

Persons - active

CAFAD

Curtin University's Activity, Food and Attitudes Program

GIVE YOUR BODY THE RIGHT FUEL

Stage 1 – Formative Research

Enhancing activity, nutrition and mental health in overweight adolescents

**Enhancing activity, nutrition and mental health in
overweight adolescents**

Stage 1 - Formative Research

Funded by a

Healthway Health Promotion Research Grant (# 19938)



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1.0

Introduction

1.0 Introduction

There is a clear and demonstrated link between increased sedentary behaviours, over nutrition and overweight (including obesity). Traditionally, in most developed countries, overweight has been a concern in older adult populations however there are now alarmingly high levels of overweight in younger age groups. Current statistics indicated that around 25% of Australian adolescents are now overweight or obesity. Furthermore, chronic lifestyle conditions (related to diet and inactivity) formally associated with middle aged adults, are now prevalent in children and adolescents. The World Health Organization has named overweight and obesity as one of the major public health epidemic facing the world today.

Several interventions have been conducted targeting overweight adolescents with limited success however most have focussed on weight management of the adolescent only. This study seeks to build on emerging evidence suggesting key risk factors for overweight in adolescences include parental overweight, socioeconomic status and their psychosocial environment. This project aims to investigate the relationship between physical activity, nutrition and psychological wellbeing in overweight adolescences using a whole of family approach.

The project research team previously successfully adapted a tertiary hospital adolescent obesity intervention and piloted it in a university-based community setting with clinically obese adolescents and their families in 2009 (Curtin University's Activity, Food and Attitudes Program – CAFAP). The first stage of the current project, funded by a Western Australian Health Promotion Foundation (Healthway) Research Grant (#19938) was to refine the adapted program and its evaluation framework based on individual, family and community enablers and barriers so it could be delivered in local community settings by a multidisciplinary team of health professionals in a second stage. This report details the findings from this formative research.



A collage of various materials including paper, fabric, and a sign that says "NO COVER". The collage features a mix of textures and colors, including a yellow and black striped pattern, a blue and yellow pattern, and a black and white checkered pattern. The text "NO COVER" is visible on a dark background in the upper left corner.

2.0

Aims and objectives

2.0 Aim and Objectives

2.1 Aim

The **aim** of the project was to refine, implement and evaluate a multi-disciplinary family-centred community-based intervention intended to influence the physical activity, nutrition and psychosocial behaviours of overweight adolescents in Western Australia.

2.2 Objectives

Specific **objectives** of the project were to:

1. Identify key individual, family and community enablers and barriers to the implementation of a multi-disciplinary family-centred intervention delivered in a community setting;
2. Develop and trial a process, impact and outcome evaluation framework suitable for metropolitan and regional communities; and
3. Implement and evaluate a multi-disciplinary physical activity, nutrition and psychosocial intervention with overweight adolescents and their families in metropolitan and regional Western Australia.

This report will present the **findings of Stage 1** of the project dealing with the first project objective. To achieve this objective two groups of informants were used – adolescents and their parents, as well as key stakeholders. Focus groups were conducted with past participants of CAFAP as well as other adolescents and parents who had not participated in CAFAP. The focus groups sought to ascertain the experiences of past participants and gain an understanding of what would encourage potential participants to become involved in CAFAP if it was available to them in their community, stay with the program and maintain lifestyle changes after the program. Interviews were conducted with a range of key stakeholders including community organisation leaders, local council officers, policy makers, researchers and health professionals. The interviews focussed on barriers and enablers to recruiting families to the program, keeping families engaged and encouraging maintenance of healthy changes. Details of the method and results for both groups are presented below.

3.0

Focus Groups Methods

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3.0 Focus Group Methods

3.1 Sample

Adolescents and their parents/carers who were past participants of the pilot program were invited to attend focus groups to discuss their experiences during and after the program, what they liked about the intervention and how CAFAP could be improved.

Adolescents who were overweight and aged 12-16 years, and parents/carers of overweight adolescents were invited to participate in focus groups to obtain their opinions about CAFAP and what would motivate them to be involved in CAFAP if it was run in their local community.

3.2 Recruitment

Past participants: A letter was sent to adolescents and their parents/carers who had been involved in the CAFAP, to participate in a focus group. Follow-up emails and telephone calls were also used to maximise attendance. Participants were also given the option of completing a survey electronically if unable to attend a focus group.

Potential participants: Overweight or obese adolescents and families were recruited for focus groups through general practitioner referrals, other health professional referrals and advertisement through community newspapers, schools, newsletters and radio.

3.3 Focus groups

3.3.1 Focus Group Protocol

A focus group protocol was developed to provide information to focus group participants relating to the process and procedure of the group discussion. The protocol included: an introduction to the facilitator and observer; an outline of the purpose of the focus group; group rules relating to confidentiality, honesty, respecting others opinions; and clarifications of terminology to be used (see Appendix 1).

3.3.2 Focus group schedule

Focus group schedules were developed to provide facilitators with a series of questions appropriate for each of the groups involved (see Appendices 4-7). Guided by themes emerging from the literature together with concepts considered important to address the purpose of this formative study, predetermined areas of inquiry included: related to: who they would ask about a program like CAFAP; what would get them interested in being involved; what problems might arise in completing all components of the program; how would they maintain changes after the program ends; and what services or facilities are available (or would they like) in their own communities to support a healthy and active lifestyle for families.

Whilst the focus group schedule was used to guide discussion based upon areas considered important to the purpose of the research, the flexibility of the discussion allowed the facilitator to follow valuable avenues of inquiry. Emergent themes provided direction for areas of further investigation during subsequent focus groups.

3.3.3 Conduct of focus groups

Separate groups were conducted with adolescents and parents/carers with a facilitator leading discussion using a series of questions relevant to the key outcomes of the research. All participants were provided with an information sheet and a consent form prior to the commencement of the focus groups (see Appendix 2& 3). Written consent was completed by participants prior to their inclusion in a focus group.

With permission from participants, each focus group was audio-taped for accuracy of transcription and analysis. A trained facilitator and/or observer was present at all sessions to record the content of discussions.

3.3.4 Qualitative Data

As soon as practicable following each focus group (within 48 hours), responses to the focus group questions were transcribed and analysed thematically.¹ The data from each focus group were then amalgamated and the major themes detailed using quotes from participants to support these findings.



4.0

Focus Group Results

4.0 Focus Group Results

Feedback was sought from parents and adolescents who had taken part in Curtin University's Activity, Food and Attitudes Program (CAFAP) in 2009 and 2010 and also from potential participants. The aim was to identify barriers and enablers to participation, and explore ways to maximise participation in the community intervention to refine CAFAP.

4.1 Participant feedback

Two focus groups were held with parents and adolescents who had participated in CAFAP. The aim of the focus groups was to collect participants' feedback on the program, with a view to identifying barriers and enablers to participation, and exploring ways to maximise participation in the community intervention.

4.1.1 Adult feedback – Past participants

A focus group involving four parents who had taken part in CAFAP was held in May 2011. Participants were invited to discuss their personal experience of the program and provide feedback on its content and structure. In addition, participants were invited to discuss their views on the community resources which might encourage families to adopt and maintain healthy lifestyles (see Appendix 4).

4.1.1.1 Finding out about CAFAP and joining the program

Three parents found out about the program through Princess Margaret Hospital, as their children had regular follow-ups at that hospital; two of the children were followed up for asthma and had been referred to the program by dieticians, while the third, a child recovering from cancer, had been referred to the program by a physiotherapist. One parent found out about CAFAP through an advertisement placed in the community paper.

One parent pointed out that CAFAP's family-oriented focus had attracted her to the program, another admitted to having joined the program out of desperation as her child's weight kept increasing, while another cited the need for her son to become fit after spending six months in hospital as the reason for joining CAFAP.

4.1.1.2 Benefits of the program

Parents cited gaining an understanding of food labels and having a better understanding of the exercise requirements of their children as specific benefits of participating in the program. Above all, however, parents highlighted the opportunity for networking and understanding their children better as the most important benefits of CAFAP. One parent commented:

'Networking, talking to other parents who had the same problems you had with your child in regards to weight, exercise, and it was great knowing that I was not the only one struggling, that was my biggest thing. And I learned lots; you think being a parent you know lots, but you realise from doing this program that there's so much that you don't know in regards to kids and their dietary habits, and also about yourself, you know, you learn a lot about yourself as well doing the program.'

(Parent Participant, Focus Group)

All parents agreed that participating in the program had brought them closer to their children, and they talked affectionately about enjoying one-on-one time with their children during the drive home after the sessions. One parent said:

'The closeness was brilliant; it wasn't just what the course set out to do, it did bring the parent and the child together on another level.'

(Parent Participant, Focus Group)

Another parent reflected:

'Seeing the world through her eyes, that was a massive eye opener.'

(Parent Participant, Focus Group)

4.1.1.3 Barriers and enablers to participation

The timing of the sessions was widely identified as a potential barrier to joining CAFAP. Parents identified the early starting time of 4.00pm as an issue, and a starting time of 4.30pm was suggested. Parents generally felt that they had to rush to make it to the session on time, and one reported occasionally having to have dinner in the car. Also, driving to Curtin during peak hour meant that parents had to leave work early and make up for the time lost on CAFAP days. However, parents thought this effort worthwhile because it was beneficial to their children; as one parent commented:



'It was to help my son, and you'd do anything to help your kids; if it means putting yourself out and losing for yourself who cares – as long as it benefits your kids, you do it.'

(Parent Participant, Focus Group)

Time constraints were commonly identified as a barrier to completing home exercises, and parents wished that they had been able to complete them during the session. One parent reflected:

'While I'm having the dinner, I'm doing the washing, doing the drying up, the ironing, whatever needs to be done, but that extra bit of paper, by the time you get to 10.30 it's like 'oh, my god, no way, just leave it.'

(Parent Participant, Focus Group)

Parents did not report any issues completing the follow-up questionnaires and fitness tests because they were done at the venue.

4.1.1.4 Program content and format

Parents thought that the program could have run for longer – an extra week or two – as there was a common perception that the sessions were not long enough, resulting sometimes in an overload of information. In particular, parents thought that the psychology sessions could have been longer and that the psychology component should have been given more priority early in the program to allow parents to open up and share their issues and concerns.

One parent explained:

'That would have allowed a little bit more time in the six weeks to get to the finer aspects of where we, not go wrong but where we to look at, whereas I found that half the session you really needed to really open up [...] we didn't know each other'

(Parent Participant, Focus Group)

Parents thought very highly of all facilitators, but it was commonly felt that there was insufficient time to discuss issues with them. One parent reflected:

'All the parents were so into it [...] that's why you sort of needed an extra hour per session or a few weeks onto it, yeah. [The facilitators] were just fantastic, you couldn't have asked for anything better.'

(Parent Participant, Focus Group)

Parents enjoyed joining the kids in the gym and suggested having more of these sessions, and they also enjoyed the involvement of their younger children.

One parent felt that the session on energy input and output could have been expanded and more emphasis placed on showing the kids the effects of unhealthy eating, however, another parent pointed out that some children were not mature enough for that information to 'register'. In addition, one parent thought that the section on food additives could have been expanded.

All parents enjoyed the cooking session and thought that the children would have benefited from it too. Parents did not clearly understand the purpose of the tasting session, and they suggested that the session should be amended so that it exposed children to new foods or tastes, for example humus, instead of using foodstuffs (apples were given as an example) with which children were likely to be familiar.

Parents wished to have had catch-up sessions after completing the program, and they suggested refresher courses. One parent emphatically exclaimed:

'My god, I wish we could do it again!'

(Parent Participant, Focus Group)

4.1.1.5 Changes made as a result of CAFAP

The most commonly reported positive outcome from participating in CAFAP was an increased awareness of the food that is put on the table, which resulted in more awareness when shopping, for example checking the labels for fat and salt content. One parent spoke of having adopted a family exercise routine as a result of the program, having family cycling races every Saturday and using goal-setting skills learnt during the program. This parent explained:

'We tackle everything in minute things; if five ks still frightens you, then we'll drop down to one, and so what. If you're only at the very beginning, the first time you get on your bicycle you cycle one k, so what, that was better than doing nothing yesterday.'

(Parent Participant, Focus Group)

4.1.1.6 Community resources for healthy families

Schools were identified as the most important community resources to help children and their families adopt and maintain a healthy lifestyle. There was a perception that schools were not doing enough, and that what was taught in class about nutrition was undermined by the unhealthy food offered at school canteens despite the implementation of systems based on the *WA Health Traffic Light System*. One parent cited an example which highlighted this issue:

'My daughter's doing Year 8, she's doing home economics. Guess what they're cooking? Chocolate cake, simple as that. I mean, it's nice to have, but they're not taught that it's nice to have a little bit, yes, and once in a blue moon it's ok; but they don't, they sit there and they have it for morning tea, chocolate cake.'

(Parent Participant, Focus Group)

Parents suggested that nutrition and physical activity programs should be introduced in schools earlier, starting in primary school, as it was perceived that the teenager years might be too late. One parent lamented that her other daughter had been too young to participate in CAFAP.

Parents wished for more accessible leisure centres where children could go while parents were at work, as entry fees were seen as a barrier to access. They also wished for community exercise groups, as it was perceived that everything had to go through sporting clubs, and more direction as to where to find people with similar interests to form a walking or cycling group.

Parents viewed programs such as CAFAP as beneficial because they combined physical activity with information about food, and they wished for more information on healthy food shops in their communities, and support for community gardens.

4.1.2 Adolescent feedback – Past participants

A focus group involving four adolescents who had taken part in the program was held in May 2011 (see Appendix 5). (Adolescents and parents focus groups were in separate rooms].

4.1.2.1 Benefits of the program

All adolescents reported benefits from participating in the program, even though two indicated that it had been their parents' decision and they had had no say in joining the program. Reported benefits from CAFAP included weight loss, increased energy, being able to join in sport activities with friends, and learning about nutrition and physical activity. One teenager enthusiastically commented:

'I'm a success story, look at me now! I can run upstairs and do weights. You just need to look at me to see. I was so big before.'

(Teenage Participant, Focus Group)

Adolescents also reported acquiring goal-setting skills, and this was mentioned as a valuable benefit of the program.

4.1.2.2 Barriers and enablers to participation

Online advertising was seen as the most effective way of promoting the program and maximise participation, and having a website showing people having fun. Also, allowing the whole family to come along to the session – i.e. siblings, not just parent and child – was suggested, as was opening the program to older participants – 16- and 17-year-olds – because older adolescents had difficulty relating to younger ones. One teenager who was 15 at the time of the program commented:

'There was only one person who was turning 15 at the end of the year, and they don't really have much to talk about, and it's just all of them were talking about their younger kinda things.'

(Teenage Participant, Focus Group)

Adolescents thought that the program should be run in the community. One teenager said they would have liked to do the program again, but the rest were unsure, and one pointed out that reminder lessons might be a better option to having to learn everything all over again.

Adolescents did not report any major barriers to keeping up with the program activities. Home activities were not experienced as an issue by adolescents, who even suggested that there should be more activities, with one teenager calling for one activity every day. Similarly, the majority of adolescents found the forms easy to complete, and no barriers were reported relating to completing the questionnaires and physical fitness tests.

4.1.2.3 Program content and format

Adolescents enjoyed the content of the program overall, and valued the fact that it included physical activity and nutrition components. They cited the cooking and nutrition sessions (reading food labels, visualisation of sugar content of drinks), as well as the exercise classes as the program components they had enjoyed the most. Goal-setting was also cited as valuable, and having more goal-setting exercises was suggested.

Feedback on the gym sessions suggests that adolescents did not find them challenging enough. Although adolescents made positive comments about the facilitators, they suggested that instructors should be stricter, and one teenager commented: 'they need to be harder on kids'. It was also suggested that participants should be able to play their own music (iPod) during the sessions, or have music that 'makes you exercise faster'. A buddy system was perceived as being motivating by most participants, and a buddy randomly allocated from within the group was preferred to a friend. Adolescents suggested 'tag-teaming', and one commented:

'Would be great to train with someone else in the group. Random assignment would mean you meet more people. [You] could 'tag-team' one exercise until you can't go anymore.'

(Teenage Participant, Focus Group)

In addition, adolescents suggested changing sports every week, as some found it boring to do the same sport every week, and one teenager reported not having participated in any sports during the program.

Setting up a website with lessons, tips and ideas was also suggested.

The timing of the sessions elicited mixed responses, and while some adolescents were happy to leave school early, one lamented having missed school.

4.1.2.4 Lifestyle changes as a result of CAFAP

Adolescents reported feeling fitter and stronger after completing the program. They also reported an increased awareness about junk food. All participants enjoyed the goal-setting exercises, and some reported having maintained their goal-setting skills following the completion of the program

In order to sustain the changes implemented as a result of CAFAP adolescents suggested having a website with more ideas and tips, and one teenager suggested that a virtual reality game should be developed that would involve whole body movement, pointing out that *Wii Fit* does not require whole body movement and can be played sitting down.

4.1.2.5 Community resources for healthy families

Teens cited team sports such as T-ball as community activities helping families stay healthy; also mentioned as beneficial were inter-school sports.

4.2 Potential participant feedback

In addition to the focus groups involving participants in CAFAP, feedback was sought from potential participants, including adolescents and parents. The aims were to obtain the views of potential participants on the program content and format, explore whether they would be interested in attending a program like CAFAP, and identify potential barriers and enablers to participation. Feedback was obtained through four focus groups involving 4 adult and 39 adolescent potential participants. In addition, feedback was obtained in writing from four additional parents and one adolescent. All feedback has been incorporated herein.

4.2.1 Adult feedback – Potential participants

A focus group session involving four parents was held in July 2011 (see Appendix 6). In addition, feedback was also received in writing from four parents.

4.2.1.1 Sources of information on healthy programs

The majority of parents reported that they would seek information on programs on physical activity and nutrition for their children from their general practitioners. The Internet, school nurses, community sports centres, teachers, work colleagues and friends were also cited as potential sources of information.

Parents thought that a program like CAFAP would benefit their children as it would provide them with healthy lifestyle strategies. Parents valued the program's whole-family approach, and the combination of physical activity and nutrition components. One parent noted that it was important to have the information coming from somebody else, rather than from the parent to the child, while another pointed out that a program such as CAFAP would provide adolescents with a safe environment where they would not be harassed or bullied because of their weight issues.

4.2.1.2 Barriers and enablers to participation

Time and timing issues were commonly identified as the main barriers to joining and staying in the program, and these related to the time spent driving and fitting in other family commitments, including children's extracurricular activities and parents' work. Focus group participants indicated that the best time for the sessions would be immediately after school, and that the sessions would have to finish at 5pm at the latest; this was seen as the only window of opportunity between school and other extracurricular activities. To avoid rushing home and having to prepare a quick dinner, one parent suggested that each family could bring a healthy plate and share it with other participants at the venue.

Parents also identified the location of the sessions as a potential barrier to participation. The school was regarded as the best location, and one parent pointed out that giving the increasing price of fuel, the sessions should ideally be held within 10 kilometres.

Lack of recognition from parents that their child's weight is an issue was also identified as a potential barrier to joining the program. However, children's motivation was not seen as a barrier by most participants. One parent commented:

'I think most of them would be right, it's just the issue of... I mean, like my daughter didn't like doing phys ed here [the school] because of the attitude of the other kids, the skinny kids right, yeah, they kept harassing her and picking on her because of her weight.'

(Parent, Focus Group)

Cost was also cited as a potential barrier, and parents agreed that the program would need to be affordable, given the increasing cost of living and families' tight budgets. One parent said:

'The Government should see fit to subsidise something like this alright, 'cause they keep talking about 'we've gotta do something about the obesity of our children'. If they're not going to put the money forward, then there's... I mean I work two jobs just to try and make ends meet, I don't sort of have the extra money to spend on stuff like this.'

(Parent, Focus Group)

Among parents who took part in the focus group, there was a perception that paying a small fee per session – an upfront payment was considered unaffordable – would be preferable to having free sessions. One parent explained:

'I think it was made free too, you might get people who might not really wanna be there for the right reasons, and it might be a bit too overcrowded.'

(Parent, Focus Group)

With regard to barriers to staying in the program, other commitments – including work commitments and children's other interests and extracurricular activities – were seen as potential barriers. Some parents also thought that they might stop being involved in the program if they or their kids did not enjoy the program, or if the kids were pushed too hard. One parent noted:

'I think the only thing that would really stop somebody would be a huge personality conflict, right, with the kids with the trainers, instructors, whoever is running it, 'cause if the child doesn't like the person, they're not gonna sit there and listen.'

(Parent, Focus Group)

Only one parent raised the duration of the program as a potential barrier.

Parents suggested strategies to engage families and encourage them to stay involved in the program. These strategies included: having a variety of sessions so that parents can choose the time that suits them, making the program fun, praising the kids for the efforts, setting goals, and having rewards at the end of the program.

Advertising the program through major radio stations – particularly those that are popular with adolescents – was seen as the most effective way to encourage families to attend the program. Parents also mentioned leaflet drops and advertising in the healthy food section of supermarkets. Sending a notification in school newsletters was also seen as an effective strategy, as the program would be linked in with the school, kids would know about it, and

parents would be more likely to read the school newsletter that is mailed to them than the community paper.

Parents suggested setting up a website with all necessary information about the program, including testimonials from previous participants, and an on-line registration form with payment abilities. Parents suggested that the program should be advertised as a lifestyle change, as the following exchange between parents attending the focus group illustrates:

'Say 'we're about a lifestyle change', not a diet, 'cause that's what you need to do, actually, a lifestyle change, otherwise you're just gonna yo-yo for your whole life.

Like feeling healthier, more than looking healthier.

And feeling better within yourself.'

(Parents, Focus Group)

This approach was thought to be motivating for adolescents:

'I think at this age, liking who they are and who lives inside their skin, being proud of themselves, is important to them.'

(Parent, Focus Group)

Parents believed that adolescents should attend the course willingly, for 'the right reasons'. When discussing possible incentives to participation, vouchers – for example for a sporting shop – were seen as a good alternative to money. One parent despaired that school rewards tend to be lollies or vouchers for fast-food outlets.

4.2.1.3 Program content and format

Parents were keen to participate in joint sessions with their children, and they thought that combining joint sessions where parents and children are together and learn together with separate sessions for adults and adolescents was the best approach. Most parents said that they would be happy to join their children during the first gym session, although one thought that the first session should be tailored to what each child wants to achieve, and another pointed out that they would discuss it with their child first.

In terms of program content, parents valued learning something new each week, for example, learning a new recipe every week and how to adapt it to different family sizes. They also valued having the opportunity to ask questions.

E-mailing electronic copies of the follow-up forms was perceived as the most effective strategy to get families to complete them, as parents pointed out that children were already working on computers. Having no postage involved was seen as an additional advantage. In addition, parents suggested keeping the questions to a minimum and using a simple format – for example agree/disagree boxes to tick. Parents suggested arranging the tests and measurements immediately after school, and negotiable times and reminder phone calls were also suggested as additional strategies to maximise participation in follow-up activities.

4.2.1.4 Maintaining changes after completion of the program

Parents believed that seeing the beneficial results of the program would keep the whole family motivated to maintain lifestyle changes. They thought that providing online support would help families upon completion of the program, and they suggested creating a website with recipes and tips for exercise.

4.2.1.5 Community resources for healthy families

Among the existing community resources which might help keep their families healthy, parents cited public parks with physical activity equipment, gyms, local sports clubs, and community health centres. Finding the time and inclination to go were seen as barriers. Parents reported limited awareness of similar programs available in the community. One parent mentioned that her local community sports centre had planned to run a program for teens and pre-teens, but it was cancelled because of lack of interest.

Parents' wish list for their community included having gyms accessible to all ages. One parent pointed out that adolescents cannot access gyms until they are 16, and another lamented that high schools do not have gym equipment for adolescents who do not enjoy playing sports. Parents also wished for more family events involving parents and young kids, community fun days targeting being outdoors and having fun, on-going healthy programs, information meetings, and annual health check-ups. Finally, parents wished for more activities for kids who do not enjoy sports; cadets programs were mentioned as a good alternative (Emergency, Navy, Air Force), however, their location was seen as a barrier to access.

4.2.2 Adolescent feedback – Potential participants

The views of adolescents were mainly captured through three focus groups; the sessions involved 39 adolescents in the same age group as that targeted by CAFAP and were held in June 2011 (see Appendix 7).

4.2.2.1 Sources of information about lifestyle programs

The Internet and the gym were the most commonly cited potential sources of information about programs on nutrition and physical activity for teens. School resources (brochures, student services, school principal) were also mentioned. Although one teenager mentioned the school nurse as a potential source of information during one of the focus groups, other participants disagreed as they were concerned about confidentiality issues and feeling self-conscious. Advertising campaigns on TV, notice boards in shopping centres and chemists were also cited as potential sources of information.

Adolescents thought they would be interested in taking part in a program such as CAFAP if it was free (so *'you're not forced to drop out for lack of money'*), and other friends had done it. Having a role model supporting the program, for example an AFL team, was suggested as a strategy to promote the program. Adolescents believed that learning practical skills related to food and creating a safe environment where overweight kids would not have the fear of being bullied were important aspects of the program.

4.2.2.2 Barriers and enablers to participation

Adolescents thought that lacking motivation and not liking exercise would be barriers to joining the program. The fear of being alone (without their friends) was also raised as a significant barrier and hinted at the impact of social networks on their well-being; one teenager commented:

'If you feel alone going there, that's really bad.'
(Female Teenager, Focus Group 2)

Adolescents believe that being with other adolescents they did not know might be confronting. An exchange between two adolescents during one of the focus groups highlighted some of the perceived social implications of attending a program such as CAFAP:

'I don't think that adolescents would like to admit that they're overweight.

' Yeah. The reputation of having to go there [the program] and stuff.'

(Male Teenager, Female Teenager, Focus Group 1)

The location of the venue (too far away) was also seen as a potential barrier to joining the program, as was any cost involved.

With regard to families, adolescents identified time as a barrier to joining the program, as families are busy. Lack of information about the program was also mentioned as a potential barrier, as was lack of awareness and education among parents; an exchange between two students highlights these issues:

'If your family think it's ok to live like that, like nothing's happened now, what would happen like three years later. And also if they're already used to the fact that they're obese, if they see someone suffering, say, going to the gym, and if their daughter or son's getting stressed out from the exercise, they'll think 'oh, you're ok being obese, let's not do it'.

Some people don't have parents who are really that smart; they haven't had an education possibly. I mean, some people also have parents who are addicted to drugs or alcohol, and that possibly could impact on them'

(Female Teenager and Male Teenager, Focus Group 2)

One student pointed out that some parents do not trust the Government, and they might not trust a program which they perceived as being promoted by a Government-funded institution such as a university.

Adolescents suggested that kids would be encouraged to join the program if their friends had done it, to fit in better at school and gain self-confidence. They suggested promoting the program through schools, having brochures which teachers or physical education staff could discuss with students. One teenager explained:

'I think definitely having the teachers talking to the class, so that the class actually knows that there is such program, and then the teacher would have more information, like 'we have this brochure, just come and ask any time you want'.'

(Male Teenager, Focus Group 2)

Having somebody who had taken part in the program promote it or appear in a promotional video was also suggested, as that was perceived as a proof that the program works. Offering fun activities, and tailoring the program to kids, getting them to say what they want to get out of the program were also seen as strategies that would encourage adolescents to join the program. When asked to give their opinion on rewards, adolescents preferred money to a specific item which might not be of interest to them. Other than money, something that would promote a healthy lifestyle was favoured, and adolescents suggested iPods (reasoning that one can exercise with them), gym equipment, or a gift card.

Adolescents cited not seeing any results, not enjoying the program, and lack of motivation as barriers to staying involved in the program, and they suggested having rewards such as a gift voucher or an excursion when reaching specific goals during the program. Participants at one of the focus group perceived the eight-week program as too big a commitment for families; however other adolescents regarded the duration of the program positively, as it would help families get into *'the groove of things'* and they would be more likely to continue with the program.

Adolescents suggested giving special treatment to kids who are not motivated or not good at socialising, and one teenager alluded to the 'teenage mothers programs' in place at some schools and suggested having a 'friendly face' liaising with participants and monitoring attendance. Adolescents believed that families should be asked about the program and what could be done better. Finally, adolescents suggested keeping in contact with others and creating a network of participants in the program.

4.2.2.3 Program content and format

Adolescents identified having music, having a good, supportive trainer, and having the support of family and friends as enabling teens to enjoy the gym sessions. Adolescents suggested having games and group activities and one female participant suggested dancing. In addition, an outing, for example rock-climbing, was suggested, as it would encourage kids and show them what they could achieve at the end of the program which they might have been unable to achieve before. Teens thought that the sessions should get harder every week, which would help participants to push themselves.

A buddy system for the gym sessions was seen as beneficial, as it would make participants feel less lonely, and a buddy of a similar age was preferred. Adolescents identified potential drawbacks to the buddy system if they were assigned somebody they disliked, or the buddy lacked commitment or was too competitive and put them down. A mix of genders for the gym sessions was favoured by most adolescents, but a buddy of the same gender was preferred.

Adolescents suggested that the forms should be short and easy to complete, preferably consisting of multiple choice questions; and they said that participants should be given a choice between a paper version and an electronic version which could be e-mailed. Sending messages through *Facebook* was also mentioned as a strategy to encourage kids to complete the forms. In order to maximise participation in follow-up questionnaires and tests, adolescents suggested having a program facilitator who remained in contact and liaised with teens after the program. One teenager pointed out:

'Once you've moved on, you don't feel as comfortable talking to them again'
(Male Teenager, Focus Group 2).

4.2.2.4 Maintaining changes after the program

Adolescents thought that seeing good results (not just losing weight, but *'feeling so much healthier in yourself'*), and having family support would encourage participants to maintain lifestyle changes adopted during the program. When discussing the role of the parents, one teenager commented:

'Cause it's a lot about the parent. You need to get the parent involved because, like you said, they're in control of the food and, like, the computer playing and stuff. So basically you have to talk to the parent, I guess, and then make them see what they're doing to their child – they have to do this.'
(Female Teenager, Focus Group 1)

Getting support from others participants in the program was identified as important, and adolescents suggested keeping in touch, having meetings and organising reunions inviting former participants. Adolescents also suggested that they program should provide a brochure with tips and advice on what to do after the program.

4.2.2.5 Community resources for healthy families

Local parks and gyms were the most commonly cited community resources which might help family stay healthy. However, gyms were perceived as expensive, and lack of motivation was also seen as a barrier. One teenager commented:

'It's more deciding if you're gonna get that help, if you've got to go to the gym, it's not that the gym goes to you.'

(Female Teenager, Focus Group 2)

Adolescents also mentioned skate parks, cycling routes, and facilities for those interested in basketball, football or gymnastics, however, some adolescents pointed out that not everybody was interested in sports. One student mentioned the availability of healthy recipes on the notice board at their local shopping centre.

Adolescents wished for a one-stop-shop where they could find information on all the available programs which were relevant to their age group. They also wished for more family-friendly activities in their community, and for affordable and healthy alternatives to fast food, as it was perceived that healthy food was more expensive.

4.2.2.6 Feedback on recruitment flyers

Adolescents were invited to provide feedback on the recruitment flyer used during Stage 1, and they were also invited to comment on three alternative flyers with different designs and colour schemes.

- *CAFAP* flyer. Adolescents valued positively that the flyer highlighted that the program was free; they also liked that it included Curtin University's name, which they perceived as giving credibility to the program. However, adolescents thought that there was too much writing on the flyer, and that it looked 'a bit like everybody else's'.
- *Activ8* flyer. Good pictures and good facts were among the positive features highlighted by adolescents. The dark colour scheme elicited strong mixed responses, and while some thought that the black background made it stand out, others thought it might make people not notice it.

Some thought that the dramatic colour was good because it conveyed the message that obesity is bad and you should do something about it, and one teenager compared it to other advertising campaigns:



'When you see those car crash ones, and you see the anti-drugs ads and that, and they're all really dark, you know.'

(Male Teenager, Focus Group 2)

Contrasting with this view, another teenager thought it was 'scary', adding:

'It looks like you're going to get tortured or something.' (Male, Focus Group 1).

- *Stepping Stones* flyer. Adolescents liked the colour and the picture, however, they thought there was too much information and suggested having the stepping stones as the main feature on the first page and the information on the course on another page.
- *Ph!t* flyer. Adolescents liked the name, which they said was 'cool' and 'clever', and they appreciated the fact that the adolescents on the image looked like real adolescents. They also thought that the message 'time to take action' connected with people.

5.0

Interview Methods



5.0 Interview Methods

5.1 Sample

Stakeholders were invited to participate in an interview to discuss their opinions and experiences around recruiting, engaging and encouraging teenagers and overweight people in a healthy lifestyle program and to maintain healthy changes after the completion of a program of this nature. Health professionals, researchers, community organisation representatives and policy makers from Midland, Cockburn Central, Kalgoorlie and surrounding suburbs were approached based on their experience or interest in overweight and obesity during adolescence. A total of 39 interviews were conducted (see Table 1).

Table 1 Stakeholders interviewed

Interviewed	Profession	Background
Health professionals	4 x Dietitians	1 x Private practice 3 x Country Health
	4 x Physiotherapists	4 x Private practice
	2 x Psychologists	1 x Private practice 1 x Health Department
	1 x General Practitioner	1 x Private practice
Community representatives and policy makers	16 x State Government	2 x Health Promotion Coordinators
		1 x Senior policy portfolio officer
		1 x Community Clinical Nurse Manager
		8 x Community Nurses (School Health)
		2 x Parenting Officers
		2 x Sport and Recreation representatives
	3 x Local Council employees	1 x Youth Services Manager
		1 x Youth Services Officer
		1 x Leisure Centre Manager
Researchers	9 x Researchers	From New South Wales, Victoria, South Australia and Western Australia

5.2 Recruitment

To recruit health professionals, a written invitation to participate in a one-hour interview was sent to every identified physiotherapist, dietitian, social worker and psychologist in Midland, Cockburn Central and surrounding areas. Interested clinicians then contacted the study coordinator to schedule an interview. No social workers or psychologists responded and so local health services in the areas of interest were approached, as were psychologists already known to the research team. Community nurses in schools around Midland and Cockburn Central were also contacted through their regional managers who set up meetings with interested nurses. Health professionals from the potential regional site in Kalgoorlie were also approached.

Youth and community services in Midland and Cockburn Central were contacted and each organisation identified their most appropriate representative for the team to interview. Other key stakeholders including researchers and policy makers were identified by the research team and approached individually by phone or email. These stakeholders were identified if they had an interest or current involvement in adolescent health, and where possible were already working with overweight and obese adolescents.

All stakeholders were offered a \$50 gift voucher for participating in an interview.

Table 1 shows the number and type of stakeholder interviewed. The majority of interviews were conducted between June and November 2011. Two interviews had to be rescheduled to February 2012, due to interviewee unavailability.

5.3 Stakeholder Interviews

5.3.1 Stakeholder interview schedule

An interview schedule was provided to stakeholders before the interview outlining background information about the program, as well as a list of potential questions to guide the discussion. The schedule was structured for stakeholders based on their professional backgrounds.(see Appendices 9-11). The interview prompts were guided by themes emerging from the literature together with concepts considered important to this formative study. The key themes for the interview were around the barriers and enablers relating to recruiting families to the program, keeping them engaged and encouraging the maintenance of healthy changes; as well as services currently available for overweight adolescents.

Whilst the interview schedule was used to guide discussion based upon areas considered important to the purpose of the research, the flexibility of the discussion allowed the interviewer to follow valuable avenues of inquiry. Emergent themes provided direction for areas of further investigation during subsequent interviews.

5.3.2 Conducting Stakeholder Interviews

Individual interviews were conducted by members of the research team. The project coordinator interviewed all health professionals and community representatives and two researchers interviewed other researchers. The interviews were conversational using a series of questions relevant to the key research objectives. Each interview was audio-taped for accuracy of transcription and analysis. All participants were provided with an information sheet and provided written consent prior to the commencement of the interviews (see Appendix 12-13).

5.3.3 Stakeholder Qualitative data

As soon as practicable following each interview, the interviews were transcribed and analysed thematically. The data from the interviews were then amalgamated and the major themes detailed using quotes from stakeholders to support these findings.



6.0

Interview Findings

6.0 Interview findings

Stakeholders in the community were recognised as valuable resources for understanding more about the barriers and enablers to participation in a program like CAFAP. The interviews provided insight to help explore ways to maximise participation in the community intervention and encourage healthy lifelong changes. The interview schedules were developed to elicit information relating to three areas of interest namely recruiting families, keeping families engaged and maintenance of healthy changes. Within each of these areas there were questions regarding the identification of barriers and enablers to involvement in CAFAP. Barriers include potential issues and inhibiting factors that need to be considered when working with overweight adolescents and their families. Enablers included existing factors that promoted recruitment, retention and maintenance; as well as potential strategies to increase involvement in CAFAP.

6.1 Recruitment

All stakeholders expressed concern about the current prevalence of overweight and obesity in children and adolescents and had noticed increasing rates of overweight in their practice/schools/local areas.

Definitely. I am seeing students that are overweight and the ones that are overweight are massively overweight. (School Health Nurse)

There is a large, a significant, proportion [of overweight kids] but I wouldn't see them usually for that, that's not the primary issue, they usually say they're being bullied. (School Health Nurse)

They're coming in here because they've got musculo-skeletal problems and their weight and inactivity is a contributing factor (Physiotherapy)

Researchers or health professionals who have attempted to work with overweight adolescents identified recruitment as an extremely difficult part of the job and noted that it doesn't appear to be getting any easier.

Recruitment is not easy...It is the hardest thing (Researcher)

[Recruitment was] very challenging. It took forever, took about twice as much time as we anticipated. And is the reason why we needed lots and lots of money. (Researcher)

A service for overweight adolescents in Sydney attempted to recruit 10-12 adolescents per group but had to settle for 6-8 per group because of ongoing difficulties with recruitment.

We've had a lot of interest but it's getting those families to actually register...and still wanting to attend (Allied Health Professional)

Other professionals who currently work with adolescents but not in weight or lifestyle programs could foresee that recruitment would be a major challenge for the program.

6.1.1 Barriers to recruitment

Stakeholders identified many barriers to recruiting teenagers and families to a healthy lifestyle program. General difficulties included: working with teenagers; lack of parental and health professional awareness regarding the importance of treating obesity; difficulty encouraging referrals from health professionals; a lack of current health services and other social determinants. These barriers need to be considered and addressed, where possible, to maximise the success of recruitment in the future.

6.1.1.1 Teenagers are complex

Stakeholders discussed the adolescent behaviours that they saw as a barrier to engaging with overweight adolescents and noted that many of these may contribute to increasing levels of overweight and obesity. A trend in reduced levels of activity was noted by many stakeholders as playing a key role in weight gain, however, subsequent engagement in self protective behaviours by adolescents (e.g. devaluing exercise and not eating in front of others at school) made it difficult to attract adolescents by promoting healthy lifestyle habits. Some adolescents were interested in changing their weight or shape but other adolescents appeared to be comfortable with their body image.

For other adolescents they almost flaunt their weight. [They're] proud of their size, even if it's not healthy... In the quiet of their own room, they may be concerned about their body image but to the rest of the world, their friends, their family- yeah I'm ok with this. (School Health Nurse)

For the young men, they are generally the ones that don't have good self-esteem. They tend to be the type of kid who spends a lot of time, screen time, and they're not physically active, they're not into sport at all. They'll be sport avoiders, they will invariably be injured, some of them...that's his way of keeping himself safe...so he didn't have to participate in any physical activity. (School Health Nurse)

It's a difficult one...if we wanted to target the people who previously hadn't been involved in any physical activity, you're not going to get them from going to traditional places that young people are already engaged are hanging out, because they're sitting at home on the computer or going through the drive through at McDonalds and stuff like that. (Local Council)

In some cases fear of humiliation or bullying made seeking help confronting and most researchers found that teenagers often don't volunteer for anything to do with their weight.

One thing about being overweight is that it's very obvious...when you're overweight the whole world sees it and people who are overweight people know it. Even those who are in quite a lot of denial about how big they really are have constant public humiliation and feelings of shame about being overweight. I think in the teenage age group, that's acute. (Psychologist)

Teenagers often don't want to go, because they're very anxious they might see someone they know. Teenagers are already dealing with enormous bullying and other issues; to ask them to do something that they're concerned may actually make their life worse is going to turn them off the project. (Researcher)

[Teenagers are] very anxious when they come...reluctant to come. Their parents have dragged them along. (Allied Health Professional)

I don't think that you should believe that young people will see those advertisements and say this is something I want to do. Even if it is something they want to do it, they're probably unlikely to say it. (Researcher)

Their biggest concern was actually having people from their school know where they were going, seeing people (Researcher)

6.1.1.2 Overweight has become normalised

Stakeholders described overweight and obesity as becoming so common that people were no longer identifying it as a problem, let alone a priority for action.

As we've got 20-25% children and adolescents who are overweight and obese, it's starting to be normalised. It's not until people get to a severe level...why has it taken all this time for that family to do something? (Researcher)

Fundamentally in the general population, it's not recognised as being a problem [that requires] something to be done about. (Researcher)

The issue of adolescents 'having to be huge' before their parents noticed is reflected in the disproportionate levels of very obese adolescents seeking help, instead of those who are only overweight or mildly obese. Medical tests showing abnormal status or identification of obesity as a problem by a health professional appear to be needed for parents to acknowledge there is a problem.

As a society I think we are normalising overweight and therefore obesity is seen as mild, moderate overweight and not the severity it is. (Researcher)

Unless there are comprehensive medical tests completed that show pre-diabetes, Acanthosis nigricans, high insulin levels... steatohepatitis – [then] it's like a wake-up call, this isn't just cosmetic, we can't just sit on it. (Researcher)

But if a health professional says 'we're really concerned about your child's health', and then they have to have all these tests done, it adds a bit of gravity to it.' "This is a health problem for your child and this is quite severe" "It is a problem, he's not just chubby. A medical professional has said that this is an issue. (Psychologist)

6.1.1.3 Reluctance and lack of expertise in health professionals

Identification of overweight and obesity by health professionals was raised. A number of health professionals identified the sensitive nature of obesity as a barrier to referral.

It's a very sensitive issue. GPs said it is a really difficult thing to raise with parents if they haven't raised it with you... They don't want to jeopardise the relationship. (Researcher)

It's a sensitive issue. A lot of the nurses didn't really know how to bring it up. (Allied Health Professional)

Fundamentally I think there's a fairly significant lack of skill among health professionals in how you should be assessing this, and no one's actually taking responsibility to do it. So there's a general lack of awareness. (Researcher)

Researchers working with GPs found that the ability to effectively measure and assess obesity was a major barrier to recruiting overweight adolescents. GPs involved in surveys and research were quoted as saying:

"I can't weigh and measure people." They [GPs] didn't feel that was an appropriate thing and felt uncomfortable doing it. (Researcher)

Other stakeholders identified issues with health professionals not being able to measure children and adolescents to correctly identify overweight and obesity.

A lot of GPs don't even know how to do BMI z scores and calculate them for kids. (Researcher)

[Measuring kids], it just doesn't happen anymore. It doesn't happen in schools. Whose responsibility is it? (Allied Health Professional)

Our experience is even paediatricians have had families come to them concerned but the family has been told 'oh no they're ok' when they are clearly overweight, well into the overweight range. (Researcher)

Several respondents felt that some GPs did not understand the importance of identifying overweight children and referring them on.

They didn't understand morbidity and cardiovascular risk factors in these kids. [So we] show them what complications or comorbidities kids in primary school have, so what their lipid levels are like and how many of them have high insulin levels. Incredibly powerful for medical practitioners who don't really appreciate that there's anything really wrong with being overweight or obese at 10 or 12. [It] steps up their interest. (Researcher)

We wanted overweight and mildly obese young people...but we were being sent overly obese young people because these were the ones they saw... GPs don't have a good way of assessing it... They don't measure height and weight. GPs don't know how to talk about it and paediatricians shy away from it. (Researcher)

6.1.1.4 Lack of current services

The hesitancy of health professionals in raising the issue with families was reinforced by a lack of current community services.

Up until now we haven't really targeted obese kids because if we did, we had nowhere to go with it. OK we identify them but now what?" (School Health Nurse)

I rang everywhere...I thought someone would see her...She was only year 8 (School Health Nurse)

We had some people lying about the [child's] age to get in because they're just desperate because there's so few services. (Researcher)

Around here, I'm not aware of anything in particular [for overweight adolescents] (Allied Health Professional)

I've phoned the nutritionist a few times at the hospital but there's no capacity to do any community health work whatsoever. (School Health Nurse)

And yet, it's very difficult to find anyone appropriate to refer them to. Because it isn't just about nutrition and it isn't just about exercise and it isn't just about body image. (School Health Nurse)

The older people in the community are actually well catered for, but younger kids aren't and I think seriously there is a huge gap because kids are just getting so overweight and they're not fit. (Allied Health Professional)

I don't actually see any [overweight teenagers] but that's why I'm so keen to get in and work with these teenage groups, because I see them walking around but I guess there's nothing particularly out there for them, or they're not getting referred to us. There's a gap there. (Allied Health Professional)

Researchers identified that new programs often struggled initially with attracting participants, particularly if there was no current referral base.

Because there's really been no service available, very limited service, there's been no reason to actually raise the profile. Because ok- you've identified someone who's overweight. What do you do with them? (Researcher)

We were based in a GP division and we still couldn't get GPs to refer to us... One of the issues that they were saying is that there are so many programs out there that stop and we don't know, it's too hard, the referral process, you know all of that sort of stuff. You've got to make it as easy as possible. (Researcher)

6.1.1.5 Parental issues

Parents have been identified as another potential barrier to adolescents engaging with health services to manage their adolescent's weight. A school health nurse described the three sets of parents that she worked with:

Stay at home and concerned; working and no time; or illiterate with multiple social issues and hard to engage. (School Health Nurse)

The third set of parents... probably wouldn't see a value in it, 'oh he's alright, he'll grow out of it. There's nothing wrong with him'. (School Health Nurse)

A lack of recognition of the seriousness of obesity was highlighted by many stakeholders as a barrier for parents.

The fact that parents don't perceive the issue as a problem or believe it might go away, despite all the evidence to the matter. (Researcher)

Two thirds of parents of overweight children just don't recognise it. They think their child is a healthy weight. (Researcher)

The barriers are the parents...I don't know if the newsletter is going to be helpful because you know, not all parents look at it, for a start they'll go "pfft not interested". (School Health Nurse)

I've found that often the kids are more aware than the parent- the parent doesn't notice. And I ask the parents if they've got any concerns about it- most of the time the answer is no...They have to be huge. (Allied Health Professional)

Acknowledge that people will get upset. Parents will get upset. They'll get offended. It doesn't matter how polite you are, how culturally sensitive, how approachable, empathic. I think parents are going to get offended. (Psychologist)

It was also noted that another reason parents did not recognise a problem was the high likelihood of the parent being overweight themselves.

I think they're in denial a lot of these parents...often the parents are overweight, the kids are overweight, the dog's overweight, the cat's overweight. (School Health Nurse)

Despite this, most health professionals agreed that parents were probably the best targets for recruitment because they were more likely to express an interest in the program than teenagers were.

Of course you're actually not recruiting the young person at all, you're recruiting the parent. I don't believe that young people will...say this is something I want to do. Even if it is something they want to do it, they're probably unlikely to say it. (Researcher)

The parents would enquire but the teenagers weren't interested. (Researcher)

6.1.1.6 Broader social barriers

There were also a number of social issues raised such as poor budgeting and food preparation skills and other financial restrictions.

The only way you're going to get them in is if it's for free. The only way they're going to keep coming back is if it's for free. You're not going to get a kid in a low socioeconomic family saying yep we're going to put up the money for this kid [to access a program like CAFAP]. (Local Council)

Engaging in out-of-school sports [is difficult] but if money's an issue- it's really expensive. (School Health Nurse)

It's usually things are happening with social determinants or things are happening at home, yeah they'd like to eat healthy but Mum's only got \$20 for the rest of the fortnight and that kind of takes precedence. (School Health Nurse)

Outside the family, the neighbourhood environment was also seen as a barrier to adolescents being willing to participate in a program which involved activity in the community.

There are really rough neighbourhoods and they're socially isolated, it's hard to go and do stuff if you're by yourself. (School Health Nurse)

Stuff like if you say 'go for a walk' and then you go to where they live, and you think 'yeah well I wouldn't let my kid go for a walk here either.' (Allied Health Professional)

6.1.2 Enablers for recruitment

All stakeholders were supportive of the program and highlighted the importance of working to minimise the barriers described.

I've seen a lot of the really little kids coming in pretty big, and now I'm working with the older adults so I see the repercussions of it even more, and just that it's almost taken for granted that everyone's a bit big. No one really says that we can change it. So, trying to catch them at that age before they become really big, and their parents, and educating the whole family who hopefully pass that on to someone else as well. (Allied Health Professional)

The enablers identified for recruitment were good marketing, minimisation of stigma and highlighting the positives associated with the program.

6.1.2.1 Need to sell the message

Stakeholders suggested that CAFAP needed to utilise plenty of positive and engaging marketing strategies. Several stakeholders stressed the idea of having an online component and researchers who had previously recruited this group suggested advertising in shopping centres, school newsletters, newspapers; as well as sending information or flyers to health

professionals, local health services and teachers. Health professionals reported that they'd like regular updates about how the program has helped other adolescents, to remind them to keep referring:

Just generalised feedback about the whole group and what's come out of it... If I see that someone I've referred has got something out of it, then [I'll] definitely keep referring. (Allied Health Professional)

Simple stats of how it has helped other people. (Allied Health Professional)

That's something else GPs have said... they'll refer on and they'll hear nothing...Need to provide feedback. And then that may trigger [another referral] again, and it's helping the patient as well. (Researcher)

As well as an intensive marketing campaign, stakeholders identified a need to make personal contact with health professionals, teenagers and parents and that interactions with potential participants need to quickly develop a good rapport.

Face-to-face selling things goes a long way as well. It's easy to put a brochure at the bottom of a school bag but if you actually talk to people and engage them...we can try and sell it. (Allied Health Professional)

If you develop a really good rapport with a person first up- it's intuitive...It's when you think it's ready to bring it into the conversation. (Allied Health Professional)

6.1.2.2 Message needs to be positive and repeated

Stakeholders emphasised that the message promoted to adolescents and parents needs to not only be positive and relevant, but repeated to encourage them to act on it. They discussed focusing on topics other than weight loss like positive messages relating being active and having fun. They also felt that teenagers responded well to programs that other teenagers had helped to develop.

It comes down to selling it really well and selling it as a healthy lifestyle thing, rather than a weight loss group. (Allied Health Professional)

If you promote it to help out their sport and improve their performance in that. Those sort of angles might be a good way. (Allied Health Professional)

Do you want to be active and have fun with friends?...or would you like to come and meet new people? (Researcher)

I think stigma is your big barrier. You want them to associate it with a positive thing... You don't want to be thought of as a fat camp. (Researcher)

Focus more on fitness or improving well-being,...these overweight and moderately obese adolescents might not find themselves being inhibited in their day to day life. There may be some physical things that they can't do. So maybe target skills, fitness, flexibility. (Researcher)

Anything that young people can see that actually even if they didn't have input, somebody their age who understood what it's like [had input], can be quite powerful. (Researcher)

Put something on the website that says "evaluated by teens, for teens" (Researcher)

Health professionals felt that being able to discuss the program with adolescents made it easier to raise the issue of overweight.

You've got something, not a solution but an idea to suggest to them. Rather than going, here's the problem and then there's no holistic way of looking it, especially in that time limited way. (Allied Health Professional)

Many researchers and professionals who had run programs before advised staying away from the terms 'overweight' or 'obese'. They also recommended being conscious of the stigma and potential embarrassment related to being overweight and trying to minimise this.

A team approach to refer them to would be good...because there's other people and it's not just everyone judging them. (Local Council)

[Do] anything you can to avoid the stigma of this being a project for overweight and obese. (Researcher)

It certainly doesn't mention the dreaded 'o and o words' (overweight and obesity). (Researcher)

From a youth development perspective, it's really important that the young people are interested in doing it, there's a whole lot of stigma attached to identifying yourself as overweight or obese. (Local Council)

6.2 Keeping Families Engaged

After generating interest in the community, programs need to work hard to keep families interested and actually engaged in the program. Research suggests that attrition rates from paediatric weight management programs varies from 27-73% [2], so pre-planning to minimise drop out is important.

6.2.1 Barriers to keeping families engaged

Stakeholders identified ongoing difficulties following recruitment, with keeping families actively participating in the program as it goes on.

Most studies have real trouble getting the parents engaged and keeping them interested over time. (Researcher)

Following the initial sessions, attendance really dwindled, and sometimes yeah we had only one person. (Researcher).

The biggest barriers to keeping families engaged were related to the specifics of a program, such as time and place, and stakeholders also identified barriers relating to how difficult it can actually be to make healthy lifestyle changes.

6.2.1.1 Location

The location and ease of access for participants was highlighted as one of the biggest potential barriers for families to stay engaged with a program.

For anything that comes through our door, if it's beyond Midland, it's just not even going to enter their concept...Midland's as far as they'll go. (School Health Nurse)

For many families that is a commitment, in our rather time poor community, that is quite difficult. And that's why, presumably, success is partly due to having a site of study where it's easy to get to. (Researcher)

For me, being local [is going to get them in] because transport can be a problem. When it was to Bentley I thought "no way are they going to get there" but if it's going to be at the Cockburn Centre or even the Ottey Centre, they would go. (School Health Nurse)

I think it's great that it can be more local, because I have broached it with some other parents before but either transport's an issue or in trying to get off work and then get there after school, it's a big ask. (School Health Nurse)

6.2.1.2 Program timing

Another program-specific factor of start and finish times was identified as a barrier that may make it difficult for some families to stay engaged. Stakeholders were conflicted in their view for the most appropriate start time, wanting to include teenagers immediately after school, but noting that parents are often not available at this time.

Obviously if it's just children, the time after school is a perfect opportunity but then really if parents are coming...5:30/6 is probably [the time]. (Researcher)

Finding the time that actually works is very challenging. And it's a barrier. (Researcher)

Our sessions started at 5pm finishing at 6:15pm, which still meant a lot of parents would have left work early if they were employed. Most of them made the effort for a short period of time...twice a week might be tricky to get parents there... At the end of the day, you don't really want to interrupt family meals for dinner. (Researcher)

We selected the day of the week and time of the day that suited the majority. (Researcher)

So many parents, if not full time, are working part time... People struggle to pick up their kids from school and get there. (Researcher)

6.2.1.3 Committing to a program is not easy

Stakeholders were quick to acknowledge that attending an ongoing healthy lifestyle program and making healthy lifestyle changes were difficult things to do. They noted that the program needed to be a priority for the family and facilitators would have to work hard to try and keep families motivated.

It's a matter of trying to motivate them that this is an important issue that they've committed to...For [some families] as soon as something happens or something else comes up, coming to the PEACH program was the first thing that went. (Researcher)

This is difficult and emphasising that this hasn't happened overnight and it isn't going to go away overnight. You need to commit as a family and so we emphasise that family thing. (Researcher)

Bigger the body mass, the bigger the resistance to change- partly through a sense of being overwhelmed. Like how am I ever going to be a size 10 if I'm a size 24. If I can't be a size 10 then I'm not going to bother. (Allied Health Professional)

There's often a little bit of homework they need to do but overall they don't do that. (Researcher)

The initial month or two is the hard part, because they're going from nothing to exercising and always those first couple of months are hard. It's hard for anyone. (Allied Health Professional)

Stakeholders reported that the initial program sessions were very important in encouraging participants to return.

If they will still there by the second week then they generally stayed. There were quite small numbers that actually participated in every single session and phone call. So even though they did it, they missed a lot. (Researcher)

All you want is for participants to come back to session two. That's all you want [from session 1]. (Psychologist)

6.2.1.4 Social barriers

Stakeholders identified that the environment we live in makes it difficult to stay engaged and make healthy changes.

McDonalds has come out with an ad for under \$5 they can get a burger and this and that and the other. You've got the convenience and low cost of high salt, high fat junk food. How do you get healthy food choices that are cost effective, easy to prepare and that they're interested in, when there's all the attractiveness of this junk food. (Health Promotion Officer)

6.2.2 Enablers for keeping families engaged

Stakeholders discussed a number of ways that lifestyle programs could actively try to keep families engaged and participating in the program. The most important point identified

appeared to be about convincing the teenagers, and to a lesser extent parents, that coming to the program was worth the effort.

Why do people disengage? Number one- loss of hope in their own capacity to change. They just think it's not worth it; it's not going to happen. (Psychologist)

6.2.2.1 Engage kids

Stakeholders recommended focussing on making the program enjoyable and rewarding for children or teenagers to increase the chance that the family would remain in the program.

They will probably listen to their young people, if their teenagers say "This sucks- I'm not going again", they know that it's going to be too difficult. (Researcher)

I think anticipate that in any weight loss program, which is going to take months or years, people may well come in and out of it... If they see it is a good experience, if they see their teens happy, that's probably something that's going to really engage families. (Researcher)

There were suggestions for the program content, such as using activities that are fun and active, as well as providing practical skills like cooking.

I think once they get engaged and see that it's practical, then they'll be fine...and when it gets a name for itself and they can see changes in other teenagers. (School Health Nurse)

It was really very easy to knock up snacks and do stuff that was appropriate for teenagers. And I still maintain that you can eat healthily at a reasonable price, I like [this kind of program] as adapted to a teenage market, not for a mum and a couple of kids. (School Health Nurse)

It had to be fun, especially the adolescent sessions. It had to include fun, active games. They tended to bond more if you included those and when you look at the satisfaction questionnaires, they wanted more activity, as much activity as possible. (Researcher)

We always tried to finish with a game so we ended on a high note. Wanted to start and finish with fun, with them laughing. (Researcher)

When we can have a laugh, not just talking but doing and having fun, they like that. (Allied Health Professional)

Stakeholders recommended using the group setting to the advantage of the program and using team building games to help teenagers feel part of the group, as was including the whole family.

Just a group type session, particularly teenagers- they're one of those groups, and if you get together and they've all got similar problems then it's a lot easier for them to work through those problems and come up with solutions... It's really hard when they're on their own, if they feel like they're on their own (Allied Health Professional)

Use team-building games to foster an esprit de corps. (Researcher)

Of that age group, identity formation is really key. It's a time in their lives where they're trying to work out who they are and where they fit. It might even being part of this program that gives them that [identity]. (Health Promotion Officer)

That stuff around identity and the peer aspect is really important. (Health Promotion Officer)

Get involved in Facebook, they have a mentoring kind of process where kids who have gone through the program are kind of involved in mentoring other kids so it becomes this thing that they can identify with. Having someone who's gone through that process, another young person, would be useful...Even to form teams for a fun run or a walk-a-thon, as a forum to meet. (School Health Nurse)

I like the idea of group sessions, the support aspect and the education aspect and providing it in a supportive group environment. (Allied Health Professional)

I think classes work well...people they get a network and they can see somebody else doing well and somebody's doing different exercise and it's enjoyable. (Allied Health Professional)

Involving the family, is probably the most important thing that I see. Because it's got to be a whole family change. Even if the particular teenager wants to do something, if the family's not supporting that then it's not going to go anywhere. (Allied Health Professional)

Both parents and children attend- which I think is a positive for your program. A lot of the parents want their child to attend something too so it's not like the parents just saying 'this is what you've got to do', it's coming from an outsider. (Researcher)

There were also several recommendations to make the most of online and new technology to appeal to teenagers, as well as monitoring their progress to show them where they were achieving positive change.

I often give them healthy eating websites because they often prefer them to brochures. (School Health Nurse)

Using electronic media too, that sort of validates it, if they're getting reminders on their email or on their Facebook... even text messages. Maybe some online self-assessments- if they have something that they can go in and do their own little checklist and they get something back that says 'oh you're doing this now' and prints some little graph for them about how they're going.(Health Promotion Officer)

Putting it [assessments] online and paying a little bit of money or finding someone to make it really interesting and exciting. Get to page 10 and say "well done- you're over the halfway mark" with a bomb exploding or something, something running across the page... That's the way to go. Particularly if you're letting them do it at home, I would be doing as much as you can online. (Researcher)

Some of that stuff [assessments], you could make it online-you could put on there and then they do it online... All you've got to do is set up the survey and ...then each individual goes in and answers the survey and they get back their individual result and then you can get the whole lot depersonalised. (Health Promotion Officer)

6.2.2.2 Passionate and engaged facilitators

Stakeholders described facilitators as one of the key enablers for keeping families engaged in a program. Passionate, interested and motivated facilitators were seen to increase the engagement of parents and teenagers in the program. Stakeholders described the development of a good relationship between facilitator and participant as one of the most critical aspects of the program.

Staff need to have very good social skills- relationships are critical. (Researcher)

Certainly how well a group runs and how well it all goes does depend on the facilitator and the relationship they build. (Researcher)

The last group which actually had [enough numbers] and I think part of that was the person who was running it was really passionate and engaged. (Researcher)

It's really important about the people that you employ...as much as it's about their proficiency and level of organisation, is how they interact, you almost need those social skills, they're so important. (Researcher)

One of the most critical things about maintenance and staying in the program is that they've engaged with one of our staff and they've felt that they wouldn't let them down... It's incredibly powerful. (Researcher)

Have a team running the program was also identified as a positive way of engaging teenagers.

Would have better progress in a program like that [CAFAP] rather than one on one session with me and their Mum sitting there" (Allied Health Professional)

I think a team approach would be good because if they don't relate to one particular person, there's a pool of people that they can maybe relate to. (School Health Nurse)

6.2.2.3 Help participants develop goal setting skills

Goal setting is an important aspect of most weight management or healthy lifestyle programs and stakeholders identified that it was useful in helping families to achieve healthy change. Stakeholders also emphasised the importance of letting adolescents choose their own goals.

Goals are crucial to success. Make them explicit. (Psychologist)

Goal setting is a major part of our program, and self-monitoring... Kids engage in it. Making sure it's realistic and achievable is important. I think doing that together, between the parent and the child is really important. (Researcher)

I think goal setting is really important because people can get confused and they can get overloaded. And so it's the sort of standard suggestions that are made in CBT and other things, you pick a goal that's achievable. You pick a goal that somebody will understand. You look at pathways to achieve that goal. It is important to let teens personalise things... it should be simple and attempting the goal is praised in some way. (Researcher)

[Goal setting] is fundamental process in the PEACH program, that at the end of each week they set two or three goals for the next session...At the beginning of every session there is a discussion about well, how did they get on. (Researcher)

*At each session they had to set themselves a goal before they went home.
(Researcher)*

We do talk about strategies with them about self-monitoring and that sort of thing. Not so much about weight but whether it's keeping a food record or writing down their goals every month, of what they want to achieve, how they want to achieve. I find that's quite a big motivator. (Allied Health Professional)

We've used behavioural contracting which is a form of goal setting... they nominated what they were going to do and if they achieved that, their parents signed the contract... That worked very well for younger children. (Researcher)

One of the key aspects of goal setting is to make the goals realistic and achievable but also measureable. So that as they're going along you can together assess whether in fact those goals are at any chance of being reached...because people want to be at the end. So if you can show them that they've had three steps forward and two steps back...but can still show them that they've made progress. That helps people stay engaged and have a sense of hope for change. (Psychologist)

6.2.2.4 Make it easy and rewarding for families to attend

Stakeholders acknowledged that families' often lead busy lives and that one of the biggest barriers to staying engaged was the sheer effort required to do so. To account for this, they recommended making it as easy as possible for families to attend and rewarding their attendance with incentives or teaching them new and practical skills. This included utilising teaching opportunities that actually saved parents time, making it easy for them to get to the sessions and making it tailored to their needs where possible.

*Make sure the parents are coming. One way is to make their lives easier...by providing them dinner at the time and using that to get them in the door.
(Researcher)*

If the parent was coming along to that, the parent has got to get something out of it as well. That could be the exercise and all the same sort of things that you're trying to do for the child. (Health Promotion Officer)

If you can do some tailoring, that's important...because then they feel it is relevant to them. (Researcher)

If you do a very good process evaluation at the end of your study, you could make sure that it's tailored (from the process evaluation findings) to suit the needs of the participants. (Researcher)

Stakeholders recommended staying in regular contact with families and contacting them early if they missed sessions.

We sent SMS...most people would let us know if they couldn't come. (Researcher)

We have conversations over the phone and arrange a time to meet. (Researcher)

If they hadn't come for 2 sessions running we did contact them...assuring them that it's still worth coming. (Researcher)

Now of course one week a teenager might say it sucks and then the next week might be really keen to get there. So I think part of the engagement in research is to say "Look- if you do drop out for a short time, that's not the end." (Researcher)

Regular contact outside of session times was also identified as an important strategy to keeping families engaged.

We also find in terms of retention and keeping people in the study- birthday cards, newsletters, updates. That also helps. (Researcher)

This idea of making things easy and providing incentives was also identified as a useful way of motivating families to attend and complete assessments.

With disadvantaged families in particular, those kind of altruistic 'your life's going to wonderful if you do this', isn't going to get them there. You've got to have practical things like we're going to give you a gift card or you're going to get a shopping voucher... That's actually the kind of thing you're going to need with disadvantaged parents. (Health Promotion Officer)

There's the whole issue of incentives or compensation, what you're offering to them... We're having to really make it very clear what the benefits are to the families that are involved and we're providing quite a lot of equipment, you know sport equipment to the kids and the families. (Researcher)

We provide children with rewards [like] an iTunes voucher or an active toy... showing that we're compensating them for their time. (Researcher)

I do think a small incentive is important... We've used phone credit, store gift cards, movie passes... and they certainly do like things like memory sticks... and an assortment of things. (Researcher)

We use little prizes, and stuff like that. They seem to like that too. (Psychologist)

Even if it's doing a graffiti tag on a canvas or something with urban art, or hip hop dance that you can put on your ad. Some kids made their own ad, they had to do the music, the beat, which is kind of what they do anyway but it's not sporty... Even if it's just to put on the website, you know make their own little video... it's helping them get involved in community. (School Health Nurse)

6.3 Maintenance

Stakeholders unanimously agreed that maintaining healthy behaviour changes after being involved in a healthy lifestyle program was difficult and required a lot of motivation and commitment from families. It was acknowledged that for adolescents, ways to encourage sustainable change is lacking good evidence and there is still plenty of work to be done in identifying enablers in this maintenance period.

6.3.1 Barriers to maintaining change

Stakeholders were all speaking from clinical experience, as there has been very limited research on the maintenance period of adolescent programs. This lack of research into how

to maintain healthy lifestyle changes was one of the biggest barriers to identified, along with teenagers coming to follow up sessions and a lack of supportive and appropriate services in the community to support healthy change.

We know little about, except for some work from the States from the obesity register of why adults keep the weight off, we really don't know what happens in adolescents. (Researcher)

Most programs haven't done enough with maintenance. (Researcher)

It's an interesting issue. I don't think we know enough about maintenance. (Researcher)

6.3.1.1 Difficulty in sustaining healthy changes

The difficulty in sustaining healthy changes, especially in the context of other family issues and the lack of ongoing support was noted by stakeholders.

Some families go great guns, you know they'll keep going with things. I guess that's when there's no conflict, no social issues and the kid's really motivated...but there's some families that you probably know, because of the kid or the parent or both, they're going to fall in a heap. (Psychologist)

The feedback from the kids and the parents is that they miss the regular contact and regular check in. I've had families specifically ring and say after a few weeks, 'It's not going well. I can't do this and I need some support.' It's like they need to set some goals and have someone else sit down with them and set some goals to keep going. (Researcher)

It's the inevitability of slipping back. Anything that's worth doing is worth fighting for. This is the fight of their life...it's hard isn't it. That's why you're not going to give up before them. (Psychologist)

6.3.1.2 Difficulty getting adolescents to come back

Stakeholders identified that it was difficult to organise convenient times or interesting activities to encourage adolescents to come back to review or booster sessions. This also relates to the use of other forms of communication discussed further in the maintenance enablers section.

One thing is, as the adolescents got older they ended up getting part-time jobs, or they had greater study commitments, so I think that's one reason why attendance tapered off in the booster sessions. (Researcher)

Another factor was whether the group got along. Groups that got along really well, they came back. One group attended all sessions while another group after that seven, eight weeks, you never saw them again. (Researcher)

6.3.1.3 Lack of appropriate services to support healthy changes

Stakeholders identified that overweight adolescents were unlikely to re-engage in team sports but there are few activities available in the community for them to access instead. Most health professionals were reluctant to recommend gyms to adolescents.

We struggle when families get to the end of those twelve months and they want more support, there's not really anything to refer them onto. (Researcher)

Team sports I don't think was all that common. I reckon it's too late. You'd have a very few who might have some skills in that area and they'd get re-engaged but these are young people who have in general stepped back [from physical activity]. When you're an adolescent, it's too late to join groups then because the soccer team, the netball teams, they're working at fairly high level skills. (Researcher)
There's a lack of centres or activities for kids who don't want to be into sport, who may want to do something not as physical but with some physicality, but not in team sports. (School Health Manager)

I was looking for other things, particularly as she's getting older and [dropping], tending to want to drop out of team sports and things like that or out of some of the programs at school that were keeping her very active . There's nothing out there... Most gyms don't even take them until they're 15. (Allied Health Professional)

Some of them feel a bit embarrassed about going to gyms- especially adolescents. Quite often gyms aren't the best in that regard, unless you go with the family. But there's not many, no family memberships for gyms. (Allied Health Professional)

There's a gym but nothing specifically targeting kids and I'd be a little bit wary of sending kids to an adult gym, depending on the training of staff. (Allied Health Professional)

6.3.2 Enablers for maintaining change

Stakeholders identified a number of key ideas that they have found useful for encouraging teenagers and families to keep up with the healthy changes they have made. These really build on the enablers identified in keeping them engaged during the program, with a focus on staying in contact, helping the adolescents to feel that it's worth the effort and additionally linking them in with existing community services.

6.3.2.1 Follow up

An ongoing link to facilitators or program staff was identified as a potential enabler for maintaining healthy lifestyle changes after the program has finished.

Following up with people...see how they're going ...keeps people a bit accountable and gives them a bit of motivation and reminders that we all need. (Allied Health Professional)

We use things like postcards at Christmas time...maybe here's some things to think about at Christmas. Trying to get that connection. (Researcher)

We also find in terms of retention, you know birthday cards, newsletters, updates, and we do that for all of the participants...that also helps. (Researcher)

Go and cook a meal with them while you chat to them at home, or organising a couple of families who live close together to go for a walk together and a chat... maybe something they can do together. (Allied Health Professional)

Only thing that is lacking is something linking it back to home. I don't think that a lot of the families who have let it get to the point that their child is obese really 'gets it'. I'm not really sure how 8 weeks and then not knowing what they're doing when they get home, or what their set up even is at home. So suggestions there can be as effective. (Allied Health Professional)

Keeping them on track is really helpful, not just to go away and they forget about it. (Researcher)

6.3.2.2 Involve them and highlight positive changes

Stakeholders highlighted the importance of teenagers and parents feeling like they were capable of achieving their own healthy change and recognised these positive changes when they occurred.

They've got to have buy in. And it's absolutely essential that the parents are involved in it if you want to change things. And you want them to have seen changes...and believe they can do it. (Researcher)

If they see positive changes in themselves, whether it's weight loss or they just feel better, I think if they see those changes, they're more likely to carry that on..., they're seeing benefits then that's the biggest motivator" (Allied Health Professional)

We have been providing parents with individualised student/participant results and feedback on how they've done. It's like ok here's your child's results from baseline, activity levels, dietary behaviours, sedentary behaviours, some strategies to maybe move them in that direction. So that tailored, that personal touch. (Researcher)

An email or check in point where a couple of months down the track...they send a coordinator a message saying these were my goals and this is what I'm doing. Just to sort of make them still take ownership of those goals that they've set. (Allied Health Professional)

6.3.2.3 Online/ electronic media

Communicating with teenagers using their preferred means of contact, particularly by SMS and online communication, was highlighted as a good way to encourage maintenance of healthy change.

*I think it's a really good idea to use those media to encourage maintenance.
(Researcher)*

Everyone's on Facebook these days. (Allied Health Professional)

*With the new technology I think for teenagers that seems to be really appealing. Using a mobile phone or an iTouch or something like that... for contact and prompts.
(Researcher)*

We're using SMS in NEAT girls so we send 1 text a week during the first stages of intervention and usually send it in the afternoon, specifically between school and dinner cause that's considered that crucial window. We send them text messages around encouraging them to be active or reminding them the kilojoule content of a coke. (Researcher)

Talk in a way, you're actually talking in the language of the adolescent... Rather than "do you realise there are 1000kJ in a bottle of coke?"... imagine saying that same thing but in adolescent talk. So they actually pay attention to it. (Researcher)

I think text. All kids have phones, most parents have got phones. That's what they hang off. (School Health Nurse)

IT- It's a cheap, simple and effective way of maintaining engagement. (Psychologist)

The nice thing about it is the message is getting there. They're being reminded about how much time they spend sitting and how much TV they're watching. And some of those crucial information around kJ content of certain foods, portion sizes, things that we know are very important behaviours related to maintaining a healthy weight. It's a great opportunity to get that message to them and get it in real time, when they need it at certain times of the day. (Researcher)

*[We use] an email or check in point where a couple of months down the track...they send a coordinator a message saying these were my goals and this is what I'm doing. Just to sort of make them still take ownership of those goals that they've set.
(Allied Health Professional)*

*We're conducting phone interviews about their preferences in terms of SMS's, emails and phone coaching. It seems like they prefer phone coaching because you can ask more questions and it's more interactive... But then again, if you ask them at the end if they could choose from SMS, email or phone coaching, what would you prefer as a method, they will write SMS even though they get more help from phone coaching.
(Researcher)*

Stakeholders did identify that this was a relatively new form of communication and research in this area is still limited.

I think it's fair to say we've got some ideas about some of the strategies [for maintenance] but we haven't got the whole solution by any means! (Researcher)

Some of this has come from weight maintenance work in adults, but I think our dose was too weak (once a fortnight text). It wasn't enough. (Researcher)

I think we really need to explore all of those forms of e-communication that young people do, and just use them as much as we can because they're forever SMS-ing and Facebooking and so on. And we just need to be using that as part of our ongoing ways of connecting to them. And the dose we were thinking is just way too small. (Researcher)

6.3.2.4 Transition into community

Stakeholders agreed that transitioning teenagers into local services and groups after the programs was an important part of maintenance. They were able to identify some local services that may be accessed to provide opportunities for encouraging kids to stay active (e.g. sporting clubs) and mentally well (e.g. youth services). A list of local services has been developed by the CAFAP team and is included as appendix 14.

Ways of linking them into community facilities as you kind of wean the program off. Looking at what's available for them... So they're exposed or it's identified to them what opportunities are available in their environment so that there's that potential for carry on. (Researcher)

Stakeholders recommended focussing on non-competitive sports or being active instead of team sports.

Participation in organised activity... is less so for overweight and obese kids. Therefore, less formal settings, whether it be cycling, riding a bike for fun or walking seems to be more appealing. (Researcher)

Some kids just don't like sport... It's trying to educate them on what they enjoy doing. Sometimes you might do things at home so they can set up a little system at home or an aerobics video- lots of videos and things out there now. Some of them feel a bit embarrassed about going to gyms, especially adolescents. Quite often gyms aren't the best in that regard. (Allied Health Professional)

A lot of the community sport based stuff is not going to be that appealing to them. Overweight boys particularly like resistance training; it's something that they can do regardless of their weight. They get a sense of mastery and success and I think it's a fantastic and vital strategy for maintaining a healthy weight. (Researcher)

Non-traditional type things, we've used... zumba DVDs and yoga DVDs because they're things you can pick up easily and they don't have to have a great deal of skill and it's non-competitive. (Researcher)

I think the kids at 12-16 that aren't involved in sport, I'd dare to say they're probably not going to be interested in sport in the future. So you probably need to think maybe like the nature play type activities, the trail bike riding or the bushwalking or canoeing or those sort of sports. (Local Council).

Stakeholders, particularly those who were in a role that may refer to the program, identified a combined approach of linking adolescents with community services as well as their original referrer as a useful way of providing ongoing support. These stakeholders recommended providing feedback about the overall program as well as the participant they had referred.

Communication- some sort of link back...if they ever end up here again or if we know that the program's successful, then we're more likely to keep referring people. (Allied Health Professional)

Even if you send us an email saying 'this child from your school has come to the program, a little bit about how it went and even if we know about what they do.' Then they can just come in and touch base with us. (School Health Nurse)



7.0

Conclusion

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7.0 Conclusion

Based on the valuable information provided by past participants, potential participants and stakeholders a number of recommendations are made in order to maximise the effectiveness of a family-centred intervention to reduce overweight and obesity in a community setting. The program will be modified based on these recommendations to maximise recruitment, implementation and effectiveness of the second stage of this project which is to deliver and evaluate the CAFAP program in a community setting.

7.1 Recommendations from past and potential program participants

Recommendation 1: The implementation of community lifestyle programs for adolescents should take into consideration the busy schedules of families and their financial circumstances.

Whilst parents and adolescents might be interested in joining a physical activity and nutrition program, they may be unable to attend the sessions. Parents' work schedule and children's other commitments, including sports and extracurricular activities, may prevent them from joining a lifestyle program, particularly if the venue is located too far. The increasing cost of petrol and its impact on families' tight budgets should also be considered. In addition, it should be recognised that parents may struggle to find time to complete the home activities.

Recommendation 2: In order to maximise participation, promotion strategies must be engaging to both adolescents and their parents.

It must be recognised that whilst parents and adolescents access information on nutrition and physical activity from different sources, including schools, general practitioners and community sport centres, there is an increased expectation that information on community programs should be available on the Internet. In order to maximise participation, a range of strategies should be implemented to engage both adolescents and their parents, and special attention should be given to developing multi-media strategies.

Recommendation 3: The physical activity component of the program should challenge adolescents while being appropriate for their level of fitness.

It must be recognised that adolescents have different levels of fitness and not all enjoy sports. Changing sports every week, introducing other activities (for example dancing or rock-climbing), establishing rewards when certain goals are met, and implementing a training buddy system could maximise participants' engagement in the physical activity component of the program.

Recommendation 4: The format of the program should provide the opportunity for parents to ask questions and raise issues and concerns.

The involvement of parents is essential to the success of the program. Being able to ask questions is important to parents, and some felt that they did not have enough opportunity to interact with facilitators, ask questions and discuss their issues.

Recommendation 5: On-line support should be explored as a strategy to keep families engaged and help them sustain lifestyle changes upon completion of the program.

Setting up a website with recipes, tips for exercise, goal-setting activities, and testimonials from former participants could keep families engaged with the program. In addition, having the ability to interact with other participants, for example through a blog or social network site, would provide networking opportunities for both parents and adolescents, and support families to maintain lifestyle changes after the completion of the program.

7.2 Recommendations from key stakeholders who could potentially be involved in the delivery of a community lifestyle programs

Recommendation 6: CAFAP needs to be repeatedly and strategically marketed to teenagers and parents to encourage them to enrol in the program.

Recruitment for weight management or healthy lifestyle programs is difficult. Teenagers are reluctant to enrol in weight management programs, often due to the stigma attached to such a health issue and the chance that school peers may find out. Parents are often unaware of the extent of their child's weight issue and lead busy family lives that may inhibit them committing to a program like CAFAP. Extensive and targeted marketing, including promotion through health professionals, schools and newspaper advertisements would help with attracting teenagers and parents to the program.

Recommendation 7: CAFAP needs to actively engage teenagers and consider their preferences to encourage families to remain engaged in the program.

A high level of teenage engagement in a program like CAFAP is a critical factor for success. If teenagers feel involved and considered, then they are more likely to continue to attend the program. CAFAP needs to promote a sense of belonging to the group by using fun and interesting activities for teenagers. CAFAP also needs to provide opportunities for teenagers to make choices about what they do and provide feedback about the program.

Recommendation 8: Assessment burden needs to be minimised or compensated for where possible.

It should be recognised that lengthy or invasive assessments have the potential to dissuade participants from staying engaged in a weight management program. Assessments need to be kept as short as possible and assessments need to be completed at a local site that can be easily accessed by participants. Compensation or incentives for completing assessments may need to be provided if the burden cannot be minimised sufficiently

Recommendation 9: CAFAP needs to be local, relevant and family-focused and run by passionate and engaged facilitators.

One of the biggest barriers to participation in a program like CAFAP is the difficulty for parents to get to the sessions. CAFAP should be promoted and run locally to help families engage with the program. Parents and teenagers need to feel that the program meets their needs, with content relevant and useful for the families who attend. Facilitators play an important role in keeping families engaged, by developing rapport and building helpful relationships with both teenagers and parents. Facilitators need to be passionate, interested and possess excellent communication skills to build these relationships with families.

Recommendation 10: Follow up should be timely, relevant and goal-focussed.

There has been little research into maintenance of healthy behaviours after participation in a healthy lifestyle program but it seems that to promote ongoing positive change, follow up contact needs to be regular and appropriate to assist with goals set during the program. Participants should stay linked to the program after it has concluded.

Recommendation 11: Linking participants back in with appropriate community services and external supports after the program is critical.

To maintain healthy changes after the program has finished, teenagers need to link in with existing services that promote being active, eating healthily or engaging in community activities. CAFAP needs to promote these services during the program and encourage teenagers to choose activities or programs that they enjoy. Overweight teenagers may be reluctant to re-engage in organised sport and so other options like cycling or fitness classes should be encouraged.

“I’m a success story, look at me now! I can run upstairs and do weights. You just need to look at me to see.”

(Past adolescent participant)

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Appendices

- Appendix 1. Focus group protocol
- Appendix 2. Focus group information sheet
- Appendix 3. Focus group consent forms
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Appendix 1. Focus group protocol

FOCUS GROUP PROTOCOL

My name is _____ (facilitator) and this is _____ (observer). We are both from Curtin University. We are here today to discuss a program we have developed named CAFAP or the Curtin University's Activity, Food and Attitudes Program (CAFAP). CAFAP encourages families to become healthier through a healthy diet, regular exercise and healthy attitudes. It is not a weight loss program however research has found that a healthy lifestyle program can help people to find a stable and healthy weight.

Before we start our discussion, I would like to go over a few formalities of this session. You will notice a consent form in front of you. If you are happy to be involved in the discussion after reading the consent form, please sign the form and return it to the group facilitator.

You have been supplied with a nametag to make it easy to identify everyone in today's discussion group. Do you have any questions or comments before we start?

Just before we get started I would like to go through some information about the procedure of the focus group.

GROUP RULES

Confidentiality

We are recording this session. This is because we consider all the information you provide us is important and don't want to miss any of it. The information will be typed up and you will not be identified in any reports from the study.

Honesty

Please answer the questions honestly. There are no right or wrong answers and we are interested in hearing your opinion. Tell us what you really think and feel not what you think you should feel, or what you think we want to hear.

Speaking

To ensure that everyone gets a chance to speak we ask that only one of you speak at a time. If someone is speaking wait until they are finished and then speak. You may not always agree with what another person has said. We want to hear that, but remember that we all have the right to express our own thoughts and feelings.



Freedom to Leave

If anyone is uncomfortable with anything that we talk about at any time please feel free to leave the room or sit quietly and not comment.

Terminology

We will be using the term 'CAFAP' when discussing the Curtin University's Activity, Food and Attitudes Program. Please feel free to ask for clarification on any point as we go through our discussion today.



Appendix 2. Information sheet



Participant Information Sheet

Title: Enhancing activity, nutrition and mental health in overweight adolescents: Stage 1

Name of Investigators: Professor Leon Straker, Associate Professor Alexandra McManus, Associate Professor Deborah Kerr, Dr Angela Fielding, Dr Melissa Davis, Emily Ward, Kyla Smith, Dr Anne Smith, Dr Rebecca Abbott, Professor Tim Olds and Professor Tony Wright

General Purpose, Methods and Demands:

Around a quarter of Australian teenagers are overweight, which increases their risk of poor physical and mental health. Effective programs are urgently needed to help overweight teenagers develop and maintain healthy activity, food and attitude habits.

Curtin University has developed a special program for overweight teenagers and their families. The aim of this project is to gain information from overweight teenagers and their families on how to make this program as easy, effective and the results as long lasting as possible.

Adolescents who are overweight and aged 12-16 years, and their parents/carers, will be invited to participate in a focus group to obtain their opinions about Curtin's healthy lifestyle program. A focus group helps researchers to find out what people think about certain products or services. A trained facilitator will run the focus group by asking a series of questions to help group members discuss their thoughts, perceptions and opinions. During our focus groups we will ask a series of questions to help teenagers and parents/carers discuss what they think may work well and what could be improved for the healthy lifestyle program.

You have been invited to attend a focus group with 8-10 people at a convenient location.

- Separate groups will be run for adolescents and parents/carers.
- The discussion will take 1 hour of your time.
- The person leading the focus group will make an audio-tape recording of the discussion but your name will not be attached to any comments. During the discussion, you may use a name other than your own if you wish.
- We will also ask you to fill out a short questionnaire detailing age and school level details. Your name will not be recorded on this sheet.
- We will give you a gift voucher for \$20 at the end of the discussion, in recognition of your time and effort.

Risks, Discomforts and Benefits:

You will only participate if your parent/you are satisfied you understand what is expected of you and the risks, discomforts and benefits of the study.

The main risk to you is the discomfort of thinking and talking about why you/your child is overweight. This may be the main benefit to you/your family also, as it may help you to develop healthier habits.

Your input will help us develop a better program and so help other teenagers and their families develop better habits and so live happier, healthier lives.

Confidentiality:

All information provided by you will be confidential and no personal identifying details will be collected. Your identity will not be disclosed in any published material resulting from the study.

Request for more information:

You/your parent are encouraged to discuss any concerns you have regarding the study with study staff at any time. If you would like, we can send you a copy of the summary of the study when we have analysed all the discussions.

Consent to Participate:

If you decide to participate in this study after considering this information, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without discrimination, judgment or penalty.

Further Information:

If you have any further queries, please don't hesitate to contact Professor Leon Straker on 92663634 or l.straker@curtin.edu.au

This study has been approved by the Curtin University Human Research Ethics Committee (Approval number HR30/2011). The committee is comprised of members of the public, academics, lawyers, doctors and pastoral carers. Its main role is to protect participants. If needed, verification of approval can be obtained either by writing to the Curtin University Human Research Ethics Committee, c/- Office of Research and Development, Curtin University, GPO Box U1987, Perth WA 6845 or by telephoning 9266 2784 or by emailing hrec@curtin.edu.au

Thank you very much for your involvement in this research, your participation is greatly appreciated and will help improve the health of Australian teenagers.



Appendix 3. Consent forms

Participant Consent Form – Parent/Carer

Title: Enhancing activity, nutrition and mental health in overweight adolescents: Stage 1

Name of Investigators: Professor Leon Straker, Associate Professor Alexandra McManus, Associate Professor Deborah Kerr, Dr Angela Fielding, Dr Melissa Davis, Emily Ward, Kyla Smith, Dr Anne Smith, Dr Rebecca Abbott, Professor Tim Olds and Professor Tony Wright

I have read the Participant Information Sheet. Any questions I have asked have been answered to my satisfaction. I agree to participate in this research but understand that I can change my mind or stop at any time. I understand that all information provided is treated as confidential. I agree that research gathered for this study may be published provided names or any other information that may identify me is not used.

- I understand the purpose and procedures of the focus group.
- I have been provided with the participant information sheet.
- I understand that the focus group itself may not benefit me.
- I agree for this focus group to be tape recorded.
- I understand that my involvement is voluntary and I can withdraw at any time without prejudice.
- I understand that all information will be securely stored for 5 years before being destroyed.
- I have been given the opportunity to ask questions.
- I agree to participate in the study outlined to me.

Participant _____

Date _____

Investigator _____

Date _____

Participant Consent Form – Adolescent

Title: Enhancing activity, nutrition and mental health in overweight adolescents: Stage 1

Name of Investigators: Professor Leon Straker, Associate Professor Alexandra McManus, Associate Professor Deborah Kerr, Dr Angela Fielding, Dr Melissa Davis, Emily Ward, Kyla Smith, Dr Anne Smith, Dr Rebecca Abbott, Professor Tim Olds and Professor Tony Wright

I have read the information Participant Information Sheet. Any questions I have asked have been answered to my satisfaction. I agree to allow my child to participate/to participate in this research but understand that my child/I can change my mind and stop at any time. I understand that all information provided is treated as confidential. I agree that research gathered for this study may be published, provided names or any other information that may identify my child/me is not used.

- I understand the purpose and procedures of the focus group.
- I have been provided with the participant information sheet.
- I understand that the focus group itself may not benefit me.
- I agree for this focus group to be tape recorded.
- I understand that my involvement is voluntary and I can withdraw at any time without prejudice.
- I understand that all information will be securely stored for 5 years before being destroyed.
- I have been given the opportunity to ask questions.
- Parent – I consent to my child participating.
- Teenager – I assent to participate in the study outlined.

Parent/guardian Date

Participant (teenager) Date

Investigator Date

Appendix 4. Focus group questions – Adult - past participants

- Q1. How did you hear about CAFAP?
- Q2. What made you and your family decide to be part of CAFAP?
- Q3. What were some of the things you weighed up in making your decision to be part of CAFAP?
Positives? Negatives?
- Q4. Is there anything about the program that you think could potentially stop families enquiring about or joining the program?
- Q5. What were the benefits to you and your family of being part of CAFAP?
- Q6. What challenges, if any, did you or your family have sticking with the program?
- Q7. Some people had trouble remembering to do the home activities. Would it have helped if we had reminded you via SMS or email?
- Q8. Did you or your family have any problems filling out or returning the forms during the program? What were these problems (if any)?
- Q9. Did you or your family have any problems doing the questionnaires or the physical fitness tests?

KEEPING UP THE CHANGES

We are interested in your opinion about the program content. That is if you felt the people who led each session knew what they were doing and if the sessions fitted together well.

- Q10. Can you tell me what you thought of the content of the program overall?
- Q11. What did you think about the people who led the sessions?

Did the sessions flow well week to week?

Did the facilitators seem to know what they were talking about?

Were the people who led the sessions easy to talk with?

Did they seem genuinely interested in you and your opinions?

Did each session build on the previous sessions?



- Q12. Which parts of the program did you like best?
- Q13. Which parts did not help or could have been better?
- Q14. What changes have you made because of CAFAP.
Positives? Negatives?
- Q15. What did you think of the goals setting during the program?
How could make goal setting more useful to your family?
- Q16. What else could we have done to help you make more positive changes?
- Q17. Sometimes we had trouble getting families to come back for testing 3 and 6 months after the program finished.
- Q17a Was this a problem for your family?
 - Q17b How could we make this easier for families?
- Q18. What do you think would help you to continue to make positive changes in your life after a program like CAFAP has finished?
- Q19. Is there anything in your community that you think could help your family to stay motivated to continue to make changes in your lives?
- Q20. If you had a wish list, what other services or support do you think would help your family to become healthier?
- Q21. Is there anything else you would like to raise about their experiences with CAFAP?

APPENDIX 5. Focus group Protocol– Adolescent - past participants

FINDING OUT ABOUT AND GETTING INTERESTED IN THE PROGRAM

- Q1. How did you hear about CAFAP?
- Q2. What made you and your family decide to be part of CAFAP?
- Q3. What were some of the things you weighed up in making your decision to be part of CAFAP?
Positives? Negatives?
- Q4. Is there anything about the program that you think could potentially stop families enquiring about or joining the program?

STAYING WITH THE PROGRAM

- Q5. What were the benefits to you and your family of being part of CAFAP?
- Q6. What challenges, if any, did you or your family have sticking with the program?
- Q7. Some people had trouble remembering to do the home activities. Would it have helped if we had reminded you via SMS or email?
- Q8. Did you or your family have any problems filling out or returning the forms during the program? What were these problems (if any)?
- Q9. Did you or your family have any problems doing the questionnaires or the physical fitness tests?
- Q10. Sometimes it is hard to stay motivated during the gym sessions and to put in an effort all the time. Is there anything that you can think of that would have helped you work hard and stay motivated during the gym sessions?
- Q11. Would having a buddy train with you have helped? How?

KEEPING UP THE CHANGES

We are interested in your opinion about the program content. That is if you felt the people who led each session knew what they were doing and if the sessions fitted together well.

- Q12. Can you tell me what you thought of the content of the program overall?



- Q13. What did you think about the people who led the sessions?
Did the sessions flow well week to week?
Did the facilitators seem to know what they were talking about?
Were the people who led the sessions easy to talk with?
Did they seem genuinely interested in you and your opinions?
Did each session build on the previous sessions?
- Q14. Which parts of the program did you like best?
- Q15. Which parts did not help or could have been better?
- Q16. What changes have you made because of CAFAP?
Positives? Negatives?
- Q17. What did you think of the goals setting during the program?
How could make goal setting more useful to your family?
- Q18. What else could we have done to help you make more positive changes?
- Q19. Sometimes we had trouble getting families to come back for testing 3 and 6 months after the program finished.
- Q19a Was this a problem for your family?
 - Q19b How could we make this easier for families?
- Q20. What do you think would help you to continue to make positive changes in your life after a program like CAFAP has finished?
- Q21. Is there anything in your community that you think could help your family to stay motivated to continue to make changes in your lives?
- Q22. If you had a wish list, what other services or support do you think would help your family to become healthier?
- Q23. Is there anything else you would like to raise about their experiences with CAFAP?

Appendix 6. Focus group questions – Adult - potential participants

Finding out about and getting interested in the program

- Q1. Who would you **ask** or where would you **look for** information about a program about nutrition and physical activity for teens?

The CAFAP is a free activity and nutrition program for teens aged 12-16 years who are overweight. The program involves the whole family, showing both teens and their parents what they need to do to get their weight, health and lifestyle back on track. CAFAP will take place in local gyms or community centres.

It runs for **eight weeks** during school term, with **two sessions** each week (each session is **two hours**). Teens spend the first part of every lesson in the gym with a physiotherapist while parents talk with dietitians, social workers or physiotherapists. Everyone works together in the second part of each session to learn practical skills relating to food, activity and how attitude can help us to be healthier.

- Q2. What would get you interested in a program like CAFAP?

Staying with the program

- Q3. What do you think could stop families **joining** a program like CAFAP?
- Q4. What do you think could stop families **staying involved** in a program like CAFAP?
- Q5. How could we overcome these problems?
- Q6. What would encourage you and your child to join CAFAP?
- Q7. Would you like to be involved in the first one or two gym sessions with your child?

Keeping up with the changes

- Q8. Forms need to be completed before, during and after the program. We have had some trouble getting families to come back for **testing 3 and 6 months after the program finished**.
- Q8a. What would encourage you to complete the forms we need?
- Q8b. How could we make this easier to fill out the forms and get them back?



- Q9. What do you think would help you and your family to continue to make positive changes in your life after a program like CAFAP has finished?
- Q10. Is there anything in your local community now that could help you and your family to be healthier?
- Q11. What services or support in your community do you think would help your family to become healthier?

Appendix 7. Focus group questions – Adolescent - potential participants

Finding out about and getting interested in the program

- Q1. Who would you **ask** or where would you **look for** information about a program about nutrition and physical activity for teens?

The CAFAP is a free activity and nutrition program for teens aged 12-16 years who are overweight. The program involves the whole family, showing both teens and their parents what they need to do to get their weight, health and lifestyle back on track. CAFAP will take place in local gyms or community centres.

It runs for 8 weeks during school term, with two sessions each week. Teens spend the first part of every lesson in the gym with a physiotherapist while parents talk with dietitians, social workers or physiotherapists. Everyone works together in the second part of each session to learn practical skills relating to food, activity and how attitude can help us to be healthier.

- Q2. What would get you interested in a program like CAFAP?
- Q3. Here is a sample of our advertising flyer.
- Q3a. How would you decide if this program could help you?
- Q3b. What would encourage you to ask about a program like CAFAP?
- Q3c. What would **put you off** being involved in CAFAP?
- Q3d. What do you think would be the most important things we could do to help teens your age to be involved in an activity and nutrition program like CAFAP?

Staying with the program

- Q4. What do you think could stop families **joining** a program like CAFAP?
- Q5. What do you think could stop families **staying involved** in a program like CAFAP?
Prompts: not knowing other teenagers in the group, time (after school), length of program, other after school commitments lack of interest
- Q6. How could we overcome these problems?
- Q7. What would encourage you to join CAFAP?
- Q8. What do you think would keep you motivated to stay with the gym part of the program?



Q9. Would having a buddy training with you help? How?

Q10. Do prefer people training with you to be the same age as you? Why?

Q11. Do you have any preferences about the gender of people training in your group?

Keeping up with the changes

Q12. Forms need to be completed before, during and after the program. We have had some trouble getting families to come back for **testing 3 and 6 months after the program finished.**

Q12a. What would encourage you to complete the forms we need?

Q12b. How could we make this easier to fill out the forms and get them back?

Q13. What do you think would help you to continue to make positive changes in your life after a program like CAFAP has finished?

Q14. Is there anything in your local community now that could help you and you family to be healthier?

Q15. What services or support in your community do you think would help your family to become healthier?


Q16. Could you look at these four flyers and tell me which you like and why



Appendix 8 . Flyers used with potential adolescent participants

Are you a teenager who is overweight?
OR
Are you the parent or carer of a teenager who is overweight?

We are looking for teenagers aged 12-16 years who are overweight, and their families, to be involved in Curtin University's Activity, Food and Attitudes Program (CAFAP).



Curtin University's Activity, Food and Attitudes Program

What is it:

- CAFAP is a FREE program designed for teenagers who are overweight.
- It runs for 8 weeks, during the school term, with twice weekly sessions.
- Teenagers spend the first part of every session with the dietician, social worker or psychologist learning about how to help their teenager.
- Parents spend the first part of every session with the dietician, social worker or psychologist learning about how to help their teenager.
- Teenagers and parents work together in the second part of the session to learn practical skills relating to food, activity and attitudes.

When is it:


- CAFAP runs every term.
- The next CAFAP group starts on _____

Where is it:

- CAFAP is run from two different sites in the Perth metro area.
 - MIDLAND: Midland community centre, 00 Something St, MIDLAND 6050
 - COCKBURN CENTRAL: Cockburn community centre, 11 Another St, SUCCESS 6180
- Families can choose which location is more convenient for them.

More info:

- Phone Kyle (Study Coordinator) on 9266 3694
- Email Kyle on kafap@curtin.edu.au
- Check us out on facebook.




AKTIV8
Because it's time to activate yourself

**What's holding you back?
If it's your weight, we can help.**

Living a fully activated life is all about getting everything in balance - particularly food and exercise. If you're not getting the balance right, and weight is an issue for you, you're not alone - an estimated 1.5 million Australians under the age of 18 are overweight or obese. If the trend continues, by 2020 a third of all children and young people in Australia will be overweight.

Aktiv8 is a free activity and nutrition program for teenagers aged 12-16 who are overweight. The program involves the whole family, showing both teens and their parents what they need to do to get their weight, health and lifestyle back on track. **Aktiv8** is run by Curtin University, but takes place at a local gym in your area, supported by a team of trainers, dieticians and social workers. Most importantly, **Aktiv8** is great fun.

Aktiv8 has already helped many Australian teenagers to get their weight under control and to feel great about themselves again. Check it out online to find out more.

AKTIV8.COM.AU 



stepping stones

"I need to take some steps to deal with my weight."

**Well done.
Admitting this is the first one.**

More and more young Australians are realising that eating the wrong food and not being active enough is having a big impact on their lives, and how they feel about themselves. In fact, an estimated 1.5 million Australians under the age of 18 are overweight or obese. If the trend continues, by 2020 a third of all children and young people in Australia will be overweight. It's time to take action.

Stepping Stones is a free activity and nutrition program for teenagers aged 12-16 who are overweight. The program involves the whole family, showing both teens and their parents the steps they need to take to do to get their weight, health and lifestyle back on track. **Stepping Stones** is run by Curtin University, but takes place at a local gym in your area, supported by a team of trainers, dieticians and social workers. Most importantly, **Stepping Stones** is great fun.

Stepping Stones has already helped many Australian teenagers to get their weight under control and to feel great about themselves again. Check it out online to find out more.

steppingstones.org.au  Search "stepping stones Australia"


A quiet little question for teenagers and parents of teenagers...

Are you a bit worried about your weight, or about the weight of your teenage kids?


You're not alone - an estimated 1.5 million Australians under the age of 18 are overweight or obese. If the trend continues, by 2020 a third of all children and young people in Australia will be overweight. It's time to take action.

Phit is a free activity and nutrition program for teenagers aged 12-16 who are overweight. The program involves the whole family, showing both teens and their parents what they need to do to get their weight, health and lifestyle back on track. **Phit** is run by Curtin University, but takes place at a local gym in your area, supported by a team of trainers, dieticians and social workers. Most importantly, **Phit** is great fun.

Phit has already helped many Australian teenagers to get their weight under control and to feel great about themselves again. Check it out online to find out more.



Phit
The nutrition & activity program for teens

phitteens.com.au  Search "phitteens"

Appendix 9. Interview Schedule for Health Professionals

Here are the details of the CAFAP program, and a list of intended questions to guide the discussion today. This list is not exhaustive, but covers the key points that we think might be important for the implementation of our project. Hopefully, this will help us to effectively use the time we have in this meeting.

Practice and management

- Do you currently see overweight/obese teenagers in your practice?
- How many or how regularly would you see overweight/obese teenagers?
- For what proportion would overweight/obesity be the primary presenting complaint?
- Would you consider mentioning the teen's weight if it wasn't their primary complaint?
- For those teenagers you do see for overweight/obesity, how do you manage them?
- What guides your service delivery?

Community services

- What are the strengths of services offered?
- What are the current gaps in services for overweight teenagers and their families?
- Ideally, what kind of services would you like to be available to overweight/obese teens?
- What facilities are around that may be used to deliver a lifestyle program to overweight teens? (CAFAP needs a meeting room, exercise equipment area and basic food preparation facilities)
- What are the costs associated with using such facilities?
- Are you involved in or aware of health-related groups that run successfully in the community (not necessarily for adolescents)? What can we learn from them?

Recruitment

- If you knew that CAFAP existed, what kind of information would you want to know about it?
- Here is a sample of our advertising flyer. How would you immediately know that this program may be good for families you see? What other information would you need?
- Who is well-placed to refer or recruit teenagers?
- How do we best get our referral information to you? Or other referrers?
- How would you mention this program to families? Would you feel comfortable talking about this?
- What could we provide (for health professionals or families) to make this discussion easier?
- What level of feedback would you like about participants you have referred?

Maintenance

- What support services can we link participants with once they have completed the program?
 - How do you know about these services or how do others find out about them?
- Have you got any ideas or comments about sustaining positive healthy lifestyle changes?
- Are there other people that may have valuable insight into this area that you think we should speak to?

Program

- If CAFAP was to be implemented in your local area, is this something that you or your organisation would support? What support would you be able to provide?
- Would you be interested in being involved in the implementation of this program in your local community?
 - What interests you and what puts you off?
 - What else should our team consider?

Appendix 10. Interview Schedule for Local Service Providers

Current services

- What services are currently available for overweight teenagers in this local area?
- Who organises these services?
- What are the strengths of services offered?
- What are the limitations of services offered?
- Who is involved in offering services?
- Ideally, what kind of services do you think needs to be available for overweight/obese teens?
- Who is well-placed to refer or recruit teenagers?

Local Facilities

- What facilities are around that may be used to deliver a lifestyle program to overweight teens? (CAFAP needs a meeting room, exercise equipment area and basic food preparation facilities)
- What are the costs associated with using such facilities?
- We hope to implement CAFAP in two metropolitan communities later this year. Is there anything that we need to know about the way health services are currently delivered? (eg/ clinical pathways, service priorities, health professional limitations)
- What support services can we link participants with once they have completed the program?
 - How do you know about these services or how do others find out about them?

Local Support

- Would your organisation be happy to endorse or support the implementation of CAFAP?
- Would your organisation/service have any capacity to be involved in:
 - Recruitment/referral of overweight teenagers
 - Delivery of CAFAP
 - Maintenance programs/support
- Are there other people that may have valuable insight into this area that you think we should speak to?
- How can we best work with you in the future?

Appendix 11. Interview Schedule for Researchers

- Could you briefly outline your experience researching issues related to obesity intervention programs for adolescents
 - Intervention studies – age group, nature of program
 - Other research – reviews, assessment method development...

- **What do you think are the main issues in getting families interested and enrolled in a program?**
 - Did you have difficulties recruiting overweight/obese teenagers?
 - How did you try to overcome these?
 - We have recruited families through advertisements in the Parent's Paper and community newspaper, local radio ads and inclusion of information in school newsletters. We have also written to GPs and Allied Health professionals in the area and asked them to refer appropriate clients. How can we improve our strategy?
 - We aim to target overweight and moderately obese adolescents (have previously mainly recruited severely obese). What different issues may this raise?

- **What do you think are the main issues in keeping families engaging in a program?**
 - Did you have any difficulties keeping families involved in your program?
 - How did you try to overcome these?
 - This is a timetable summary of our current program. I can explain/ give you some more detail about program content if needed. Do you have any suggestions for improvement to help engagement?
 - This is a list of the assessments we have previously included before and after the program. Do you have any suggestions for reducing the burden and improving the utility?
 - Do you have any suggestions about using goal setting to help keep families engaged?

- **What do you think are the main issues in helping families maintain positive healthy lifestyle changes after a program?**
 - How have you helped overweight teens to maintain their healthy changes once they finished your program?
 - We are considering using IT (SMS/Email/Facebook) to encourage maintenance. Do you have any comments or ideas about how to do this well?
 - Do you have any suggestions about integrating participants into community run physical activity?
 - Any other suggestions to help maintain lifestyle changes?

Appendix 12 Information Sheet for Stakeholders



1. Participant Information and Informed Consent - Stakeholders

Title: Enhancing activity, nutrition and mental health in overweight adolescents:
Stage 1

Name of Investigators: Professor Leon Straker, Associate Professor Alexandra McManus, Associate Professor Deborah Kerr, Dr Angela Fielding, Dr Melissa Davis, Emily Ward, Kyla Smith, Dr Anne Smith, Dr Rebecca Abbott, Professor Tim Olds and Professor Tony Wright

General Purpose, Methods and Demands:

Around a quarter of Australian teenagers are overweight, which increases their risk of poor physical and mental health. Effective programs are urgently needed to help overweight teenagers develop and maintain healthy activity, food and attitude habits.

Curtin University has developed a special program for overweight teenagers and their families. The aim of this project is to gain information from key stakeholders involved in the provision of services to overweight/obese adolescents and their families on how to make this program as easy, effective and as long lasting as possible.

You have been invited to participate in an in-depth interview to offer your opinions about healthy lifestyle programs and their implementation in metropolitan and rural Western Australia. The interview will take 1 to 1 ½ hours of your time. The interviewer will make an audio-tape recording of the discussion but your name will not be attached to any comments. During the discussion, you may use a name other than your own if you wish. You will also be asked to complete a short questionnaire regarding your organisation's role. We would like to offer you a gift voucher for \$50 in recognition of your time and effort.

Confidentiality:

All information provided by you will be confidential. Your consent form and any communication material identifying you will be stored separately to the tape recordings. Your identity will not be disclosed in any published material resulting from the study.



Request for more information:

You are encouraged to discuss any concerns you have regarding the study with study staff at any time. If you would like, we can send you a copy of the summary of the study when we have analysed all the interviews.

Consent to Participate:

If you decide to participate in this study after considering this information, please understand your participation is voluntary and you have the right to withdraw your consent or discontinue participation at any time without discrimination, judgment or penalty. If you withdraw, your data will be destroyed.

Further Information:

This research proposal has been approved by the Curtin University Human Research Ethics Committee.

If you request any further information, or have any queries you wish to be answered, please don't hesitate to contact Professor Leon Straker on 92663634 or l.straker@curtin.edu.au

Please direct any ethical complaints to the Human Research Ethics Committee (Secretary) on phone: 9266 2784 or hrec@curtin.edu.au or in writing C/- Office of Research and Development, Curtin University, GPO Box U1987, Perth WA 6845.

Thank you very much for your involvement in this research; your participation is greatly appreciated and will improve services aimed at helping Australian adolescents to be healthier.

Appendix 13 Consent Form for Stakeholders

Participant Consent Form - Stakeholders

Title: Enhancing activity, nutrition and mental health in overweight adolescents

Name of Investigators: Professor Leon Straker, Associate Professor Alexandra McManus, Associate Professor Deborah Kerr, Dr Angela Fielding, Dr Melissa Davis, Emily Ward, Kyla Smith, Dr Anne Smith, Dr Rebecca Abbott, Professor Tim Olds and Professor Tony Wright

I have read the Participant Information Sheet. Any questions I have asked have been answered to my satisfaction. I agree to participate in this research but understand that I can change my mind and stop at any time. I understand that all information provided is treated as confidential. I agree that research gathered for this study may be published provided names or any other Information that may identify me is not used.

- I understand the purpose and procedures of the study.
- I have been provided with the participant information sheet.
- I understand that the procedure itself may not benefit me.
- I agree for this interview to be tape recorded.
- I understand that my involvement is voluntary and I can withdraw at any time without prejudice.
- I understand that all information will be securely stored for 5 years before being destroyed.
- I have been given the opportunity to ask questions.
- I agree to participate in the study outlined to me.

Participant

Date

Investigator

Date



Appendix 14 List of local services for Midland area

Keeping Active:

Why Do it, What You Can Do, and How to Stick with It

MIDLAND

Why stay active?

Keeps your body healthy, reducing the risk of heart and circulatory diseases

Helps you maintain a healthy weight

Strengthens your muscles and bones, reducing the risks of osteoporosis and arthritis

Allows you to sleep better

Improves your mood

It's fun, enjoyable and social

How much to do?

Do at least 60 mins moderate to vigorous intensity physical activity every day. Work up to this; start with 30 minutes, start with an easier exercise, or exercise on alternate days at first until you can do it daily.

What's on offer in your area?

There are endless possibilities when it comes to choosing an activity; there is something out there for everyone and it needn't be a chore or expensive. Here are some ideas:

1. Gyms and leisure centres.

Try:

Weight training: Use machines, free weights & body weight (eg. Leg press, knee extension, hamstring curls, lunges, squats, crunches)

Cardio: Bike, cross trainer, treadmill, rower, stepper.

And at the leisure centres, try:

Fitness classes: Kick boxing, step aerobics, body combat, body pump, cardio ball, spin, body jam.

Swimming

Yoga & Pilates

Indoor social sports: Ladies and mixed netball, soccer, hockey, badminton.

Dancing: Zumba, hip hop, jazz, body-jam.

Martial arts

Facilities:

Swan Park Leisure Centre Gray Drive, Midvale (9250 2120)

Altone Park Leisure Centre 332 Benara Rd, Beechboro (9377 6181)

Midland Youth Centre North Simcoe Sports & Recreation Centre, 527 Len Self Blvd, Midland (9526 6159). \$15 per year or \$1 per visit. Pool, Ping Pong, Gym, Basketball, Dodge ball

Contours Gym 36 James St, Midland (9274 3540)

Curves Gym for Women 52 Helena St, Midland (9274 0078)

Jetts Fitness 147 Great Eastern Hwy, Rivervale (9250 5750)

Renaissance Fitness Centre 344 Great Eastern Hwy, Midland (9274 6411)

2. Other activities:

Dancing

Hip hop, ballroom, zumba, belly, jazz.

Midland Dance Studio – James St, Bellevue (9250 2426) – Hip hop.

Swan Ballroom Centre – 5 Toodyay Rd, Mid Swan (9250 2426)

BMX

Track locations:

Bullsbrook BMX Track – Marouba Ave, Bullsbrook.

South Guildford BMX Track – Barker Rd, South Guildford.

Skateboarding / rollerblading

Skate park locations:

BULLSBROOK SKATE PARK – Marouba Ave, Bullsbrook.

ALSTONE SKATE PARK – Benara Rd, Beechboro.

MIDLAND SKATE PARK – Cnr Kean St & Morrison Rd, Midland

Martial arts

Burrige Martial Arts Midland – 73 Farrell Rd, Midvale (1300 850 808).

The Defense Arts Academy – 31 James St, Bellevue (0438 223 963)

East Side Kickboxing – 11/12 Stafford St, Midland (9250 3933)

Cycling

Around your local neighbourhood, or use cycle paths in local reserves (below)

Walking & jogging –

Around the block, in your favourite park or nearby oval, or along the beach.

Anywhere will do, and it's free!

Some locations:

REG BOND RESERVE – Bernley Dr, Vivleash.

FISH MARKET RESERVE – Lot 50, Swan St West, West Guildford.

CITY BEACH

MIDLAND OVAL – Morrison Rd, Midland.

RAY MARSHALL PARK – First Ave, Midland. (Take the John George Walk Trail along the Swan River).

HARPER PARK – Great Eastern Hwy.

3. Sports clubs:

Join a team or get a group of mates together and use local facilities.

Soccer



Dianella White Eagles Soccer Club – Reserve 3, Cnr Morley & Alexander Dr,
Dianella (9276 7645)

Ashfield Soccer & Sports Club – Coulston Rd Ashfield (9378 3334)

Football

Central Midlands Coastal Football League (9651 1545)

Basketball

Hills Raiders Basketball Assoc – 180 Thomas Rd, Glen Forrest (9298 9096)

Netball

Swan Districts Netball Assoc – Gray Dr, Midvale (9274 5224)

Foothills Netball Assoc – Ridge Hill Rd, Maida Vale (9454 7299)

Cricket

Midland Guildford Cricket Club – West Swan Rd, Guildford (9279 4054)

Midland Indoor Cricket & Netball Centre (0417 992 009)

Easy ways to incorporate exercise into your day:

Get off the bus a little earlier than the closest stop to your destination, and walk the rest of the way.

Use your bike or walk to get to school, shops, or friends' houses.

Do simple exercises like sit-ups, pushups, lunges or squats during TV ad breaks. That's 20 minutes of activity per hour.

Take the stairs instead of the lift.

Turn up the radio and dance in your room.

Go for an evening walk after dinner with a friend.

Walk the dog around the block.

Wash and wax your/someone else's car at home instead of going to the carwash.

Walk (briskly!) around the mall whilst enjoying retail therapy.

Try a rock climbing wall with a friend and pretend to be James Bond.

Offer to mow the lawn.

Try walking to places that are close to home instead of using a car, like when posting a letter, picking up lunch or getting a paper.

Get a part-time job delivering newspapers.

If you're an animal lover, advertise a dog-walking service in your neighbourhood and earn some money at the same time.

Staying motivated:

Do something you enjoy. Anything that gets your body moving is better than doing nothing.

Schedule time for exercise. Once exercise becomes part of your daily To-Do list, you're more likely to do it.

Remember that exercise energizes. Even if you feel too tired to exercise, try anyway. You might be surprised to find how energized you feel while you're at it and afterwards.

Mix it up. When you get bored with exercising, you're less likely to keep at it. Change the activities you do frequently.

Join a sports team. Having a scheduled time every week will motivate you to keep going, and because it's fun, you won't even know you're exercising.

Ask a friend to join you when you exercise. Knowing someone is counting on you to be there is a great motivator. It's also great fun and is a good way to be social at the same time.

Exercise first thing in the morning. Then it's out of the way and you're energised for the day. You're also more likely to have more energy and motivation at this time.

Or, exercise on your way home from school before you start your homework or go out.

Look for signs of progress. Things like your clothes fitting better, being able to lift heavier weights or work out longer without getting exhausted, getting a good night's sleep, thinking more clearly and having more energy.

Reward yourself. Decide on a goal and a reward, and work toward it. Buy yourself a fave DVD after you stick to your fitness plan for one month, or buy new shoes when you achieve your goal.

For more information, contact: Kyla Smith Phone: 9266 3694

Email: cafap@curtin.edu.au Or visit: cafap.curtin.edu.au

