The Development of a Sustainable Nutrition Education Session Promoting Healthy Eating amongst Afghan Refugee Women within Mildura.

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1.0 INTRODUCTION

1.1 Project proposal

The project proposal provided as part of a community placement at Sunraysia Community Health Services is as follows.

"Afghan refugees are one of the prominent ethnic groups within Mildura. It has been observed by health care providers that there are high rates of type 2 diabetes in adults, and high rates of dental decay in children. Due to language barriers and transport issues, it is difficult to engage this population within health services, such as Sunraysia Community Health.

The purpose of this project is to determine how to better engage with Afghan refugees within Mildura to help promote healthy eating for the prevention of chronic disease. "

The project process is to:

1. Review literature on programs that have been trialled / developed in the Afghan population.
2. Identify key stakeholders.
3. Conduct focus groups with Afghan women and staff working with them – link in with existing groups.
4. Based on the needs assessment, develop a nutrition education program for Afghan women to help promote healthy eating within their families. Identify existing resources that can be utilised in the education sessions, or give suggestions of resources that need to be developed.
5. Outline the proposed education program in a report (including methodology for evaluation).

A copy of the project plan can be found in Appendix 4.

1.2 Background information on target group

Refugees in Australia

A refugee is a person who is outside of their country of origin or former habitual residence because he/she is unable to live in that country or is unwilling to, due to fear (UNHCR, 2004). In 2012, there were 88,600 refugees seeking assistance, 5,900 of which were admitted into Australia. Furthermore, in 2012 there were 15.4 million people with refugee status across the world (UNHCR, 2013).

Refugees within the Mildura region

The Mildura Rural City Council (MRCC) is one of 89 refugee welcome zones in Australia. By becoming a refugee welcome zone, the MRCC has expressed their commitment to welcoming refugees into the community. As a refugee welcome zone, MRCC must advocate for human rights, be compassionate towards refugees and aim to increase the cultural and religious diversity of Mildura (Refugee Council of Australia, 2013). Although the exact number of refugees coming into the Mildura region is unknown, it has been noted that from 2001-2006 there were 7,934 new arrivals in Mildura which was an increase of 17% from the 1996-2001 report. Eight percent of these new arrivals had come to Mildura from overseas, some of which were refugees, which is also an increase of 3% from the 1996-2001 report (MRCC, 2008). In 2008, 31.4% of new arrivals to Mildura (from overseas) were from Afghanistan, 8.7% from India and South Africa and 7.0% from Iraq. The number of people from Afghanistan and India arriving in the region has been increasing (MRCC, 2008).

Afghanistan, culture and cuisine

Afghanistan is located in Southern Asia (CIA, 2014). Table 1 provides general background information on the population of Afghanistan.

Table 1: Afghanistan Statistics	
POPULATION	31,108,077
ETHNICITY	Pashtun (42%), Tajik (27%), Hazara (9%), Uzbek (9%) Aimak (4%), Turkmen (3%) and Baloch (2%)
LANGUAGE	Afghan Persian/Dari (50%) Pashto (35%) Hazaragi and Persian are also common languages spoken
RELIGION	Sunni Muslim (80%) Shia Muslim (19%)
LITERACY (>15 years old and can read and write*)	In 2000, 28.1% were literate* - Males = 43.1% - Females = 12.6%
EDUCATION	In 2009, the average length of education was 8 years - Males = 10 years - Females = 6 years
CIA, 2014; Zahinda, B 2014	

The consumption of traditional cuisine generally continues after arrival into Australia; however some additional foods such as soft drink, potato chips, cheese and sweetened yoghurt may be added into the diet (Focus group; Burns et al., 2000). Although the Afghan population consume a variety of foods; red meat, grains such as rice and traditional breads (i.e. Lebanese, enjera) are staples which are generally eaten at every meal (Focus group; Burns et al., 2000). Dogh, a traditional yoghurt drink, is also often consumed (Focus group). Traditional Afghan cuisine often includes the addition of many spices, which adds heat to the dishes (Focus group; Burns et al., 2000). As the majority of Afghan people are Muslim, the food they eat must be halal. When this term 'Halal' is used in relation to food, it refers to the foods which Muslims are allowed to eat. For a food to be halal it must comply with religious rituals (i.e. when slaughtering animals) (Halal Choices, 2011). Equipment and utensils must also not have been used to prepare food which is not halal (Zahinda, 2014). Takeaway is therefore rarely eaten as it is often not Halal (Focus group; Burns et al., 2000).

Nutrition education programs for Afghan Refugees

There is currently negligible research on nutrition education programs for refugees in Australia. There are two documented programs which have been implemented within Australia however there is no published evaluation for either.

The Fairfield Refugee Nutrition program is a six week program for refugee families living in Fairfield in New South Wales, Australia. This program aims to target food security, identify and address nutritional needs and increase knowledge and capacity to access healthy foods. This program is designed to address the specific needs of the community group. There are six ethnicities targeted, and for each of those there are corresponding topics and lesson plans. The program content is available as a manual which includes

information on the food pyramid, group cooking, food safety and storage, food literacy (new foods), supermarket tours, healthy lunch boxes, healthy modifications, 'bad foods' and better alternatives. Most sessions provide take home resources i.e. recipes and handouts which are written in English and can be distributed to the participants. Each session has some form of evaluation including attendance, pre and post evaluation forms completed by participants and post evaluation forms completed by Bilingual Community Educators (BCEs) and the presenter. Finally, the BCEs and the presenter are interviewed at the completion of the program to determine the impact and relevance of the program. The participants are also asked to indicate an example of what they have learnt and implemented as a result of the program (Australia Institute of Family Studies, n.d.).

The Good Food for New Arrivals (GFNA) project is a nutrition awareness program that began in 2001 and aims to provide nutrition information to new arrivals (from overseas) who have young children, in order to improve their knowledge, attitudes and beliefs in relation to nutrition (ASeTTS, 2012; Durham, Gillieatt & Ellies, 2007). The program was developed by the Association for Services to Torture and Trauma Survivors Inc. (ASeTTS). This program offers training for professionals and provides a large range of resources which are available in several languages and specific to different ethnicities (ASeTTS, 2012; Durham, Gillieatt & Ellies, 2007). The main content covers anaemia, school lunchboxes, poor appetite, healthy eating and physical activity (Durham, Gillieatt & Ellies, 2007). The evaluation processes of this program are not documented in the literature.

Both of the programs aim to improve the knowledge of participants and relate to the 'Health Belief Model' (Nutbeam, Harris & Wise, 2010). The programs educate participants about problems specific to their ethnic group and their consequences (i.e. anaemia). They also provide a simple course of action by including information on healthy eating and school lunch box ideas which were covered in both programs.
The programs both target different populations with the GFNA program targeting new arrivals with young children and the Fairfield program targeting all refugees. Both programs have taken into account the varying ethnicities of the participants and have altered their programs to maximize the suitability of the information, either with resources or lesson plans. The GFNA program aims to educate professionals and new arrivals on healthy eating, whereas the Fairfield Refugee Nutrition program only targets refugees. A major difference between these programs is the language which the resources are written in, one being available in several different languages and the other being offered only in English. The Fairfield Nutrition program also educates participants on food insecurity, with the GFNA not covering food insecurity at all.

1.3 Needs assessment

Literacy and language barriers can have an affect on the foods consumed because of the inability to read food labels (Palermo et al. 2012). The major language spoken by new arrivals (from overseas) in Mildura is Dari, with 34.4% speaking this language in 2005-2008 (MRCC, 2008). Of all new arrivals, only 42.9% have had more than 10 years of education, with 21.7% having 7-10 years and 29.7% having less than 6 years of education. As indicated in Table 1, many refugees have not had the opportunity to complete their education and are illiterate. Information collected from the focus group supported this finding, with only 3 of the 9 women being literate and the others being either illiterate or having poor literacy skills (Focus Group). They were also unable to speak English, which meant an interpreter was required. This may also help to explain why this population group is difficult to engage with. However, as the focus group was conduced with participants at the English Language School (ELS), it is expected that the women have poor English language skills. For the mentioned reasons, images are a more useful tool for resources than written text (Focus Group; Zahinda, B 2014).

As previously mentioned, the Muslim community must ensure their food products are Halal, and as the majority of new arrivals into Mildura are Muslim, identifying Halal suppliers is a common challenge for this population (Focus Group; MRCC, 2008). The Afghan women in the focus group indicated that finding Halal foods and suppliers was very difficult initially, and one of the major problems they found when moving to Australia (Focus Group).

When developing a nutrition education program, cultural considerations must be made. As women are the main food preparers in Afghanistan they would therefore be the most appropriate target group to achieve maximum change (Focus group; Levitt et al., 2011). Afghan women are unlikely to prepare food with equipment and utensils in a community kitchen, as they could not be certain of how it has been previously used (i.e. with non Halal products). Furthermore, in Afghanistan women should not cook outside of the home which is another cultural consideration to be taken into account when developing a program.

Research has been conducted to determine what refugees would find most useful in nutrition education programs (Burns et al. 2000; Wieland et al, 2012). Common findings were: including food props and visual models to help overcome the language barrier, including information on healthy eating specific to the whole family (inc. children) and modifying traditional meals to increase their nutritional value rather than asking participants to prepare new meals (Burns et al. 2000; Focus Group; Wieland et al, 2012). The focus group revealed that the women were interested in learning about healthy foods on a budget (to help them lose weight), the nutritional value of foods, dishes to eat at meal times, foods which are good for children and pregnant women, substitutions for soft drink and junk foods and ways to make healthy foods taste less bland (Focus group).

Unemployment and difficulties finding a job contributes to the financial hardship refugees face (Canadian Council for Refugees, 1999). Furthermore, often refugees send money to their family left in their country of origin which further exacerbates their financial issues (Canadian Council for Refugees, 1999). These financial issues influence food choices, with women in the focus group indicating that they generally eat the 'cheapest' foods (Focus group; Palermo et al. 2012). Vegetables in Australia are more expensive and are often different to the vegetables available in Afghanistan (Focus group; Palermo et al. 2012). Meat is often purchased in bulk which reduces the price and ensures a supply of Halal meat. The women in the focus group indicated that it is common for Halal meat to be purchased from Adelaide and delivered to Mildura (Burns et al. 2000; Focus group).

Refugees in Australia have many nutritional issues (Burns et al., 2000). This includes an increase in saturated fat intake, difficulties finding Halal foods, reduced fibre intake due to a decrease in fruit consumption (as many Australian fruit are unknown) and an increase in total energy intake due to increased oil and sugar consumption (Burns et al. 2000). A study on Somali refugees also indicated an increased consumption of soft drinks and oils since moving to Australia due to increased availability and low price (Burns et al. 2000).

It has been indicated that refugees in Australia have a higher rate of untreated decayed teeth compared to those born in Australia (NSW Refugee Health Service, n.d.). Some of the suggested reasons include torture-related injuries to the mouth and face, limited access to dental services and oral health education in their country of origin and as mentioned previously, the low cost of high-sugar foods in Australia such as soft drink (Burns et al. 2000; NSW refugee Health Service, n.d.). After arrival into Australia, the intake of high-sugar foods in refugees increases. This may be due to the low-cost of these products and lack of knowledge about sugar and the sugar content of foods (NSW refugee Health Service, n.d.). Women from Pakistan and Iran living in the Mildura region, indicated that soft drinks were offered to their children because they were unsure of better substitutes (Focus Group). The literature also suggests that there is pressure from children to provide them with more Australian foods, especially for school (Burns et al. 2000).

Type 2 Diabetes is a chronic condition which refugees are more susceptible to for reasons such as literacy and communication barriers, genetic predisposition and dietary alterations once arriving in Australia (AIHW, 2008; Poljski C, 2010). The prevalence of diabetes in those born in Middle-Eastern countries in 2008 was 7% compared to only 3% in those born in Australia (AIHW, 2008). A diet high in fibre, fruit and vegetables is protective against Type 2 Diabetes, however as mentioned above, the diets of refugees in Australia are often low in both fibre and fruit (AIHW, 2013; Burns et al. 2000). It is possible that there is also a decrease in vegetable consumption caused by the increased prices (compared to country of origin) and limited knowledge of Australian fruit and vegetables (Focus group; Palermo et al. 2012).

Nutritional deficiencies are also common amongst refugees (NSW Refugee Health Service, n.d.). Vitamin D & iron deficiencies are the most common amongst refugees (Gallegos & Ellies, 2007). Iron deficiencies may be due to several reasons, such as financial issues resulting in a decrease in meat consumption or high consumption of tea (tannins) which interferes with iron absorption (Gallegos & Ellies, 2007). Vitamin D deficiencies in Afghan women are common because the women have majority of their skin hidden from the sun (Focus Group). Despite Afghan women being concerned about these deficiencies, only half were taking their prescribed supplements (Gallegos & Ellies, 2007; Focus group).

1.4 Theoretical Framework

The program created is based on the 'Ottawa Charter for Health Promotion' (Hughes, R & Margetts, B 2010).

This program relates to four out of five of the Ottawa Charter components. It s*trengthens community action* by improving the nutrition knowledge of the participants. Furthermore, targeting Afghan women strengthens the program as Afghan women are the main food preparers and changes made will impact on the health of the whole family (Hughes, R & Margetts, B 2010). By providing education on healthy modifications to traditional meals this program *develops personal skills*. Educating Afghan women about nutrition helps to improve the health of the whole Afghan population in Mildura which corresponds to the element of *reorienting to health services* (Hughes, R & Margetts, B 2010).

Particularly during the session, the participants are in a *supportive environment* as they are provided with healthy refreshments and a session that is culturally appropriate. It also gives Afghan women the opportunity to increase their nutrition knowledge to improve the nutritional value of the meals they cook for their family, therefore creating an environment which supports a healthy diet for their families (Hughes, R & Margetts, B 2010).

The final program has also been based on the 'Health Belief Model' (Nutbeam, Harris & Wise, 2010). There are four elements to this model that are suggested to cause individuals to take action in regards to their health (Nutbeam, Harris & Wise, 2010). These are if they believe they are susceptible to the condition and/or problem and understand that it can have potentially serious consequences. Individuals need to be aware of how to minimize the problem and need to believe that there will be benefits of taking action which will outweigh the barriers to making these changes (Nutbeam, Harris & Wise, 2010).

The program includes information on the health consequences of high sugar, fat and energy intakes and provides simple suggestions to improve the traditional Afghan diet to reduce the likelihood of these health consequences. As indicated in the needs assessment, many women understood that they were at risk of nutritional deficiencies, and for this reason the information also focused on how to avoid nutritional deficiencies.

2.0 METHODS

2.1 Planning & data collection methods

Table 2 outlines the various planning and data collection methods that took place throughout this project, in order to develop the final nutrition education program.

Table 2: Planning and Data Collection Methods

Date & Data collection method	Meeting Attendees	Topic	Comments
A *focus group* was held on February 3rd 2014	• 9 refugee women from Iran and Pakistan (attending the ELS in Mildura) • Project Officer	• Background information (Appendix 1) was collected on: - Afghan cuisine - Health concerns - Nutrition related challenges on arrival into Australia - Nutrition education the women were interested in.	• This information was included in the needs assessment • The focus group was not held with Afghan women as it was difficult for the project officer to contact these women at this point in time.
A *meeting* was held on February 7th 2014	• Refugee Torture and Trauma Counsellor at Sunraysia Community Health Services (SCHS) • Project Officer	• The Refugee Torture and Trauma Counsellor was interested in creating a nutrition education program for Afghan women. • The meeting was therefore to discuss possible program ideas and ways to work together.	• From this meeting, another meeting came about with the Settlement Grants Program (SGP) worker at Sunraysia Mallee Ethics Communities Council (SMECC) as he was interested in holding a cooking competition with Afghan women.
A *meeting* was held on 11th February	• SGP worker at SMECC • Community officer at SMECC • Refugee Torture and Trauma Counsellor at SCHS • Project supervisor/Dietitian at SCHS • Project Officer	• This meeting discussed possible program ideas and ways to work together.	
A *meeting* was held on February 17th	• SGP worker at SMECC • Community officer	• This meeting was to discuss how the session would run, to	

	at SMECC • Project Officer	allocate sections to each facilitator and to edit and translate the headings for the 'Vegetables in Mildura' resource (Appendix 2).	
Multiple phone calls took place from 11th February – 26th February	• SGP worker at SMECC • Project Officer	• These phone calls took place during the program planning stage and discussed the session content, date and suggested resource modifications	
A pilot session took place on 26th February 2014	• 34 Afghan women recruited via SMECC & 16 of their children • SGP worker at SMECC • Community officer at SMECC • Refugee Torture and Trauma Counsellor at SCHS • Project supervisor/Dietitian at SCHS • Project Officer • English teachers from the ELS	• This was a pilot of the developed nutrition education program (Section 3.2).	• The pilot identified the need for several changes to the program and its content (Section 3.2)

Following the focus group, the culture and cuisine of the Afghan population was further researched to provide a background for the nutrition education session. A needs assessment was also conducted which indicated the major nutrition issues to target in this population group, considerations to take into account when working with Afghan women and the best ways to engage with this population group.

2.2. Evaluation procedures

There are two sections to the evaluation. These are to be completed immediately after the session and 3-months later (Appendix 6).

As previously mentioned, many Afghan women are illiterate (MRCC, 2008). For this reason when creating an evaluation process, the most appropriate method is to verbally ask women the evaluation questions using an interpreter to translate the questions and answers (Zahinda, B 2014).

As the facilitators are responsible for asking the evaluation questions, it was deemed in-appropriate to ask questions relating to process evaluation such as how the participants felt about the facilitators' knowledge and approachability. Furthermore, a question such as "did you feel comfortable during the session" could not be included as the women may not answer if their concerns were relative to the facilitators or other participants who were present. Instead, the question "Did this session respect your cultures and beliefs?" was included to indicate if the women felt comfortable and respected. A question asking for additional comments is also necessary to collect further feedback which may have otherwise be missed.

The evaluation process conducted immediately after the first session (Appendix 6) aims to collect mostly process evaluation data; however it includes a question regarding the use of new knowledge and skills to collect impact data (Hughes & Margetts, 2010). These questions aim to determine the quality & suitability of the content and materials, as well as the satisfaction of the participants (Hughes & Margetts, 2010). They also ensure that attendance is collected to allow the reach to be determined (Hughes & Margetts, 2010).

Phone surveys will be conducted to collect the 3-month evaluation data as it would be impractical to use written surveys due to literacy issues in this population group (CIA, 2014; Community Toolbox, 2013). It would also be unlikely that all of the women would attend a meeting to provide the feedback in person. Contact details i.e. phone numbers, will be collected from SMECC, after permission has been received from the women. The bilingual community officer from SMECC would be a useful interviewer for the 3 month follow-up evaluation due to her ability to translate and also her Afghan nationality. The 3-month follow up evaluation will collect impact evaluation data by asking participants how they have used the information presented in the session (Hughes & Margetts, 2010). This evaluation also includes process evaluation data relating to the booklet for example "Was the booklet easy to read?" (Hughes & Margetts, 2010). However this follow-up evaluation form was unable to be trialed due to the time restrictions of this project.

Images and visual aids were not included for either of the evaluation forms as the participants aren't completing the form themselves. However, check boxes, numerical language and white space was used for the ease of the facilitator's readability and execution

(Marsden PV & Wright JD, 2010). By asking participants the questions immediately after the session it will minimize the number of non-responders.

3.0 RESULTS & DISCUSSION

3.1 Summary of Program

The target group of the program is Afghan women currently living in the Mildura region, who have been living in Australia for greater than 6 months. The session planned in collaboration with SMECC included 2 x two hour education sessions and had the opportunity to be on-going, dependent on feedback from the initial session. The first session was organised to run from 4-6pm and would use a bilingual community officer as an interpreter.

Prior to the first session the Afghan women will be required to cook a traditional meal at home to bring along. The first session provides basic nutrition information such as what the role of nutrients are in the body, which ingredients are considered healthy or discretionary and substitutions to improve the nutritional status of their meals (e.g. add vegetables, decrease oil) (NHMRC, 2013). The "Vegetables in Mildura" resource will be distributed in this session (Appendix 2). The second session will provide more detailed nutrition information i.e. fibre.

The needs assessment indicated many considerations when preparing a nutrition education program for Afghan women in Mildura. Table 2 shows the considerations made and how the *final* program plans to overcome them. Note that, not all of these solutions were included in the pilot session.

Table 2: Considerations highlighted by needs assessment	
CONSIDERATION	**SOLUTION**
Literacy	• Speak verbally to the women rather than using writing or written resources • Use images
Language Barriers	• Use an interpreter to translate the nutrition education • Use images
Uneducated	• The session was designed so that there were no preconceived ideas of participant's knowledge. It includes basic information suitable for all education levels.
Halal food and equipment is required	• The meal is to be prepared at home so the women are able to use their own equipment. • The ingredients will be from Halal suppliers and the women will be involved in the collection of ingredients so they are aware they are Halal.
Afghan women are the main food preparers	• This session was targeted at Afghan women as they are the main food preparers and therefore will have the most impact on changes to the family meal.
Information on healthy eating should be specific to the whole family (inc. children)	• The session aims to provide information for use in everyday situations suitable for the whole family.
Afghan women prefer to cook traditional meals rather than unknown or Western dishes.	• The session focuses on modifications to traditional meals to improve their nutritional value.
Refugees experience financial difficulties	• Information provided to participants is specific to individuals on a low budget. E.g. the session suggests trimming the fat off meat rather than suggesting to buy lean varieties. It also suggests to decrease the amount of regular mince, and add extra legumes to decrease the fat content instead of buying lean mince as this is a cheaper option.
Vitamin D & iron deficiencies are common	• The session included information on foods that are high in Vitamin D and Iron as well as foods that improve their absorption. The session also stresses the importance of taking prescribed supplements.
Women were interested in knowing the nutritional value of foods	• The session focuses on the nutritional value of common ingredients used in traditional cooking.
There is an increase in saturated fat intake of refugees since coming to Australia.	• The session outlines saturated and unsaturated fats and their food sources.
There is an increase in total energy intake due to increased oil and sugar consumption	• The session includes information on the consequences of excessive intakes of oil and sugar and suggests that participants reduce their intake of these ingredients.
There is a high consumption of tea (tannins) and soft drink (dental decay in children)	• The session educates women on the effects of high tea consumption (tannins) on iron absorption and the consequences of soft drink consumption.

3.2 Pilot Findings

As previously mentioned, a pilot of the first session was conducted. There were several positive outcomes from the session, one being the attendance rate. Thirty-four Afghan women and 16 children attended the session which was held as SMECC in consultation with their SGP worker and Community Officer. The beginning of the session was a brief presentation on mental health services available for Afghan refugee's in Mildura and an introduction to the Refugee Torture and Trauma Counsellor at SCHS. The women weren't very attentive during the beginning of the session, however were more focused during the nutrition education component of the session. The nutrition component of the session ran for approximately 20 minutes (Appendix 5). At the end of the session the traditional meals were shared between all attendees, which tied in with the cultural appropriateness of the session, as Afghan women consider the refusal of a meal impolite (Metah, 2005). This also reinforced the message of creating healthy meals to eat together with family and friends.

The pilot of the session demonstrated several areas for improvement as well as several considerations for future sessions. The first issue was regarding punctuality. The women arrived between 10 minutes to 1 hour late to the session. As a result, the session began over 90 minutes late and was only able to run for 50 minutes (including eating the meals).

The timing of the session (4.00pm-6.00pm) meant that the Afghan women brought their children along, which at times was distracting, which meant that at times the women were inattentive throughout the session. The room was also very loud, however partway through the session a microphone was located to use. This made it easier for the attendees to hear the facilitator and hence the women were more attentive after this point.

The facilitators planned to use the whiteboard to write the Hazaragi and English names of the ingredients and a summary of the nutrition information. However, as some of the women were unable to understand or see the writing on the whiteboard it was left out of the pilot session. The facilitators relied on a bilingual English language teacher to translate the content to the women, which differed from the original idea which was to use a bilingual community worker. The translator did not strictly translate between the facilitator and the participants. The translator also answered the women's questions without necessarily consulting the facilitator first. This reinforced the importance of only using untrained interpreters when a professional interpreter is unavailable (QCOSS, 2013).

Another area for improvement was that the resource handed out was not explained to the women. Furthermore, soft drink and juice were served as refreshments as organised by SMECC, which did not correspond with the aim of the session, which was promoting a healthy diet.

Another cultural consideration not previously accounted for was identified during the session. Whilst collecting the meals the woman responsible for bringing the meals had car problems and cultural beliefs meant that she was unable to get in a car with someone from a different background and this exacerbated the lateness of the session.

Findings from the evaluation form

Feedback from SMECC and SCHS indicated that the women were happy with the presentation and were interested in future nutrition education sessions. There were no changes suggested in the participant evaluation, with all feedback being positive.

It is possible that the feedback had positive bias as the project officer asked the women the evaluation questions (using a translator). The women were also asked to put their hands up to indicate yes, and leave them down for no. It is possible that the women did not feel comfortable in sharing negative comments about the program in this situation given that there was no anonymity. However, as the participants were unable to read and write in English this was the only time efficient way to conduct an evaluation (Zahinda, B 2014).

Changes made to the program based on the pilot session

- The duration of the session was changed from 2 x 2 hour sessions to 1 x 2 hour session as this was sufficient time to cover all of the nutrition content and allows for potential punctuality issues.
- The session will be run during the day and will lead into lunch time, for example 10.00am-12.00 noon. This would mean the children are at school which would minimize distractions and the women would still be able to eat their dishes as lunch. These changes aim to improve the attention and noise issues noted in the pilot session.
- Prior to the distribution of the resource the facilitator will explain the use of the resource to avoid any confusion or the resource not being utilized as it is not understood.
- A professional interpreter will be used to translate between the facilitators and the participants to ensure that the communication is strictly between these people only.
- Only water, tea and coffee should be provided to participants as refreshments, soft drink and juice should not be provided.
- The program will be on-going program targeting the new arrivals in Mildura from Afghanistan.
- The content of the session will also include information on the consequences of excessive soft drink and tea (tannin) consumption.

3.3 Resources

A 'Vegetables in Mildura' resource was developed to be distributed to the Afghan women (Appendix 2). This resource contains a list of vegetables that are available in the Mildura region, as produce in this region can differ from produce in Afghanistan (Zahinda, B 2014).

The resource includes an image of the vegetable, the English name and International Phonetic name, as well as a blank section for the women to write in their written language (if literate). As there are many different languages spoken this also allows other nationalities to use the booklet, and does not limit it to the Afghan population. The International phonetic language was included for those who are literate and can understand International phonetics, but unable to read English. The resources have been produced for the nutrition education sessions as well as for inclusion in the refugee arrival packs distributed at SMECC.

Images of each ingredient were also sourced for use in the sessions (Appendix 3). These images were not shown in the pilot, however can be used in the future using a projector if the women do not understand what the ingredient being discussed is.

4.0 LIMITATIONS

As mentioned in Section 2.2 (Evaluation process) the questions relating to participant comfort during the session were limited as the facilitators were asking the questions to the participants. Furthermore, there were no evaluation components to measure changes in knowledge which relates to impact evaluation (Hughes & Margetts, 2010). A pre/post knowledge test was excluded from the session as the language barrier meant that this would be too time consuming.

The language barrier also means that the session relies on a translator. However, it is possible that a bilingual translator does not speak the same language as all of the Afghan women in the session. Another limitation is that not all English words can be translated.

The program relied on the cooperation and collaboration of stakeholders which altered the original program that was envisaged from the literature review and needs assessment. This meant that not all of the needs of the Afghan women in Mildura were met and that the project did not fit ideally within the health promotion models discussed in Section 1.4. However, working with stakeholders has provided additional insight and information into the Afghan culture that was necessary to develop an effective nutrient education program.

5.0 CONCLUSION

The overall aim of this project was to conduct a needs assessment for use when creating a nutrition education program for the Afghan refugee community in Mildura. The project included the development of resources for use in this education program and an outline of the final program.

The needs assessment and a literature review identified priorities of action in this population group and indicated a number of barriers to be considered when developing a nutrition education program. The most dominant barriers to be considered in the development of this program where those regarding culture and education. The final nutrition education program aims to educate Afghan refugee women about healthy eating to reduce the prevalence of chronic diseases in adults and children and is designed to be both effective and sustainable.

The research conducted as part of this report indicates the need for education on general healthy eating for children and healthy substitutes for discretionary foods (i.e. soft drink and 'junk' food) in this target group in the future.

As discussed with at the refugee team meeting, in the future this program could have a multi-disciplinary approach. It was proposed that four sessions be held, with speakers from dietetics, dental and physiotherapy. A dietitian could run four sessions, one as outlined in this report and the others on high sugar foods, 'junk' foods, healthy lunch boxes for children and exercise. The dentist could also discuss high sugar foods and the effect on dental health and the physiotherapist could discuss the importance of exercise. It was discussed that these sessions could be incorporated into the ELS classes once per term, as the women would already be attending these sessions. These four sessions could also be held at SMECC.

6.0 REFERENCES

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