualitative).

ID	First name (n = 23)	Age	Gender	Physical condition
1	Bea	37	Female	Overweight
2	Ratih	42	Female	Overweight
3	YP	37	Male	Overweight
4	Dadang	51	Male	Overweight
5	Dwi	38	Male	Overweight
6	Mohammad	39	Male	Overweight
7	Zumaroh	42	Female	Overweight
8	Susi	32	Female	Overweight
9	Salman	41	Male	Overweight
10	BW	41	Male	Overweight
11	Handoko	53	Male	Overweight
12	BF	22	Female	Normal weight
13	Andik	50	Male	Normal weight
14	Agus	41	Male	Normal weight
15	MY	52	Female	Normal weight
16	Muhammad	31	Male	Normal weight
17	Roni	48	Male	Normal weight
18	Kardi	41	Male	Normal weight
19	Agus	40	Male	Normal weight
20	Sumiati	25	Female	Normal weight
21	Yadi	41	Male	Normal weight
22	Wigiatun	41	Female	Normal weight
23	Suhairiyah	38	Female	Normal weight

### 4.2 | Results—study 1

During the transcript analysis, the following first-order themes emerged: (1) Healthy eating is challenging with limited resources; (2) Lack of exercise is attributed to limited time; and (3) Participants exhibited varying levels of understanding regarding what it means to be healthy and how to achieve good health.

#### 4.2.1 | Theme 1: Healthy eating is difficult with limited resources

Consistent with the findings of Wiig and Smith (2009), most overweight individuals from low-income families displayed a lack of efficacy in controlling their diets due to limited food choices and time constraints. Generally, processed foods, which are often low in nutrients, tend to be the most readily available and affordable option for low-income families (Luiten et al., 2016). Many low-income households allocate a significant portion of their income to food with a low fruit and vegetable content (Stewart et al., 2011). Consequently, a considerable number of Indonesians suffer from diabetes (Ligita et al., 2019).

Even among low-income participants with a normal weight, it remained challenging for them to maintain healthy lifestyles, including

balancing work, exercise, and a nutritious diet. This difficulty was particularly pronounced as they juggled busy work schedules to secure a steady income. Two participants commented on healthy lifestyles as follows:

*The obstacle to my healthy eating is my finances. (Agus, Male, Normal Weight, 41)*

*I just chose the cheap ones...so, I have to manage my money, when I receive my salary, I have to buy this and that...if I use it to buy meat all the time, then I won't have any money left and has to borrow, I just have to adjust it with my salary... (Wigiatun, Female, Normal Weight, 41)*

#### 4.2.2 | Theme 2: Lack of exercise due to limited time

In Indonesia, the majority of low-income individuals find themselves working longer hours to supplement their incomes, and some even take on two or three jobs (Gringeri, 2001). Furthermore, many low-income families in Indonesia share their households with numerous family members, leading to increased caregiving responsibilities. People in disadvantaged socioeconomic circumstances are more prone to inactivity, as indicated by the ESRC (2014). Consequently, exercise may not be their primary priority, as reflected in the perspectives of these individuals:

*Since I became a security guard, I never exercise. I am so tired after work. (Dwi, Male, Overweight, 38)*

*Because I have many household activities, I have less time to exercise. (Susi, Female, Overweight, 32)*

*Oh, I never exercise because I work every day. How am I supposed to exercise, I work on Sunday, maybe my exercise is just walking the stairs from the 4<sup>th</sup> floor until I am sweating, that's my exercise. (Wagiatun, Female, Normal Weight, 41)*

Some participants mentioned that age was a contributing factor to their lack of exercise. Physical inactivity in older adults, regardless of their socioeconomic status, is a significant public health concern (Gomes et al., 2016). Physically active older adults are less likely to develop serious health conditions (Cavanagh et al., 1998). The issue of lack of exercise was mentioned by Roni and Kardi:

*I am just too lazy and maybe my age too. (Roni, Male, Normal Weight, 48)*

*Before married, when I was 19, I used to exercise. (Kardi, Male, Normal Weight, 41)*

Other participants mentioned compensating for their unhealthy diet by getting more rest or reducing their smoking or coffee intake. Smoking is another health challenge faced by many Indonesians, with

more than two-thirds of males aged 15 or older being smokers (WHO 2015):

*I can't control my weight, usually I ate a lot and rest a lot. (Kardi, Male, Normal weight, 41)*

*I can't, I just rest and reduce my coffee and smoking. (Roni, Male, Normal weight, 48)*

#### 4.2.3 | Theme 3: Varying understanding of what it means to be healthy

Participants had varying perceptions and definitions of what constitutes being healthy and the activities associated with it, as described by Ratih:

*I am overweight but I am healthy. I am still eating some fatty food, instant food but it's ok as long as I can do all my activities without troubles. (Ratih, Female, Overweight, 42)*

*As long as I can work, walk and feels light, I am healthy. (Bea, Female, Overweight, 37).*

Weight management is not the sole concern that the study participants grapple with in their daily lives. Many low-income households in Indonesia confront additional challenges, such as access to clean water, healthcare, and quality education. This aligns with other studies that suggest children in economically disadvantaged areas are more likely to be obese than those in more affluent areas (Drewnowski & Eichelsdoerfer, 2010). Consequently, these individuals often find themselves simply going with the flow, as expressed by one of the study participants:

*That's all, most of the time I just go with the flow, I don't think too much, if I think too much about my weight, it will burden me, I can't enjoy life. (Dwi, Overweight, Male, 38)*

The results of the interviews support other studies that suggest the definition of overweight and obesity is a rather subjective interpretation that emphasizes appearance and aesthetics (Sikorski et al., 2012). The results of Study 1 highlighted the following: (a) participants are grappling with the challenge of maintaining healthy diets and lifestyles; (b) participants have little time for exercise and attempt various strategies to compensate for their poor diets, although they also struggle to do so because (c) they lack a clear understanding of which actions or decisions truly contribute to being healthy. This study's findings contribute to the research on healthy eating amongst food-insecure populations, extending other studies (i.e. Van Der Velde et al. 2019; Sedibe et al., 2014. In particular, theme 3 revealed a previously unidentified understanding of the concept "healthy" amongst participants. Notably, many participants lacked a clear definition of the term, highlighting a potential gap in knowledge

**TABLE 2** Summary of Participants' Experiences.

Themes	Participants' experiences
(1) Healthy eating is difficult when you have limited resources.	02; 03; 04; 05; 09; 11; 12; 14; 22; 23
(2) Lack of exercise due to limited time	01; 02; 03; 05; 06; 07; 09; 12; 16; 17; 18; 21; 22
(3) Varying understanding of what it means to be healthy and how to achieve it varies across individuals.	01; 02; 03; 05; 06; 07; 09; 10; 14; 15; 17; 18; 19; 20; 21; 23

and education around healthy eating within this population. Table 2 summarizes the experiences of the participants.

## 5 | STUDY 2: QUANTITATIVE SURVEY AND HYPOTHESIS DEVELOPMENT

### 5.1 | Dependent variables: Intention to exercise and diet

Intention represents an individual's strategy for carrying out an action and is considered a key determinant of behavior (Ajzen, 2002; Downs & Hausenblas, 2003). Diet and exercise are strongly associated with weight loss (Curioni & Lourenco, 2005; Johns et al., 2014). WHO (2017) suggested that the two leading causes of obesity are “an increased intake of energy-dense foods that are high in fat, and an increase in physical inactivity due to the increasingly sedentary nature of many forms of work, changing modes of transportation, and increasing urbanization” (p.1). Therefore, this study used the intention to diet and exercise as the key dependent variables when examining the effect of food insecurity on self-efficacy (Figure 1).

### 5.2 | Independent variables

**Food Insecurity.** Food insecurity can ultimately impact an individual's cognitive and physical ability to control a specific behavior. Vijayaraghavan et al. (2011) found that food insecurity reduces self-efficacy among individuals with diabetes. Similarly, low self-efficacy is associated with very low food security (Martin, Colantonio, et al., 2016; Martin, Maddocks, et al., 2016). As mentioned earlier, self-efficacy plays a pivotal role in enhancing health (Martin & Ferris, 2007). There is a clear connection between self-efficacy and behavior change concerning weight loss (Walpole et al., 2013) and exercise (Anderson et al., 2010; Williams & French, 2011). The persistent worry about accessing food and the fear of hunger can act as potent stressors (Martin, Colantonio, et al., 2016; Martin, Maddocks, et al., 2016). This sustained physiological arousal can lead to anxiety, mental illness, and impaired cognitive function (Martin, Colantonio, et al., 2016; Martin, Maddocks, et al., 2016; Wolfson et al., 2021). These factors impede one's ability to effectively problem-solve and navigate challenges, eroding confidence and self-belief. Building on the previous

arguments, we hypothesized that food insecurity would have a negative impact on an individual's self-efficacy:

**H1.** Food insecurity will negatively influence an individual's self-efficacy.

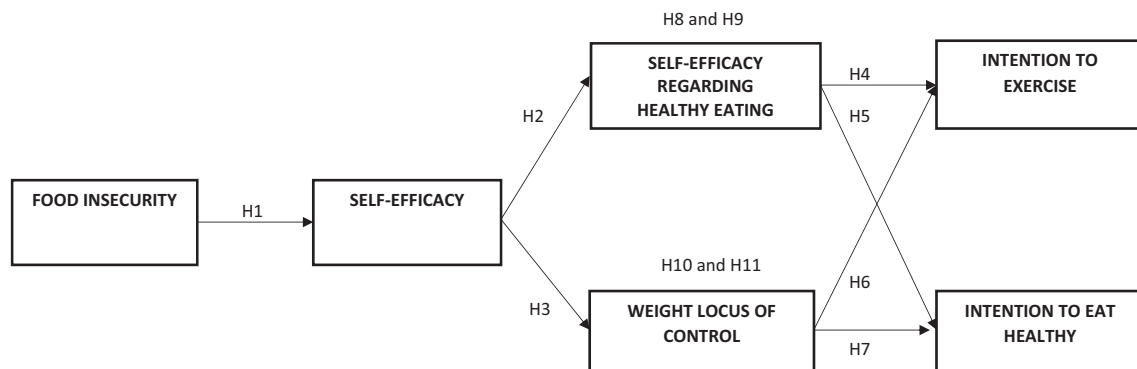
**General Self-Efficacy.** General self-efficacy (GSE) pertains to the belief in one's competence to tackle novel tasks and cope with adversity in a wide range of stressful or challenging situations, as opposed to specific self-efficacy, which is limited to a particular task (Luszczynska, Gutiérrez-Doña, & Schwarzer, 2005). Self-efficacy focuses on control over one's behavior itself rather than control over outcomes or events (Ajzen, 2002; Bandura, 1998). In the context of the present study, self-efficacy has been consistently found to be directly related to health behaviors (Ashford et al., 2010; Onozaka et al., 2014; Teixeira et al., 2015). Generally, the stronger the perceived self-efficacy, the more active and robust the coping efforts an individual employs (Bandura & Adams, 1977). Consequently, individuals with stronger self-efficacy are more likely to engage in healthy behaviors (Luszczynska, Scholz, & Schwarzer, 2005).

Regarding health-related behavior, studies have linked low self-efficacy to inconsistent healthy food preparation (Mercille et al., 2012), low levels of physical activity (Olander et al., 2013), obesity (Clark et al., 1991; Dennis & Goldberg, 1996; Stephens et al., 2017), low breastfeeding rates (Blyth et al., 2002), low intention to purchase nutritious products (Onozaka et al., 2014), and low rates of smoking cessation (Conditte & Edward Lichtenstein, 1981; DiClemente 1981; Dijkstra et al., 1996). However, Fontaine and Cheskin (1997) found that self-efficacy is not a significant predictor of individuals' commitment in a short-term (10 weeks) weight loss program. In general, we hypothesized that an individual's general self-efficacy will positively influence their perceived self-efficacy toward healthy eating and their sense of control over their weight:

**H2.** Self-Efficacy will positively influence an individual's efficacy of healthy eating.

**H3.** Self-Efficacy will positively influence an individual's weight locus of control.

**Self-Efficacy Regarding Healthy Eating.** Luszczynska, Scholz, and Schwarzer (2005) suggested differences between general self-efficacy and specific self-efficacy. The author referred to GSE refers as “one's competence to cope with a broad range of stressful or challenging demands whereas specific self-efficacy is constrained to a particular task at hand” (p. 439). Similarly, general self-efficacy can be defined as “beliefs in one's capabilities to mobilize the motivation, cognitive resources, and courses of action needed to meet given situational demands” (Wood & Bandura, 1989, p. 408). Self-efficacy has been demonstrated to have different regulative functions in various health domains (Luszczynska, Scholz, & Schwarzer, 2005). For example, it has been documented that self-efficacy is an important predictor in reducing alcohol consumption (Oei & Burrow, 2000) and stopping smoking



**FIGURE 1** Conceptual Framework.

(Baldwin et al., 2006). Pertinent to the present study, self-efficacy has been demonstrated to predict physical activity (Kaewthummanukul, & Brown., K.C., 2006) as well as adopting and maintaining physical activity (Strachan et al., 2005).

In general, individuals with higher self-efficacy in a specific domain will select more challenging and ambitious goals (Luszczynska, Scholz, & Schwarzer, 2005). Self-monitoring, including self-regulation and enhancing confidence (self-efficacy) can positively influence an individual's attitude toward healthy eating and weight control (Annesi et al., 2015; Teixeira et al., 2015). Therefore, theoretically applied to the domain of health and weight control, we propose that self-efficacious individuals will have stronger intentions toward eating healthy and exercising, as well as initiating the behaviors to carry out their intentions (Ashford et al., 2010; Bandura, 1977; Bauman et al., 2012). Furthermore, individuals with higher self-efficacy are likely to persist in behavior even in the face of setbacks (Bandura, 1977). Based on the existing evidence, we posed the following hypotheses:

**H4.** Self-efficacy regarding healthy eating will positively influence an individual's intention to exercise.

**H5.** Self-efficacy regarding healthy eating will positively influence an individual's intention to eat healthily.

*Weight Locus of Control.* Locus of control is a concept derived from Rotter's (1954) social learning theory. In general, locus of control refers to the belief that individuals hold about the extent of their control over the outcomes of events in various situations. Locus of control is closely related to self-efficacy and can be classified along a continuum from internal to external. Individuals with an internal locus of control believe that they can directly influence outcomes. Conversely, individuals with an external locus of control believe that event outcomes are beyond their direct control and are instead determined by external factors such as luck, chance, or other influential elements. However, similar to self-efficacy, locus of control is domain-specific; this generalized belief may not be applicable across all situations (Stotland and Zuroff 1990). Stotland and Zuroff (1990) found that a generalized locus of control is

inconsistent in predicting weight loss and subsequently developed a domain-specific concept and measure to assess weight-specific locus of control (i.e., weight locus of control). Weight locus of control specifically pertains to the degree to which an individual can control, at least partially, their own weight (Rotter, 1966; Stotland and Zuroff 1990). Therefore, when applied to the domain of health, individuals with an internal weight locus of control are more likely to believe that they have full control over their behaviors for regulating their health and weight. In contrast, individuals with an external weight locus of control believe that their health and weight are predominantly beyond their control. Hence, we formulated the following hypotheses:

**H6.** Weight locus of control will positively influence an individual's intention to exercise.

**H7.** Weight locus of control will positively influence an individual's intention to eat healthily.

### 5.3 | Mediating variable

Building on the previous discussions, some studies indicate that general self-efficacy may not consistently lead to positive outcomes in all situations (Chen et al., 2001). As previously mentioned, there are fundamental differences between self-efficacy and locus of control. Self-efficacy is an individual's confident belief in their ability to perform specific actions and achieve desired outcomes within a particular domain. This construct differs from the locus of control, which reflects the degree to which individuals perceive themselves as possessing agency over the events influencing their lives (Smith 1989). Self-efficacy manifests as context-specific beliefs in one's capabilities to effectively navigate challenging situations within different domains (Siefer et al., 2021). Bandura (1997) suggested that general self-efficacy may not effectively measure efficacy in a specific activity or behavioral domain. Therefore, an individual's overall ability to mobilize motivation will likely be mediated by their efficacy in a specific activity, specifically, healthy eating:



**FIGURE 2** Data collection.

**H8.** Self-efficacy regarding healthy eating will mediate the relationship between self-efficacy and intention to exercise.

**H9.** Self efficacy regarding healthy eating will mediate the relationship between self-efficacy and intention to diet.

According to self-efficacy and social cognitive theory, individuals' self-efficacy beliefs fluctuate depending on the difficulty of a task and their confidence in successfully performing it at a specific difficulty level (Bandura, 1997). It's possible for an individual to have a high locus of control in one area while having a low locus of control in another. For instance, someone might be capable of controlling their behavior regarding alcohol consumption but struggle to control the results of their diet and exercise. Therefore, we propose:

**H10.** Weight locus of control will mediate the relationship between self-efficacy and intention to exercise.

**H11.** Weight locus of control will mediate the relationship between self-efficacy and intention to diet.

## 5.4 | Method and data collection

We employed a convenience sample comprising individuals who chose to participate in this study. Online and paper-based surveys were disseminated to the public through partner universities in several major cities in Indonesia, including Jakarta, Surabaya, Makassar, Yogyakarta, Jayapura, and Sidoarjo (refer to Figures 2 and 3). The first group of respondents consisted of low-income communities in these cities, while the second group included university students, staff, as well as employees from small businesses, large companies, and factories affiliated with the universities. The age range of the respondents varied, with 18–24 years old accounting for 36%, 25–34 years old for 34%, 35–44 years old for 17%, and 45–54 years old for 13%. The remaining respondents were above 55 years old. In terms of self-reported weight, the majority of respondents indicated their weight as



**FIGURE 3** Data Collection.

**TABLE 3** Demographic Profile (Quantitative).

Demographic (n = 1494)	Frequency	Percentage
<b>Gender</b>		
Male	287	19%
Female	540	36%
Did not reveal	667	45%
<b>Age</b>		
18–24 years	546	36%
25–34 years	354	24%
35–44 years	246	17%
45–54 years	201	13%
55–60 years	90	6%
>60 years	57	4%
<b>Education</b>		
Primary school of less	62	4%
Junior high	92	6%
High school	610	41%
Diploma or college	609	41%
Post graduate	117	8%
<b>BMI</b>		
Normal weight	1018	68%
Overweight	345	23%
Obese	131	9%

normal (68%), followed by overweight (23%) and obese (9%). For a comprehensive overview of the respondents' demographics, please refer to Table 3.

The scale items utilized in this study were adopted from previously validated scales (refer to Table 4). The measurement of food insecurity was adapted from the Household Food Insecurity Access Scale (HFIAS; 1 = never; 5 = always; Coates, Swindale, and Bilinsky 2007). Each respondent was asked whether they could recall a period of four consecutive weeks during which they experienced food insecurity or not. The measurement of general self-efficacy was adopted from Scharzer and Jerusalem (1995; 1 = not at all true; 5 = exactly



**TABLE 4** Confirmatory factor analysis.

Factor	Item	Convergent validity	Reliability	
		Factor loading	CR	AVE
Food insecurity (7 items)	FI			
• In the past 4 weeks, how often you were or any household worried about having enough food?	FI01	0.647	0.92	0.62
• In the past 4 weeks, were you or any household member not able to eat the kinds of foods you preferred because of a lack of resources?	FI02	0.935		
• In the past four weeks, did you or any household member have to eat a limited variety of foods due to a lack of resources?	FI03	0.817		
• In the past 4 weeks, did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources?	FI04	0.729		
• In the past 4 weeks, did you or any household member have to eat a smaller meal than you felt you needed because there was not enough food?	FI05	0.851		
• In the past 4 weeks, did you or any other household member have to eat fewer meals in a day because there was not enough food?	FI06	0.842		
• In the past 4 weeks, was there ever no food to eat of any kind in your household because of lack of resources to get food?	FI07	0.666		
General Self-Efficacy (8 items)	GSE			
• It is easy for me to stick to my aims and accomplish my goals.	GSE03	0.634	0.89	0.50
• I am confident that I could deal efficiently with unexpected events.	GSE04	0.732		
• Thanks to my resourcefulness, I know how to handle unforeseen situations.	GSE05	0.731		
• I can solve most problems if I invest the necessary effort.	GSE06	0.705		
• I can remain calm when facing difficulties because I can rely on my coping abilities.	GSE07	0.704		
• When I am confronted with a problem, I can usually find several solutions.	GSE08	0.692		
• If I am in trouble, I can usually think of a solution.	GSE09	0.694		
• I can usually handle whatever comes my way.	GSE10	0.734		
Self-Efficacy Regarding Healthy Eating (5 items)	SERHE			
• Even if I need a long time to develop the necessary routines	SERHE01	0.734	0.90	0.65
• Even if I have to try several times until it works.	SERHE02	0.833		
• Even if I have to rethink my entire way of nutrition.	SERHE03	0.872		
• Even if I do not receive a great deal of support from others when making my first attempts.	SERHE04	0.778		
• Even if I have to make a detailed plan	SERHE05	0.806		
Weight locus of control (2 items)	WLC			
• Most people are at the present weight because that is the weight level that is natural to them	WLC01	0.773	0.89	0.63
• In order to lose weight people must get a lot of encouragement from others	WLC02	0.809		
Intention to exercise (3 items)	ITE			
• I intend to exercise in the next 7 days	ITE01	0.834	0.95	0.75
• I will exercise in the next 7 days	ITE02	0.970		
• I plan to exercise in the next 7 days	ITE03	0.774		
Intention to eat healthy (3 items)	ITD			
• I intend to eat more healthfully in the next 7 days	ITD01	0.617	0.78	0.54
• I will eat more healthfully in the next 7 days	ITD02	0.773		
• I plan to eat more healthfully in the next 7 days	ITD03	0.809		

Abbreviations: CR, composite reliability, AVE, average variance extracted.

true), while self-efficacy concerning healthy eating was adapted from Onozaka et al. (2014; 1 = strongly disagree; 5 = strongly agree). Weight locus of control was adapted from Stotland and Zuroff's (1990) new measure of weight locus of control (1 = strongly disagree; 5 = strongly agree). In addition to these measurements, respondents

were asked to report their intentions to lose weight (3 items, e.g., "I intend to lose weight in the next six months"; 1 = strongly disagree; 5 = strongly agree), their intention to exercise (3 items, e.g., "I intend to exercise in the next 7 days"; 1 = extremely unlikely; 5 = extremely likely), and their intention to eat healthily (3 items, e.g., "I intend to

	1	2	3	4	5	6
1. Food Insecurity	<b>0.62</b>	0.009	0.007	0.004	0.000	0.000
2. General Self-Efficacy	-0.098**	<b>0.50</b>	0.192	0.096	0.027	0.057
3. Self-Efficacy Healthy Eating	-0.085**	0.439**	<b>0.65</b>	0.042	0.005	0.148
4. Weight Locus of Control	-0.068**	0.311**	-0.206**	<b>0.63</b>	0.017	0.031
5. Intention to Exercise	0.001	0.167**	-0.225**	0.134**	<b>0.75</b>	0.164
6. Intention to Diet	-0.024	0.239**	0.385**	0.177**	0.405**	<b>0.54</b>
Mean	1.318	3.703	3.378	4.027	3.242	3.734
Std. Dev.	0.608	0.606	0.793	0.796	1.186	0.964

TABLE 5 Discriminant validity.

Note: Bold indicates significant values, \*\* 0.001.

eat more healthfully in the next 7 days"; 1 = extremely unlikely; 5 = extremely likely).

## 5.5 | Data analysis

We conducted a confirmatory factor analysis (CFA) on the survey data using structural equation modeling (AMOS). The model exhibited a good fit, with values well above the recommended levels ( $\chi^2/df$  (368) = 867.123; CFI = 0.976; TLI = 0.971; NNFI = 0.962; RMSEA = 0.034; SRMR = 0.043; Jöreskog & Sörbom, 1993; Steiger, 1998).

To assess internal consistency reliability, we calculated Cronbach's alpha for each key variable and evaluated convergent validity by ensuring that factor loadings were greater than 0.50 and statistically significant ( $p \leq 0.05$ ). The lowest factor loading in this study was 0.617 (i.e., Intention to Eat Healthy-Item 01) (Bagozzi and Yi, 2012), which exceeded the 0.60 threshold for internal consistency (Bagozzi and Yi, 2012; Malhotra and Birks, 2007). Confidence intervals around the correlation estimates between any two constructs were all significantly different from one (Anderson and Gerbing, 1988).

To assess discriminant validity among the constructs, we compared the average variance extracted (AVE) values for each construct with the squared correlation estimates of paired measured constructs in the model (Fornell and Larcker, 1981). The AVE ranged from 0.50 (i.e., general self-efficacy) to a maximum of 0.75 (i.e., Intention to Exercise). We calculated composite reliability values (CR) and compared them to a threshold benchmark of 0.60 (Bagozzi and Yi 1988). The minimum CR in this study ranged from 0.78 (i.e., Intention to Diet) to 0.95 (i.e., Intention to Exercise). The variance extracted was tested, and we found that the AVE for each factor exceeded the square of the correlation coefficient with each of the other factors (Table 5). Thus, the test confirms the discriminant validity of the measurement model (Fornell and Larcker 1981).

Finally, we conducted the Harman's single-factor test (Podsakoff et al., 2003) to assess the risk of common method bias. Through CFA, we compared our model with a constrained single-factor model, wherein in the case of common method variance, the single latent factor would account for all the variables. The single-factor fit showed no evidence of common method bias.

## 5.6 | Mediation analysis

To test for mediation effects, we conducted two separate bias-corrected bootstrap analyses involving both mediators (i.e., self-efficacy regarding healthy eating and weight locus of control). A bootstrap test involves resampling the data to estimate standard errors and derive a confidence interval based on the bootstrapped sampling distribution. It's important to note that meaningful mediating effects can occur even without a significant direct relationship between the independent and dependent variables (Zhao et al. 2010). Thus, we first established the direct effects between the mediator and the independent variable and between the mediator and the dependent variable before assessing mediation.

A mediating effect is considered significant if the 95% confidence intervals do not include zero. This test was used to determine whether there were statistically significant mediating effects by self-efficacy regarding healthy eating and weight locus of control in the relationship between general self-efficacy and intention to exercise and diet.

## 5.7 | Results—study 2

### 5.7.1 | Direct effect

Having established the unidimensionality and reliability of the models, in the next step, we estimated the hypothesized relationships between the constructs of this study. The results indicated that food insecurity had a negative influence on individuals' general self-efficacy, supporting H1 ( $\beta = -0.095$ ,  $p < 0.001$ ). This suggests that individuals experiencing food insecurity are more likely to feel they have less control over their lives.

Furthermore, general self-efficacy had a positive impact on self-efficacy regarding healthy eating ( $\beta = 0.502$ ,  $p < 0.001$ ) and weight locus of control ( $\beta = 0.377$ ,  $p < 0.001$ ), providing support for H2 and H3. Additionally, the results revealed that self-efficacy regarding healthy eating positively influenced individuals' intention to exercise ( $\beta = 0.198$ ,  $p < 0.001$ ) and their intention to eat healthily ( $\beta = 0.375$ ,  $p < 0.001$ ), supporting H4 and H5.

Finally, weight locus of control had a positive effect on individuals' intention to exercise ( $\beta = 0.121$ ,  $p < 0.05$ ) and their intention to

**TABLE 6** Structural model results.

Hypothesis	Path	Path coefficient	p-value	Result
H1	Food insecurity → Self-efficacy	−0.095	<b>0.000</b>	<b>Supported</b>
H2	Self-efficacy → Self-efficacy healthy eating	0.502	<b>0.000</b>	<b>Supported</b>
H3	Self-efficacy → Weight locus of control	0.377	<b>0.000</b>	<b>Supported</b>
H4	Self-efficacy healthy eating → Intention to exercise	0.198	<b>0.000</b>	<b>Supported</b>
H5	Self-efficacy healthy eating → Intention to diet	0.375	<b>0.000</b>	<b>Supported</b>
H6	Weight Locus of Control → Intention to Exercise	0.121	<b>0.000</b>	<b>Supported</b>
H7	Weight locus of control → Intention to diet	0.158	<b>0.000</b>	<b>Supported</b>

Note: Bold indicates significant values. Fit Statistics:  $\chi^2/df$  (368) = 867.123; CFI = 0.976; TLI = 0.971; NNFI = 0.962; RMSEA = 0.034; SRMR = 0.043.

**TABLE 7** Mediating effect.

Hypothesis	Relationship	Lower	Upper	Results
H8	Self-efficacy → Self-efficacy Healthy eating → Intention to exercise	−0.035	−0.011	Supported
H9	Self-efficacy → Self-efficacy Healthy eating → Intention to diet	−0.021	−0.004	Supported
H10	Self-efficacy → Weight locus of control → Intention to exercise	−0.020	−0.002	Supported
H11	Self-efficacy → Weight locus of control → Intention to diet	−0.014	−0.001	Supported

Note: 0 does not occur within the lower and upper limit of the 95% confidence interval.

eat healthily ( $\beta = 0.158$ ,  $p < 0.001$ ), thereby supporting **H6** and **H7** (Table 6).

### 5.7.2 | Mediating effect

The results showed that self-efficacy regarding healthy eating mediated the relationship between general self-efficacy and individuals' intention to exercise (−0.035; −0.011) and diet (−0.021; −0.004), providing support for **H8** and **H9**.

Additionally, weight locus of control also served as a mediator in the relationship between self-efficacy and individuals' intention to exercise (−0.020; −0.002) and diet (−0.014; −0.001), thus supporting **H10** and **H11** (Table 7).

## 6 | DISCUSSION AND IMPLICATIONS

### 6.1 | Theoretical contribution and policy implications

The results indicate that study participants were struggling to maintain healthy diets and lifestyles, and they attempted various strategies to compensate for their poor diets. Moreover, the results suggest that food insecurity negatively influenced individuals' self-efficacy, which subsequently affected people's intention to exercise and eat healthily. These data demonstrate that food insecurity affects an individual's cognitive and physical ability to control their intention to eat healthily (Kollanoor-Samuel et al., 2012).

Most campaigns in Indonesia focus on changing people's behavior without considering the poor social conditions and the determinants of

social problems. For example, a campaign in Indonesia called 'The National Nutrition Campaign' aims to educate people about the importance of nutrition but primarily focuses on improving individual self-efficacy (MCA Indonesia, 2018). This downstream approach, which relies on campaigns to encourage low-income individuals to eat healthier food and exercise, may be inadequate to change dietary habits.

According to the World Bank in Indonesia (2019), significant economic and population health challenges persist in Indonesia. Approximately 20.78% of the entire population remains vulnerable to falling into poverty and experiencing subsequent food insecurity. It follows that Indonesia and other developing nations face challenges in addressing the prevalence of overweight and obesity stemming from the biological response to store fats in the body when facing food insecurity. Studies have indicated that an individual's mindset associated with scarcity, such as food insecurity, leads to a depletion of cognitive resources, diminishing the reasoning center in the "prefrontal cortex and disrupting food regulation, which reduces impulse control" (Laraia et al. 2014, p. 122; Vijayaraghavan et al., 2011). There is also a correlation between the depletion of cognitive resources, such as a lack of self-efficacy, and preferences for unhealthy foods (Laraia et al. 2014; Martin, Maddocks, et al., 2016).

Our findings suggest that addressing barriers such as food insecurity could potentially result in better weight management in Indonesia. Healthy food options are more costly and, in many cases, out of reach for low-income families in Indonesia. Improved policies to enable healthier diets are needed, especially for the poor. While the poorest in society often receive sufficient calories, they frequently do not consume enough healthy foods due to the social and economic circumstances shaping their food choices (Monsivais, 2016).

The Indonesian government and other groups are using upstream (e.g., policy formulation, budget allocation) and midstream

(e.g., training in skills development, social capital building support program) approaches to address the prevalence of obesity and overweight in the country. These approaches involve improving public policy and community efforts to provide access to healthy food choices, especially for low-income citizens in Indonesia (French & Russell-Bennett, 2015; Seiders & Petty, 2007). In addition to current efforts, the government can implement interventions such as a healthy lunch program at schools and regular training at schools and universities to increase individuals' self-efficacy toward a healthy diet and exercise. Upstream and midstream approaches should complement downstream approaches, such as an obesity awareness campaign focusing on increasing individuals' self-efficacy and personal agency. Downstream approaches tend to be less effective when a household is experiencing food insecurity and when not tailored correctly, such as when framed as a failure of willpower. Hence, in the context of obesity, promoting a healthy body weight in society requires a combination of upstream, midstream, and downstream approaches to address obesogenic environments (Rutter et al., 2017).

At the same time, our findings confirm that general self-efficacy positively influences domain-specific self-efficacies such as healthy eating and weight loss control, which in turn positively affect the intention to exercise and intention to diet, respectively. The individual response is ultimately central to obesity and should not be dismissed when considering the impact of self-efficacy on obesity in communities affected by food insecurity (Rutter et al., 2017).

Ashford et al.'s (2010) meta-analysis of research on changing self-efficacy suggested that intervention techniques can increase self-efficacy. Feedback that enables individuals to monitor past, present, and others' progress, as well as vicarious experiences, were found to be particularly effective. "Vicarious experience refers to seeing a 'similar other' successfully perform the behavior and appraising one's performance against that of that similar other" (Ashford et al., 2010; p. 266). Annesi et al.'s (2015) work suggests that coupling self-monitoring with self-regulation and enhancing confidence (self-efficacy) can positively impact healthy eating and weight control (Teixeira et al., 2015). Therefore, research shows that programs that empower individuals with self-regulation skills might increase people's self-efficacy and confidence to master healthy eating (Annesi et al., 2015) and can increase people's commitment to improving exercise and nutrition behaviors.

We argue that governments should develop a mixed downstream and midstream approach, such as a mentoring program to develop self-efficacy and address obesity (Pekerti et al., 2015; UMMC 2010). Central to the effectiveness of mentoring in a food insecurity context is the fact that those who are afflicted with food insecurity are experiencing cognitive stresses (i.e., depletion of cognitive resources; Laraia 2014), not unlike those who suffered during acculturative stress (Pekerti et al., 2015). In short, mentoring has been effective in mitigating cognitive stress (Thomas & Lankau, 2009) and reducing the prevalence of obesity (Lee & Yun-Jung Choi, 2016; Villanueva & Foster, 2016).

An effective mentoring program should pair a mentor with an individual at risk of being overweight. The mentor should be someone who

is not overweight, has healthy eating and exercise habits, and can therefore serve as a role model (e.g., self-image; Pekerti et al., 2015; Smith, Petosa, Harness, and Stringer 2018; Colby et al., 2016) for healthy body weight behaviors to the at-risk individual and monitor the individual's physical exercise and eating habits (Lee & Yun-Jung Choi, 2016). The mentors in this upstream program could also serve as exercise partners for their mentees. The program could be bolstered by including a midstream parent mentoring program to address children's and/or family's healthy body weight (Villanueva & Foster, 2016). In brief, parents of children who are at risk of being overweight would be paired with a parent mentor who models family healthy body weight behaviors and encourages the at-risk families to make healthy body weight choices. Mentors can serve as exemplars of healthful dietary practices, rather than condoning the consumption of an excessive quantity of fast food. We further argue that these mentors could also serve as a system that builds community and relationships, which is crucial for developing a positive self-image (Pekerti et al., 2015). Such a mentoring program would fit in well with an Indonesian society that is predominantly collectivist and vertically collectivist (Pekerti & Arli, 2017). In other words, a program with a paternal, benevolent, and relational foundation such as mentoring would likely be well received.

As suggested by Rutter et al. (2017), promoting a healthy body weight in a society requires a whole system that includes a combination of up, mid, and downstream approaches to address obesogenic environments. This is especially relevant in developing nations such as Indonesia, where close to 50 million people are effectively experiencing food insecurity. Current obesity research indicates that at-risk populations must address obesity at a societal level with the development of policies that promote a healthy body weight, family support programs that develop a community, as well as programs that target individual responses, such as role models who encourage at-risk families to make healthy body weight choices.

## 6.2 | Limitations and future research

The research presented here has several limitations. First, the study used a self-report questionnaire and may suffer from response bias. Future studies may use an ethnographic approach to examine consumers' challenges with food insecurity and food choices. Furthermore, future research could employ a social intervention study to demonstrate the impact of providing food assistance on individuals or families, which would likely yield fruitful insights. Second, the study only focused on respondents in mid to larger cities in Indonesia. The poverty level in these cities is often not as severe as in smaller cities or remote islands in Indonesia. Future research may investigate the effect of food insecurity on obesity in smaller cities and more remote islands in Indonesia.

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## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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COUNTRY	SUBJECT AREA AND CATEGORY	PUBLISHER	H-INDEX
<a href="#">United States</a>  Universities and research institutions in United States  Media Ranking in United States	<a href="#">Business, Management and Accounting Marketing Strategy and Management</a> <a href="#">Economics, Econometrics and Finance Economics and Econometrics</a>	<a href="#">John Wiley and Sons Inc.</a>	<h1>22</h1>
PUBLICATION TYPE	ISSN	COVERAGE	INFORMATION
Journals	26911361	2021-2023	<a href="#">Homepage</a> <a href="#">How to publish in this journal</a> <a href="mailto:JPHILMAR@wiley.com">JPHILMAR@wiley.com</a>

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A change in title reflects a slight reposition of the aims and scope of the Journal of Philanthropy and Marketing (JPM). Philanthropy is no longer the preserve of the non-profit and voluntary sectors and isn't exclusively practiced at 'sector' level. Philanthropy in its broadest sense (giving, benevolence, welfare, altruism, prosocial behaviour and 'doing good') is playing a leading role in the management of a spectrum of organisations including multinational corporations and social enterprises (via some of their corporate social responsibility and marketing initiatives), governments, healthcare, and educational bodies (via their social marketing work). Much philanthropic work is aided by the marketing capabilities of organisations: fostering and building relationships and networks to help create, communicate and deliver value to philanthropic beneficiaries. Many of JPM's initiatives are closely aligned with AACSB'S recommendations and guidelines for best practice in academic business publishing. We actively encourage contributors to bridge the practitioner and academic divide and to focus on impact. To further these aims JPM has recruited a Shadow Practitioner Editorial Board who vet Call for Papers and ensure that special issues resonate with the world outside of academia. Our Twitter and LinkedIn pages ensure that practitioners within the philanthropic world gain access to our research outputs in a digestible format. As well as disseminating key findings through other means, JPM has been increasing its number of open access articles using transformational agreements with institutions which facilitate this process.

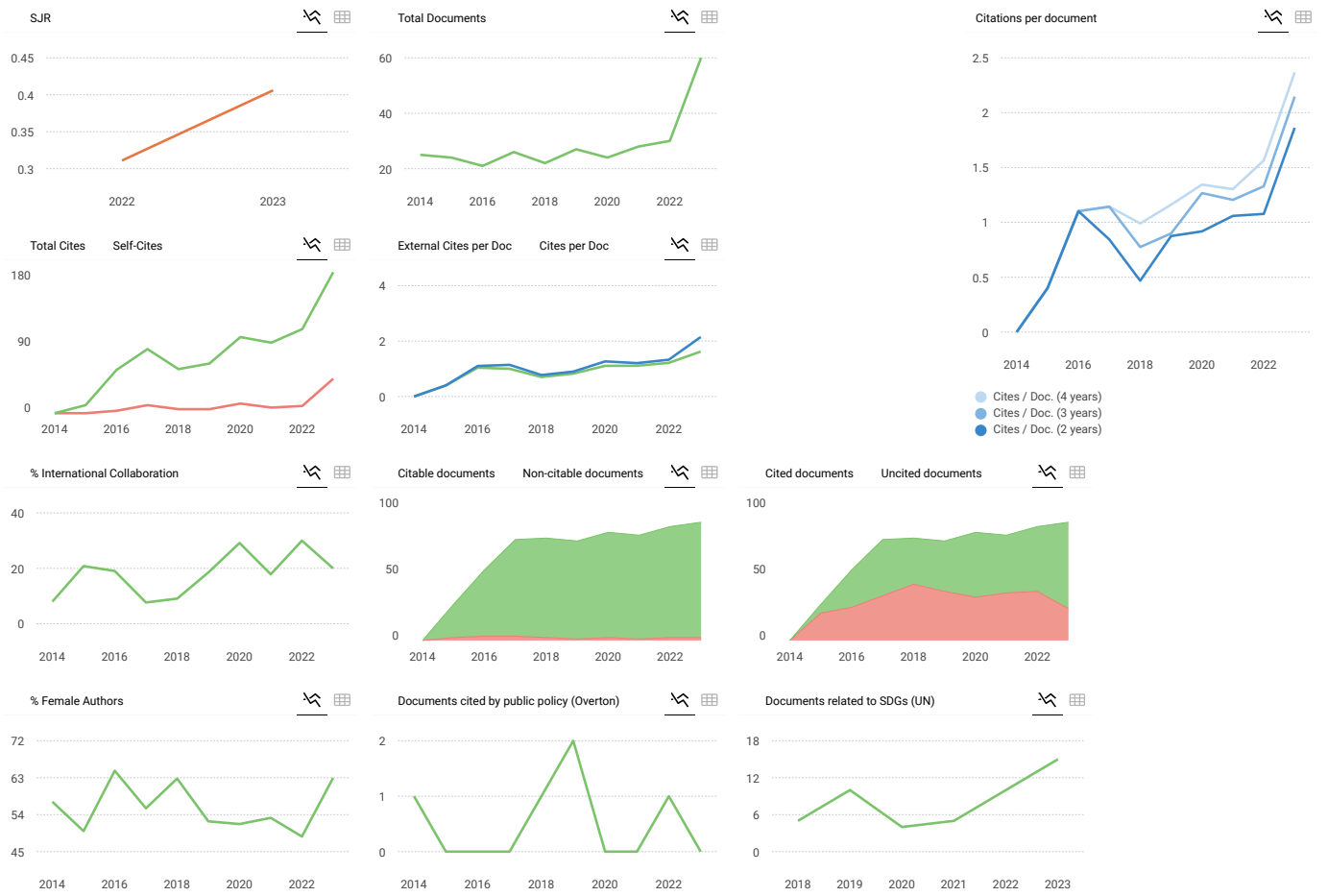
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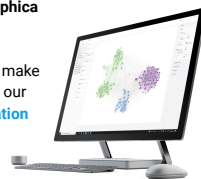
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