

Draft Final Technical Report to the Food Standards Agency

**VALIDITY AND RELIABILITY OF A SHORT QUESTIONNAIRE FOR ASSESSING
IMPACT OF COOKING SKILLS INTERVENTIONS**

Project number

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1. Executive Summary

The CookWell programme was developed by the University of Dundee as a transferable, community-based food skills (cookery) programme aimed at increasing consumption of starchy foods, fish, vegetables and fruit, and decreasing consumption of fat in adults living in areas of deprivation. Although the impact of the programme was extensively assessed by researchers there is no single, evaluation tool which is available for self completion by participants in the community setting.

Aim and Objectives

To undertake an assessment of validity and reliability of a short questionnaire designed to measure the impact of cooking skills interventions on cooking confidence, knowledge and attitudes (about food preparation, recommended fruit and vegetable consumption and food safety) and food choice.

The specific objectives were:

1. Reliability testing - to assess the internal reliability and repeatability of the instrument
2. Validity testing - to assess content and face validity of the instrument
3. Overall - to apply and test modifications (as required) in a draft instrument within a community project undertaking the CookWell programme
4. Produce a draft validated instrument for use in local communities

Methodology

A working draft of the questionnaire was compiled and checked for content, clarity and layout. Validity of the content of the questionnaire was assessed by a panel of independent public health nutritionists and community development workers. Face validity (ensuring the questions are interpreted as intended) was assessed by a group of adults typical of those who may attend cooking skills classes. Amendments were made where necessary during each stage of the validity process. Repeat reliability (indicates consistency of the tool over time) was assessed with adults attending community based classes (other than cooking). Individuals were asked to complete the questionnaire twice, one week apart, correlation analysis was carried out and Cronbach's Alphas were computed to assess repeat reliability and internal consistency. The feasibility of the finalised questionnaire (as a tool for evaluating cooking skills programmes) was assessed in the community setting to evaluate the first year of the West Lothian 3 year "Get Cooking" project.

Main Findings

Content Validity – 16 public health nutritionists and 12 community development workers responded to the request for comments on the working draft of the questionnaire and appropriate changes were made to the questionnaire to improve content and clarity.

Face Validity – 20 adults completed the questionnaire and were interviewed with regard to their understanding of the questionnaire. Typical completion time was 5-10 minutes; however this was occasionally longer where reading skills were poor. No individual reported problems with questions or words that they did not understand. The short completion time indicates that the questionnaire can be administered by a community worker if literacy problems exist.

Reliability Testing – 74 adults completed the questionnaire at time one and 57 at time 2. Cronbach's alphas for confidence and knowledge sections were 0.86 and 0.84 respectively showing good internal consistency. Correlation between time 1 and time 2 was significant to $P < 0.01$ for all questions with correlation coefficients ranging from 0.46 to 0.91.

Feasibility Testing – 13 adults completed the questionnaire at time 1 and 11 at time 2. No assistance was requested by individuals when filling in the questionnaire, but a few questions were not fully completed. It was noted that more detailed instruction for the class tutor would improve the completion rate for the individual questions. More guidance also needs to be given to matching subject identification numbers on the questionnaires pre- and post-intervention.

The final questionnaire comprised 19 questions within 5 topic sections: meal preparation; confidence in cooking and tasting; usual food consumption patterns; knowledge about fruits and vegetables; and knowledge of good practice (of food safety measures). In addition questions on socio-demographic characteristics were included. The post-intervention questionnaire also included qualitative questions on likes, dislikes and suggestions about the cooking intervention. This tool provides a standardised method of evaluating cooking skills interventions which could assist in the development and evaluation of multi-centre cooking interventions.

2. Introduction

The CookWell programme¹ (commissioned by the Food Standards Agency) was developed by the University of Dundee with the objective to develop, implement and evaluate a transferable, community-based, food skills (cookery) programme aimed at increasing consumption of starchy foods, fish, vegetables and fruits, and decreasing consumption of fat in adults living in areas of deprivation. An extensive evaluation was undertaken to examine changes in food choice, nutrient intake and a wider range of factors which influence food choice². These tools employed both quantitative and qualitative research methods and provide a detailed account on the process, nature and extent of change in food habits that might occur in association with cooking skills interventions.

These intensive research methods, using trained researchers and considerable time and money, (see appendix 1) are not transferable to community-run food skills interventions, but do provide direction for the core aspects of evaluation that might be usefully measured. This consideration is particularly important given that the CookWell programme is now starting to be rolled out by a wide range of community groups throughout the UK (e.g. the West Lothian 3 year “Get Cooking” project funded by NOF³). It is recognised that there is a need for a short assessment tool which will assess the impact of the CookWell programme (and other similar community based cooking skills interventions), on food knowledge, attitude and behaviour. The assessment tool should meet the following criteria:

- be easy to administer
- be short in length - should be completed in 10-15 minutes
- have simple questions allowing self-completion
- include key domains (where the in-depth evaluation demonstrated changes)
- be easy to check for completion
- be easy to analyse
- be able to pool multi-centre data
- be capable of use in “pre” and “post” intervention (to avoid use of retrospective questions)

3. Aim and Objectives

To undertake an assessment of validity and reliability of a short questionnaire designed to measure the impact of cooking skills interventions on knowledge, attitude and food choice. The specific objectives are:

1. Reliability testing

To assess the internal reliability and repeatability of the instrument

2. Validity testing

To assess content validity of the instrument

To assess face validity of the instrument

3. Overall

To apply and test modifications (as required) in a draft instrument within a community project undertaking the CookWell programme.

4. Experimental Procedures

4.1 Overview

A working draft of the questionnaire was compiled and checked for content, clarity and layout by department staff. Validity of the content of the questionnaire was assessed by a panel of independent public health nutritionists and community development workers. Face validity (ensuring the questions are interpreted as intended) was assessed by a group of 20 individuals typical of those who may attend cooking skills classes. Amendments were made where necessary during each stage of the validity process. Repeat reliability (indicates consistency of the tool over time) was assessed with adults attending community based classes (other than cooking). Individuals were asked to complete the questionnaire twice, one week apart, correlation analysis was carried out and Cronbach's Alpha's⁴ were computed to assess repeat reliability and internal consistency. The feasibility of the finalised questionnaire, as a tool for evaluating cooking skills programmes, was assessed in the community setting to evaluate the first year of the West Lothian 3 year "Get Cooking" project.

4.2 Methods

4.2.1 Questionnaire Construction

A working draft of the questionnaire was compiled following a literature search (and subsequent review of suitable questionnaires⁵⁻⁷), and an assessment of the original CookWell programme evaluation tools². The initial questions used in the development of the questionnaire were based on the key domains shown to be influenced by the CookWell initiative. These reported changes were:

- fruit and vegetable consumption
- frequency of using basic ingredients for preparation of meals
- confidence in using a recipe
- buying less convenience foods
- increased likelihood of tasting and experimenting with new foods
- an increased awareness of food preparation and production

These topic areas were presented in short question, closed format. Consideration was given to enhancing fruit and vegetable intake, and questions 1, 2 and 4 (part 2) used in the Department of Health "Five a Day" evaluation work developed and validated by Anderson et al⁸, were also included. The general aim was that the questionnaire should have no more than 2 pages of questions with an additional section on demographics; take no longer than 10 minutes to complete; and have wording and layout suitable for self-completion. The working draft was checked by department staff for content, clarity and layout prior to validity testing.

4.2.2 Developmental Stages (Content and Face Validity)

Content validity aims to ensure that the content of the instrument covers the domains of relevance (e.g. extent to which a test adequately samples the domain of information, knowledge, or skill that it purports to measure) and is determined primarily by expert judgment. An independent panel of public health nutritionists and community development workers acted as expert judges to ascertain the relevance of the content of the tool. The public health nutritionists were contacted through mailing lists of the Community Nutrition Group, a UK wide group (n=118), and the Public Health Nutrition Network, a predominantly Scottish group (n=42). Community development workers, a predominantly Scottish group (n=26), working in the field, were highlighted by the public health nutritionists.

Using email, the public health nutritionists were each sent a copy of the test questionnaire (appendix 2) and for each item asked to give a score out of 10 in relation to a) clarity; b) content in terms of appropriateness; c) cognitive complexity (e.g. 'How important is this question?'; 'Is the content appropriate?'; 'Is the phrasing clear?'; and 'Overall opinion of question'); and d) relevance (appendices 8 and 9). Responses were collated and the questionnaire was amended as appropriate.

The amended questionnaire (appendix 3) was then assessed by an independent panel of community development workers (n=26). These individuals were contacted via e-mail or post using the same methodology as described above with an amended score sheet (appendices 10 and 11). Responses were collated and the questionnaire was amended as appropriate.

Face validity enables respondents to describe in their own words what they think the questions are asking or not asking. It is a particularly useful approach for identifying areas of ambivalence and it is essential that the researcher undertaking the validity procedures uses a structured face to face interview approach to explore the perceived meaning of the questions. Face validity of the amended questionnaire (appendix 4) was assessed by individual discussions with 20 adults residing in Tayside. The number selected for interview was based on previous work on a similar topic⁹ which indicated that around 15 people were sufficient to provide a wide range of relevant responses for consideration. However, because more domains were being assessed it was felt appropriate to approach 20 adults for interviews and to assess at this point whether new information was still coming forward. These adults were not involved in cooking skills intervention classes but were typical of individuals who attend community classes. Care was taken to include a range of ages and to include males. Individuals were asked to complete the questionnaire. The completed questionnaires were then checked for any obvious misunderstanding of questions and the individuals were interviewed regarding ease of completion and comprehension, with further probing if they appeared to have misunderstood any of the questions. Responses were collated and the questionnaire was amended as appropriate.

4.2.3 Reliability Testing

Repeat administration of the questionnaire (time 1 and time 2) was carried out within one week of the initial questionnaire. Eighty two adults were approached at various community groups throughout Dundee, and asked to complete the self-administered questionnaire (appendix 5). Individuals were briefed that they would be asked to complete a similar questionnaire the following week therefore those who knew that they would not be attending the group the following week did not complete the questionnaire. Community groups included parent and toddler, tai chi for pensioners, craft, and self defence classes. In test-retest analysis it is assumed that subjects are not influenced by first exposure to the question items. In addition as no intervention work was taking place with these subjects there is no reason why responses should change unless the initial exposure has acted as a prompt to discover/change initial answers. The subjects involved in the reliability test stages were not the same as those involved in the validity testing and were not likely to have had previous exposure to the items under test. Correlation analysis was undertaken for reliability testing, criteria for validity based on previous repeat reliability work⁹, was that each question must reach significance and have a correlation coefficient greater than 0.5. In addition, Cronbach's alpha was assessed to ensure internal consistency with groups of similar questions.

4.2.4 Feasibility Testing

The final version of the questionnaire (appendix 6) was tested for ease of use, response rate, data coding and used as an indicator of baseline and intervention progress in the West Lothian (WL) project. All subjects participating in the intervention were invited to complete the baseline questionnaire which was then repeated at the completion of the CookWell programme.

This stage involved the questionnaire being administered by WL project staff who noted a) any difficulties subjects had with completion; b) any missing responses (although they were expected to ensure completion); c) any queries that arose from respondents and d) any personal comments on perceived ease of administration. Completed questionnaires were then returned to CPHNR in Dundee and details on postage time, time for data entry and ease of analytical procedures were noted.

5. Results

5.1 Developmental Stages (Content and Face Validity)

5.1.1 Content Validity – Public Health Nutritionists

Sixteen public health nutritionists (10% of those contacted) responded to the request for comments and the questionnaire (Appendix 2) was amended as appropriate. Amendments included minor changes to the wording and layout of the questionnaire to improve clarity. Questions 14, 15 and 16 were removed as it was felt that these were very subjective, dependent on the actual dishes made in the cooking class and regional variations of recipes. These questions also rendered the questionnaire unsuitable for use with some ethnic groups. A question on re-heating was added to the food safety questions as it was felt that this was possibly more important than any of the other questions.

5.1.2 Content Validity – Community Development Workers

Twelve community development workers (46% of those contacted) responded to the request for comments and the questionnaire (Appendix 3) was further amended as appropriate. Amendments again included minor changes to the wording and layout of the questionnaire to improve clarity. Two questions were also added on tasting new foods and experimenting with new foods and recipes as it was realised that these areas were not fully covered in previous drafts.

5.1.3 Face Validity

Twenty adults, 16 female and 4 male, with an age range of 21 to 69, completed the questionnaire (Appendix 4) and were interviewed. The typical completion time was 5 to 10 minutes; however this was occasionally longer where reading skills were poorer. A few minor adjustments were made to the questionnaire following face validity testing namely – changing “experimenting with” to “preparing and cooking” in question 6; the removal of “and /” in question 9 and; changing “and” to “or” and adding two examples of fish and removing “fish cakes” in question 12. The questions which took the longest to complete were questions 1 and 15, due to these questions requiring extra thought, however no-one reported any questions or words that they did not understand. Many individuals passed comment on question 15 (knowledge of fruit and vegetable portions). They either found the question confusing as they were unsure of the answers or they could not understand why they were being asked a question on portion size. However this question will not be changed as it measures familiarity with fruit and vegetable portions and it is hoped that if an individual did not know the answer before the intervention, that they should have been given sufficient information throughout the cookery sessions to enable correct completion post-intervention.

5.2 Reliability Testing

A total of 74 adults completed the questionnaire (Appendix 5) at time 1. Fifty-five adults completed the same questionnaire at time 2 one week later with a further 2 adults completing it two weeks later, totalling 57.

The 74 (57) respondents ranged in age from 23 to 81 years with a mean and standard deviation of 44.7 ± 15.2 years (46 ± 15.1 years) and included 8 males and 66 (49) females. All respondents were Caucasian with a mean Scottish Index of Multiple Deprivation decile of 5 ± 3 (with 1 being most deprived and 10 being least deprived) ¹⁰.

Cronbach's alphas were assessed on the confidence (Q3-Q6) and knowledge (Q14 and Q15) sections to ensure that the components of each section were related to the total section assessment. The other sections of the questionnaire were not tested as the domains within each section were assessing different constructs. Cronbach's alphas were assessed on time 1 data as there was a larger number of responses and less risk of external contamination than with time 2 data. Cronbach's alphas were 0.86 and 0.84 for the confidence and knowledge questions respectively showing good internal consistency.

Repeat reliability analysis was carried out on the data for the 57 respondents completing the questionnaire at time 1 and time 2. Correlations between time 1 and time 2 were significant to $P < 0.001$ for all but one question (How many portions of fruits and vegetables do you think health experts recommend eating every day?). However when this variable was re-coded to correct or incorrect response rather than the actual option chosen, this question also reached significance at $P < 0.001$. Correlation coefficients ranged from 0.46 to 0.91, (appendix 12).

Following reliability testing one further adjustment has been made to the questionnaire, namely the removal of option 4 to question one. This has been done to ease understanding of the question options as many individuals were confused by the statement "please tick as many boxes as appropriate" followed by the 4th option of "all of the above".

5.3 Feasibility Testing

The West Lothian project has successfully completed 3 cooking interventions with 3 more underway. Thirteen participants (the groups comprising of 5, 3, and 5 participants) completed the questionnaire (Appendix 6) at time 1 and eleven at time 2. Age ranged from 23 to 79 years with mean Scottish Index of Multiple Deprivation decile 3 ± 0.894 . The majority of questionnaires were completed fully. Three questionnaires were incomplete. Each of these had one item which had been missed. This was a different item on each questionnaire. For this reason it was not possible to make pre- and post-intervention comparisons of the number of individuals reporting on some actions that might have resulted from attending the West Lothian project (see below). Other incomplete questions were from the demographics questions of the post-intervention questionnaire.

Due to the small number of individuals who have completed the intervention so far, it is not

possible to draw firm conclusions. However preliminary analysis shows that post-intervention 9/11 individuals reported preparing dishes from basic ingredients compared to 7/11 pre-intervention. Post-intervention 7/11 individuals reported preparing meals from basic ingredients more often; 5/10 reported being more confident at being able to cook from basic ingredients and 5/11 reported being more confident at being able to follow a simple recipe. With regard to changes in food consumption, post intervention 5/11 and 7/11 individuals reported consuming more vegetables and less chips respectively. Knowledge about portions of fruits and vegetables also appears to have increased, with 9/11 respondents correctly answering the “5 a day” question compared to 5/11 pre-intervention; results of knowledge of portion size are summarised in the table below.

Portions of fruit or vegetables in each food:

Food	Participants Responding Correctly	
	Pre	Post
Medium glass of unsweetened orange juice	5/11	6/11
One glass of orange squash (diluted)	4/11	7/11
A thin slice of tomato	4/11	8/11
Three heaped tablespoons of carrots	3/11	7/11
One medium-sized apple	7/11	10/11
One small raspberry yoghurt	3/11	8/11

Comments on likes and dislikes about the cooking intervention, on the post-intervention questionnaire, were on the whole positive with the dislikes focussing solely on the course being too short and the tidying up process.

The Community Health Development Officer in charge of the West Lothian project reported that no assistance was requested by individuals when filling in the questionnaire. Questionnaires were printed on pink paper as one of the participants of the cooking intervention had a dyslexia type problem and could not read black print on white paper. Completion time was similar to that noted during face validation of 5 to 10 minutes. It was noted that more detailed instruction, (in the form of notes to accompany the tool), for the class tutor, to check that a response is given for each item in the returned questionnaires, would improve the completion rate for the individual questions. More guidance for the class tutor also needs to be given, to match the ID codes of the questionnaires pre- and post-intervention.

Following feasibility testing, one final adjustment was made to the questionnaire (see appendix 12 for proposed final version) comprising the addition of 2 questions to the demographics section asking how many adults and children the respondent usually prepares food for on a daily basis.

This has been added at the suggestion of the West Lothian project as the questionnaire that was feasibility tested was not capable of measuring the number of individuals that the project could potentially benefit, e.g. if an adult learns to cook and prepares food for another adult and 2 children, the project could potentially change the food habits of 4 individuals in total, rather than just that of the respondent.

6. Discussion

Achieving a healthy balanced diet remains a challenge for many of the British population, especially those living in deprived communities. New and practical approaches to engage low income consumers in interventions to improve diet have been widely recommended¹¹ and there are now many practical food skills community based projects which aim to aid and influence food choices¹². It is recognised that intervention strategies should be designed hand in hand with evaluation procedures so that, at each stage of the process, relevant evaluation is applied to collect robust evidence to support continuing and further work in the area¹³. Local evaluation work should fundamentally inform planned and on-going intervention work. It should be designed primarily on local needs to assess local efforts but in addition standardised formats of evaluation allow a national picture to develop and shared findings to be explored for the benefits of the wider community.

Assessing the effect of community based interventions requires practical tools which are acceptable and comprehensible to the user / client group. Within the context of cooking skills interventions, previous evaluation studies have used detailed quantitative approaches which are often too academic and expensive for practical use, or qualitative data which can be difficult to analyse in a systematic way¹⁴⁻²⁰. Examples of external, academic, evaluation in cooking skills include the CookWell programme^{14, 15} and the Saffron Food and Health Project¹⁸. Evaluation methods used within these programmes included both qualitative (in-depth interviews and focus groups) and quantitative self completion and interview administered questionnaires as well as self completion diaries. On a day to day level these approaches are too intense, too expensive and unpractical for community workers to undertake.

Personal communications through the Community Nutrition Group of the British Dietetic Association, individual contacts and requests from community projects and the Scottish Community Diet Project have all highlighted a need for practical evaluation tools for cooking skills projects. The current project was initiated following a plea for the provision of simple evaluation tools for use in the community based West Lothian “Get Cooking” (CookWell) project. The aim of the current study was to undertake an assessment of validity and reliability of a short questionnaire designed to measure the impact of cooking skills classes on key issues that were targeted during the intervention. The main foci of interest were meal preparation practices, cooking confidence, knowledge (about recommendations for fruit and vegetable consumption and food safety) and food choice. Many design factors were taken into consideration including reading age, clarity and ability to be used pre- and post-intervention in order that change over time could be monitored.

The development process encompassed a literature search and subsequent review of retrieved

questionnaires; and a review of the original CookWell programme evaluation tools and other suitable questionnaires including FACET. Using existing tools as a starting point meant that many of the questions in the working draft of the questionnaire had been previously validated and as a result subsequent changes were minor. The draft tool was designed with comments from the West Lothian project which allowed practical feedback for the research team tailored to the practical needs of a real group. The feasibility testing demonstrated the usefulness and practical capability of the final tool.

The tool has been assessed for validity and reliability in an urban sample of Caucasian adults who are known to attend community centres. Reliability and validity testing will not guarantee that the tool is suitable for all ethnic minorities, age groups or people with limited literacy. The content domains reflect the aims and objectives of the CookWell project. It is recognised that other skills based projects may have different aims e.g. budgeting skills and this tool will not assess these areas. The need to have a short assessment tool (due to limited time and cognitive capability) has meant that each domain contains only key questions related to intervention topics. It might be useful for further work to expand each of these topic areas (notably food safety and handling) and at present these short question sets should not be used out of the current context. Reliability tests for these questions show a wide range of correlations. However, it should be noted that the statistical significance of the correlations demonstrate that **each** item has a strong reliability measure ($p < 0.001$). Additionally the reliability and validity testing undertaken is for the complete set of items, and new tools which are added, or existing parts of the current questionnaire which are edited, should undergo further validation testing.

Wider feasibility testing is required to assess the tool in a range of settings but preliminary feasibility suggests the tool is a useful broad indicator of intervention effect and would be suitable for use in multi-centre projects.

7. Conclusion

The proposed final questionnaire (appendix 7) comprised of 5 topic sections: meal preparation; confidence in cooking and tasting; usual food consumption patterns; knowledge about fruit and vegetables; and knowledge of good practice (19 questions in total), and a demographic section. The post-intervention questionnaire also includes qualitative questions on likes, dislikes and suggestions. This tool provides a standardised method of evaluating cooking skills interventions which could assist in the development and evaluation of multi-centre cooking interventions. Analysis of the relationships between socio-demographic intervention effects should also enable further targeted intervention design.

8. References

1. <http://www.food.gov.uk/science/research/researchinfo/nutritionresearch/foodacceptability/n09programme/n09projectlist/n09011/cookwellbook>
2. Wrieden WL, Anderson AS, Longbottom PJ, Valentine K, Stead M, Caraher M, Lang T, Dowler E. (2002) Assisting dietary change in low-income communities: assessing the impact of a community-based practical food skills intervention (CookWell). Final Report to the Food Standards Agency (Project number N0911).
3. NHS Lothian New Opportunities Fund (2002) 'Get Cooking' Application. ((Project Number S/CSC/2002/0035)
4. Bland J.M. & Altman D.G (1997) Statistics notes: Cronbach's alpha BMJ;314, 572.
5. Anderson AS, Bell A, Adamson A, Moynihan P. (2002) A questionnaire assessment of nutrition knowledge – validity and reliability issues. Public Health Nutrition; 5(3), 497-503.
6. Turconi G, Celsa M, Rezzani C, Biino G, Sartirana MA, Roggi C. (2003) Reliability of a dietary questionnaire on food habits, eating behaviour and nutrition knowledge of adolescents. European Journal of Clinical Nutrition; 57, 753-763.
7. Lang T, Caraher M, Dixon P, Carr-Hill R. (1999) *Cooking skills and health*. London: Health Education Authority.
8. <http://www.dh.gov.uk/assetRoot/04/01/93/31/04019331.pdf>
9. Longbottom PJ, Anderson AS. (2003) Validity and reliability of a short questionnaire for assessing factors related to changes in fruit and vegetable intake. Final Report to The Department of Health (England).
10. <http://www.sns.gov.uk/>
11. Department of Health (2004) Choosing Health. Public Health White Paper. London: The Stationery Office.
<http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle>
12. Scottish Community Diet Project (2004) Directory of Community Food Initiatives. Glasgow:

Scottish Consumer Council.

13. Anderson AS (2004) Evaluating cancer prevention activities, in Sancho-Garnier, H, Biederman A, Slama K, Anderson A.S, Lynge E (Editors). *Evidence-based Cancer Prevention Strategies for NGOs, A Handbook for Europe*. Geneva: UICC.
<http://www.uicc.org/index.php?id=976>
14. Wrieden, W.L., Stead, M, Caraher, M., Longbottom, P., Valentine,K & Anderson, A.S. (2002). The impact of a community-based practical food skills intervention (CookWell) on assisting dietary change: qualitative findings. *Proceedings of the Nutrition Society* 61, 157A
15. Valentine,K, Longbottom, P., Wrieden, W.L., Anderson, A.S. & Dowler, E (2002) Does a community -based practical food-skill intervention (CookWell) assist dietary change? *Proceedings of the Nutrition Society* 61, 157A
16. Wrieden,W.L and Symon,A. (2003) The development and pilot evaluation of a nutrition education intervention programme for pregnant teenage women (Food For Life). *Journal of Human Nutrition and Dietetics*.16,67-71
17. Symon,A and Wrieden W.L. (2003) Pregnant teenagers' perceptions of the acceptability of a nutritional education intervention:a qualitative study. *Midwifery*.19, 140-147.
18. Dobson B, Kellard K, Talbot D. (2000) A recipe for success? An evaluation of a community food project. Loughborough: Centre for Research in Social Policy, Loughborough University.
19. Revill SA, Adamson AJ, Stacy R, Hooper J, Moynihan P. (2001) The effect on an after-school 'Food Club' on intake of foods and nutrients by children from deprived social backgrounds. *Proceedings of the Nutrition Society* ; 60:189A.
20. Lawton L, Stockley L. (2003) Evaluation of the 'Get Cooking' pilot courses in the Rhondda area. Report for Food Standards Agency Wales.

9. Appendices

1. Evaluation approaches used in the CookWell Project (N0911)
2. Cooking Skills Questionnaire for Public Health Nutritionist Content Validation
3. Cooking Skills Questionnaire for Community Development Workers Content Validation
4. Cooking Skills Questionnaire for Face Validation
5. Cooking Skills Questionnaire for Reliability Testing
6. Cooking Skills Questionnaire for Feasibility Testing – Pre-Intervention
Cooking Skills Questionnaire for Feasibility Testing – Post-Intervention
7. Proposed Final Cooking Skills Questionnaire – Pre-Intervention
Proposed Final Cooking Skills Questionnaire – Post-Intervention
8. Accompanying Letter for Public Health Nutritionist Content Validation
9. Assessment Form for Public Health Nutritionist Content Validation
10. Accompanying Letter for Community Development Workers Content Validation
11. Assessment Form for Community Development Workers Content Validation
12. Test / Retest Correlation Coefficients