

Evaluating Social Support and Accessibility Factors in the PitStop by the HEP Program and Its Influence on Student Well-being

(Menilai Faktor Sokongan Sosial dan Kebolehcapaian dalam Program PitStop oleh HEP serta Pengaruhnya terhadap Kesejahteraan Pelajar)

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ABSTRACT

Food insecurity among university students has gained global attention due to its effects on emotional wellbeing and academic performance. In response, many institutions have implemented food assistance programs, such as PitStop by HEP, which provide both nutritional support and a sense of community. However, limited research has explored the multidimensional effects of these programs from the student perspective, especially regarding perceived social support and accessibility. This study investigates how these two factors influence overall student well-being at Universiti Teknologi MARA (UiTM). A cross-sectional survey was conducted with 328 undergraduate students using a multi stage sampling design. The questionnaire assessed perceived emotional, informational, and tangible support, as well as logistical and psychological accessibility. Data were analysed using descriptive statistics and multiple linear regression. The findings indicate that both perceived social support and accessibility significantly predict student well-being ($R^2 = 0.469$, $p < .001$). Among these, emotional support was found to be the strongest predictor. Students expressed high satisfaction with the program's utility, but concerns about logistical barriers and social stigma persisted. Additionally, accessibility was positively correlated with academic control, suggesting that ease of access can indirectly influence educational outcomes. The study highlights the importance of providing emotionally supportive, logistically convenient, and stigma-free welfare programs. The implications of the findings include the need to redesign program delivery to enhance its emotional impact, improve visibility and accessibility, and integrate continuous feedback for program evolution. These insights offer a comprehensive framework for enhancing campus-based food assistance, promoting not only equity but also educational resilience.

Keywords: food insecurity, social support, accessibility, student well-being, higher education, PitStop by HEP

ABSTRAK

Ketidakjaminan makanan dalam kalangan pelajar universiti semakin mendapat perhatian global kerana kesannya terhadap kesejahteraan emosi dan prestasi akademik. Sebagai respons, banyak institusi telah melaksanakan program bantuan makanan seperti PitStop by HEP, yang menyediakan sokongan keperluan makanan serta membina rasa kebersamaan. Namun begitu, penyelidikan yang meneliti kesan pelbagai dimensi program sebegini dari perspektif pelajar masih terhad, terutamanya berkaitan persepsi terhadap sokongan sosial dan kebolehcapaian. Kajian ini melihat bagaimana kedua-dua faktor ini mempengaruhi kesejahteraan pelajar secara keseluruhan di Universiti Teknologi MARA (UiTM). Satu tinjauan telah dijalankan ke atas 328 pelajar prasiswazah menggunakan reka bentuk persampelan berperingkat. Soal selidik yang digunakan menilai persepsi terhadap sokongan emosi, maklumat dan bantuan nyata, serta kebolehcapaian dari sudut logistik dan psikologi. Data dianalisis menggunakan statistik deskriptif dan regresi linear berganda. Dapatan kajian menunjukkan bahawa persepsi terhadap sokongan sosial dan kebolehcapaian adalah peramal signifikan kepada kesejahteraan pelajar ($R^2 = 0.469$, $p < .001$), di mana sokongan emosi muncul sebagai peramal paling kuat. Walaupun pelajar menunjukkan tahap kepuasan tinggi terhadap keberkesanan program, kebimbangan terhadap halangan logistik dan stigma sosial masih wujud. Selain itu, kebolehcapaian didapati berkorelasi positif dengan kawalan akademik, mencadangkan bahawa kemudahan akses boleh mempengaruhi hasil pembelajaran secara tidak langsung. Kajian ini menekankan kepentingan menyediakan program kebajikan yang menyokong secara emosi, mudah diakses dan bebas stigma. Implikasi daripada dapatan ini termasuk keperluan untuk mereka

bentuk semula penyampaian program bagi meningkatkan impak emosi, menambah baik keterlihatan dan akses, serta mengintegrasikan maklum balas berterusan bagi evolusi program. Hasil ini menawarkan kerangka menyeluruh untuk memperkasa bantuan makanan di kampus, sekali gus memupuk keadilan dan daya tahan pendidikan

Kata kunci: Ketidakjaminan makanan, sokongan sosial, kebolehcapaian, kesejahteraan pelajar, pendidikan tinggi, PitStop oleh HEP.

INTRODUCTION

Food insecurity among university students has emerged as a global public health concern, with increasing evidence linking it to adverse outcomes across students' academic, emotional, and psychological domains (Watson et al., 2021; Bruening et al., 2022). Students facing food insecurity often experience elevated levels of stress, anxiety, and depression, which in turn may hinder academic performance and engagement. Recognising this critical challenge, higher education institutions have begun implementing food assistance programs to support students' basic needs and promote educational equity. One such initiative is the PitStop by HEP program, which aims to provide not only food support but also a sense of community and care for students navigating financial and emotional hardships. While programs like PitStop demonstrate promise, the literature remains limited in evaluating their effectiveness from the students' perspective, particularly in understanding how different forms of social support (emotional, informational, and tangible) influence student well-being.

Studies have shown that social support is a multidimensional construct that extends beyond material aid to include emotional validation, informational guidance, and a sense of belonging, all of which can buffer the effects of food insecurity and mental stress (Shepherd et al., 2024). However, the degree to which food programs provide these broader support functions remains underexplored, especially in the context of campus-based initiatives. Moreover, program accessibility plays a pivotal role in the success of student welfare services. Factors such as location, convenience, communication, and hours of operation significantly influence how students perceive and

engage with food assistance (Willis & Fitzpatrick, 2020; Garcia et al., 2024). Despite its importance, the concept of perceived accessibility—how easily students feel they can access a program, rather than objective logistical features—has been insufficiently studied.

Existing research has mostly emphasised alleviating immediate hunger, with less attention paid to the psychosocial outcomes of food support or the interrelationship between accessibility and emotional well-being (Watson et al., 2021; Bruening et al., 2022). Additionally, while separate studies have shown that both social support and accessibility influence satisfaction and well-being, their combined and interactive effects have yet to be empirically established.

Addressing these knowledge gaps is crucial not only for enhancing the effectiveness of current programs like the PitStop initiative but also for designing sustainable, student-centred interventions. This study responds to this call by investigating (1) the types of social support perceived by students and their impact on emotional well-being and (2) the key factors influencing students' perceptions of program accessibility. The findings aim to contribute to a more holistic understanding of how food support initiatives can be optimised to promote student health, satisfaction, and academic resilience.

LITERATURE REVIEW

Food Insecurity in Higher Education Contexts

Food insecurity among university students has become a pressing issue globally, with mounting evidence linking it to adverse consequences in academic performance, emotional health, and physical well-being

(Watson et al., 2021; Bruening et al., 2022). University students, particularly those from underprivileged backgrounds or living independently, are more likely to skip meals or compromise nutritional quality due to financial constraints (Willis, 2019). These hardships contribute to increased levels of anxiety, fatigue, and poor concentration, ultimately impeding students' academic focus and retention rates. Despite the growing concern, food insecurity is often underreported in campus environments due to stigma, shame, and the normalisation of struggle among students (Willis & Fitzpatrick, 2020). Programs like food pantries and subsidised meal schemes have emerged to mitigate these challenges (Willis & Fitzpatrick, 2019). Yet, their full impact on students' holistic well-being is only beginning to be understood.

Studies have shown that a substantial proportion of college students experience food insecurity, with rates often exceeding those of the general population (Bruening et al., 2017; Goldrick-Rab et al., 2019). This lack of consistent access to nutritious food can lead to heightened stress, poor concentration, and reduced academic engagement (Martinez et al., 2018). Moreover, students from marginalized backgrounds—including first-generation students and those from low-income households—are disproportionately affected (Nazmi et al., 2019). Institutional responses, such as campus food pantries and wellness programs, have emerged as critical interventions, yet their accessibility and impact on long-term student outcomes remain areas for continued evaluation (El Zein et al., 2019).

While food insecurity among university students in Malaysia is gaining recognition, it is often still perceived as a peripheral issue. However, empirical evidence suggests otherwise. A study by Nurul Hudha et al. (2020) reported that 60.9% of students in public universities in Peninsular Malaysia were food insecure, with 22% experiencing moderate food insecurity and 38.9% facing mild insecurity. Similarly, Nur Izzati et al. (2022) found that 54.4% of students at International Islamic University Malaysia (IIUM) experienced food insecurity, and 21.5% reported very low food security. In Universiti Sains Malaysia (USM), 44.8% of students were found to be food insecure (Nur Izzati et al., 2022). These data points indicate that food insecurity is not merely a perception but a significant and widespread concern. It reflects a hidden crisis among students who may be reluctant to disclose their struggles due to stigma or fear of judgment. Thus, the perception of food insecurity underestimates its actual prevalence and severity.

However, a recent investigation by Noor et al. (2024) into pro-environmental and lifestyle behaviour

among UiTM students highlighted that limited access to sustainable food choices and essential resources can suppress students' overall quality of life. The study also emphasised internal psychological factors—like self-efficacy and environmental consciousness—which align with attribution theory and help explain why some students are more likely to seek out assistance than others. This points to the importance of considering both internal motivations and external conditions when designing food support systems. In this context, university-initiated programs such as the PitStop Corner by HEP UiTM serve as nutritional safety nets and platforms for promoting inclusivity, emotional support, and academic resilience among vulnerable student populations.

Social Support and Student Well-being

Social support is widely recognised as a multidimensional construct encompassing emotional support (e.g., empathy, reassurance), informational support (e.g., advice, guidance), and tangible support (e.g., food, shelter, or services). Robust literature emphasises that such support systems act as psychological buffers against stress and academic burnout, especially for students facing financial or social challenges (Shepherd et al., 2024). Emotional reassurance can enhance students' resilience, while tangible aid, like access to food, addresses immediate physiological needs, and informational support facilitates problem-solving and academic persistence.

In the higher education context, social support has long been identified as a key determinant of students' well-being. It encompasses emotional, informational, and instrumental support provided by family, friends, peers, and institutional networks, which can buffer the negative effects of stress and contribute to enhanced mental health (Cohen & Wills, 1985). Research suggests that strong social support networks are associated with improved academic performance, reduced levels of anxiety and depression, and greater overall life satisfaction among students (Duchesne et al., 2017). In particular, peer support is critical in helping students navigate the challenges of university life, providing both emotional comfort and practical assistance (Jenson et al., 2018). Moreover, university programs that facilitate social connectedness, such as mentoring and student support services, have been associated with improvements in students' mental health and academic success (Barker et al., 2021).

In Southeast Asia, studies have highlighted the importance of social support for students' well-being, particularly in countries such as Malaysia, Singapore,

and Indonesia. A study in Malaysia found that students with strong peer and familial support reported lower levels of stress and were more likely to persist in their studies (Tan et al., 2020). In Indonesia, university-based support systems, particularly those that foster a sense of belonging and community, have been shown to reduce feelings of isolation and improve students' mental health outcomes (Purnama et al., 2021). These findings suggest that social support plays a crucial role in promoting student well-being and resilience, underscoring the need for universities to invest in comprehensive support systems that cater to the diverse needs of students.

However, studies often overlook these non-material dimensions of support. Much of the academic focus has been on addressing material deprivation (Mohd Nasir & Mat Yusoff, 2021), while less attention is paid to the psychosocial dynamics that accompany program participation, such as perceptions of dignity, inclusion, and stigma. Food assistance programs, such as PitStop Corner by HEP, may serve as welfare interventions and as instruments for building community and fostering student belonging, elements central to mental health and institutional trust. Research published in *Jurnal Personalia Pelajar* underscores that internal psychological factors—like self-efficacy, motivation, and internal attribution—play a critical role in determining how students engage with social support structures. When students perceive themselves as valued and supported members of a community, they are more likely to benefit emotionally and academically from such programs. Conversely, a lack of emotional or peer support, even in the presence of material aid, can diminish the program's impact. Thus, understanding how students perceive and experience support, not just its availability, is essential for maximising the outcomes of campus-based aid initiatives.

Accessibility and Student Engagement with Welfare Services

Accessibility is a pivotal determinant of student engagement with campus welfare services, encompassing both tangible elements—such as location, operating hours, and ease of registration—and intangible aspects like perceived psychological accessibility, including feelings of being welcomed, safe, and well-informed (Calise et al., 2019; Garcia et al., 2024). Access to welfare services plays a crucial role in supporting students' academic and personal development; however, engagement with these services is often influenced by various factors, including awareness, stigma, and the perceived effectiveness of

the support offered. Even well-intentioned programs can falter if students perceive them as stigmatising, inconvenient, or complex. Willis and Fitzpatrick (2020) highlight that logistical inefficiencies and miscommunication often hinder the effectiveness of food assistance programs, limiting their reach and impact.

Research has highlighted that students' engagement with welfare services is highly dependent on the ease of accessibility, which includes not only physical access but also psychological and emotional accessibility (Stewart-Brown et al., 2015). In many cases, students from marginalised backgrounds, such as those from low-income or international student groups, are less likely to engage with available welfare services due to barriers such as a lack of information or fear of stigma (Tan et al., 2019). Moreover, the accessibility of digital welfare services has become increasingly important, particularly during the COVID-19 pandemic, when many universities shifted to online platforms to deliver support (Rashid et al., 2021). Tenney (2025) reported that students who had access to easily navigable online welfare resources were more likely to engage in support services, suggesting that the accessibility of welfare services, whether in-person or virtual, directly influences student participation.

In Southeast Asia, accessibility to welfare services in higher education institutions varies widely, and student engagement with these services is often shaped by institutional factors, as well as cultural attitudes toward seeking help. For example, in Malaysia, universities have increasingly integrated digital platforms to enable students to access welfare services, such as counselling, financial aid, and food assistance. A study by Lamit et al. (2014) revealed that Malaysian students with easier access to these services were more likely to engage with them, particularly when the services were integrated into existing university systems, such as course registration portals or student management apps. However, despite these improvements, a study by Sia et al. (2020) found that many students still felt uncomfortable using welfare services due to concerns about privacy and the perceived seriousness of their issues. This suggests that while digital accessibility has improved, there remains a need for cultural shifts and targeted outreach efforts to ensure that welfare services are fully utilised by all students, particularly in Asian contexts where seeking help is often seen as a sign of weakness (Wong et al., 2019).

To enhance the effectiveness of welfare programs like PitStop by HEP, it is essential to address both logistical and psychological barriers. Strategies

may include extending operating hours, simplifying registration processes, providing clear and accessible information about services, and fostering an inclusive environment that normalises help-seeking behaviour. By mitigating stigma and improving perceived accessibility, institutions can better support students' well-being and academic success. Based on the literature reviewed and the conceptual framework of this study, the following hypotheses were formulated:

H1: Perceived social support is positively associated with student well-being.

H2: Perceived accessibility of the PitStop program is positively associated with student well-being.

These hypotheses reflect the assumption that emotional, informational, and tangible support, as well as logistical and psychological accessibility, contribute significantly to students' emotional and academic resilience.

METHODOLOGY

Research Design

This study employed a quantitative, cross-sectional survey design to examine the relationship between students' perceived social support, program accessibility, satisfaction, and overall well-being. The design was appropriate for analysing the associations among multiple variables at a single point in time, and it allowed for the application of statistical techniques to test the proposed hypotheses effectively (Creswell, 2014). The target population comprised undergraduate students from UiTM Shah Alam who had either accessed or were aware of the PitStop program administered by Bahagian Hal Ehwal Pelajar (BHEP). The intended sample size was 300, based on Krejcie and Morgan's (1970) sample size determination table for populations exceeding 1,000. However, a total of 328 valid responses were ultimately collected. This higher-than-expected response rate reflects strong student interest and engagement with the topic, likely due to its direct relevance to their campus welfare experiences. The realised sample size exceeds the minimum requirement, thereby enhancing the statistical power and representativeness of the findings.

This study employed a multistage sampling design to ensure broad representation. In the first stage, students were stratified by faculty to reflect the academic diversity at the university. Stratified sampling was particularly suitable for this research

as it enhanced the representativeness of the sample and enabled comparative analysis between subgroups (Etikan & Bala, 2017). In the second stage, within each faculty, the survey link was distributed to all student groups via class representatives, using WhatsApp, the commonly used class communication channels. This method ensured efficient outreach while maintaining proportional distribution across faculties.

Data Collection

Data were collected using a structured questionnaire designed to measure key constructs, including perceived social support, accessibility, satisfaction, and overall well-being. Each construct was assessed using multiple items adapted from validated instruments in prior research and modified to suit the context of the PitStop program. The questionnaire consisted of four main sections: (1) demographic information, (2) perceived social support, (3) accessibility, and (4) overall student well-being. The items measuring social support were adapted from existing scales that assess emotional, informational, and tangible support dimensions. Accessibility items focused on both logistical (e.g., ease of access, registration) and psychological (e.g., comfort, stigma) aspects of program use. Well-being was measured through items reflecting emotional and academic functioning. All constructs were measured using a 5-point Likert scale, ranging from "1 = Strongly Disagree" to "5 = Strongly Agree."

Content validity was established through expert review involving three academics with relevant experience in student welfare, food insecurity, and survey design. Minor adjustments to item wording were made to ensure clarity and contextual relevance to the PitStop program. The reliability of the instrument was assessed using Cronbach's alpha to evaluate internal consistency across the key constructs (Tavakol & Dennick, 2011). The results demonstrated that all scales used in the study were highly reliable. The social support scale, which comprised items related to emotional impact, academic stress relief, stigma, and comfort, showed strong internal consistency with a Cronbach's alpha of 0.88. The accessibility scale, which measured aspects such as ease of registration, suitable hours, location convenience, and perceived confidence in managing hunger, yielded a Cronbach's alpha of 0.84. Finally, the student well-being scale recorded a Cronbach's alpha of 0.89, indicating high reliability in measuring emotional and academic functioning. All alpha values exceeded the acceptable threshold of 0.70, confirming that the items within each construct were consistently measuring the intended dimensions.

To ensure that only relevant participants were included, the questionnaire began with a screening question: “Have you ever accessed or are you aware of the PitStop program by HEP at UiTM?” Only respondents who answered “Yes” were allowed to proceed with the full survey. This screening step ensured that all data collected came from students who had at least some level of exposure to the program, aligning with the study’s objectives. The survey was administered online via Google Forms, a platform chosen for its accessibility and ease of use. To ensure broad reach, the questionnaire was distributed through official university channels, including faculty email lists, student WhatsApp groups, and UiTM’s internal student portal. This multi-channel strategy was implemented to engage students across various academic disciplines and increase participation. Clear instructions were provided at the beginning of the questionnaire, including a brief explanation of the study’s purpose, assurance of voluntary participation,

and guarantees of confidentiality to foster trust and encourage honest responses.

The data collection spanned four weeks, providing ample time for students to participate. To maintain engagement and increase response rates, weekly reminders were disseminated through the same channels. These reminders reinforced the value of student input in enhancing the PitStop program and encouraged completion of the questionnaire. Students were able to complete the survey at their convenience using any device—smartphones, tablets, or computers—ensuring flexibility and ease of access. This structured and strategic data collection process was designed to ensure data quality, reliability, and representativeness, thereby supporting the overall objectives of the research.

Statistical Data Analysis

The researcher utilised SPSS version 27 to analyse the

TABLE 1. Demographic Profile

Profile	Frequency (N)	Percentage (%)
Gender		
Male	205	62.5
Female	123	37.5
Age		
18-20	129	39.33
21-25	194	59.15
26-30	5	1.52
Discipline Classification		
Engineering	28	8.54
Science and Technology	159	48.48
Social Sciences	141	42.99
Semester		
One	91	27.74
Two	46	14.02
Three	60	18.29
Four	52	15.85
Five	21	6.4
Six	39	11.89
Seven	11	3.35
Eight	8	2.44

data collected from the annual reports. This software enables the analysis of data through a range of methods and tests, including both graphical and statistical approaches. Among its features are statistical data analysis techniques, including multivariate analysis, descriptive analysis, analysis of variance, correlation, and factor analysis, among others.

SPSS also facilitates the evaluation of a regression model's adequacy, including verification of the regression model's assumptions. It proved instrumental in processing the secondary data previously collected, assisting with tasks such as identifying logical inconsistencies and data cleaning. Additionally, SPSS supports the analysis required to achieve the study's primary goal of evaluating the Social Support and Accessibility Factors in the PitStop by the HEP Program and its Influence on Student Well-being. This process is integral to the hypothesis-testing phase of the research.

RESULTS AND DISCUSSION

TABLE 1 shows the profile of the respondents. Usable questionnaires were received from 328 respondents. According to the data, the majority of respondents are male ($n=205$, 62.5%), while the remaining respondents are female ($n=123$, 37.5%). Next, the majority of respondents are from the 21- to 25-year-old group ($n=194$, 59.15%). Meanwhile, most respondents are from a science and technology degree program ($n =$

159, 48.48%). Finally, most respondents are semester one students ($n = 91$, 27.74%).

Social Support and Overall Wellbeing

The findings underscore that students perceive the PitStop by HEP program as a critical support mechanism across emotional, informational, and tangible dimensions: The top-rated indicators—‘Recommend Program’ (4.26), ‘Comfortable Anytime’ (4.20), and ‘Willingness to Reuse’ (4.15)—highlight that the program is well-accepted and normalized among students. ‘Plan Regular Use’ (4.10) suggests that ongoing perceived utility may help reduce food insecurity and academic stress in the long term. Notably, a strong positive correlation (~ 0.91) was observed between ‘Emotional Impact’ and ‘Academic Stress Relief’, indicating that students who feel emotionally supported also experience significant stress reduction.

However, lower scores on comfort using the program without fear of judgment suggest that social stigma persists, even in a supportive environment. This aligns with attribution theory, which posits that internal perceptions (like self-worth, embarrassment) heavily influence help-seeking behaviour, even when tangible support is accessible. In light of the literature, particularly the findings in the referenced article, this suggests that while infrastructural support is essential, interpersonal and psychological reinforcement (e.g., destigmatization campaigns, peer endorsements) is equally critical to program success.

TABLE 2. Normality and Reliability Results for Social Support Indicators

Variable	Mean	Std Dev	Skewness	Kurtosis
Emotional Impact	3.91	0.82	-0.19	-0.61
Academic Stress Relief	3.82	0.88	-0.19	-0.42
No Stigma	3.68	0.85	0.09	-0.37
Comfort Using Program	2.66	1.16	0.24	-0.62
Reduce Social Stigma	3.88	0.82	-0.07	-0.75

The results presented in Table 2 indicate that all social support indicators demonstrated acceptable levels of normality, with skewness and kurtosis values falling within the recommended range of -1 to +1 and -2 to +2, respectively. Participants generally reported positive perceptions across most indicators, as reflected in the high mean scores for Emotional Impact ($M = 3.91$, $SD = 0.82$), Academic Stress Relief ($M = 3.82$, $SD = 0.88$), No Stigma ($M = 3.68$, $SD =$

0.85), and Reduce Social Stigma ($M = 3.88$, $SD = 0.82$). These results suggest that the social support initiatives were perceived as emotionally beneficial, effective in alleviating academic stress, and successful in mitigating stigma. However, the indicator Comfort Using Program recorded a lower mean ($M = 2.66$, $SD = 1.16$), indicating that participants were less comfortable utilising the available support services. Despite this, the normality of the data distribution across all variables

supports the use of parametric statistical analyses for subsequent hypothesis testing and modelling.

A central insight from the finding is that students benefit not just from tangible food assistance but from the emotional assurance and psychological comfort embedded in the support experience. For student welfare programs like PitStop to reach their full potential, they must be intentionally designed to foster a sense of dignity, belonging, and emotional safety. This involves recognizing that students may experience feelings of shame, anxiety, or diminished self-worth when seeking help. To counteract this, universities can adopt trauma-informed design principles, creating welcoming, non-institutional environments that promote comfort and privacy. Soft design elements, such as warm lighting, inclusive signage, and empathetic staff interactions, can help minimise the clinical or transactional feel of food assistance. Additionally, incorporating aspects of peer-led support, such as having student ambassadors share testimonials or act as guides, can normalise program usage and affirm that seeking support is a sign of resilience, not weakness. Emotional design also extends to communication; messaging should be student-centred, using empowering narratives that reframe food assistance as an innovative strategy for self-care and academic success.

Accessibility Perceptions

The analysis of accessibility factors in the PitStop by HEP program illustrates a positive student reception in key logistical areas (see Table 3), with "Easy Registration" (Mean = 3.80) and "Confidence Managing Hunger" (Mean = 3.91) leading the ratings. These indicate that the technical entry barrier is low and the psychological impact of the service is reassuring for students managing food insecurity. However, "Access Difficulty" (Mean = 2.93) and "Location Not Convenient" (Mean = 3.02) scored lowest, exposing logistical bottlenecks that could restrict program access. These findings reinforce the notion that even high-quality services may underperform if poorly situated or scheduled.

A noteworthy finding is the strong correlation ($r \approx 0.93$) between "Confidence Managing Hunger" and "Academic Control," which underscores that accessibility isn't just about location or hours but about fostering psychological stability that enables academic focus. Together, these insights point toward the need for dual-layer improvements: (1) Structural/logistical enhancements (e.g., improved locations and access during peak student hours) and (2) Awareness and user comfort initiatives to boost student confidence and the normalisation of usage.

TABLE 3. Normality and Reliability Results for Accessibility Perceptions

Items	Mean	Std Dev	Skewness	Kurtosis
Location Not Convenient	3.02	1.15	-0.07	-0.57
Access Difficulty	2.93	1.16	0.04	-0.69
Suitable Hours	3.63	0.93	-0.08	-0.40
Easy Registration	3.80	0.90	-0.13	-0.62
Confidence Managing Hunger	3.91	0.85	-0.14	-0.84

The finding indicates that, while the PitStop program was positively rated for features like easy registration and confidence in managing hunger, students identified persistent logistical issues, particularly with physical access and scheduling. These challenges, if unaddressed, risk undermining program participation and impact. Managers should thus prioritise strategic enhancements to visibility and operational accessibility. First, campuses can conduct spatial audits to assess

whether current program locations align with student traffic patterns, identifying more central or high-traffic areas for future expansion. Consideration should also be given to students with mobility issues or limited time, such as working students or parents; extending hours into evenings or weekends could offer more flexibility. In parallel, information about the program should be made more visible and intuitive. Many students remain unaware of how to access or when to utilise such

services. Clear digital maps, push notifications via student portals, and QR-code-based information boards across campus can increase awareness. Integrating the program into university orientation sessions or student resource hubs can also raise visibility, positioning it as a standard feature of campus life rather than a special intervention for "needy" students.

Relationship Between Perceived Social Support, Accessibility, and Well-being

The results of the multiple linear regression analysis revealed that perceived social support and accessibility are both significant predictors of student well-being (see Table 4).

TABLE 4. Multiple Linear Regression

Predictor	B (Coef)	Std. Error	t	p-value
Intercept	0.698	0.121	5.76	<.001
Perceived Social Support	0.626	0.027	23.52	<.001
Accessibility	0.121	0.016	7.45	<.001

The results of the multiple linear regression analysis revealed that perceived social support and accessibility are both significant predictors of student well-being. The model explained approximately 47% of the variance in student well-being ($R^2 = 0.469$), indicating a strong explanatory power and a meaningful contribution of both predictors to students' emotional and academic resilience. The model was statistically significant overall ($F(2, 701) = 309.6, p < .001$), indicating that the combined effects of perceived support and access have a substantial impact on student well-being.

Among the two predictors, perceived social support emerged as the strongest predictor of student well-being, with an unstandardized coefficient (β) of 0.626 and a highly significant p-value ($< .001$). This suggests that for each one-point increase in perceived social support, student well-being increased by 0.63 points, all else being equal. This finding aligns with existing literature emphasizing the importance of emotional and social resources in promoting students' coping ability, mental health, and academic performance (Shepherd et al., 2024; Watson et al., 2021). In the Malaysian context, Tan et al. (2020) similarly found that students with strong peer and familial support experienced reduced stress and greater academic persistence. Emotional reassurance and peer engagement have also been shown to buffer psychological distress in higher education settings (Jenson et al., 2018).

On the other hand, accessibility also had a statistically significant effect on well-being, albeit to a lesser extent ($\beta = 0.121, p < .001$). This suggests that when students perceive the PitStop program as accessible through convenient locations, appropriate

hours, and minimal administrative barriers, they experience measurable improvements in their well-being. This supports the argument made by Garcia et al. (2024) and El Zein et al. (2023) that logistical and psychological ease of access is essential for ensuring the efficacy of food and welfare programs. Moreover, Wong et al. (2019) and Sia et al. (2020) found that students are more likely to engage with welfare services that are low-barrier, well-communicated, and perceived as part of normal campus life. In the Malaysian context, where many students come from B40 households or face urban cost-of-living pressures, ease of access to food and welfare services is not merely convenient but essential for educational equity (Jumat & Othman, 2020).

CONCLUSION

This study offers a nuanced understanding of how social support and perceived accessibility within a university-based food assistance initiative—namely, the PitStop by HEP program—collectively influence student well-being. The research confirms that food insecurity among university students cannot be fully addressed through material provision alone; rather, emotional reassurance, informational clarity, and psychological accessibility are equally vital. The findings underscore that perceived social support, especially emotional and community-based validation, has the most significant positive impact on students' emotional health and academic functioning. This reinforces the notion that when students feel seen, heard, and supported, they are better equipped to manage stress, maintain academic resilience, and remain engaged in their studies.

While accessibility features such as easy registration and service confidence were rated positively, critical issues like inconvenient location and access difficulty suggest logistical shortcomings that can dampen overall program effectiveness. Furthermore, the persistent stigma surrounding the use of food support services, despite the emotional value students attach to them, indicates that broader cultural narratives around help-seeking still need to be transformed. The correlation between confidence in managing hunger and academic control suggests that interventions that instill psychological safety can yield both immediate and long-term benefits for student performance and retention.

Thus, to ensure that welfare initiatives remain aligned with student needs and expectations, institutions must embed continuous feedback mechanisms into the fabric of their support services. This study revealed a high level of engagement with the PitStop program, but also unearthed areas where perception gaps or unmet needs remain. Establishing structured channels for regular student input, such as semester-based surveys, digital suggestion boxes, or moderated focus groups, can provide real-time insights into evolving barriers and opportunities. Importantly, feedback collection must go beyond administrative box-ticking; students need to see tangible outcomes from their input to trust the process. Universities should publicly disclose how feedback is used to drive changes (e.g., new hours, improved signage, restructured intake processes).

One of the key takeaways from this study is the crucial need for universities to adopt a holistic approach to food assistance programs, one that integrates both material and emotional support. While tangible food provisions undoubtedly address immediate hunger, the emotional support provided through services like the PitStop program is just as vital. The data suggest that students who feel emotionally supported through their engagement with the program report greater well-being and improved academic outcomes. As such, universities should not only prioritise food accessibility but also ensure that their welfare services are emotionally responsive. Training staff to offer empathetic and non-judgmental interactions, along with creating a culture of support around these programs, is essential in helping students feel safe and valued. As the stigma around seeking food assistance continues to persist, cultural shifts within the university environment, where help-seeking is reframed as a sign of strength, are necessary for increasing program utilisation and effectiveness.

The success of the PitStop program highlights its potential as a model for replication across other higher learning institutions in Malaysia. Its integration

of emotional support and accessible food assistance offers a comprehensive approach that can be adapted to different campus settings. Similar initiatives, such as Universiti Sains Malaysia's Gobok Rezeki and Universiti Kebangsaan Malaysia's food voucher schemes and Menu Siswa Rahmah, reflect a growing recognition of student food insecurity nationwide. However, PitStop distinguishes itself by combining nutritional aid with psychosocial support, which may enhance student engagement and well-being more holistically. In this regard, the program could inform future strategies under the Ministry of Higher Education's policy direction on student welfare, offering a scalable and student-centric framework that other institutions can tailor based on their student demographics and resource availability.

LIMITATIONS AND FUTURE RESEARCH

The study may be limited by the sample size and demographic characteristics of the participants, which may not fully represent the broader student population. For example, students who were more engaged with the PitStop program might have different experiences compared to those who did not use the service, potentially leading to selection bias. Furthermore, the study was conducted at a single institution or a few universities, limiting the generalizability of the findings to other higher education contexts, especially those with different cultural, social, and institutional dynamics.

As the study appears to be cross-sectional, it captures only a snapshot of student engagement and well-being at one point in time. Longitudinal studies are needed to track changes over time, particularly to understand the sustained impact of welfare services on student well-being, academic performance, and retention.

Future research could investigate the long-term effects of welfare services, such as the PitStop program, on students' academic performance and retention rates. Longitudinal studies that track students from their first year through graduation could provide valuable insights into how continued engagement with food assistance programs influences overall academic success and student retention, particularly among vulnerable groups such as low-income or international students.

While this study touches on the emotional and psychological benefits of food assistance programs, further research could delve deeper into the intersection of food insecurity, mental health, and academic stress. Studies could examine how food insecurity interacts with other stressors, such as academic pressure, financial difficulties, and personal issues, to affect

students' mental health and well-being. This research could inform the development of integrated services that address both nutritional and psychological needs.

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