



The Taste Bubs Program

A nutrition resource to help parents of very young children to understand the normal development of eating behaviours, encourage enjoyment of healthy eating and prevent eating problems in their children

Prepared by the

**Western Australian Centre for Health Promotion Research
Curtin University of Technology**

January 2008

Evaluation of the Taste Bubs Program -

Contributors

Associate Professor Alexandra McManus
Project Director
Senior Research Fellow, Associate Director
WA Centre for Health Promotion Research
Curtin University of Technology

Claire Nicholson
Research Assistant
WA Centre for Health Promotion Research
Curtin University of Technology

Jenny Tohotoa
Research Assistant
WA Centre for Health Promotion Research
Curtin University of Technology

Report Number 141

ISBN 1 74067-541-X

TABLE OF CONTENTS

1.0	Background	1
2.0	Aims and Objectives	5
3.0	Methodology	6
3.1	Instrumentation	6
3.2	Focus Groups	6
3.3	Data Collection	7
3.4	Conduction of focus groups	7
3.5	Data entry, management and analysis	7
4.0	Results	8
4.1	Participants Pre-questionnaire	8
4.2	Process Questionnaire – Session 1 Smooth Start	13
4.2.1	Participants	13
4.2.2	Facilitators	18
4.3	Results from focus groups	22
4.3.1	Participants	22
4.3.2	Facilitators	26
4.4	Participants' Post-questionnaire	30
4.5	Process Questionnaire Session 2 – Beyond Puree	35
4.5.1	Participants	35
4.5.2	Facilitators	38
5.0	References	42

Tables

1	How confident are you about introducing your child to solids?	8
2	How confident do you feel about how to go about starting your baby on solid foods?	10
3	How confident do you feel about deciding when to start giving your baby solid foods?	10
4	How important do you think enjoyment of eating is when introducing solids to your baby?	11
5	Do you think your baby's eating experiences will have any affect on his/her eating habits in the future?	12
6	Do you think babies naturally know how to eat solids, or is it something they need to learn?	13
7	Please rate the parts of the booklet as helpful, somewhat helpful or not helpful	16
8	Please rate the parts of the DVD you thought were helpful, somewhat helpful or not helpful to participants	20
9	Please rate the parts of the booklet you think were most helpful, somewhat helpful to not helpful to participants	21
10	Please rate the parts of the booklet as helpful, somewhat helpful or not helpful	37
11	Please rate the parts of the DVD you thought were helpful, somewhat helpful or not helpful to participants	40
12	Please rate the parts of the booklet you think were most helpful, somewhat helpful to not helpful to participants	40

1.0 Background

Overweight and obesity among children has become a major public health concern in developed countries,¹ including Australia,² and excessive weight and / or nutritional deficiencies may have both health consequences and also negatively impact on behavioural and cognitive development.³ Preventing overweight and obesity begins in infancy as differences in weaning practice may influence later growth characteristics and food consumption patterns such as fruit and vegetable consumption has been show to differ between those being breast-fed and formula-fed as infants.⁴ It is recommended that all mothers could benefit from advice on weaning and infant nutrition.⁴ However, special focus should be provided to women with lower education as increased education has been linked to longer breast-feeding duration and higher intake of fruits and vegetables.⁵ This brief review will examine some of the research on parent and toddler nutrition habits, explore the role of child care settings and health professionals, and outline three different intervention programs.

A study that recruited parents through the Head Start program, a preschool health and education service provided in the United States of America (US) aimed at lower socio-economic areas, found that parents who had more positive nutrition attitudes for children's growth (their own beliefs about nutrition and meal time rules)⁶ reported less problem eating behaviours in their children.⁷ Positive meal time experiences, e.g. talking to their children about nutrition, was also related to less problematic eating behaviours although the relationship was not statistically significant. Parent reported positive meal time experiences was also negatively related to weight-for-height percentile scores of their children.⁷ That is parents who reported hurrying children to eat and requiring all the food to be eaten were more likely to have children with higher weight-for-height percentile scores.

Due to the amount of time children spend in child-care settings this has become an important environment through which to foster positive nutrition experiences.⁷ Nahikian-Nelms has listed features of a positive nutrition environment which could be applied to both child-care settings and at home:

- "Caregiver sits with the children during the meal or snack.
- Caregiver consumes the same food as the children.
- Children are allowed to serve themselves.
- Caregiver does not hurry any child to eat.
- Caregiver encourages children to taste all foods offered.

- Caregiver does not require children to taste all the foods offered before additional servings of a food are given.
- Food is not used as a reward, punishment, or pacifier.
- Caregiver engages in pleasant conversation with children during the meal.
- Caregiver uses mealtime as an opportunity to provide nutrition education.”⁶ (p. 508)

Studies have found large variation between teachers and child care workers in promoting a healthy nutrition environment.^{6,7} While many do offer nutrition education and encourage children to taste foods,⁷ some use negative actions such as asking children to eat all their food,⁷ and that at times children and care-givers were sitting together in silence during eating times.⁶ Further while child-care workers realised the importance of their role in shaping children’s eating habits, their nutrition knowledge was found to be low.⁶

Health care providers could have a role in providing education to their clients who have young children about important features of creating positive nutrition experiences such as letting children control what they eat and promoting consistent meal time routines.⁸ Food restriction has been demonstrated as a counter productive in changing the behaviour of overweight children.⁸ Passhel describes a series of modules for health professionals that outline how they can spend as little as 10 minutes providing health behaviour counselling that promotes a more positive nutrition environment for the family. The modules contain such tips as setting health-centred rather than weight-centred goals. One possible means of knowing who to target is quickly assessing the mother’s nutritional habits. The mother not having consumed one serve of fruit or vegetables and skipping breakfast the previous day has been related to an increased risk of the infant consuming a poor quality diet.⁹

An intervention targeting parents was conducted through the Women, Infants, and Children (WIC) program operating in the US.¹⁰ The program offers nutrition services, such as providing nutritious foods, nutrition education and counselling at WIC clinics, and screening and referrals to other health, welfare and social services. The study compared their usual education and counselling service to an altered program that modified the education component. In the control program, clients attended education groups every two months and an individual session with a nutritionist or nutrition assistant every six months. The modified program retained the same frequency and structure of the program but modified the education program based in part on focus group analysis with different ethnic groups.¹

Some of the key themes to emerge from the focus groups were the need to emphasise issues around self-efficacy of parents as they felt a lack of control when children were in child care or started school, the link between physical activity and weight, and using food as a reward.¹ Other focus group analysis has also found that parents use food for rewards and this as well as time pressure to provide healthy meal options were concerns.¹¹ Self-efficacy related to recognising the problem as some parents did not think overweight was an issue for preschool children, believing they can take action and make changes. This meant in part rephrasing what it meant to be a successful parent as some parents commented that being successful meant the child ate everything from the plate.¹

Six key messages were provided in the intervention program and reinforced with printed materials of 'guidance cards' with a message and picture.¹⁰ The messages were:

- “1. Increase physical activity.
2. Monitor meal-time behaviour.
3. Limit household television viewing
4. Drink water instead of sweetened beverages
5. Consume five fruits or vegetables daily
6. Increase family activities to promote fitness.”¹⁰ (p. 1490)

In the intervention group WIC staff were also encouraged to participate in 'staff wellness challenges' and model health behaviours in the clinic such as healthy eating practices. Parents of children aged 2 to 4 years old were recruited through one control WIC and the intervention WIC. There were 185 initially recruited through the intervention centre and 151 at the comparison site. At the 12 month follow up, data was collected from 65% of the initial intervention group (n = 121) and 43% of the control group (n = 65).

Results revealed that there was a significant increase in self report of active play with their children in the intervention but not control group.¹⁰ There was also a significant increase in frequency of offering water to their children in both groups but this difference was greater in the intervention group. The ability of the program to influence two dimensions of children's behaviour in physical activity and water intake was considered positive as weight is a 'multi-determined characteristic.' While the materials were cheap to produce, some of the difficulties with the program were associated with staff costs of providing education services, consultation and contacting parents for follow-up visits. It was discovered that staff in the intervention group were more vigilant in contacting parents for follow-up visits and data. It was

recommended that further research using a randomised control trial investigate whether such a program could influence child BMI and if so, trial the program in other settings such as the Head Start program.

A group education program was also evaluated for a low income rural population in the US.¹² This program consisted of three 90 minute workshop style lessons. The content was based on some focus group analysis that had revealed providing healthy and simple meals and snacks, the correct portion size, and fussy eaters were prominent issues. The first half of the session involved a video and hands-on activities and in the second half the toddlers joined in for food tasting and to practice preparation and eating as a family. Nineteen participants were in the intervention group and 19 in the control with their children's ages ranging from 12 to 36 months. Attitudinal, knowledge and dietary assessment was taken pre and post six months apart. There were no significant differences between the two groups over time across all measures. The authors commented that attitudes and knowledge were far better than behaviour particularly in relation to intake of fruits and vegetables which was low. A quarter of parents did not know that young children need to taste a new food on numerous occasions before they will develop a preference for the food. It is recommended that parents offer new food up to 15 times especially for 'picky eaters'.¹³ The authors acknowledged that this study was limited in sample size and instrument development and that future research should be conducted with larger samples.¹² They concluded by indicating that this study has been used as a basis for a three year study that also involves an 18 week in home component along with four class sessions.

Another intervention method for improving the nutrition of young children is through the use of home visitation by public health nurses.³ At risk families in New Jersey US, (as identified through very low income levels, child identified with a health risk, high-risk pregnancy, or other psychosocial disadvantage) were targeted through the Prevention-Oriented System for Child Health (PORSCHÉ) project. A public health nurse undertook a case management approach and through home visits provided guidance on such issues as parenting, nutrition, and accessing community supports. Visitations varied in frequency from weekly to bi-monthly depending on need. There were 87 children initially enrolled in the project and pre and post data at least 6 months apart was obtained from 60 children. The mean age of the children was 27 months at the initial visit and the majority of participants were Hispanic.

A nutrition assessment was undertaken as well as validated measures of cognitive and physical development.³ At follow up there was a significant decrease in calorie intake and significant improvement in physical development in relation to age norms but no change in cognitive development. The decline in calorie intake was viewed positively as it was inferred that children were receiving less high fatty snacks and consuming more fresh vegetables consistent with the messages and thus decreasing total calorie intake. Further research looking at extended follow-up periods and different populations was recommended.

While the current research base is limited there appears a range of methods through which to offer nutrition education to parents. These include home visits to those identified at risk through varying levels of group education programs and also targeting child care institutions. A common theme of these different research programs are that they have been developed on both theory and practice combined with focus group analysis of the intended target group. This has better enabled the programs to target issues of concern to parents such as managing 'fussy eaters' as well as basing programs on best practice such as providing an environment conducive to positive nutrition experiences.

2.0 Aims and Objectives

The aim of the taste Bubs Program was to develop, pilot and evaluate a nutrition resource to help parents of very young children to understand the normal development of eating behaviours, encourage enjoyment of healthy eating and prevent eating problems in their children.

The objectives of the project were to:

- intervene during the critical formative months in early childhood - after first introduction of solids and prior to the toddler age when eating difficulties most commonly arise; and
- to give parents the knowledge and skills to initiate healthy eating from the very beginning of their child's experience with solid foods.

The Taste Bubs resource consisted of a pilot version of a series of two workshops for parents, facilitators manual, DVD showing development of eating behaviours, take-home materials for parents, follow up newsletter.

3.0 Methodology

3.1 Instrumentation

Six questionnaires were developed for this the project being:

- Participants' pre-questionnaire
- Participants' process questionnaire – Session 1
- Facilitators' process questionnaire – Session 1
- Participants' post-questionnaire
- Participants' process questionnaire – Session 2
- Facilitators' process questionnaire – Session 2

3.1.1 Participants' pre- and post-questionnaire

Prior to attending the first session of the Meerlinga Taste Bubs project, participants were also asked to complete a self-administered pre-questionnaire.

3.1.2 Participants' Process Questionnaires

On completion of both Session One – Smooth Start and Session Two – Beyond Puree, participants were asked to complete self-administered questionnaires. The Child Health Nurse who had conducted the session distributed the questionnaires with a clear instruction to participants that confidentiality would be assured by returning the completed questionnaire in a reply paid envelope provided to the WA Centre for Health Promotion Research at the Curtin University for Technology.

3.1.3 Facilitators' Process Questionnaire

On completion of both Session One – Smooth Start and Session Two – Beyond Puree, facilitators were also asked to complete self-administered questionnaires.

3.2 Focus Groups

3.2.1 Sample selection and recruitment

Four focus groups were conducted with mothers (n=18 participants) who had participated in the first session of the Meerlinga Taste Bubs Program – Smooth Start. On completion of the entire program a second focus group was conducted with the Child Health Nurses (n=5) who facilitated the Taste Bubs sessions.

3.3 Data Collection

3.3.1 Demographic information

Prior to the attending the first session, participants completed a pre-questionnaire that included demographic information. This provided general information on personal characteristics of participants.

3.3.2 Pre and Process questionnaires

All data were collated by research staff from the WA Centre for Health Promotion Research. Confidentiality was assured for all respondents and no individual identifiers were included on any reports or publications.

3.3.3 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.

3.4 Conduction of focus groups

With permission from participants, each focus group was audio-taped for accuracy of transcription and analysis. A trained facilitator and observer (Research Assistants) were present at all sessions to record the content of discussions. All focus groups were led by the same researchers to ensure consistency in data collection whilst also allowing familiarity of emerging themes to be followed during discussion.

3.5 Data entry, management and analysis

3.5.1 Quantitative Data

3.5.1.1 Questionnaires

Participants' responses to the pre and process questionnaires were collated and analysed using the Statistical Package for Social Sciences Version 14.

3.5.2 Qualitative Data

3.5.2.1 Questionnaires

Responses from the pre and process qualitative (open-ended) questions were analysed thematically then collated and expressed as frequencies.

3.5.2.2 Focus groups

Immediately following each focus group, responses to the focus group questions were transcribed and analysed thematically. The data from each focus group were then amalgamated and the major themes detailed using quotes from participants to support these findings.

4.0 Results

4.1 Participants Pre-questionnaire

A total of 28 respondents completed and returned the pre-questionnaire. Respondents' ages ranged from 21 to 41 years, and their babies' ages ranged from 3 – 7 months. All respondents were female. Only one respondent had more than one child. Almost three quarters of respondents (n=19) had university or CAE qualifications. Some had TAFE qualifications or a trade certificate (n=5), Year 12 or TEE qualifications (n=2), and the remainder had completed up to Year 10 of secondary school (n=2). More than half of the respondents were currently employed (fulltime n=3, part-time n=7, self employed n=1, maternity leave n=8), and the remainder were either unemployed (n=5), on a pension or social security (n=1) or identified themselves as a homemaker (n=3).

4.1.1 How confident are you about introducing your child to solids?

Almost two thirds of respondents reported feeling somewhat confident (n=12), or very confident (n=4) about introducing their child to solid foods. Less than a third (n=11) reported feeling not confident at all about starting their child on solids, while one respondent did not know when they should introduce solids to their child (see Table 1).

Table 1. How confident are you about introducing your child to solids?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very confident	4	14.3	14.3	14.3
Some what confident	12	42.9	42.9	57.1
Not confident	11	39.3	39.3	96.4
I don't know when I should introduce solids to my child	1	3.6	3.6	100.0
Total	28	100.0	100.0	

4.1.2 Why did you decide to attend the Taste Bubs Project Sessions?

Almost three quarters of respondents (n=20) decided to attend the Taste Bubs Session to increase their knowledge or to gain information. Some participants were invited to attend by their child health nurse (n=4), or said that the session was included as part of their mother's group (n=2). One respondent reported wanting to increase confidence in introducing solids foods, and another decided to attend the sessions to support the research.

4.1.3 Have you had to make any special arrangements to be able to attend the Taste Bubs Project Sessions?

A small number of participants (n=5) had to make special arrangements to attend the sessions. Arrangements made were changing their own schedule (n=2), or their partner changing their schedule (n=2) so they could attend the session.

4.1.4 Who has given you advice about introducing your child to solid foods?

Participants were able to select more than one response for this question. Respondents most commonly sought advice from family (n=24) and friends (n=20). The Child Health Nurse was also a source of advice (n=6) as were partners (n=3), books (n=3), the paediatrician (n=1), and magazines (n=1).

4.1.5 What do you expect to learn from the Taste Bubs Project?

Participants gave a range of answers to this question. Respondents mainly wanted to learn when to introduce solids (n=14), how to introduce solids (n=14) and what to introduce first (n=14). Some respondents were seeking more information on starting their baby on solids (n=6). Other topics respondents expected would be covered were learning the safest way of starting solids (n=1), how to increase confidence in introducing solids (n=1), or to learn how much to feed (n=1). Some respondents hoped to learn what not to do (n=2), and one respondent was not sure what they expected to learn.

4.1.6 How confident do you feel about how to go about starting your baby on solid foods?

Only a few respondents reported feeling not at all confident about starting their child on solids (n=3), with most feeling somewhat confident (n=15), confident (n=6) or very confident (n=4) (see Table 2).

Table 2. How confident do you feel about how to go about starting your baby on solid foods?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very confident	4	14.3	14.3	14.3
Confident	6	21.4	21.4	35.7
Somewhat confident	15	53.6	53.6	89.3
Not confident at all	3	10.7	10.7	100.0
Total	28	100.0	100.0	

4.1.7 How confident do you feel about deciding when to start giving your baby solid foods?

Only a small number of respondents (n=2) were not at all confident about deciding when to introduce their baby to solid foods (see Table 3). Most respondents reported feeling somewhat confident (n=14), confident (n=6) or very confident (n=6).

Table 3. How confident do you feel about deciding when to start giving your baby solid foods?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very confident	6	21.4	21.4	21.4
Confident	6	21.4	21.4	42.9
Somewhat confident	14	50.0	50.0	92.9
Not confident at all	2	7.1	7.1	100.0
Total	28	100.0	100.0	

4.1.8 How will you decide when to introduce your baby to solid foods?

Common responses to when solid foods should be introduced included age (n=12); when baby seems interested in food (n=11); advice from professionals (n=8); and when baby was still hungry or grizzles after a bottle (n=6). Two respondents had no idea how to decide when their baby was ready for solids.

4.1.9 What do you think is your role as the parent in feeding your baby?

Respondents most commonly felt their role as a parent in feeding their baby was to provide good nutrition (n=12). Other responses included developing healthy eating habits with their child (n=5), to promote confidence and encourage their baby (n=5), to introduce new tastes (n=3), to provide a good experience (n=2) or supervision (n=1).

4.1.10 How will you know if your baby likes the food you give him/her?

Respondents most commonly said that their baby's willingness to continue eating (n=15) would indicate if they liked the food they were given, followed by the baby's physical reaction (n=12). Negative physical reactions include making faces or turning away.

4.1.11 What do you think will affect whether your baby will like their food?

Sensory factors such as taste, texture and smell (n=10) were the most common factors that respondents thought would influence whether their baby liked their food. Other factors include the environment in which the meal was served (n=6), baby's mood (n=3), baby's personal taste (n=3), the parents' tastes (n=2), the way the food was prepared (n=2), what the food was (n=1) and when it was given (n=1).

4.1.12 How important do you think enjoyment of eating is when introducing solids to your baby?

Most respondents (n=25) consider enjoyment of eating was very important when introducing solids (see Table 4).

Table 4. How important do you think enjoyment of eating is when introducing solids to your baby?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	25	89.3	89.3	89.3
	Somewhat important	2	7.1	7.1	96.4
	Not important	1	3.6	3.6	100.0
	Total	28	100.0	100.0	

4.1.13 What signs would you look for to indicate a baby is ready to try solid food?

Participants were able to give more than one response to this question. Respondents most frequently thought that interest in food, such as watching others eat and grabbing for food, would indicate that baby was ready to try solid foods (n=19). Other signs included: being hungry or grizzly after a breast or bottle feed (n=14); mouth movements such as chewing (n=7); not sleeping after a feed or waking at night (n=4); or once baby was of a certain age (n=2). Two respondents had no idea what signs to look for to indicate a baby was ready to try solid foods.

4.1.14 What signs indicate a baby is hungry?

Most respondents reported crying as the main signal that a baby was hungry (n=24). Other responses included baby being irritable (n=2), putting their fingers in their mouth (n=1), and reaching for food (n=1).

4.1.15 What signs indicate a baby has had enough to eat?

The most commonly reported sign that a baby had had enough to eat was refusing to take more food and turning the head away (n=20). Other signs recorded were a closed mouth (n=4), baby being calm and happy (n=2), and either playing with food (n=1) or losing interest in food (n=1).

4.1.16 Name the things you could do to make mealtimes enjoyable for you and your child.

Almost half of the respondents felt that creating a comfortable environment was important to make mealtimes enjoyable (n=13). Other parents made mealtimes enjoyable by singing songs, playing games or talking with their child (n=13). Other responses were creating a routine (n=1), and eating together at the table (n=1).

4.1.17 Do you think your baby's eating experiences will have any effect on his/her eating habits on the future? If so, how?

Most respondents felt that their baby's eating experiences would affect their future eating habits (n=23) (see Table 5). A few disagreed (n=4), and one respondent was unsure. Some respondents felt that early eating experiences would influence the variety of foods enjoyed throughout their child's life (n=9) and help their child to develop their taste preferences (n=8). Other respondents thought early experiences may also form a positive or negative association with food (n=4), and that eating experiences may also impact on physical development (n=1).

Table 5. Do you think your baby's eating experiences will have any affect on his/her eating habits in the future?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	23	82.1	82.1	82.1
No	4	14.3	14.3	96.4
Maybe	1	3.6	3.6	100.0
Total	28	100.0	100.0	

4.1.18 Do you think babies naturally know how to eat solids, or is it something they need to learn?

Only one respondent felt that babies already knew how to eat solids, with the rest considering it was something babies needed to learn (n=21), or a combination of both learning and knowing (n=6) (see Table 6).

Table 6. Do you think babies naturally know how to eat solids, or is it something they need to learn?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Know	1	3.6	3.6	3.6
	Learn	21	75.0	75.0	78.6
	Both	6	21.4	21.4	100.0
	Total	28	100.0	100.0	

4.1.19 Name some healthy foods you can give to your baby?

Respondents gave more than one answer for this question. The most common foods considered healthy for babies were rice or baby cereal (n=19), fruit (n=20) and vegetables (n=19). Specific vegetables and fruits mentioned were pumpkin (n=11), potato (n=8), banana, (n=8), avocado (n=5), apple (n=5), pear (n=4), carrot (n=3) and corn (n=1). Other foods included yogurt (n=2), cheese (n=1), rice (n=1), tofu (n=1) and meat or chicken (n=2).

4.2 Process Questionnaire – Session 1 Smooth Start

4.2.1 Participants

A total of 11 respondents completed the process questionnaire following Session 1.

4.2.1.1 Session 1 – Smooth Start

Participants were asked to comment on how useful they found each component of the session in helping them understand when and how to introduce their baby to solid food.

Introduction/Ice Breaker: Almost half of respondents (n=5) found this section helpful and thought provoking. The remaining participants felt that it was somewhat helpful but was unsure on how the activity had a connection on how to feed baby (n=1), or that it was a little too general (n=1), it was not very helpful (n=2), or that it was a waste of time (n=1) and that the information presented could have been read in any book or on the internet.

The Senses: Almost half of respondents (n=5) found this useful to assist in understanding why baby may like or dislike foods, and the importance of environment, as well as thinking about what foods to give. Two respondents felt this section was fairly obvious, while another felt they needed to hear more about what cues to look for during the presentation. One respondent only vaguely remembers touching on this topic, and one participant found this section a waste of time.

Babies and Parents- Learning Together: A third of the respondents (n=4) found this activity useful, but one pointed out this was the reason they were attending the session. One participant needed more cues on what to look for during the presentation. One respondent felt that this topic wasn't addressed, while another did not remember this activity and another found this section a waste of time.

A Safe and Comfortable Place to Eat: Of the participants that found this presentation useful (n=4), the most helpful information was on creating a safe and comfortable environment for the baby. Participants who did not find this activity useful felt that no alternatives to a high chair were shown (n=1) and that more cues were needed to show what to look at during the presentation (n=1). Other respondents felt that this section was too brief (n=1), not covered (n=1) or a waste of time (n=1).

The Eating Journey – Learning to eat: More than half of the participants (n=6) found this section useful, in particular the opportunity to learn about mouth movements. One respondent would have preferred a more structured presentation with more time for questions. Other respondents felt that this information was common sense (n=1), and that the session was a waste of time (n=1). Another respondent reported that this information wasn't included in the presentation.

Starting Solids: Almost half of the participants found this section useful (n=5); with one respondent commenting that this was the most useful section of all. In particular, respondents were interested in babies behaviour regarding food, as well as when to start baby on solids, and what foods to start on. One participant would have preferred this section to be more structured with time for questions. One respondent stated that this was a disappointing presentation and one participant said this section was not covered.

The parts of Session 1 respondents found most useful were the information about baby's cues to readiness, such as tongue action (n=2), the '*Starting Solids*' section (n=1), the video (n=1), and the practical activities (n=1). One participant found getting other people's ideas to be useful, while another found the '*From Milk to More*' booklet very useful.

The parts of Session 1 participants found least useful were the DVD (n=3). Some participants found that there was too much footage to watch (n=2), and that it was dull (n=1). Other respondents found that the activities were least helpful, reporting that the Weetbix exercise was not useful (n=1), the icebreaker/senses activities were not useful (n=2), the mystery meal exercise was not completed (n=1) and the 'cues' activity went on for a long time (n=1). One respondent felt the presenter was the least helpful part of the course and that she failed to make the connection between the activities and learning to feed babies. Other feedback was that the room was too crowded (n=1) and that it was difficult to teach parents to know when babies are ready to eat (n=1).

Topics that respondents would have liked included in the session include information on preparation (n=4), in particular what foods to start on and what foods to introduce at what age. Other respondents (n=3) would have liked information on which order they should introduce foods in. Other topics parents would have liked covered included tips on moving baby from breast to bottle (n=1), and information for premature babies (n=1). After the session, more than half of the respondents (n=8) reported being quite confident about introducing their baby to solids, although one said that was due to her own reading and not the course. One respondent reported improved confidence. Two respondents stated that they were not confident and one of those felt they would need to seek further information.

4.2.1.2 Session 1 – The DVD

The majority of respondents agreed that the DVD was useful (n=4), or useful in part (n=4). Others felt that the DVD was not useful (n=3). Half of the respondents found that seeing babies of different ages was most helpful (n=5). Others found that baby cues and expressions were helpful (n=2), while two respondents found nothing helpful.

Aspects of the DVD least helpful to participants were the lack of narration (n=2), the length (too long) (n=2), and that the parts of the DVD featuring older children that were irrelevant to this program (n=1). Other participants mentioned there were technical difficulties with the DVD (n=2), or that other parents were asking questions during the DVD, which was distracting (n=2). One participant commented the DVD was very slow and boring. Respondents thought the DVD could be improved by keeping it short (n=3), by adding a voiceover or improving the sound (n=2), by including a section for babies not yet on solids (n=1) or by providing summary points at the end of each section (n=1). One participant would have preferred to watch the DVD at home. Another participant felt the DVD would be more useful once their baby had started on solids, and one felt a section on feeding equipment would have improved the DVD.

4.2.1.3 Session 1 – From Milk to More

All participants (n=11) found that the layout of the booklet was easy to understand. When asked which section of the booklet was most useful, a quarter of respondents (n=3) reported that the entire booklet was very helpful. Specific components found helpful by participants were the breakdown of what to give a child at different ages (n=3), the tips on how to know when baby is ready (n=2), the 'First Step' section (n=1), the feeding routines (n=1), and the tables in each section (n=1). There were no parts of the booklet that were not helpful, however the only least helpful part of the book nominated was the more information section (n=1). This was because the respondent did not want to have to follow up more information. It was suggested that a set plan for feeding would have been a useful addition to the booklet. Other suggestions to improve the booklet were more recipes (n=2), more graphics of food types or feeding equipment (n=1) and a section on food allergies (n=1). One respondent felt it would have been useful to have the facilitator refer to the booklet during the session. One participant found an error in the 'Sugar and Salt' section of Table 2 in the booklet (see Table 7).

Table 7. Please rate the parts of the 'From Milk to More' booklet as helpful, somewhat helpful or not helpful

Component	Helpful	Somewhat helpful	Not Helpful
Introduction	81% (n=9)	19% (n=2)	
How do I know when my baby is ready for solids	100% (n=11)		
The first step (around 6 months)	100% (n=11)		
The next step (6-9 months)	100% (n=11)		
Food safety and babies	100% (n=11)		
Fluids for babies	100% (n=11)		
How do I know my baby is eating enough	91% (n=10)	9% (n=1)	
The progression towards family foods	91% (n=10)	9% (n=1)	
Helping your child with eating	100% (n=11)		
Commonly asked questions and answers	91% (n=10)	9% (n=1)	
Further information	91% (n=10)	9% (n=1)	

4.2.1.4 Session 1 – Handouts/Resources

Participants were asked to comment on the usefulness of resources and handouts. Not all respondents commented on all resources. Three participants did not respond to this section at all, and of those one said they did not remember receiving handouts.

Name of Resource: Taste Bubs

Usefulness: All participants who rated this resource (n=4) found it was very useful. In particular, one respondent found it was helpful to understand baby's likes and dislikes, the importance of healthy foods and variety, and that chewing helps with learning to speak.

Name of Resource: Baby's 1st Foods

Usefulness: One respondent rated this resource, they found it easy to understand and succinct.

Name of resource: From Milk to More

Usefulness: The respondents who rated this resource found it very useful (n=3), in particular one respondent enjoyed the explanation of the difference between today's ideas and the previous generations, as well as the easy to understand tables.

Name of resource: Pre-test

Usefulness: One respondent rated this resource. They found it provided an insight into what they already knew and what they needed to know.

Name of resource: DVD

Usefulness: Of the participants who rated this resource (n=3), two found it helpful to see how different babies take food, but one of those thought it would be useful to see a child who is not on solids to compare the difference. The other respondent said the DVD was ok, but would be more relevant once their child was on solids and they could relate to the content more.

Name of resource: Information for Parents

Usefulness: Both respondents said this was a useful resource.

4.2.1.5 Session 1 – Flip Chart

More than half of participants found the flipchart helpful in part (n=6), however some found it not useful at all (n=3). Two respondents did not answer this question, and one of those said that was because there was no flipchart used.

Only a small number of the respondents found the flipchart useful in understanding the topics being discussed (n=2). Some participants felt the flipchart wasn't used properly by the facilitator (n=3), while others didn't pay attention to the flip chart (n=2), couldn't see the flipchart (n=1) or didn't recall the flipchart (n=1).

The parts of the flipchart that were useful were the lists (n=1) and the summary points (n=1). It also made it easier to follow what was being said (n=1). The least helpful aspects of the chart were that sometimes the points made were too general (n=1) and the chart was not fully utilised by the presenter (n=1). Suggestions to improve the flipchart were: including more pictures (n=2); making the chart more interactive (n=2); improving the facilitator's use of the chart (n=2); making the flipchart bigger (n=1); and using the information from the *'From Milk to More'* booklet in the chart (n=1).

4.2.2 Facilitators

A total of three facilitators completed the process questionnaire. Facilitators were asked to comment on the usefulness of the Taste Bubs session and resources.

4.2.2.1 Facilitator's Manual

All respondents felt that the content of the manual was accurate. They found that the level of language and readability were good, and commented that it was easy to read, though one said it was a bit repetitive. All respondents agreed that the layout of the manual was good, although one commented that there was perhaps too much information. All agreed that the manual itself was useful, though one respondent found it more useful for pre-reading than during the actual session. The level of detail in the manual was considered appropriate. When asked to comment on the effectiveness of the manual, one respondent reported that it was helpful, while another found it a bit too lengthy. The other respondent did not comment on the effectiveness of the manual.

4.2.2.2 Session 1 – Smooth Start

Respondents were asked to comment on the appropriateness of the contents of each component of Session 1 to parents and carers of babies aged around 3 to 4 months. All respondents were positive about the *'Introduction'* and *'Icebreaker'* activities, reporting that they evoked good discussion, though they could have been shorter. Feedback for *'The Sensory Preferences'* activity was that less time could have been spent on it. The *'Babies and Parents'* section was found to be useful to highlight that introducing solids is a learning process for parents and babies and the activity was useful to help parents observe baby's stages into readiness for solids. It was felt that the *'Safe and Comfortable Place*

to Eat' activity, should be shortened, with one facilitator preferring to cover this during the DVD instead of separately. One respondent found the flip chart useful during *'The Eating Journey'*. The respondents agreed that the *'Mystery Meal'* activity was unnecessary. It was felt that more time was needed at the conclusion of the session for feedback and questions.

Two respondents felt that the session was too long, however the third felt it was possible to keep to time if well managed. The section that took the most time was *'The Sensory Preferences'*, however one respondent commented that each section evoked discussion, and more time was needed for questions. Respondents would have preferred to spend more time on the details of introducing solid foods such as what to introduce, how to start and the importance of continuing milk.

The parts of Session 1 considered most helpful were varied. One respondent found the DVD most useful as it highlighted reactions to food and the importance of environment and communication between family members. However a second respondent found that the DVD was good, but needed to be cut down, and preferred the flip chart. The third respondent felt that showing the developmental stages was useful, and also showing parents the importance of allowing children to explore and be messy. The aspects found to be least useful were the activities, as the participants themselves felt these were too long and unnecessary. Another respondent found that it was challenging to follow the manual when they were used to facilitating at their own pace.

Suggestions to improve Session 1 included shortening or condensing all areas up to the most important point, which was considered to be the introduction of solid foods. It was also hard to coordinate the flip chart, the manual and the DVD. No solution was offered.

4.2.2.3 DVD

All the facilitators felt that the DVD was useful (yes=1, in part=2), and all agreed that it engaged the participants (yes=1, in part=2). One facilitator found the DVD had a positive effect on participants' understanding, commenting that it was useful for parents to see the reactions of other babies to give them an insight into how babies react during feeding. However the other facilitators commented that the presentation was too long and participants seemed to lose interest, and that they were uncertain what to look out for during the DVD.

The respondents felt the DVD had a positive effect on their facilitation as it provided visual examples of babies' behaviour during feeding as well as reinforcing the information being presented. One respondent commented that it was good to have a colourful, up to date resource, but that the DVD should be edited for length, and have captions added to help participants understand what they are looking at.

The most useful aspects of the DVD for participants were the practical, visual demonstrations of the range babies' reactions to solid foods and the journey through introducing solids. Having a visual tool was also found to be useful. The least helpful part of the DVD was the length.

Facilitators found the part of the DVD most useful to them was the visual representation of the information they were presenting, in particular demonstrating specific behaviours such as signs of readiness. The least useful part of the DVD was the length, with facilitators commenting that the group did not stay engaged, and that it was necessary to talk over it at times. Suggestions to improve the DVD included shortening it, adding captions and only using the relevant sections (see Table 8).

Table 8. Please rate the parts of the DVD you thought were helpful, somewhat helpful or not helpful to participants

Component	Helpful	Somewhat helpful	Not Helpful
Growing and developing.	n=1	n=1	n=1
Sharing a special time.	n=1	n=2	
I'm hungry. Enough thanks.	n=2		
Learning to eat is messy.	n=3		
The eating journey.	n=3		
Learning to eat with a spoon	n=1	n=2	
Learning to drink with a cup.	n=1	n=2	
What was that? First reactions.	n=1	n=2	
Each baby has a different journey	n=1	n=2	

4.2.2.4 'From Milk to More' Booklet

All facilitators agreed that the layout of the 'From Milk to More' Booklet was easy to understand. Facilitators found that the booklet provided a good balance of everything parents needed to know to start a baby on solids. They found the information was presented clearly and the main points were highlighted. The only unhelpful aspect of the booklet was the lack of visual information. The addition of graphics was suggested to improve the booklet. One facilitator also suggested that a plastic cover would be useful if the book was to be used in the kitchen (see Table 9).

Table 9. Please rate the parts of the booklet you think were most helpful, somewhat helpful to not helpful to participants

Component	Helpful	Somewhat helpful	Not Helpful
Introduction	n=2	n=1	
How do I know when my baby is ready for solids	n=3		
The first step (around 6 months)	n=3		
The next step (6-9 months)	n=3		
Food safety and babies	n=3		
Fluids for babies	n=3		
How do I know my baby is eating enough	n=3		
The progression towards family foods	n=3		
Helping your child with eating	n=3		
Commonly asked questions and answers	n=3		
Further information	n=1	n=1	

4.2.2.5 Handouts/recourses

Facilitators were asked to comment on the usefulness of handouts and resources. Two facilitators commented that they didn't distribute the resources that they usually would have, as they didn't want to influence the study.

Name: From Milk to More

Usefulness: All respondents agreed this was a useful resource.

Name: Handout from Taste Bubs

Usefulness: One respondent commented on this resource. They found it clear and informative, although too lengthy for parents.

4.2.2.6 Flip Chart

Two of the facilitators found the flip chart helpful, stating that it was easy to use and transportable. One facilitator did not find the flip chart useful, stating that it was awkward and the presentation was better without it. The most helpful parts of the flip chart were the key points about the transition to solid foods, which highlighted the change required for parents and babies. Trying to use the manual and flip chart together were the least helpful aspects, and one respondent felt the flip chart was lengthy. It was suggested that shortening the content would improve it as a facilitation tool. Respondents agreed that the size of the flip chart was appropriate.

One respondent found the flip chart to be a nuisance, however the other two found it made facilitation easier by presenting a useful visual tool and highlighting key points. Facilitators found it had a positive effect on participants' engagement by providing a focus for their attention and emphasising the points discussed.

4.3 Results from focus groups

4.3.1 Participants

A total of four focus groups were conducted with mothers who were present at Session 1 - Smooth Start of the Taste Bubs project. Focus groups consisted of between two and eight participants (n=18 participants). All participants were female. Results presented within this section are based upon the responses from the 18 focus group participants.

4.3.1.1 Can you describe some of the experiences you had introducing your baby to solid foods.

Some mothers had not yet started their child on solids (n=7). Of those that had, several found that their babies did not like rice cereal, so they tried them with fruit or vegetables. Most parents started their child on rice cereal, and then moved on to vegetables and fruits.

Most commonly, parents found the experience enjoyable, but messy. One mother found that her baby was more interested in chewing the utensils. Three mothers reported that their babies would take food one day, and refuse it the next. They were not sure what this meant. Two mothers found that their baby was very interested in food, and that this is how they knew it was time to start feeding.

4.3.1.2 How confident were you in helping your baby to progress from breast or formula feeding to eating solid foods?

Of the mothers who responded to this question (n=12), more than half had felt confident in helping their baby progress to solid foods (n=7). One mother had not yet started but seemed confident. Four participants reported being unconfident or confused about progressing to solid foods. Mothers were confused by the large amount of information available, or by conflicting advice received from family and friends. The mothers who were confident reported that their babies were interested in and ready for food. Six mothers expressed that it was best to just go ahead with it, and that you couldn't go wrong as long as you were careful.

One mother reported that she had started her baby on solids at five and a half months. She had been concerned about allergies, as the recommended starting time is six months, but she had run out of milk and her baby was hungry and grizzly. She paid attention to the cues her baby gave her. She stated '*The research says don't do it, but my baby says I want it*'.

4.3.1.3 What problems did you have and were you able to solve them?

As some mothers were yet to commence feeding with solids, they did not respond to this question. Reported problems were a lack of interest in food, baby using utensils and bottle teats for teething, baby developing a rash after eating certain foods, and starting baby on sweet food prior to attending the course. One mother was concerned about introducing water to her baby as intake of solid food increased. The mothers were either waiting to see if the problems would pass by themselves in time, or alternatives using trial and error to resolve them. Mothers also spoke of using baby cues to gauge changes in the behaviour of their baby, and to help them overcome problems.

4.3.1.4 What did you learn in Session 1 of the Taste Bubs program that helped you?

Most mothers agreed that learning about baby cues was helpful in understanding when baby was ready for solids. Participants also found that watching the reactions of other babies to foods during the DVD was useful to assist in understanding what was normal when a child was introduced to solids. Two mothers found that the discussion around what makes a meal enjoyable was useful to apply to the eating environment of their baby. One mother had not realised that babies could develop allergies if fed too early, or that food needed to be introduced in a specific order. Another mother was more concerned about her baby developing allergies after the session, and said she was scared about commencing solids. Several mothers agreed that they had learnt it was important to let baby be messy at mealtime.

One mother felt she didn't learn anything new at the session, as she has learnt everything she knows from her sister, who has two children. Several mothers commented that the 'blue book' (From Milk to More) was very useful.

4.3.1.5 Taste Bubs mentioned it was a good idea to create a safe and comfortable environment for the baby during meal times? How did you go about doing this? What worked? What didn't?

Participants most commonly reported currently using or intending to use a high chair at mealtime to make their baby more safe and comfortable (n=7), however one respondent preferred to keep her child on her knee as she feels this is more secure and comfortable for the baby. Several respondents felt it was important to eat as a family, but one respondent fed her child separately. Four mothers reported creating a quiet environment for baby to eat in by reducing noise and distraction and turning the television off.

4.3.1.6 What parts of the booklet 'From Milk to More' did you find helpful? Why?

Several of the participants had not yet looked at the 'From Milk to More' book, or did not remember what was in it, although one said she knew it was there for her to use when she was ready. Two participants indicated that they had only just begun feeding their baby solids and they thought the booklet would be more useful later. Several mothers found the sections on when to introduce solids, what foods to give at what age, and how to move onto different foods were useful. Two participants found the section that included daily routines to be helpful. Another participant commented that the section on allergies was helpful. One participant said the information on iron was particularly useful, as she hadn't realised how important it was. Two of the mothers commented that the book was more useful than the session, as it was more specific.

4.3.1.7 Which of the handouts did you find helped you? How?

The recall of handouts received by participants varied. Some respondents did not recall handouts. The other respondents could recall either the 'From Milk to More' booklet, which they found useful, or the 'Information for Parents' handout, which participants did not find helpful. One respondent said that it was just a summary of everything they'd already learnt.

4.3.1.8 Now that you have had some experience in feeding solid foods to your baby, what else should be included or covered in the Taste Bubs Program that would help other parents when they are introducing their baby to solid foods.

Most mothers agreed that the session would be more useful when they were just about to start feeding solids to their babies, rather than in advance. Many participants commented that when they attended the session, the transition to solid foods was too far away to think about, and as they had had no experience, they had nothing to relate too. Some participants felt a recap session now that they were feeding solids would be useful, or that a series of shorter, more frequent sessions would be more useful.

Two mothers would like to know when their baby could begin to feed itself. Several mothers would like information on choking and gagging. One mother felt she needed more information on what foods to introduce, the timing of introduction of solids, and how to prepare the food. Another participant felt that more recipes would have been useful. One respondent thought the program could include information on what babies didn't need, such as added flavour to foods. One mother mentioned that low allergen foods and reactions to foods were not included in the session. Several mothers were also unsure about whether or not to feed solids in the same session as a breastfeed. One participant recommended that Meerlinga review other resources and take examples for use in their book. Two participants felt that chatting to other parents was more useful than the session.

Several participants gave feedback about the session itself. At least six participants felt the session was too long, while three felt that it was too rushed, but acknowledged that this may have been because of their presenter. Several participants felt that the session covered too much information, and would have been better cutting out some of the background information, or presenting it over two sessions. Three participants thought that the groups should have been smaller, and that there were too many distractions. Two participants thought a weekly session moving through baby's development would have been more beneficial, and would have eased the burden on Child Health Nurses. Some participants felt that the session had been a burden on the Child Health Nurse, and that they had a hard time presenting all the information and keeping people's interest, and they felt this was the fault of the program, not the presenter. One participant found that the video would have been more useful if there had been cues to direct participants to what they should have been looking at. Four participants did not find the Weetbix exercise useful.

One participant felt it would have been very helpful if there had been examples of commercially available bottles, spoons, plates and other related feeding paraphernalia, and others agreed. She felt that this would have saved parents making expensive mistakes. She also noted that in the 'From Milk to More' booklet, the 'Baby's First Foods' section was not in order of presentation. She felt that it needed to be flipped around to avoid confusion. She also felt page 14 needed to be revised in terms of when to start feeding. Other mothers agreed a chart to illustrate this would be good.

4.3.1.9 If there any other advice would you give to parents that may help them during this time?

One participant recommended that parents do supplementary reading and find out things that are relevant to their child, while two others suggested reading only one book and sticking to it, saying that there was so much information available that it was confusing. Another participant suggested getting as much information as possible, and to ask for help if required. Several participants agreed the blue book (From Milk to More) was very helpful.

4.3.2 Facilitators

On completion of Session 2 – Beyond Puree, a focus group was conducted with four of the Child Health Nurses who had conducted the sessions. They were joined by the Clinical Nurse Manager. Results presented in this session are based on the responses of the five focus group participants.

4.3.2.1 Can you please describe your experiences facilitating the Taste Bubs Project Sessions, Smooth Start and Beyond Puree?

All participants (n=5) agreed that the sessions provided good information, but needed to be shortened. All facilitators (n=4) reported that they ran over time. Several facilitators (n=3) noted that the information included in the sessions was similar to that given during the assessment visits in the clinic. Two facilitators felt that this information may be better presented in twice-yearly talks. One facilitator would like to start each session by talking about why things were done this way, and why the introduction of solids had changed from four months to six months.

Two facilitators reported the mothers had felt that their babies were too young during the first session, and the information was not yet relevant to them. They would have preferred the information at six months. It was reported that some mothers were only just giving their babies a taste of food at the time they attended the second session, so again felt that the content of the session was not appropriate for their stage of development.

All facilitators (n=4) agreed that it was very difficult to coordinate the facilitator's manual, the flipchart and the DVD at the same time. Three facilitators reported that they had relied more on the flipchart for the second session, and had found the session ran more smoothly and stayed on time. All facilitators (n=4) agreed that the DVD needed a voiceover, or captions, or both, to focus the attention of the parents during viewing. They agreed that it was too hard to maintain attention without any clues as to what parents needed to look for. It was also suggested that the footage should be made in to one long track that they could pause at the necessary place. One participant noted that the photography of the children was very good, and all agreed that the DVD was a long overdue resource. One facilitator commented that at the start of the DVD a baby was shown that she felt was being held incorrectly. She had told her parents not to hold their babies like that, but felt she shouldn't have to do that.

All participants (n=5) felt that at a running time of two hours, the sessions were too long and it was too difficult to maintain parents' attention. Some parents reported to the Child Health Nurse that they found the session boring. The facilitators reported that parents would either start to talk to each other or turn their attention to their babies during the session.

All facilitators (n=4) noted that the activities hadn't worked and that the parents did not respond to them. In particular the Weetbix activity had not gone well, as the facilitators found that the parents thought that it meant they should start their baby feeding with Weetbix. Two facilitators reported that some mothers had feed the Weetbix to their baby during the activity.

4.3.2.2 How could the sessions be improved?

All participants (n=5) agreed that the sessions needed to be shortened, and all agreed that it took too long to get to the information on the introduction of solid foods. They also agreed that the DVD needed to be cut back in length to improve it. One facilitator suggested that to improve the flipchart and improve the flow of the sessions, presenter's notes could be made on the back of the flipchart pages. As the parents looked at the information on the front of the chart, the presenter could read off the back of it to prevent having to look at the chart or the facilitators notes during the presentation. The other facilitators agreed this would make sessions more manageable. One facilitator noted that one of her participants had wanted more information on the change in bowel movements during the transition to solids. All facilitators (n=4) agreed that parents mostly wanted information on what amounts to feed, when to feed and what foods to introduce.

The facilitators agreed that they were used to their own method of presenting and that this may be a barrier to the uptake of a new program. However they also acknowledged that it takes time to get to know a new program, and once they had run through it a few times they would be more familiar with it and know which information to present. They agreed that information did not need to be removed from the sessions; the sessions just needed to be condensed and presented in less time.

4.3.2.3 How could the DVD be improved?

All facilitators (n=4) again agreed that the DVD needed to be shortened, and have captions or a voiceover added. The DVD had minimal engagement with parents, and lost their attention after a few minutes, as they were not sure what to look for. Three facilitators found it hard to stop and restart the DVD in the correct place, and it was suggested that cues in the DVD would assist them to know when to pause. If the chapters were presented as one continuous track then it would be easier to stop and start the presentation. One facilitator was not able to use the DVD in the second session, as her equipment was not working; however she felt that the session ran much smoother without it.

4.3.2.4 How effective or useful did you find the facilitator's manual?

The facilitators (n=4) agreed that the facilitator's manual was very useful and the information it contained was very good. However they noted that the first time they used it was difficult to coordinate with the flipchart. During the second session they found that they didn't need to refer to the facilitators manual as much and mostly just talked to the flipchart. One facilitator commented that she had been put off the program because it seemed too hard, but felt better once she became familiar with it. One facilitator also commented that she thought it would be useful to have examples of feeding equipment to present during the sessions.

4.3.2.5 How effective or useful were the activities used in the sessions (eg, icebreaker)?

All facilitators (n=4) reported that their participants were not interested in the activities. They also felt that there were too many activities. One facilitator suggested that instead of discussing the Perfect Diner Party, they should offer suggestions to make mealtimes more fun and relaxed. Another facilitator commented that they already discussed the sensory component in the clinic, and that they needed to discuss the introduction to solids earlier in the session. Another commented that this was the information parents were there to hear, and it was hard to hold their attention through any thing else.

4.3.2.6 Would you consider increasing the number of sessions?

Responses were varied for this question. Initially one participant felt that there was no time for Child Health Nurses to run more than two sessions. They noted that even parents who had been to both of the sessions still came in for an appointment with the Child Health Nurse to discuss the same issues and topics that had already been covered. They also noted that if the information being presented isn't relevant to them at that particular time then participants don't take it in. Two facilitators commented that they already do nutrition talks during the year, and that the program material could be included in those. All facilitators reported that only half of the original number of participants had returned for the second session, even after a follow up phone call or letter, or both. They felt that the two sessions could be condensed into one.

However as discussion progressed it was suggested that one session could be held for parents of children aged three to four months as an introduction to solids, and then another session could be held at eight to nine months to cover the transition to other foods. A third session could be held at 15 to 18 months to cover toddlers. The facilitators agreed that common problems with feeding toddlers were attitudes and fussy eating. One participant thought that the three sessions could be included as part of the new parents groups, and one facilitator suggested they should be regional and shared between the facilitators.

4.3.2.7 Do you think the Taste Bubs program will assist parents in making the transition to solid foods and how?

All participants (n=5) agreed that the program would assist parents in making the transition to solid foods. They all agreed that it was a good resource that was needed. They felt that the information provided was up to date, and that it is useful to have a visual tool for presenting.

4.3.2.8 Is there anything else anyone would like to add?

All participants (n=5) commented that the booklet 'From Milk to More' was useful, commenting that it answered most of the questions parents ask. They noted that it contained good ideas for food and meal plans. All participants (n=5) also agreed that the Taste Bubs Project was a good program, and that it just needed some refining.

4.4 Participants' Post-test Questionnaire

A total of nine respondents completed the post-test questionnaire following Session 2.

4.4.1 Demographics

The respondents ranged in age from 28 to 38 years. The majority of respondents were born in Australia (n=8), and the remainder was born in England (n=1). Respondents reported being of Australian (n=3), Croatian (n=1), Dutch (n=1), English (n=1) or South African (n=1) ethnic background. Two respondents did not report their ethnic background. No respondents were of Torres Strait or Islander origin.

Four respondents reported that they were employed part time, two respondents were on maternity leave and a further two respondents reported that they were full time mothers. The remaining respondent reported being self-employed. Two respondents had completed Year 12 or TEE, two respondents had completed a Trade Certificate or TAFE and five respondents had completed university or CAE.

4.4.2 Please indicate which session of Taste Bubs you attended

Four respondents attended both of the Taste Bubs sessions. Four respondents attended Session 1 only and one respondent attended Session 2 only.

4.4.3 What did you expect to learn from the Taste Bubs Project?

Respondents gave multiple answers to this question. Respondents most commonly expected to learn when to introduce solids (n=8), how to introduce solid foods (n=5), and what foods to introduce (n=5). One respondent also expected to learn what foods not to introduce.

4.4.4 What did you learn from the Taste Bubs Project?

Six respondents reported that they learnt what they had expected to from the Taste Bubs Project. Other learnings were environmental impacts on eating (n=1), and the importance of the child's enjoyment of eating (n=1).

4.4.5 What was the most useful part of the Taste Bubs Project?

Respondents gave multiple answers to this question. Five respondents reported that the group discussions were the most useful part, and another respondent found the interactions with other mothers most useful. Three respondents also reported that the handouts were useful, and one respondent found that the DVD was helpful.

4.4.6 What were the least useful parts of the Taste Bubs Project?

Some respondents gave more than one answer to this question. Six respondents reported that the DVD was not helpful. One of those also found that the icebreaker and the flip chart were not helpful either. One respondent did not find the food tasting helpful, and another felt that there was an over-emphasis on environmental concerns. One respondent also stated that the Taste Bubs Project was too long.

4.4.7 Was the information presented in the Taste Bubs Project sessions easy to read and understand?

All respondents (n=9) agreed that the information presented in the sessions was easy to read and understand.

4.4.8 What other information, if any, do you think should be included in the Taste Bubs Project?

Suggested topics that respondents would like to see included in the sessions were bowel movements (n=1) and food allergies (n=1). Other suggestions included more detail on food preparation and a wider variety of recommended foods to start feeding with (n=1), recipes for the different stages of development (n=1), a visual demonstration of food packaging and an emphasis on home-cooked food (n=1) and more time for questions (n=1).

4.4.9 Was the information you received from the Taste Bubs Project different to advice given by family, friends or your partner? If yes, how different?

Five respondents reported that the information they had received from the Taste Bubs Project was different to that from their family or social group. Two respondents stated that this was because the guidelines for introducing solids had changed over the years. One respondent reported that there was more of a focus on the holistic experience and development of senses and skills, and one respondent found that the information presented in the sessions was more scientific.

4.4.10 How confident did you feel about introducing solids to your child before completing the Taste Bubs Project?

Only one respondent reported that they felt confident about introducing solids prior to completing the Taste Bubs Project. Four respondents reported that they were somewhat confident and four reported that they were not confident.

4.4.11 How confident did you feel about introducing solids to your child now that you have completed the Taste Bubs Project?

The confidence of all respondents was improved after completing the Taste Bubs Project. Respondents reported that they were either very confident (n=3), confident (n=5) or somewhat confident (n=1) about introducing their child to solids after completing the program.

4.4.12 Describe your experiences with introducing solids to your child

Respondents gave more than one answer to this question. Most respondents describe the experience as fun (n=4), messy (n=3) and positive (n=2) as well as occasionally frustrating (n=3). Some of the challenges encountered have been food allergies (n=1), the baby not wanting to take food (n=1) or being fussy (n=1), knowing when to progress to other foods (n=1) and finding the time to prepare foods (n=1). Three respondents also commented on the positive experience of observing their child's facial expressions during feeding.

4.4.13 Were the resources and fact sheets given to you as part of the Taste Bubs Project useful?

All respondents (n=9) agreed that the resources and fact sheets they received as part of the Taste Bubs Project were useful.

4.4.14 List which resources/fact sheets were the most helpful and briefly explain why?

Just over half of respondents (n=5) agreed that the booklet 'From Milk to More' was the most helpful, as it '*explained things clearly*' (n=1), and '*covered everything well*' (n=1). Two respondents also commented that it provided information for feeding through the stages of development. Another respondent found the 'Information for Parents' booklet to be helpful, in particular the information on page two – 'Next steps on the eating journey' and page five – 'Finger food'. One respondent said that all the resources were helpful as they were easy to understand and contained plenty of examples.

4.4.15 How useful was the DVD film footage shown during the Taste Bubs Project sessions?

Four respondents found that the DVD was not useful, with one commenting that it was '*boring*'. A further four respondents found it useful in part, however two respondents commented that the DVD had only been used in one session. One respondent found the DVD was very useful.

4.4.16 How confident do you feel about how to go about starting your baby on solid foods?

Just over half of respondents reported that they were very confident about how to go about introducing their child to solids, with the remaining four respondents being somewhat confident.

4.1.17 How important do you think enjoyment of food and eating is when introducing solids to your baby?

All respondents (n=9) agreed that enjoyment of eating is very important when introducing solids to their baby.

4.4.18 What signs do you look for to indicate a baby is ready to try solid foods?

Most respondents listed more than one answer for this question. All respondents (n=9) agree that when a baby shows interest in others' food it is a sign they are ready to try solid foods. Other common signs reported by respondents include the baby opening their mouth for food (n=5) and babies putting things in their mouths (n=2). Other indications that a baby is ready try food were good head control (n=1), sitting up (n=1), getting teeth (n=1), a backwards tongue reflex (n=1), not pushing food out of the mouth when given a taste (n=1), sleep disruptions (n=1) and being hungry before the bottle was due (n=1).

4.4.19 What signs indicate a baby is hungry or full?

Most respondents gave more than one answer for this question. The majority of respondents report that when a baby is full they will close their mouth (n=7) and turn their head away (n=7). Other signs are losing interest in food (n=2), spitting food out (n=1) and gagging (n=1). Signs that a baby is hungry include crying (n=2), and opening of the mouth (n=1).

4.4.20 Name something you could do to create a positive eating environment for your baby?

Most respondents gave more than one answer for this question. Several respondents reported creating a safe and comfortable environment for their baby to eat in (n=3). Means of doing so include using a high chair (n=2), reducing other distractions such as television (n=4), eating together (n=2) and singing during feeding (n=2).

4.4.21 What can you do when your child is still a baby to help prevent problem eating as they grow into a toddler?

Most respondents agreed that a wide variety of foods should be introduced to the child (n=8), but that it was important not to force them to eat (n=3). Other suggestions included progressively varying the texture of foods (n=3) and ensuring that mealtimes were a positive experience (n=2).

4.4.22 When should you encourage a baby to drink from a cup?

More than half of respondents (n=6) agreed that babies should be encouraged to drink from a cup from around six months, with one respondent reporting that that was when she had started her own child drinking from a cup and another reporting that she had started her child at three to four months. Another respondent reported that drinking with a cup should commence once a baby had started on finger food, at around eight to nine months, and another responded that it should be about 10 to 12 months. The remaining respondent wrote that a baby should be encouraged to drink with a cup 'A.S.A.P'.

4.4.23 When should you encourage a baby to eat with a spoon and how old are they when they can use a spoon quite well?

There was a range of responses to this question. One respondent felt that a baby should be eating from a spoon at six months when they make the transition to solids. Another respondent felt that the child was ready when they could grasp things and pass them from one hand to another. Some respondents did not differentiate between the two stages and their responses ranged from 10 to 15 months (n=3). Other respondent gave separate answers for each stage. They reported that a baby should be able to eat from a spoon at seven to nine months of age, and that they should be able to use a spoon well at around 12 months of age (n=4).

4.4.24 Name some healthy foods you can give to your baby?

Healthy foods suggested by respondents included fruits (n=5) and vegetables (n=5) generally, specifically avocado (n=4), apple (n=3), sweet potato (n=2), pumpkin (n=2), peach (n=2), potato (n=1), broccoli (n=1), squash (n=1) and spinach (n=1). Other foods included meat (n=4), fish (n=3), rice cereal (n=2), chicken (n=2), yoghurt (n=2), cheese (n=1), cottage cheese (n=1), pasta (n=1) and whole grains (n=1).

4.4.25 Did you find it useful to have the topics covered in two sessions?

Four respondents agreed that it was useful to have the information presented in two sessions, however one of those had only attended the second session. Three respondents commented that they had not attended the second session. Other feedback from respondents who had attended both sessions was that the sessions could be shorter (n=1) and that the sessions should be closer together (n=1).

4.4.26 Did you find the way the information was arranged between the two sessions useful?

Four respondents agreed that they had found the way the information was arranged between the sessions to be useful. Two respondents commented that the first session was too early for them as their children were too young, but the second session was useful, as they had started solids then. The remaining respondents had not attended the second session.

4.5 Process Questionnaire Session 2 – Beyond Puree

4.5.1 Participants

Four participants completed process evaluations of Session 2 – Beyond Puree.

4.5.1.1 Session 2- Beyond Puree

Participants were asked to comment on how useful they found each component of the session in helping them understand when and how to introduce their baby to solid food.

Introduction and Icebreaker: None of the respondents reported that the introduction or icebreaker activities were useful.

The senses and preferences: Two respondents found this section useful.

Revision: Babies and parents learning together and A safe and comfy place to eat and the eating journey: Three respondents found it helpful to revise this information while one respondent reported that this wasn't covered.

Next steps on the eating journey – learning to drink from a cup: All respondents (n=4) found this useful, in particular the information on valves (n=1) and how to get the baby to swallow the fluid (n=1).

Next steps on the eating journey – learning to bite and chew: All respondents found this section very useful, in particular the information on how this affects speech development (n=1).

Food and drinks for healthy, growing children: Two respondents found this section very useful, however another felt that it was a bit obvious.

Forms of food – a look at textures: All respondents (n=4) found this section very useful. One respondent reported that it was good to see how quickly the textures should be introduced and another commented that this section assisted in understanding how to progress.

Finger foods: All respondents (n=4) found this section very useful. One respondent commented that there were some great ideas she would not have thought of.

Start getting ready for the toddler years: Two respondents found this section useful, though another commented that it was too early.

Influences and pressures: Three respondents commented that this section was common sense.

When asked what parts of Session 2 were most useful, all respondents (n=4) agreed that the information on food texture was useful. Other information that respondents considered useful was drinking from a cup (n=3) and finger food (n=2). One respondent did not answer this question, and another felt that all the information was helpful. One respondent felt that the information on preparing for the toddler years was being given too early, and another felt that the video was too long and repetitive and could be improved with narration. One respondent had expected to learn more about the changes in bowel movements during the progression to solids, and another had expected more information on food preparation.

Respondents were asked about their confidence about knowing what to do when their baby progresses to solid foods. Three respondents commented that they were more confident now, though one commented that she had sought other information to prepare herself and another commented that it is a process of learning as you go. The fourth respondent had already commenced solids, but commented that she seemed to have skipped the mash stage, but did not consider this a problem.

4.5.1.2 Session 2 – DVD

Only one respondent had been shown the DVD during Session 2. She found that it was useful in part. The parts found most useful by the respondent were observing children of a similar age to her own. The parts found least helpful by the respondent were the repeated segments and the footage of children much older than her own. The respondent felt that the DVD would be improved by being shorter and that it needed to be narrated.

4.5.1.3 Session 2 – From Milk to More

All respondents (n=4) agreed that the layout of the booklet 'From Milk to More' was easy to understand. When asked which sections of the book were most useful, two respondents reported that they found the whole book to be useful. One found that the information on knowing when baby is ready for solids was most helpful and another found that the sample meal plans, recipes, preparation tips and food lists were most useful. No respondents reported a least helpful section of the book. Suggestions to improve the booklet include more recipes (n=1), advice on when to stop offering the breast first (n=1) and information on the change in babies' bowel movements during the transition to solids (see Table 10).

Table 10. Please rate the parts of the booklet as helpful, somewhat helpful or not helpful

Component	Helpful	Somewhat helpful	Not Helpful
Introduction	n=4		
How do I know when my baby is ready for solids	n=4		
The first step (around 6 months)	n=4		
The next step (6-9 months)	n=4		
Food safety and babies	n=4		
Fluids for babies	n=3	n=1	
How do I know my baby is eating enough	n=4		
The progression towards family foods	n=4		
Helping your child with eating	n=4		
Commonly asked questions and answers	n=3	n=1	
Further information	n=3	n=1	

4.5.1.4 Session 2 – Handouts/Resources

Teach Your Baby to Drink From a Cup: Three respondents found this handout useful, noting that it was interesting and simple.

Taste Bubs – Beyond Puree: One respondent commented on this resource. They found the pictures of food textures to be useful.

Taste Bubs – Positive Eating Experiences in Childhood: One respondent commented on this resource, which was useful in helping them remember what was covered in the sessions.

Easy Iron Rich Meals for Babies 6 – 12 Months: One respondent commented on this resource. They reported that the recipes and the advice on introducing meat were useful.

4.5.1.5 Flip chart

When asked to rate the usefulness of the flipchart, two respondents found that it was helpful and two did not. Of those that did not find it helpful, one commented that she didn't really pay attention to the flip chart but instead followed what was being said and asked questions when necessary. The other reported that the flipchart was not really used by the facilitator, but that it would have been difficult to pay attention to anyway. Both of the respondents who found the flipchart useful reported that it helped to follow the topics being discussed in the session. One respondent reported that the pictures were most useful aspect of the flipchart. No respondents reported any least helpful aspects of the flipchart. There were no suggestions to improve the flipchart.

4.5.2 Facilitators

A total of two facilitators completed the process questionnaire for Session 2. Facilitators were asked to comment on the usefulness of the Taste Bubs session and resources.

4.5.2.1 Facilitator's Manual

The accuracy of content and the readability of the flipchart were rated well by both facilitators. However the activities were found to be unhelpful to the facilitators and not well received by the participants. One facilitator found the layout of the manual was good, however the other felt that it was too busy. Only one facilitator reported on the usefulness of the manual and the facilitator's notes; they found they were good. Both facilitators were positive about the effectiveness of the manual as a facilitation tool, however one noted that there was a lot to cover.

4.5.2.2 Session 2 – Beyond Puree

Respondents were asked to comment on the appropriateness of the contents of each component of Session 2 to parents and carers of babies aged around 7 to 8 months. One facilitator found that the introduction was good, but the icebreaker was not necessary. The other facilitator reported that they had modified the introduction and the icebreaker as the group was small and already knew each other. The remaining the activities were rated positively by the facilitators, with one noting the opportunities for discussion that were opened up by each one. Neither facilitator responded to the reflection and evaluation section.

One facilitator reported that the most helpful aspects of Session 2 were the discussions about drinking from a cup and differing food textures, as well as increased awareness about tongue and mouth movements. The other facilitator found that the flip chart was most useful, providing a visual tool that was helpful to both the facilitator and the participants. One facilitator reported that the activities were the least helpful part of Session 2, noting that the group did not want to complete them. The other facilitator found that the 'Influences and Pressures' component was the least helpful aspect of the session, as it was not considered relevant by the group.

One facilitator suggested that to improve Session 2 everything should be shortened, including the DVD. They also suggested cutting out the activities. They commented that the whole program should be cut back, as she feels that two sessions is too much for both the parents and the Child Health Nurse. The second facilitator noted that Session 2 was not as rushed as the first. They reported that they had not used the manual in the second session and instead used the flip chart as a guide, which they felt more comfortable with.

4.5.2.3 DVD

Only one facilitator responded to this section; the other was unable to use the DVD as the equipment was not available. The facilitator who did respond reported that the DVD was engaging and easy for participants to understand only in part. They also reported that the DVD had minimal effect on participants' understanding of the content. They noted that it provided a visual understanding but it was not clear as the presentation was too long and had no narrative.

The respondent felt that providing a visual presentation was the most helpful aspect of the DVD for participants, however they felt that the length of the presentation made it difficult to maintain parents' attention. The visual aspect of the DVD was the most helpful aspect to the respondent as a facilitator, and the presentation also provided reinforcement of the spoken word. However the length was again the least useful aspect, and the respondent found the DVD to be not very informative. To improve it they suggested shortening it, editing the presentation and including headings and dot points (see Table 11).

Table 11. Please rate the parts of the DVD you thought were helpful, somewhat helpful or not helpful to participants

Component	Helpful	Somewhat helpful	Not Helpful
The eating journey – What's ahead?		n=1	
Drinking from a cup		n=1	
Biting and chewing finger foods		n=1	
Toddlers at the table		n=1	

4.5.2.4 'From Milk to More' Booklet

Both facilitators agreed the booklet was easy for participants to understand. The aspects of the booklet that they thought would be most useful for the participants were the guidelines on when to introduce different foods (n=1) and the examples of menus and foods to offer (n=1). One respondent noted that their group had still wanted recipes and examples of food combinations, and suggested that recipes would improve the booklet (see Table 12).

Table 12. Please rate the parts of the booklet you think were most helpful, somewhat helpful to not helpful to participants

Component	Helpful	Somewhat helpful	Not Helpful
Introduction	n=2		
How do I know when my baby is ready for solids	n=2		
The first step (around 6 months)	n=2		
The next step (6-9 months)	n=2		
Food safety and babies	n=2		
Fluids for babies	n=2		
How do I know my baby is eating enough	n=2		
The progression towards family foods	n=1	n=1	
Helping your child with eating	n=1	n=1	
Commonly asked questions and answers	n=1	n=1	
Further information	No response	No response	

4.5.2.5 Handouts/resources

Facilitators were asked to comment on the usefulness of handouts and resources.

Name: Meat Board Handout

Usefulness: One facilitator found this resource was useful as it showed the textures of foods.

Name: Taste Bubs Positive Eating Experiences in Childhood Leaflet

Usefulness: One facilitator rated this resource, noting that it was colourful, visually attractive and well set out.

Name: From Milk to More booklet

Usefulness: One facilitator rated this resources, commenting that it was easy to receive and informative, and that parents liked it. The day menus for each age were good.

Name: Flip Chart

Usefulness: One facilitator rated the flip chart, describing it as a great aid and visually attractive. They also noted that it was clearly presented and informative.

Name: Teach your baby to drink from a cup leaflet

Usefulness: One facilitator rated this resource, who noted that it was a visual aid that was clearly presented and colourful.

4.4.2.6 Flip Chart

Both facilitators found that the flip chart was helpful. One facilitator commented that the layout, readability and usability of the chart were good and noted that it was a great resource when presenting. The other commented that it was easy to use and store. The most helpful aspects of the flip chart were the charts and food examples (n=1), as well as the guidance it gave to discussions (n=1). One facilitator found that the least helpful aspects of the flip chart were the activities, as they were not well received by parents, and the other commented that the participants could not read the Eating Journey component, as the print was too small. One facilitator suggested that tailoring the flip chart would improve it was a facilitation tool. Both facilitators agreed that it was an appropriate size, and that it improved their facilitation. One facilitator commented that it improved the clarity of their presentation, and the other noted it was a good guide to assist in moving through topics. They both agreed that it increased the participants' level of engagement and gave them some focus.

References

1. McGarvey E, Collie KR, Fraser G, Shufflebarger C, Lloyd B, Oliver MN. Using focus groups to inform preschool childhood obesity prevention programming. *Ethnicity and Health* 2006;11(3):265-285.
2. Batch JA, Baur LA. Management and prevention of obesity and its complications. *eMJA* 2005;182(3):130-135.
3. Worobey J, Pisuk J, Decker K. Diet and behaviour in at-risk children: Evaluation of an early intervention program. *Public Health Nursing* 2004;21(2):122-127.
4. Noble S, Emmett P. Differences in weaning practice, food and nutrient intake between breast and formula fed 4-month-old infants in England. *J Hum Nutr Dietet* 2006;19:303-313.
5. Hendricks K, Briefel R, Novak T, Ziegler P. Maternal and child characteristics associated with infant and toddler feeding practices. *Journal of the American Dietetic Association* 2006;106:S135-S148.
6. Nahikian-Nelms M. Influential factors of caregiver behavior at mealtime: A study of 24 child-care programs. *Journal of the American Dietetic Association* 1997;97(5):505-509.
7. Gable S, Lutz S. Nutrition Socialization Experiences of children in the Head Start Program. *Journal of the American Dietetic Association* 2001;101(5):572-577.
8. Passehl B, McCarroll C, Buechner J, Gearing C, Smith AE, Trowbridge F. Preventing childhood obesity: Establishing healthy lifestyle habits in the preschool years. *Journal of Pediatric Health Care* 2004;18(6):315-319.
9. Lee S, Hoerr S, Schiffman RF. Screening for infants' and toddlers' dietary quality through maternal diet. *MCN Am J Matern Child Nurs* 2005;30(1):60-66.
10. McGarvey E, Keller A, Forrester M, Williams E, Seward D, Suttle DE. Feasibility and benefits of a parent-focused preschool child obesity intervention. *American Journal of Public Health* 2004;94(9):1490-1495.
11. Tucker P, Irwin JD, He M, Bouck LMS, Pollet G. Preschooler's dietary behaviours: Parents' Perspectives. *Canadian Journal of Dietetic Practice and Research* 2006;67(2):67-71.
12. Horodynski MA, Hoerr S, Coleman G. Nutrition Education Aimed at Toddlers: A Pilot Program for Rural, Low-Income Families. [Article]. *Family & Community Health Innovations in Family and Community Health*. April/May/June 2004;27(2):103-113 2004;27(2):103-13.
13. Fuller C, Keller L, Olson J, Plymale A. Helping preschoolers become healthy eaters. *Journal of Pediatric Health Care* 2005;19(3):178-182.