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HEALTHY EATING INTIATIVE
PROGRAM REPORT
2024

Prepared For:
Kent County Council

Prepared By:
Diversity House

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1.0 Executive summary

Healthy eating is a cornerstone of overall well-being, yet dietary habits and nutritional challenges can vary significantly across different cultural groups. Understanding these variations is particularly important in multicultural regions. Hence, participatory intervention programme was conducted by Diversity House on behalf of Kent County Council to explore the eating habits, preferences, and challenges faced by the Black African, Asian and other Minority ethnic (BAME) population regarding healthy eating within Swale region.

Over the past 3 months, Diversity house has implemented several key initiatives including cooking classes, nutritional health seminars, food labels, advice on drinking more fluid, and engagement in regular exercises aimed at promoting the healthy eating habits and healthy lifestyle among the target audience. Throughout this period, progress has been made in raising awareness about the importance of healthy eating and moderate behavioural changes have occurred.

Stakeholder engagement has been robust with active participation from community members, healthcare professionals, research team and other diversity house partners. Despite the challenges posed by reaching out to the other local community, our team has successfully adapted to virtual formats and leverage digital platforms to reach a wider audience. Feedback from participants has been overwhelmingly positive, indicating a strong demand for continued support and resources in this area.

Looking ahead, we remain committed to advancing our healthy eating initiatives and expanding our reach to underserved communities. By building on our successes and addressing key challenges, we aim to create lasting change and improve the overall health and well-being of our community.

1.1 Reach

The Healthy eating initiative programme had a broad reach, as it was delivered to BAME (Black African, Asian and other Minority Ethnic) groups within Swale region by Diversity House and a consortium of 7 partners.

The programme engaged a diverse population, with participants representing over 4 distinct ethnic groups from 14 different countries. This diversity allowed the initiative to cater to the varying cultural backgrounds and dietary preferences.

Additionally, the programme utilized participant weight measurements taken before the

intervention to identify the level of obesity within the target population. This data-driven approach allowed us to tailor the programme's content and activities to address the specific dietary challenges.

1.2 Effectiveness

The healthy eating initiative programme demonstrated promising results in improving the dietary habits and health outcomes of the participating Black African, Asian and other minority ethnic communities.

Participant feedback and post-programme assessments indicated that the combination of educational seminars and hands-on cooking classes helped to enhance participants' nutrition knowledge and motivate them to incorporate more diverse, nutrient-dense foods into their daily lives.

The average changes in participant weight suggested that the programme had identifiable progress in addressing obesity rates within the target population prior to the intervention.

1.3 Adoption

Diversity House was contracted to deliver the programme to the targeted population within Swale area and we were supported by 7 other bodies such as Asda, Morrison, ONE YOU, Adult Community Health Services (nutrition and diets), M&S, Swale Borough Council and Community volunteering chef.

1.4 Implementation

The initiative was well received by the targeted audience while Diversity House conducted a series of in-person cooking classes, focusing on teaching participants how to prepare nutritious meals using fresh ingredients and healthy cooking methods. Also, educational seminars on nutrition covering various topics such as understanding nutritional labels, meal planning, and the importance of balanced diets have been organised to provide participants with practical knowledge and tips for healthier eating, while culturally tailored recipe books and online resources have been developed to provide participants with easy-to-access information and recipes for incorporating healthy eating habits into their daily lives.

2.0 Introduction

Diversity House, located in Sittingbourne, is a charitable organization dedicated to promoting social support for individuals from all backgrounds and countries residing in the Swale, Kent and Medway area. This study seeks to delve into the eating habits, preferences, and cultural barriers to healthy eating faced by BAME (Black African, Asian and other Minority Ethnic) groups within Swale by gathering insights directly from community members aiming to develop educational materials that are culturally relevant and effective in promoting healthier eating patterns.

Healthy eating involves consuming a balanced and varied diet that provides essential nutrients for optimal body function. This includes a mix of macronutrients (carbohydrates, proteins, and fats), micronutrients (vitamins and minerals), and adequate hydration. It emphasizes choosing foods that promote overall health, maintain energy levels, and reduce the risk of chronic diseases. Eating behaviors are central to an adolescent's physical development, health, and identity and are determined by a wide range of factors, including knowledge, attitudes, socio demographic characteristics, and behavioral, familial, and lifestyle factor (K. Croll et al. 2008).

This effort requires collaboration among community leaders, healthcare providers, policymakers, and the individuals themselves to create sustainable, health-promoting environments. By fostering such partnerships, it is possible to develop and implement healthy eating programmes that respect cultural diversity and promote overall health and well-being within the BAME communities.

2.1 Background

The Kent County Council Public Health funded the study. Swale is the primary region covered by this study where Diversity House will be conducting this research and findings focusing on promoting healthy eating among the BAME communities to the three main objectives of the Kent County Council Public Health.

Swale is a local government district in Kent, England, located in the northeast part of the county. According to ONS Census 2021 data, the Swale region has seen significant population growth in the past decade, increasing by 11.7% between the 2011 and 2021 censuses. As of the 2021 census, Swale's population stands at around 151,700 residents. Swale has an ethnically diverse population, in 2021, 93.8% of residents identified as White, 2.3% as Black, Black British, Black

Welsh, Caribbean or African, 1.5% as Asian, mixed ethnic groups with a score of 1.8% and other ethnic groups recorded 0.5%, 59.9% identified to be economically active while 40.1% were economically inactive (ONS, GOV.UK, n.d).

The Index of Multiple Deprivation (IMD) is an official measure of relative deprivation for local areas in England (Consumer Data Research Centre, n.d). The IMD is calculated from several different indicators, which cover a range of economic, social and housing issues, to produce an overall score for each local area. This phenomenon of "multiple deprivation" disproportionately affects ethnic minority communities, as evidenced by the 2011 Census data. According to Strategic Commissioning Statistical Bulletin (2020), Swale is ranked as the second most deprived local authority in Kent across all summary measures, having identified to fall within 10% most deprived areas in Kent. Figure 1 shows the deprivation deciles of each lower layer super output area covering Swale.

The diverse and economically disadvantaged nature of the Swale region underscores the need for a culturally relevant healthy eating intervention targeted at Black African, Asian and other minority group in Swale. By understanding their unique dietary habits, preferences, and barriers, we can develop effective strategies to promote healthier eating patterns and improve the overall well-being of these populations.

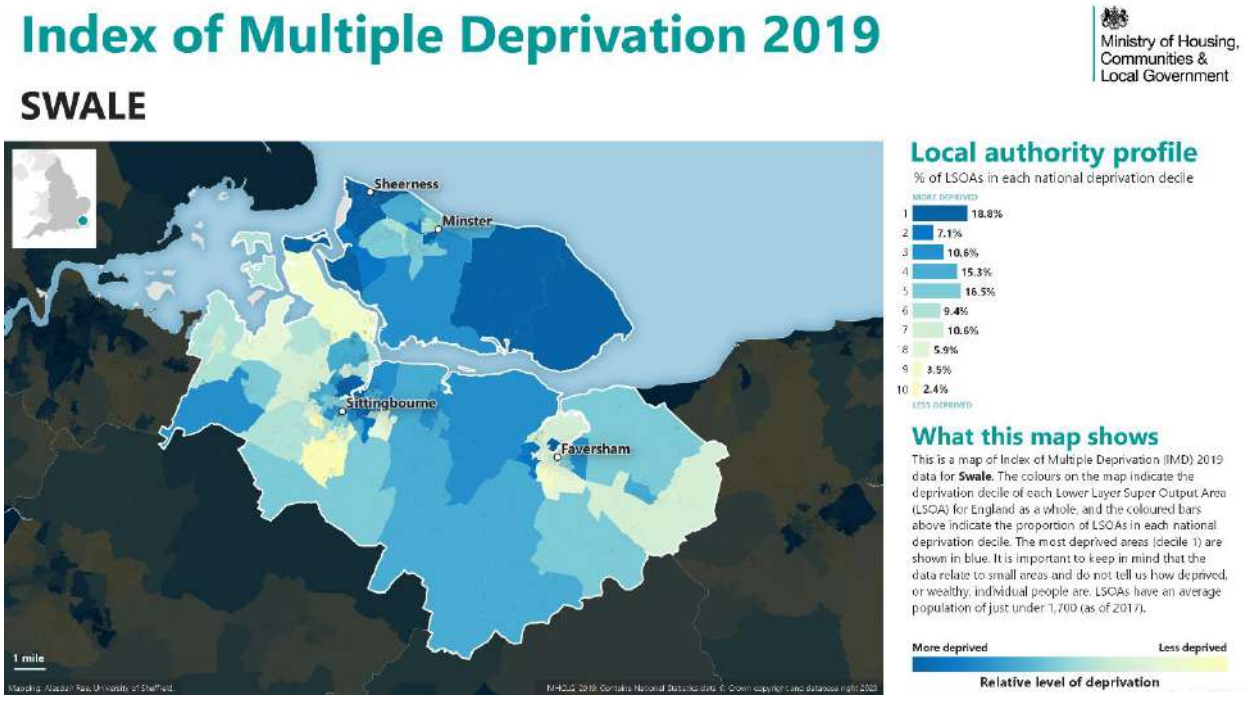


Figure 1: Index of Multiple Deprivation showing the % of LSOAs in each national deprivation deciles (Source: Ministry of Housing, Communities and Local Government, 2019)

2.2 Objectives

A. To identify **cultural barriers** affecting the adoption of healthy eating habits in BAME communities.

B. To design **innovative educational techniques** that are culturally relevant and accessible to the communities.

C. To assess the **effectiveness** of these techniques in improving nutrition knowledge and promoting healthier eating behaviors.

2.3 Activities

Diversity House, a community-based organization, has implemented a comprehensive intervention programme to promote healthier lifestyles among participants from BAME (Black, Asian, and Minority Ethnic) groups. The programme includes twice-weekly cooking classes and health seminars focused on nutrition (see Figures 2 and 3).

To facilitate the programme, Diversity House secured a suitable venue and necessary resources in collaboration with a volunteer community chef. The cooking classes featured culturally diverse recipes catering to the participants' ethnic backgrounds (see Figures 4 and 5). Each cooking class lasted approximately 3 hours, offering interactive activities and engaging interventions. The research team closely monitored participants' progress, attitudes, and behaviors throughout the programme. The intervention programme was conducted weekly, with attendance records and progress reports meticulously maintained to evaluate its effectiveness.

Additionally, Diversity House designed educational materials in the form of cartoons, covering a wide range of culturally diverse menus, healthy cooking practices, weekly meal plans, and recommended fruit and vegetable consumption. These materials, developed by nutrition experts from the adult community health services, were distributed to participants for their reference and use.

By fostering a collaborative environment and providing comprehensive resources, Diversity House aimed to empower BAME groups to adopt healthier lifestyles and improve their overall well-being.

Figure 2: An image from the health seminar on nutrition

Figure 3: Training session on choosing appropriate ingredients

Figure 4: Training session on cooking with healthy recipe

Figure 5: Participants tasting food at the cooking class

2.4 Challenges

In implementing a community engagement programme, we tackled several challenges to ensure full participant involvement. For those facing long travel distances, we created a WhatsApp community, which enabled remote access to programme resources and support. This digital platform allowed participants who couldn't attend in person to stay connected and engaged.

To address language and literacy barriers among non-English speaking participants, we used visual aids and graphics to convey information more clearly. We also encouraged these participants to attend English classes to improve their language skills, significantly enhancing their comprehension and participation in the programme.

We noticed habitual late arrivals among some participants, indicating resistance to change. To combat this, we used culturally appropriate messaging and storytelling to link the benefits of punctuality and healthy eating to their cultural values and traditions. This approach fostered greater acceptance and commitment to the programme's goals.

For Muslim participants who needed to leave early on Fridays for prayers, we adjusted our schedule to end sessions by 1:00 PM. This change respected their religious commitments and minimized disruptions, maintaining their engagement and participation.

A cultural misunderstanding incident during one session highlighted the need for greater cultural competence among our team. We provided cultural competence training to enhance their understanding of diverse cultural backgrounds and improve their ability to handle cultural differences sensitively and effectively. See appendix 4 for details

2.5 Engagements

These activities were carried out in partnership with the Sittingbourne community local store (ASDA), community volunteer chef who made the healthy cooking, a representative from ONE YOU who talked about lifestyle improvement, and a representative from the adult community health services (nutrition and diets) who lead the health talk on the dietary needs.

2.6 Partners

Below is the commissioner, delivery club and other partners that contributed towards the success of the programme.

Commissioner: Kent County Council

Delivery club: Diversity House

Other partners: other partners are listed below in table 1 with their respective roles.

Table 1: Other partners that participated

#	Company Name	Role
1	Morrison	Support with providing foods, fruits, vegetables and participated in initiative
2	M&S	Support with providing foods
3	ASDA	Support with providing foods, fruits, vegetables and participated in initiative
4	ONE YOU	Lifestyle Adviser for swale Health improvement – Adult directorate
5	Adult community health services (nutrition and diets)	Diagnoses and treats dietary and nutritional problems at Diversity house.
6	Swale Borough Council	Representing Swale and supporting the community in achieving the aim and objective of the programme
7	Community Volunteering Chef	Community chef that speaks 3 different languages (English, Bengali, and Hindi) helps at cooking classes and preparing recipes and provides best practice to cooking healthily.

2.7 Population

Diversity House conducted cooking classes and nutritional health seminars for Black African, Asian, and other minority ethnic groups within the Swale region. Below is a list of the ethnicities that participated.

Table 2: List of participated ethnics

#	Ethnics	Countries
1	Black African	Nigeria, Kenya, South Africa, Zimbabwe, North Africa
2	Asian	Bangladesh, India, Nepalese, Chinese
3	British White	England
4	Others	Poland, Latvia, Turkey, Gypsy and travelers, Lithuania, and Bulgaria.

3.0 Methods

3.1 Conceptual model

This study adopted COM-B model of behavior change. The COM-B model (Capability, Opportunity, Motivation, and Behavior) is a widely recognized framework in behavioral science and health psychology that explains the factors influencing human behavior (Willmott, Pang and Rundle-Thiele, 2021). The model was developed by researchers at University College London, led by Professor Susan Michie (Michie, Atkins and West, 2014). According to West, Robert, and Michie (2020), the COM-B model suggests that for a behavior to occur, an individual must have the capability, the opportunity, and the motivation to perform that behavior. The interactions and interplay between these three components determine the likelihood and frequency of the behavior. Hence, the COM-B model was used as a starting point for developing healthy eating interventions, as it helps identify the specific factors that need to be addressed to encourage or modify eating behavior of the participants. By understanding the relevant capabilities, opportunities, and motivations, Diversity House can design more effective and targeted interventions to promote positive behavioral changes among the BAME groups.

3.2 Community Assessment

Pre-Intervention assessment was carried out to learn about the dietary behavior of the participants. Conducted 100 questionnaire surveys, some questions were asked to know the participants' level of consuming fruits and vegetables, processed or fast food and the adoption of healthier cooking method.

3.3 Participants Recruitment

Participants of the study were recruited within the Swale and its surroundings using informative flyers that detailed the study's purpose and the targeted audience. These flyers were distributed among partners of the initiative and the BAME groups through community outreach. Digital channels like WhatsApp groups, Facebook, Next-door neigbour app and Instagram were also leveraged to connect with the target audience. Interested individuals were then added to a WhatsApp group for further engagement. See appendix 1 for flyer

3.4 Informed consent

Prior to participation, individuals are provided with detailed information about the study, including its purpose, procedures, and their rights as participants. Informed consent is obtained

from all participants orally and in a written form. The research team made sure that the participants understood the voluntary nature of their involvement and the confidentiality of their responses. See appendix 3 for consent form

3.5 Sample size

A total of n=100 participants for survey and n=20 for interview among the participants from the diverse background of B.A.ME communities within Swale and its surroundings.

3.6 Training and materials

Diversity House conducted a multi-pronged approach, including in-person cooking classes, educational nutrition seminars, and the development of culturally tailored resources, to equip the target BAME population with the knowledge and skills to adopt healthier eating habits.

3.7 Programme Delivery

The 3-month programme featured twice-weekly cooking classes and educational seminars, delivered by a team of experts and community volunteers. This team included NHS professionals, chefs, and nutritionists, all working together to effectively engage the target BAME population and help them adopt healthier eating habits.

3.8 Monitoring and Evaluation

Attendance and weekly progress report were monitored for cooking classes and health seminars on nutrition. Pre and Post assessment survey were compared to measure impact.

3.9 Sample Collection and Analysis

This study employed a mixed-method research approach, incorporating both quantitative and qualitative components. A total of 100 pre-surveys and 91 post-surveys were distributed. Of these, 86 pre-surveys and 82 post-surveys were retrieved and checked for completeness to ensure the integrity of the data and avoid potential skewness during the analysis. This resulted in a final sample of 85 pre-surveys and 80 post-surveys for the quantitative analysis.

The quantitative data was coded and analyzed using IBM SPSS Statistics 27.0.1. Additionally, a qualitative component was incorporated into the study. Twenty (20) subsets of the survey respondents were recruited for semi-structured interviews with open-ended questions. The responses from these interviews were transcribed using NVivo software 14 and then analyzed for emerging themes using QDA Miner 6.

The adoption of a mixed-method approach allowed for a comprehensive understanding of the research topic, leveraging the strengths of both quantitative and qualitative techniques to

provide a more holistic and robust analysis of the findings.

Table 3: Survey and Interview Response Rate

#	Survey	Pre	Post
1	Administered	100	91
2	Retrieved	86	82
3	Completed	85	80
Interview			
1	Conducted	20	
2	Completed	20	

4.0 Results

This section presents the results from the interview, the pre-intervention survey, post-intervention survey, the result of comparative analysis conducted between the pre-intervention and post-intervention survey to highlights statistically significant differences, changes in frequency between the pre-intervention and post-intervention data. Finally, the qualitative themes are presented with illustrative quotes.

4.1 Demographics

The results of the demographics of participants for the survey are detailed in this section and presented in table 4 below. Table 4 shows the demographic data revealing a diverse participant pool with 54.12% females and 45.88% males. Ethnic representation includes 36.47% Black African, 28.24% Asian, and 12.94% British White, and 22.35% from other minority groups. Religious affiliations show 45.88% Christians, 40.00% Muslims, and 14.12% from other religions. Age distribution indicates that 25.88% are between 25-34 years old, 24.71% are 45-54 years old, 21.18% are 35-44 years old, 14.12% are 55-64 years old, 8.24% are 65 or older, and 5.88% are 18-24 years old. Employment status data highlights that 42.35% of participants are employed, 11.77% are retired, 20.00% are unemployed, and 25.88% have disabilities. This demographic overview underscores the diversity in gender, ethnicity, religion, age, and employment status among the participants, providing a comprehensive understanding of the community's composition and aiding in tailoring health initiatives to meet their varied needs effectively.

The demographic data from Table 5 provides insights into the interview participants' composition. The gender distribution shows most females (65%) compared to males (35%). Ethnically, more than half of the participants are Black African (55%), followed by Asians (20%), British Whites (10%), and other minority groups (15%).

In terms of religion, Christians represent half of the participants (50%), Muslims make up 40%, and the remaining 10% follow other religions. Age-wise, the largest groups are those aged 45-54 years (45%) and 35-44 years (35%), with smaller percentages in the 18-24 years (10%) and 25-34 years (10%) categories.

Regarding employment status, half of the participants are employed (50%), 30% are unemployed, and 20% have disabilities. This demographic breakdown highlights the diverse backgrounds and varying employment statuses of the participants, reflecting a wide range of experiences and perspectives.

Table 4: Survey Demographics

S/N	Gender	Frequency	Percentage
1	Male	39	45.88%
2	Female	46	54.12%
Ethnicity			
1	Black African	31	36.47%
2	Asian	24	28.24%
3	British White	11	12.94%
4	Other Minority	19	22.35%
Religion			
1	Christian	39	45.88%
2	Muslim	34	40.00%
3	Others	12	14.12%
Age			
1	18-24yrs	5	5.88%
2	25-34yrs	22	25.88%
3	35-44yrs	18	21.18%
4	45-54yrs	21	24.71%
5	55-64yrs	12	14.12%
6	65 above	7	8.24%
Employment Status			
1	Employed	36	42.35%
	Retired	10	11.77%
2	Unemployed	17	20.00%
3	Disabilities	22	25.88%

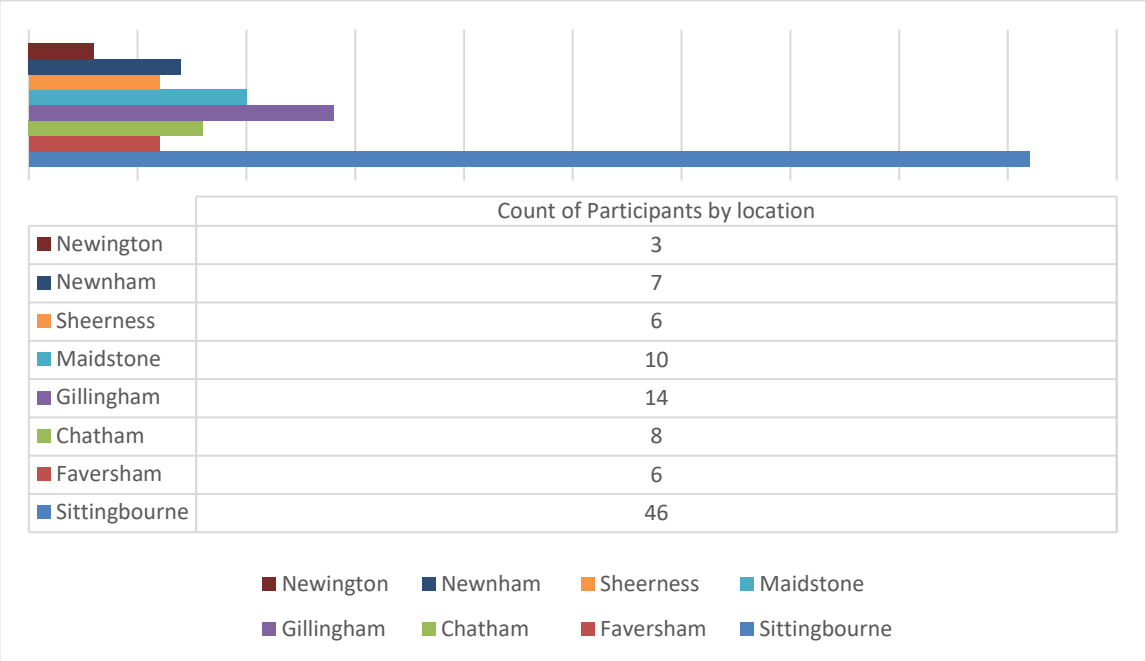
Table 5: Interview Participants' Demographics

S/N	Gender	Frequency	Percentage
1	Male	7	35%
2	Female	13	65%
Ethnicity			
1	Black African	9	45%
2	Asian	6	30%
3	British White	2	10%
4	Other Minority	3	15%
Religion			
1	Christian	10	50%
2	Muslim	8	40%
3	Others	2	10%
Age			
1	18-24yrs	2	10%
2	25-34yrs	3	15%
3	35-44yrs	10	50%
4	45-54yrs	5	25%
Employment status			
1	employed	10	50%
2	Unemployed	6	30%
3	Disabilities	4	20%

4.2 Participants location

The Table below 6 shows the survey data of the participants' location and number of representatives from each county. 46 participants are recorded from Sittingbourne, 10 participants from the Maidstone area, and 14 from Gillingham.

Table 6: Geographical distribution of participants



The dataset in table 7 below comprises of the qualitative data for the 20 interviewed participants from different towns in Kent, primarily Sittingbourne and Gillingham, with a focus on their ethnicity, age, household size, gender, and location. The majority are Black African (9) and Asian (6), followed by White British (2) and other minority ethnic groups (3). There are more females (14) than males (6). Ages range from 22 to 54, with an average age of 37.3 years. Household sizes vary, with most participants living in households of 2 to 4 members. The postcodes indicate a geographical spread across towns such as Chatham, Gillingham, Sittingbourne, Sheerness, Maidstone, and Faversham. This diverse demographic mix provides insight into the varied backgrounds and living situations of the participants.

Table 7: Summary of participants data on Interview

Participants	Ethnicity	Age	Number of households	Gender	Post code	Town
P #1	Black Africa	31	4	Female	ME4 3JY	Chatham
P #2	Black Africa	37	3	Female	ME7 5RJ	Gillingham
P #3	Others	37	2	Female	ME10 1AA	Sittingbourne
P #4	Asia	40	2	Male	ME7 1AJ	Gillingham
P #5	Black Africa	43	1	Female	ME10 2RT	Sittingbourne
P #6	Asia	51	4	Male	ME10 3DB	Sittingbourne

P #7	Black Africa	34	5	Female	ME7 1RB	Gillingham
P #8	Black Africa	45	2	Female	ME10 5AZ	Sittingbourne
P #9	White British	35	2	Female	ME12 3BZ	Sheerness
P #10	Asia	41	1	Male	ME17 4NF	Maidstone
P #11	Black Africa	34	2	Female	ME10 4BP	Sittingbourne
P #12	Others	24	2	Female	ME7 3JU	Gillingham
P #13	Black Africa	54	4	Female	ME4 4PD	Chatham
P #14	Asia	35	1	Female	ME10 4RX	Sittingbourne
P #15	Asia	46	2	Female	ME14 1ED	Maidstone
P #16	Asia	38	4	Female	ME10 3DB	Sittingbourne
P #17	Black Africa	35	2	Male	ME10 1NL	Sittingbourne
P #18	White British	22	4	Male	ME10 2FR	Sittingbourne
P #19	Others	39	1	Male	ME10 2JZ	Sittingbourne
P #20	Black Africa	49	3	Male	ME13 8RJ	Faversham

4.3 Pre-Intervention

Weekly consumption of fruits and vegetables

Figure 6 presents the result on the weekly consumption of fruits and vegetables before the intervention. A significant proportion of participants (32%) reported "rarely" consuming fruits and vegetables, 15% indicated sometimes, 15% indicated often while only 34% said they "always" do so.

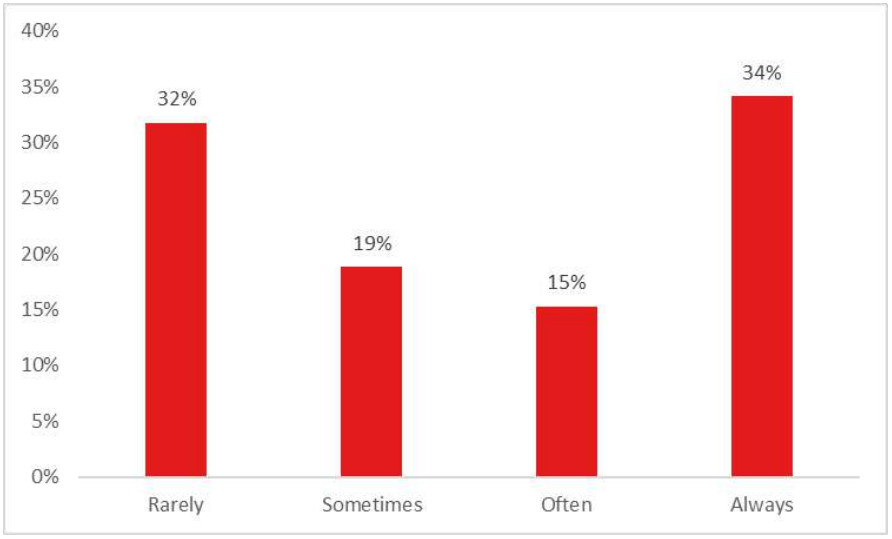


Figure 6: Participants' responses on weekly consumption of fruits and vegetables pre interventions

Weekly consumption of processed or fast food

Figure 7 presents the result on the weekly consumption of processed or fast-food before the intervention. A substantial proportion of participants (38%) reported that they “often" consume these types of foods, with 25% stating they "always" do so. 21% of the participants indicated “sometimes” while 16% indicated they “rarely” do so.

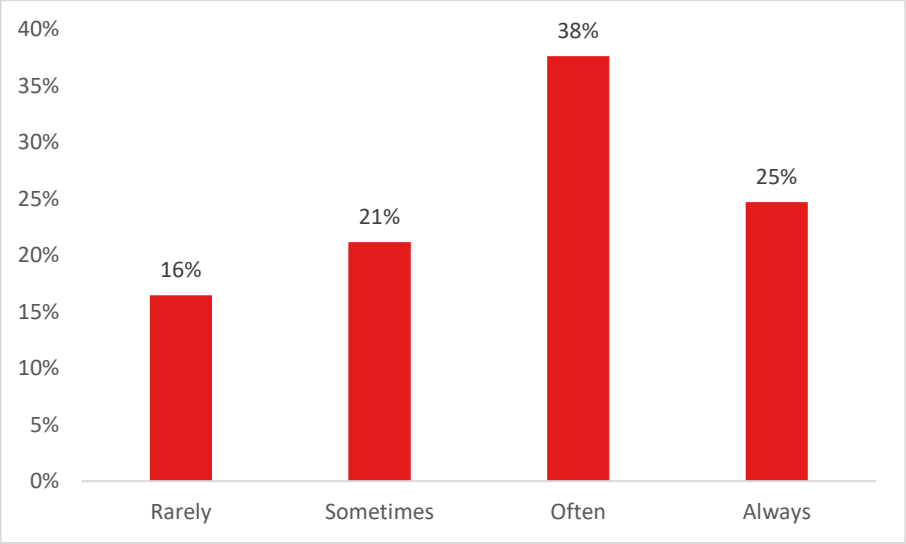


Figure 7: Participants’ responses on weekly consumption of processed or fast-food pre interventions

How often participants cook meals at home

The frequency of home cooking presented in figure 8 shows that prior to the intervention, a notable proportion of participants (27%) reported they "rarely" cook at home, 15% indicated "never” cooking at home, while only 19% and 15% indicated they “often” and “always” cook at home.

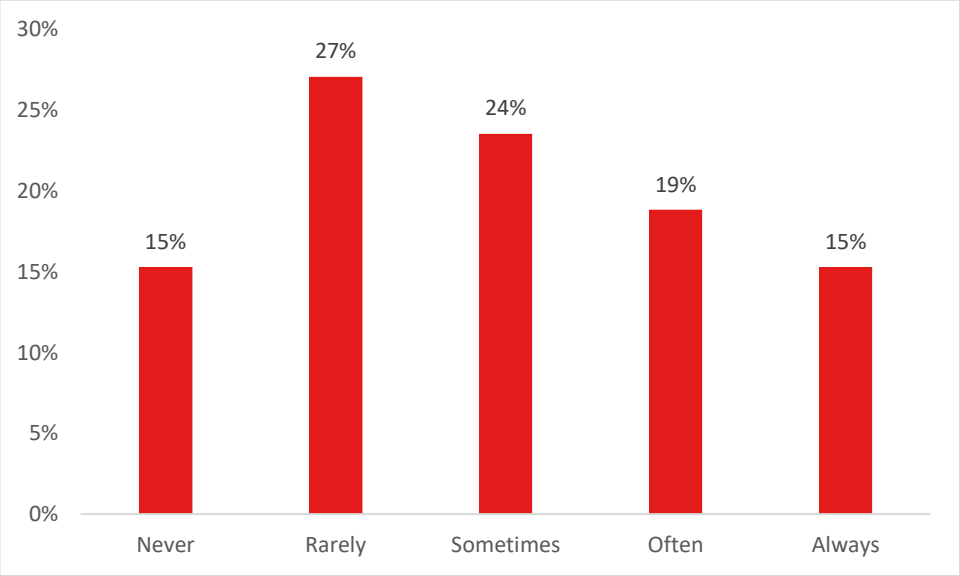


Figure 8: Participants' responses on how often they cook at home pre interventions

4.4 post-intervention

Weekly consumption of fruits and vegetables

Figure 9 presents the result on the weekly consumption of fruits and vegetables after the intervention. A significant proportion of participants (55%) reported "always" consuming fruits and vegetables, 22% indicated "often", 8% indicated "sometimes" while only 14% said they "rarely" do so.

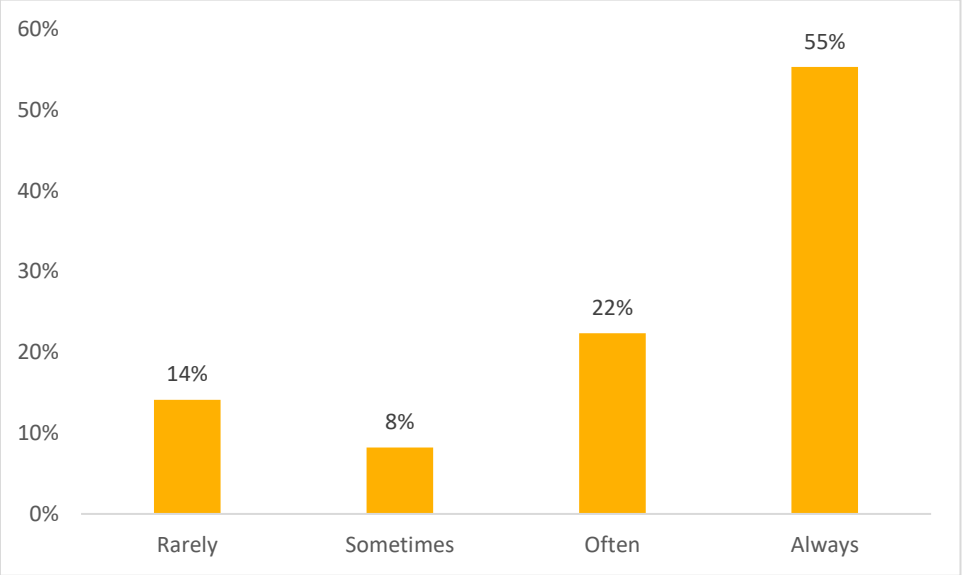


Figure 9: Participants' responses on weekly consumption of fruits and vegetables post interventions

Weekly consumption of processed or fast food

Figure 10 presents the result on the weekly consumption of processed or fast-food after the intervention. A substantial proportion of participants (42%) reported that they "rarely" consume these types of foods, with 32% stating they "sometimes" do so. 16% of the participants indicated "often" while 9% indicated they "always" do so.

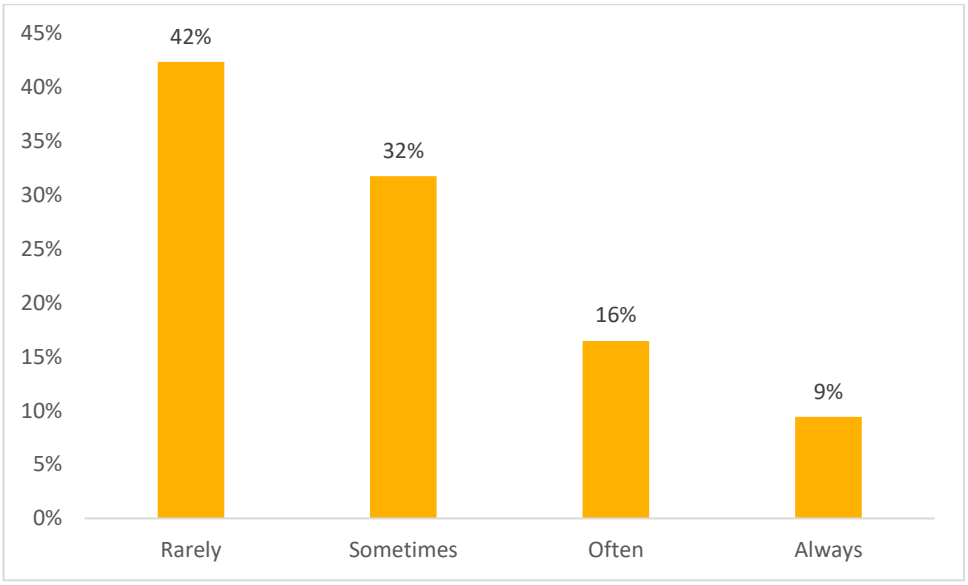


Figure 10: Participants' responses on weekly consumption of processed or fast-food post interventions

How often participants cook meals at home

The frequency of home cooking presented in figure 11 shows that post intervention, a notable proportion of participants (31%) reported that they "always" cook at home, 26% indicated "often" cook at home, while only 15% and 9% indicated they "rarely" and "never" cook at home.

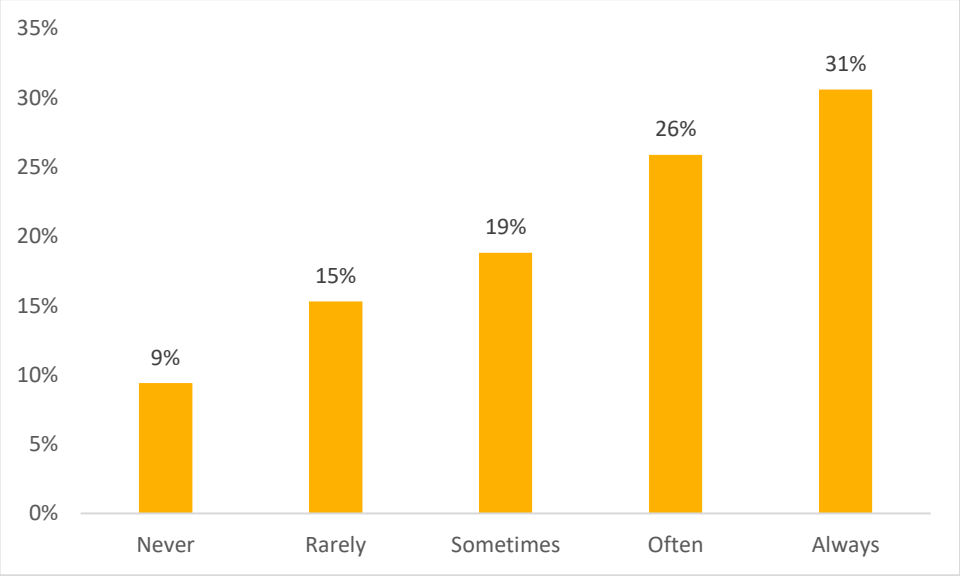


Figure 11: Participants' responses on how often they cook at home post interventions

4.5 Comparative Analysis

Weekly consumption of fruits and vegetables

The result of the pre- and post-intervention data on fruit and vegetable consumption in figure 12 demonstrates the positive impact of the healthy eating initiative. Prior to the intervention, a significant proportion of participants (32%) reported "rarely" consuming fruits and vegetables, while only 34% said they "always" do so. However, after the initiative, the "rarely" category decreased to just 14%, and the "always" category increased to an impressive 55%.

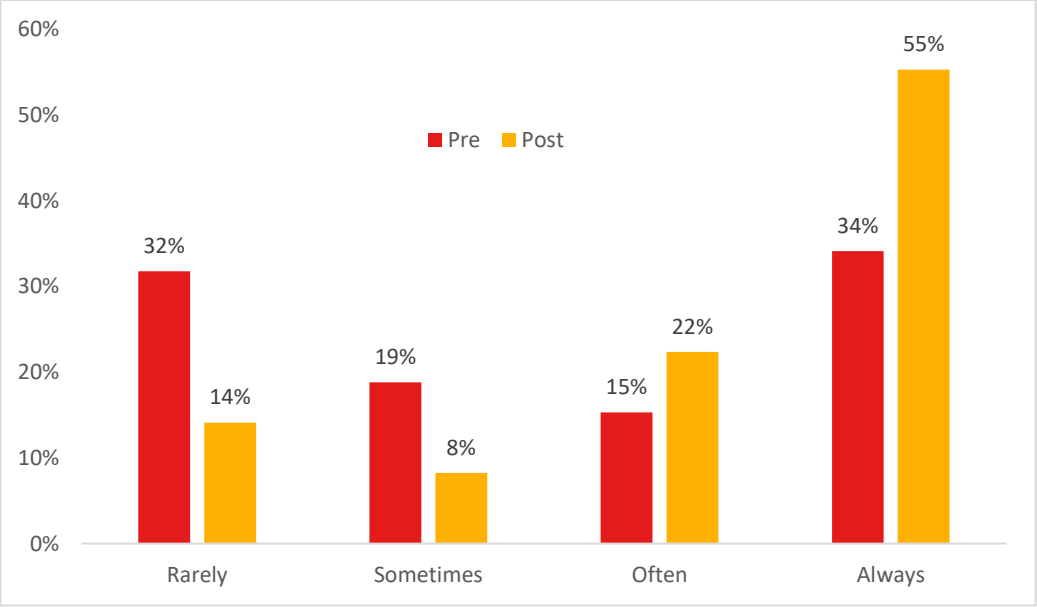


Figure 12: Participants' responses on weekly consumption of fruits and vegetables pre and post interventions

Weekly consumption of processed or fast food

The analysis of the pre- and post-intervention data on processed or fast-food consumption reveals a significant positive shift in the participants' dietary habits after the implementation of the healthy eating initiative as presented in figure 13 below.

Prior to the intervention, a substantial proportion of participants (38%) reported "often" consuming these types of foods, with 25% stating they "always" did so.

However, following the initiative, the "rarely" category increased from 16% to 42%, while the "often" and "always" categories decreased to 16% and 9%, respectively.

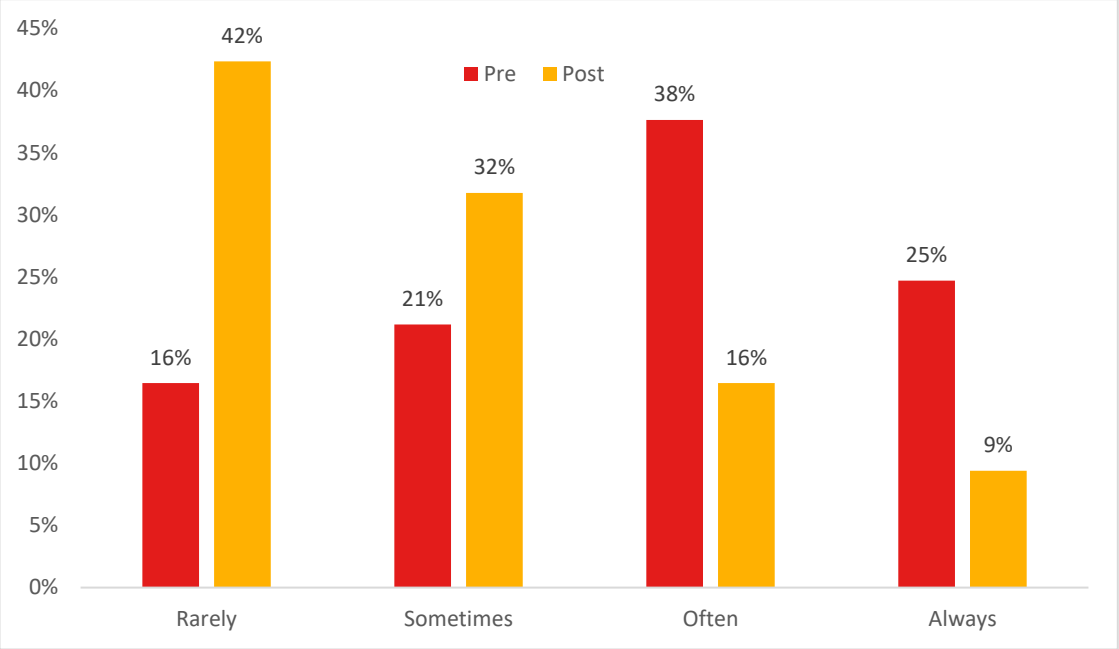


Figure 13: Participants' responses on weekly consumption of processed or fast-food pre and post interventions

How often participants cook meals at home

The result of the pre- and post-intervention survey on the frequency of home cooking presented in figure 14 showcases a significant increase in the participants' engagement with this healthier habit after the implementation of the healthy eating initiative.

Prior to the intervention, a notable proportion of participants reported "rarely" (27%) or "never" (15%) cooking at home, while only 15% said they "always" do so. However, following the initiative, the "rarely" and "never" categories decreased to 15% and 9%, respectively, while the "always" category more than doubled to 31%.

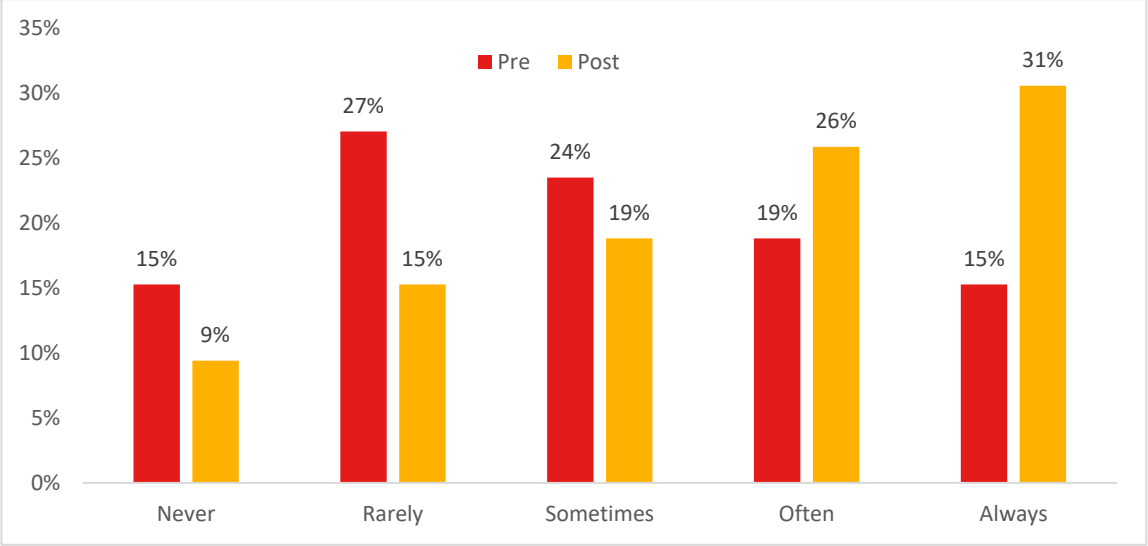


Figure 14: Participants' responses on how often they cook at home pre and post interventions

4.6 Participants' Health Indicator

Weight

30 participants' weights were measured pre and post intervention, the two were compared and the result is presented in figure 15 and detailed in appendix 3. 26 out of the 30 participants (86.67%) experienced a small to moderate weight decrease between 0.5-4.5 kg. The average change in weight across all 30 participants is a decrease of 1.33 kg.

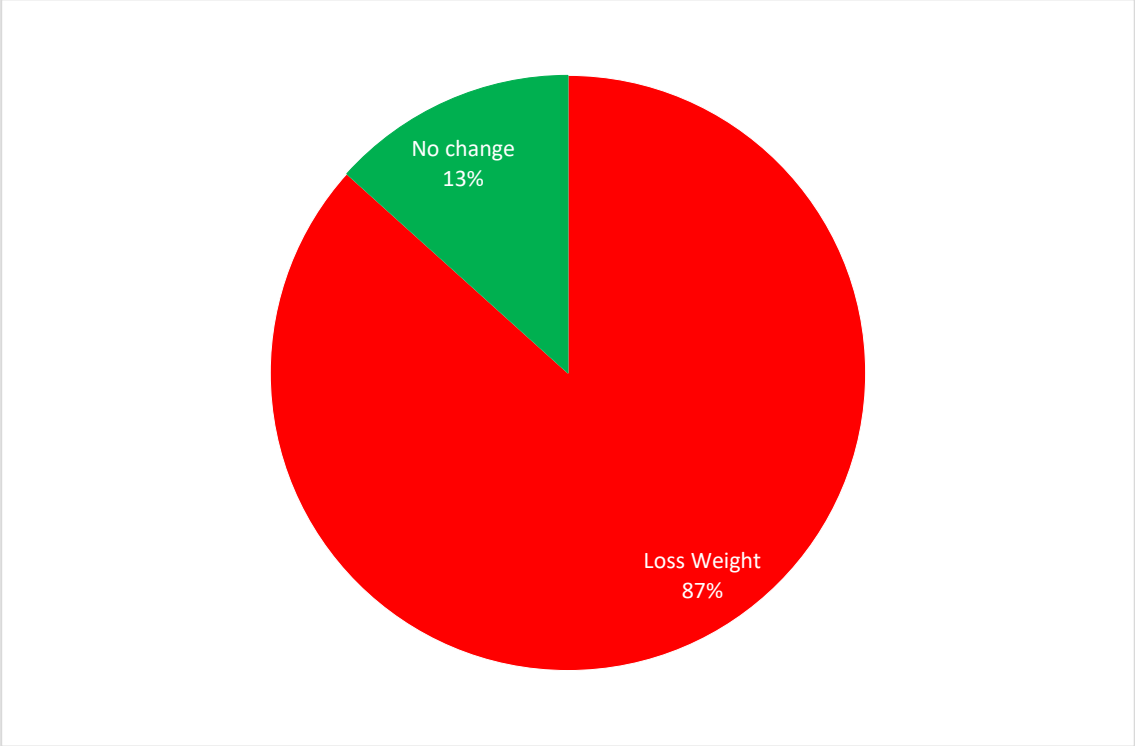


Figure 15: Distribution of participants based on weight loss or no change in weight

4.7 Emerged Themes

This section outlines the emerging themes from the participants' interviews, carried out with 20 participants. Table 6 shows that four themes emerged on influence on dietary habit which include Psychological Factors (38%), Religious Belief (43%), Family (10%) and Community (10%) influence, six themes emerged under barriers to healthy eating among BAME groups within Swale, the themes are Absence of Healthy Plan (3%), Limited Varieties (6%), Budget Constraint (10%), Time Constraint (13%), Accessibility of Stores (34%), Expensive Choices (35%). Three themes emerged as possible strategies to implement changes to the challenges experienced by the population for this study; the themes are Affordable Price (12%), More Varieties in Store (23%), Awareness and Training (5%). Finally, participants made several suggestions which were further captured in 4 themes reported as recommendation.

Table 6: Emerged Themes and Code Percentage

	Theme	**Code %**
Barriers to Healthy Eating	Absence of Healthy Plan	3%
	Limited Varieties	6%
	Budget Constraint	10%
	Time Constraint	13%
	Accessibility of Stores	34%
	Expensive Choices	35%
Influence of Dietary Habit	Psychological Factors	38%
	Religious Belief	43%
	Family	10%
	Community/cultural norms	10%
Intervention Strategies	Affordable Price	12%
	More Varieties in Store	23%
	Awareness and Training	65%

Influence on Dietary Habits

The findings in figure 16 highlight the significant influence of religious believe, family, community and psychological factors on the eating behaviors and dietary habits of the Black African, Asian and other minority ethnic groups within Swale and surroundings.

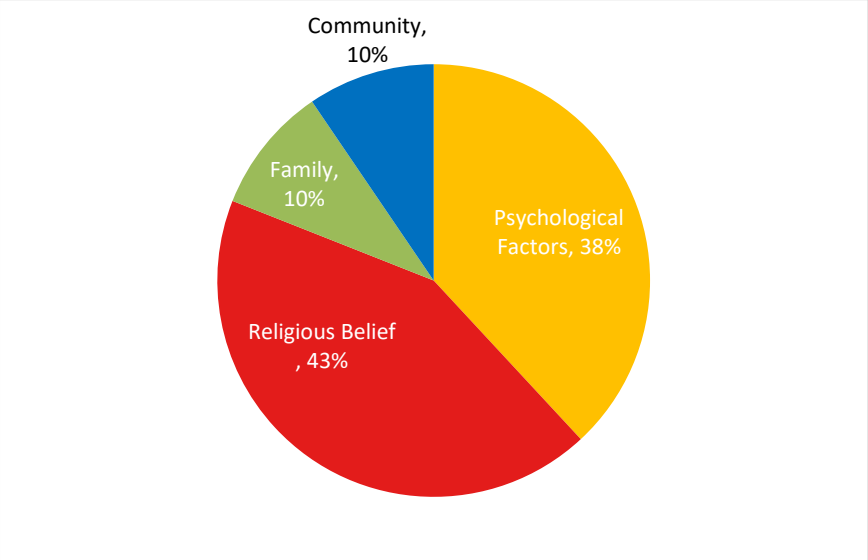


Figure 16: Influence on Dietary Habit's Themes Based on Code frequency

1. **Religious beliefs** and practices were identified as a major factor, with 43% of codes from 7 participants related to dietary restrictions dictated by religious requirements, such as prohibitions on pork or beef consumption. These religious-based restrictions can limit the variety of healthy food options available to individuals and lead to a reliance on a narrower range of choices.

   "Yes, as a Muslim there are certain things I would not eat like pork, bacon, ham and all sort of meats that are not from the halal shop, Also, at the time of the Muslim lent, I don't usually have appetite to eat well which will affect my general wellness but immediately after the fast everything goes back to normal"- (P4, A 40-year-old Asian Male).

2. **Psychological factors**, such as anger, stress, depression, and mood swings have substantial impact on the eating habits of the BAME community, accounting for 38.1% of the codes from 6 participants. Emotional states can strongly influence food choices, often leading to the consumption of "comfort foods" or unhealthy options that provide temporary relief or satisfaction, which can contribute to unhealthy eating patterns and potential health issues.
3.

   "Tiredness, stress from work, during my menstrual cycle. I don't usually have enough appetite at

those times which I know it is not healthy enough to do so because I am an ulcer patient."- (P1, A 31-year-old Black African Female).

4. **Family factor** accounted for 10% of the codes from 2 participants, in shaping the eating behaviors and dietary habits of the BAME community. Participants noted that family expectations, preferences, and mealtime rituals played a key role in determining the types of foods consumed and the overall approach to eating.

   "The collective nature of meals and the importance of shared family recipes and preparation methods were found to heavily influence my family food choices, also my daughter is not familiar with most foods served from her school." (P3, A 37-year-old Turkish Female)

5. **Community factor** accounted for 10% of the codes from 2 participants. The accessibility and prevalence of certain food choices within the local community can either facilitate or hinder the adoption of healthier eating practices. For instance, the lack of availability or prominence of culturally appropriate healthy alternatives may limit the options and discourage individuals from experimenting with new, potentially more nutritious, foods.

   "In social gathering sometimes, I feel compelled to conform to the prevailing norms and preferences within the social circles, which hinders me from making more healthful choices."- (P9, A 35-year-old White British Female).

Barriers to healthy Eating

The findings in figure 17 indicate that expensive choices and budget constraints and accessibility of stores selling varieties were significant barriers to healthy eating among the BAME community, accounting for 45% and 34% of the codes respectively. Time constraint (13%) and absence of healthy diet plan (9%) also emerged as barriers to healthy eating among the BAME groups.

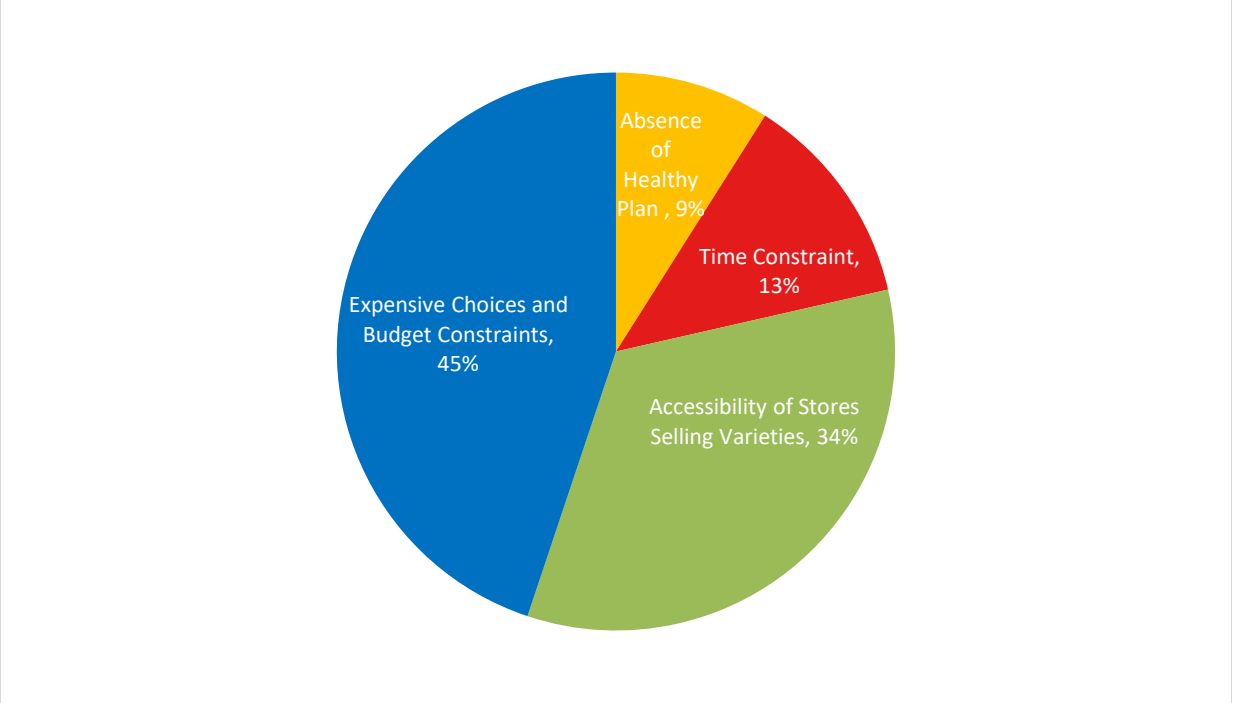


Figure 17: Barriers to Healthy Eating's Themes Based on Code frequency

1. **Expensive choices and budget constraint** emerged as a major barrier, as healthier food options, including the community's native foods, were generally claimed to be more expensive compared to less nutritious alternatives. This financial barrier led individuals to prioritize cheaper, less healthy food choices, which can have negative implications for their overall health and well-being. The high cost of nutritious options created a sense of deprivation and made it challenging for people to maintain a balanced diet.

   "The local Foods are not too expensive unlike the Bangladesh cultural foods that are expensive. Cost plays a huge role because things are very expensive and sometimes, I cannot afford the best ones, so I go for the cheaper options and it doesn't matter if healthy at the time but in as much it is satisfying the need to eat"- (P10, A 41-year-old Asian Male).

2. **The accessibility of stores selling varieties** was also indicated as a significant barrier. The BAME community faced challenges in accessing grocery stores, supermarkets, or specialty shops that offered a wide selection of their native, healthier food options. Factors such as transportation, proximity, and the availability of these establishments in their local neighborhoods made it difficult to incorporate these foods into their daily routines and meal planning. As a result, they

were more inclined to opt for readily available, often less healthy, food choices closer to their homes or workplaces.

''I am forced to travel to a nearby area to buy in bulk and at expensive prices only because the local stores here in Sittingbourne don't sell different varieties of my traditional things. Though, they are also expensive because most are imported goods which makes it difficult sometimes to afford traditional ingredients regularly.'' - (P2, A 37-years-old Black African Female).

"Usually, I stock foods and ingredients for home cooking, foods are expensive to buy from restaurants and sometimes limited shops selling Asian traditional food stuffs within Sittingbourne, so we adapt to local ingredients at times."- (P16, A 38-years-old Asian Female).

"I travel to London to buy my animal protein like fish, halal meat and other food ingredients if I am buying a lot even, thou I don't drive but I had to take the trains which is quiet challenging with moving stuffs all the way, London is the only place I know where I can get the Bangladeshi foods cheaper. So, I will say cost and accessibility is a major challenge for me"- (P15, A 46-year-old Asian Female).

3. **Time Constraints** was indicated as one of the challenges that the BAME community often faced time-related challenges that hindered their ability to prioritize and maintain a healthier diet. With busy work schedules, family responsibilities, and other competing demands on their time, individuals reported feeling a lack of time to plan, prepare, and consume nutritious meals. As a result, many participants opted for quicker, more convenient, but often less healthy, food choices to accommodate their time-constrained lifestyles.

"Sometimes cooking African food can be stressful and time consuming for me and as well make another food choice for my children. Healthy food takes time to prepare for me."- (P13, A 54-year-old Black African Female).

"Work stress can make me want to go hungry all night or consume junks when I needed to eat and too stressed to cook, I understand that junks are not good for my health but at the same time I don't want to starve."- (P2, A 37-year-old Black African Female).

4. The findings also revealed a **lack of access to and awareness of healthy diet plans** that were tailored to the cultural preferences and dietary requirements of the BAME community. Without clear, culturally appropriate guidance on how to adopt a balanced and nutritious diet, individuals struggled to make sustainable changes to their eating habits. The absence of such resources and support systems meant that the BAME community had limited exposure to practical, step-by-step strategies for incorporating healthier options into their daily lives. This lack of readily available, culturally relevant dietary recommendations and plans posed a significant barrier to the adoption of healthier eating practices.

"Honestly, I would say having a good healthy plan to follow is my major challenge, it is tiring having to think of healthy choices after a long day."- (P17, A 35-year-old Black African Male).

Intervention Strategies

The findings in figure 18 indicate three themes of intervention strategies suggested by participants to address the challenges to healthy eating among the BAME community.

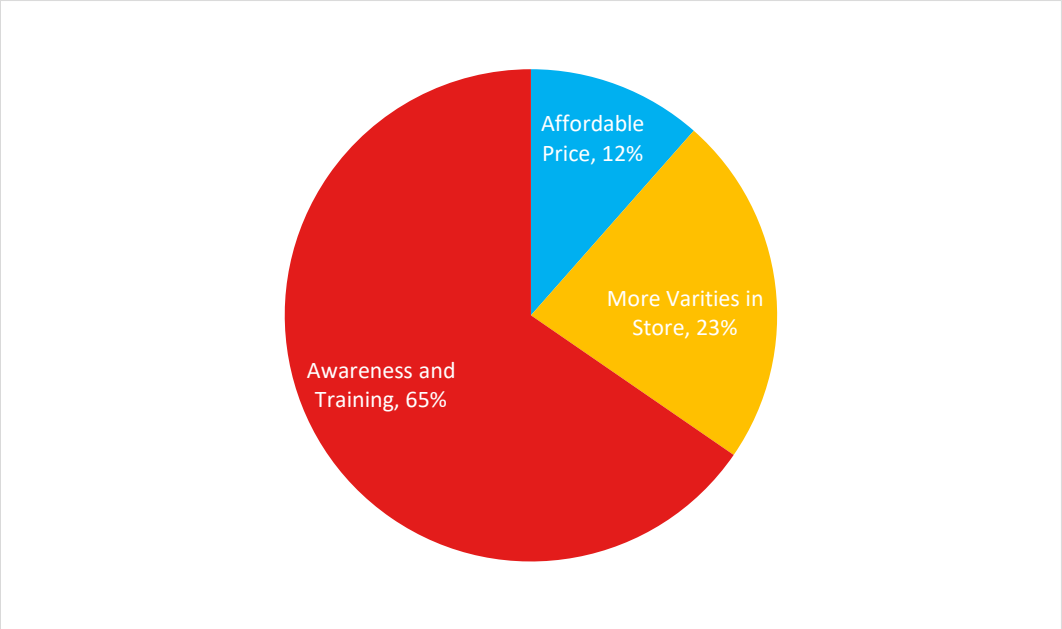


Figure 18: Intervention Strategies' Themes Based on Code frequency

1. The most frequently identified intervention strategy was Awareness Programmes and Training, accounting for 65.4% of the coded responses. These types of interventions can play a crucial role

in educating the BAME community about the importance of healthy eating and the benefits of a more diverse, balanced diet. Workshops, educational campaigns, and community-based programmes that provide information on nutrition, food preparation, and the impact of dietary choices on health can empower individuals to make informed decisions about their food choices and adopt healthier eating habits.

"Creating more awareness via every channel, make online and softcopy resources be available and as well proving support to the less privilege people within the community"- (P7, A 34-year-old Black African Female).

"Disseminating information on healthy eating via online platform, visiting mosque to teach and encourage healthy eating habits, food banks around should as well have African food options"- (P1, A 31-year-old Black African Female).

"Maybe more awareness of programmes and organisations that promote healthy eating and the health service should consider foreigners more in their plans to be more effective"- (P14, A 35-year-old Asian Female).

2. The second most common intervention strategy was **Stores Selling Varieties**, which was identified in 23.1% of the codes. Ensuring that local grocery stores, markets, and food outlets cater to the diverse dietary needs and preferences of the BAME community by stocking a wide range of culturally relevant and nutritious ingredients can significantly improve their access to healthy food choices. This approach can provide individuals with more opportunities to explore and integrate these foods into their daily lives.
   "More available in the local shops, also there should be wholesales market, and keeping well informed to other options"- (P8, A 45-years-old Black African Female)

   "I will be glad to see more halal shops in Sittingbourne or if the big stores around can as well have halal products and varieties of other Asian traditional food items with reduced prices" -(P6, A 51-year-old Asian Male).

   "Shops to sell varieties of foods such as fruits and vegetables that are fresh for consumption at

all times and there should be quality check to ensure that only good ones are on the shelves in stores because sometimes, I don't get to see good ones when we get to the store late"- (P19, A 39-year-old Lithuania Male)

3. **Friendly Price Reduction**, mentioned in 11.5% of the codes, was also considered an important intervention strategy. Implementing measures that make healthy food options more affordable, such as price subsidies, discounts, or targeted promotions, can help to alleviate the financial burden faced by the BAME community. This can make healthier choices more accessible and feasible, thereby encouraging the adoption of a more balanced and nutritious diet.
"African shops to sell more cheaper foods. Would appreciate the familiar of foods and ingredients both in supermarkets and restaurants and to be more affordable" – (P7, A 34-year-Black African Female)

5.0 Discussion and future directions

Healthy eating is a fundamental component in combating obesity. It entails consuming a diet rich in fruits, vegetables, whole grains, and lean proteins while limiting processed foods, sugars, and unhealthy fats. However, achieving and maintaining healthy eating habits can be complex for the BAME groups due to the diversity in cultural backgrounds, dietary habits, and nutritional needs within these communities. Each ethnic group has unique traditional foods, cooking methods, and dietary preferences, which can make it challenging to create a one-size-fits-all healthy eating programme. Despite this complexity, there is a degree of homogeneity in the underlying principles of healthy eating that can be applied across the BAME community. These principles include balanced meals, the consumption of fresh fruits and vegetables, the reduction of processed foods, and the importance of portion control. By understanding and respecting the cultural diversity within the community while promoting these common principles, effective healthy eating initiatives are developed to cater to the needs of the BAME population in Swale area.

5.1 Discussions

The pre- and post-intervention data has demonstrated a significant positive impact of the healthy eating initiative on the participant's dietary habits. The findings in Figure 17 indicate that the most significant barriers to healthy eating among the BAME community were expensive choices,

budget constraints, accessibility to stores selling a variety of healthy options, time constraints, and the absence of a healthy diet plans. The comparative analysis weight measurements (Figure 15) showed that participants experienced a small to moderate weight decrease across all participants. This suggests that the initiative had a meaningful impact on the overall weight management, health and well-being of the BAME community involved in the study.

However, the effectiveness of these programmes has been mixed. While some participants have shown significant improvements in their dietary habits, others have faced barriers such as limited access to healthy foods, budget constraints, lack of time, and ingrained cultural practices. The involvement of community chefs and NHS professionals has been a positive step, but there remains a need for more comprehensive support and resources.

5.2 Future Directions

This research serves as an introduction to the topic of healthy eating among BAME groups by outlining the basic principles and challenges of promoting healthy eating within these communities. The study highlights the complexity of addressing diverse cultural dietary habits and the necessity of tailored approaches. However, future research is needed to explore these areas in greater detail and assess the effectiveness of different interventions. The BAME communities are diverse with distinct cultural backgrounds influencing dietary habits, for instance, there is different cooking practices and cultural norms among the same ethnic groups that are classified to one category but in real situation they have different belief/cultural preferences to healthy eating.

We suggest future research is needed to gain a deeper understanding of these nuances to create tailored interventions that respect and incorporate cultural preferences, ensuring higher acceptance and effectiveness.

6.0 Conclusion

In conclusion, this study provides a general overview of the factors influencing the eating habits of the BAME communities and identifies key areas for the development of culturally appropriate educational interventions to reduce obesity. These findings inform the design and implementation of the interventions to better meet the needs of this population.

The pre-assessment and post-intervention data on fruit and vegetable consumption (Figure 12), processed/fast-food consumption (Figure 13), and home cooking (Figure 14) demonstrate the significant positive impact of the healthy eating initiative on the participants' dietary habits.

The weight change data (Figure 15) further indicates that the initiative resulted in a measurable improvement in the participants' health outcomes, with the majority experiencing a small to moderate weight decrease.

The findings on barriers underscore the need for targeted interventions to address the financial and infrastructural challenges faced by this population. Strategies such as improving the availability and affordability of healthy food options, as well as enhancing the accessibility of grocery stores and food outlets in underserved areas, can help to create a more supportive environment for the BAME communities to make healthier food choices.

By understanding and addressing these barriers, health professionals and policymakers can develop more effective and inclusive approaches to promoting healthy eating and improving the overall well-being of the BAME communities within Swale.

7.0 Recommendations

1. Implement a more comprehensive community engagement strategy to ensure the healthy eating initiative reaches a wider audience within the BAME community.
2. Expand the healthy eating initiative to incorporate a more holistic approach that addresses various aspects of lifestyle, including physical activity, stress management, and mental well-being.
3. Collaborate with local authorities, community organizations, and food retailers to improve the accessibility and affordability of diverse, culturally appropriate healthy food options within BAME neighborhoods.

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9.0 Appendices

Appendix 1 – Digital Flyer Used for Recruitment

Appendix 2 – Participants' Weight Pre and Post

Participants	Weight Pre	Weight Post	Weight Difference	Remark
Participant 1	54	53.5	-0.5	Decrease
Participant 2	58.82	56.2	-2.62	Decrease
Participant 3	59.8	59.8	0	No change
Participant 4	59	58.3	-0.7	Decrease
Participant 5	61.2	60.8	-0.4	Decrease
Participant 6	63.2	61.7	-1.5	Decrease
Participant 7	63.6	62.6	-1	Decrease
Participant 8	71.4	68.7	-2.7	Decrease
Participant 9	70.8	68.7	-2.1	Decrease
Participant 10	72.94	71.8	-1.14	Decrease
Participant 11	72.94	70.2	-2.74	Decrease
Participant 12	72.74	71.45	-1.29	Decrease
Participant 13	73.74	71.64	-2.1	Decrease
Participant 14	73.94	72.15	-1.79	Decrease
Participant 15	74	74	0	No change
Participant 16	74.74	72.41	-2.33	Decrease
Participant 17	75.9	75.3	-0.6	Decrease
Participant 18	77.75	77	-0.75	Decrease

Participant 19	79.56	78.76	-0.8	Decrease
Participant 20	81.46	79.65	-1.81	Decrease
Participant 21	87.6	86.7	-0.9	Decrease
Participant 22	89.56	89.56	0	No change
Participant 23	92.23	91.8	-0.43	Decrease
Participant 24	95.58	94.7	-0.88	Decrease
Participant 25	96.74	95.77	-0.97	Decrease
Participant 26	98.2	98.2	0	No change
Participant 27	98.23	96.23	-2	Decrease
Participant 28	101.6	100.5	-1.1	Decrease
Participant 29	106.13	103.83	-2.3	Decrease
Participant 30	109.23	104.9	-4.33	Decrease

Appendix 3 – Consent form

CONSENT FORM

Title of Project: Developing & Implementing Culturally Appropriate Educational Intervention for Promoting Healthy Eating among BAME Groups in Kent.

Researcher:	Christine Locke
Principal Investigator:	Dr. Abimbola Ojo
Contact details	
Address:	ISP House Church Street, Sittingbourne ME10 3EG
Tel:	01795 420455
Email:	info@diversityhouse.org.uk

Consent Agreement

1. I hereby consent to participate as requested in the interview for the above research project. ☐
2. Details of the research have been explained to my satisfaction. ☐
3. I agree to audio and/or visual recording of my information and participation. ☐
4. I understand that: ☐
   - I may not directly benefit from taking part in this research. ☐
   - I am free to decline to answer questions. ☐
   - I may ask that the recording/interviewing be stopped at any time, and that I may withdraw at any time from the session or the research without disadvantage. ☐
   - While the information gained in this study will be published as explained, I will not be identified, and my personal information will remain confidential. ☐
5. I understand that I can contact either the researcher or [Diversity House] with questions about this research via the contact details above.

Name of Participant:	Date:	Signature:
Name of Person taking consent (if different from researcher):	Date:	Signature:
Researcher:	Date:	Signature:

Appendix 4 – Challenges and Action taken

ISSUES	DATE IDENTIFIED	ACTION OR IGNORE	RESOLVED
Long distance Participants	**21st April 2024**	**We develop contingency plans by creating a WhatsApp community in reaching out to the wider audience.**	**YES**
Non-English participants (Language and Literacy Barriers)	**26TH April 2024**	**Utilize visual aids, graphics and we encourage them to attend the English class session.**	**YES**
Some participants come late for events (Resistance to Change)	**7TH May 2024**	**Use culturally appropriate messaging and storytelling to convey the benefits of healthy eating within the context of cultural values and traditions.**	**YES**
Muslim participants leave events early on Fridays because they must go for prayers (religious/cultural misunderstanding)	**7th May 2024**	**We are strict on time and coordinate our events to end at 1:00 PM on Fridays in line with the event agenda**	**YES**
A participant caused a scene in one of the sessions (cultural misunderstanding)	**14TH May 2024**	**Provide cultural competence training for project team members to enhance understanding of diverse cultural backgrounds**	**YES**