Applying the Nominal Group Technique (NGT) in Community Based Action Research for Health Promotion and Disease Prevention

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Community based health interventions (CBHIs) in which community members are central to the development of initiatives can provide the impetus for positive health and wellbeing changes and community empowerment. The application of the Nominal Group Technique (NGT) in a qualitative community based action research/health promotion program known as the Community Health Information Collaboration (CHIC) is discussed in this article. Mindful of the need to prevent the growing burden of chronic diseases and conditions in Australia, a primary aim of the CHIC program was to empower participants with health information, knowledge, skills and confidence. The program was conducted over a 10 week period and involved seven culturally and linguistically diverse participants (aged 20-50) who lived or worked in the Brimbank region of Melbourne. Week one to three of the program involved health education while the NGT session in week four and the following five sessions focussed on actions that could be undertaken to improve health and prevent disease in the community. The NGT process and results are discussed in detail and greater utilisation of the technique in community based research is encouraged.

Community based interventions that emphasise community participation and collaboration offer vast potential for alleviating personal, social and public health problems that may exist at a community level. Community members are "experts in their own lived experiences" (Curtis, Bryce, & Treloar, 1999, pp. 202-203) and have inside knowledge of many of the problems in their community, workplaces, schools, families and social groups. Collaborating with community members can therefore broaden a researcher's understanding of the problem of interest as well as point towards new ways of addressing it from an insider's perspective. The other compelling reason for community collaboration is that it provides a time, space and impetus for positive changes such as community empowerment and improved health and wellbeing to occur.

Community based health interventions (CBHIs) are increasingly being commended and utilised in the area of health promotion and disease prevention (see for example, Assai, Siddiqi, & Watts, 2006; Goodman, Wandersman, Chinman, Imm, & Morrissey, 1996; Horowitz, Robinson, & Seifer, 2009; Israel, Eng, Schultz, & Parker, 2005a; Israel, Schulz, Parker, & Becker, 1998; Leung, Yen, & Minkler, 2004; Minkler, 2006). CBHIs emphasise the use of education to empower people and provide individuals with information, skills and a supportive social environment that facilitates, reinforces, and sanctions changes (Revenson & Schiaffino, 2000). This paper provides a brief review of some key CBHI literature and discusses a recently conducted CBHI known as the Community Health Information Collaboration (CHIC). The CHIC program adopted an action research paradigm that included a health promotion, literacy or educative component; as well as giving voice to participants via a nominal group decision making session, community psychology and community governance principles and an evaluation. This paper focuses on the nominal group technique (NGT) used in the CHIC program and relates broadly to the 11th Trans-Tasman Community Psychology Conference sub-theme questions: How do we engage others? How do we create change? How do we translate theory into action? Whilst it is not within the present scope to evaluate the CHIC

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program or the superiority of NGT over other methods of inquiry, this article does provide a practical example of how NGT can be used with a community group to generate and prioritise ideas for possible action to improve health in the broader community.

Community based health interventions

Community based health interventions offer a promising way to tackle the growing burden of disease and mortality at a community level. For the past two and a half decades, the World Health Organisation has been supporting community based initiatives in Eastern Mediterranean countries to improve health in poor populations through actions on social determinants (Assai, et al., 2006). Community based initiatives have been successful in engaging with villagers to identify basic development needs and to improve access to basic physical, health, and social needs, tackle poverty and enhance the status of women (Assai, et al., 2006). 'Community based research' (CBR), 'community based participatory research' (CBPR) or 'community based participatory action research' (CBPAR) (often used interchangeably) holds similar promise for improving health as these 'non-research' community based health initiatives. CBR involves collaboration between community and researchers in order to generate new knowledge or understanding about a practical community issue and to bring about change (Hills & Mullett, 2000). The defining principles of CBR are that it is a planned systematic process, is relevant to the community, requires community involvement, has a problem-solving focus, focuses on societal change, is sustainable and is based on a participatory paradigm (Hills & Mullett, 2000).

Leung et al. (2004) have argued that CBPR can increase the relevancy of epidemiology by leading to a better understanding of the social context in which disease outcomes occur, while involving community partners in the research process and ensuring that action is part of the research process. Similarly, Horowitz et al. (2009) have stated that CBPR has led to a deeper understanding of the factors influencing health and illness as well as to new ideas and innovations that are expanding opportunities for funding and academic advancement. Therefore, CBPR may be just as appealing to academics involved in university/community engagement as it is to community based practitioners with research imperatives. Ideally, the "lessons learned should inform policy and inspire structural changes in healthcare systems and in communities" (Horowitz, et al., 2009).

Following a review of numerous community-based research studies Israel, Eng, Schultz and Parker (2005a) have identified ten key principles of community-based participatory research:

1. Acknowledges community as a unit of identity
2. Builds on strengths and resources within the community
3. Facilitates a collaborative equitable, partnership in all phases of the research, involving an empowering and power-sharing process that attends to social inequalities
4. Fosters co-learning and capacity building among all partners
5. Integrates and achieves a balance between knowledge generation and intervention for mutual benefit of all partners
6. Focuses on the local relevance of public health problems and ecological perspectives that attend to the multiple determinants of health
7. Involves systems development using a cyclical and iterative process
8. Addresses health from both positive and ecological perspectives
9. Disseminates results to all partners and involves them in the wider dissemination of results.
10. Involves a long-term process and commitment to sustainability.

The CHIC program was guided by principles from public health and health promotion, health literacy, action research, community development, community psychology, community governance and community-based participatory research such as

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those in the previous list. Some of these guiding principles included an ecological, holistic or wellness view of health, respect for diversity and a focus on community collaboration, empowerment, control, ownership, management and decision making.

Methods in CBPR

CBPR is is one of many different approaches to research and action, "draws from a wide range of research designs and methods and pays particular attention to issues of trust, power, cultural diversity, and equity" (Israel et al., 2005a, p. 20). Some of the research methods and tools discussed in Israel et al.'s (2005b) book on CBPR methods include: surveys, individual interviews, focus groups, community forums, NGT, observational methods, including field notes and checklists, photovoice, secondary data analysis to inform action, force field analysis, mapping techniques and evaluations. Whilst some of these are traditional methods, an essential difference in CBPR seems to be the longer time frame and commitment needed to build and in many cases sustain partnerships or collaborations with community members.

The nominal group technique

NGT has been described as a technique for effective group process in CBPR partnerships because it allows equitable participation and open communication (Becker, Israel, & Alen, 2005). NGT is a group decision-making tool originally developed by Delbecq and Van de Ven in 1968 (Van De Ven & Delbecq, 1974). NGT consists of five steps as listed:

1. Generating Ideas
2. Recording Ideas
3. Discussing/Clarifying Ideas
4. Voting/Rating Ideas
5. Summing the Ratings (adapted from Van de Ven and Delbecq, 1974).

Some of the major advantages of NGT are that it produces a large number of ideas and has a greater potential for creative decision making and participant satisfaction (Van De Ven & Delbecq, 1974). The method also overcomes the problem of reluctance in participants who are reluctant to suggest ideas because of concern about being criticised or creating conflicting (Brahm & Kleiner, 1996). NGT minimises differences and ensures relatively equal participation among participants, saves time, may decrease any tension and hostility a group might normally experience in decision making and provides a sense of closure that is often not found in less-structured group methods (Brahm & Kleiner, 1996). Being able to generate ideas without distraction or influence from more dominant members in the group, the democratic voting/ rating of ideas and unanimous decision making that NGT affords, contributes to these many advantages.

Within the field of health, NGT has been used in general practice to decide on priorities of care of diabetic patients (Gallagher, Hares, Spencer, Bradshaw, & Webb, 1993); with doctors and nurses to establish clinical and health services research priorities in critical care (Vella, Goldfrad, Rowan, Bion, & Black, 2000); and with opinion leaders to consider whether to adopt or adapt the World Health Organisation practice recommendations for contraceptive use in the UK (Glasier, Brechin, Raine, & Penney, 2003). An application of NGT to identify community health priorities in northern Tanzania (Makundi et al., 2006) is a useful example of NGT at a community based level. According to Makundi et al., the study was motivated by concern for the 'burden of disease' and the need for the perspectives of marginalised groups and communities, in resource poor settings, to be integrated within the policy making and priority setting process. The research involved male and female groups consisting of community leaders/elders, patients or caregivers, religious leaders, youth leaders and women in four villages and the focus of the study was on disease problems and socio-cultural problems.

The results of the NGT showed that all the groups ranked Malaria as the number one disease problem with AIDS, hypertension and schistosomiasis also ranked highly by most of the groups. Poverty and unclean environment were identified as the leading social problems

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facing health services, where respondents defined poverty as a lack of financial resources to pay for health services when they fall ill. Other problems identified included lack of drugs, lack of equipment and qualified personnel in public health facilities and gender discrimination (as a leading problem facing some of the groups of women) in the form of female genital mutilation and widow inheritance (Makundi, et al., 2006).

Although the problems identified in the Tanzanian study are very different to problems in the Australian context, the study demonstrates many important points about using the NGT in community based research. Firstly, NGT assists in demonstrating to participants that their opinions are valued. Moreover, NGT serves as both an awareness raising (health promotion) tool and an awareness assessment tool. In regards to the latter, NGT may help to assess whether participants are aware of the leading health problems and whether there are any myths or delusions about the extent of the problems. Valuing and educating community members in this way also contribute to empowerment. The Makundi et al. (2006) study also showed how culturally and community specific the NGT can be. While it is not within the scope of the present paper to discuss, Makundi et al., also found regional differences in the identified disease and social problems among the groups and sexes. This demonstrates that NGT can be useful in identifying specific issues within communities and cultures as well as detecting differences among them. NGT in this example was succesfully used to identify disease and social problems but it could also be used to generate ideas or possible solutions to such problems as is the focus of the present study to which we now turn.

The problem of interest and the aims of the CHIC program

The problem of interest in this research is the growing burden of chronic diseases and conditions, particularly those identified as National Health Priority Areas (NHPAs) by the Australian government (Australian Institute of Health and Welfare, 2008). The NHPAs include:

- Arthritis and musculoskeletal conditions
- Asthma
- Cancer control
- Cardiovascular health
- Diabetes mellitus
- Injury prevention and control
- Mental health
- Obesity

The Australian government has chosen these chronic diseases and conditions for focused and targeted attention at a national level because they contribute significantly to the burden of illness and injury in the Australian community (AIHW, 2008). According to a study by the AIHW (2006), chronic diseases (including cancers) were responsible for more than 80% of the burden of disease and injury in 2004-2005 and are common with 77% of Australians having at least one long term chronic condition. Chronic conditions affect both young and old, with 10% of children aged 0 to 14 years affected by three or more long-term conditions and this percentage increasing to 80% in people aged 65 years and over. Chronic diseases are not only a drain on the health system, accounting for 70% of the total health expenditure but cause pain, suffering, disability, social exclusion and early mortality. Many people are at risk of developing chronic diseases that may be prevented with good nutrition, exercise and lifestyle. For example, the report showed that more than 85% of adults are not consuming enough vegetables, almost 50% of adults are not consuming enough fruit, one in two adults are not undertaking a sufficient amount of physical activity, around 21% of adults are smoking tobacco and 54% of adult Australians are either overweight or obese (AIHW, 2006).

The CHIC program was designed with the broader ideal of assisting the improvement of health and preventing chronic disease and mortality in Australia. The ideal is about thinking systemically while acting locally to improve community wellness; or what is often referred to in community psychology as “micro-level and macro-level” of inquiry, intervention

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and analysis (Dokecki, 1992). The research as a whole included one primary aim and four sub-aims as shown in the following list.

1. To empower participants with health knowledge, skills and confidence, including:

1a. To inform the community group about major health concepts and concerns in Australian society, including National Health Priority Areas, health status, determinants of health, inequalities and major causes of mortality and hospitalisations;

1b. Introduce them to a range of internet based community health information resources;

1c. Explore and strengthen their understanding and interests in personal and community health;

1d. Involve the community group in the development of a health promotion project that would help to improve health in the broader community.

The first general aim (1.) and the last aim (1d.) are associated with the NGT discussed in this article.

Method

The CHIC program was conducted over a 10 week period and involved seven people who lived or worked in the Brimbank region of Melbourne, Australia. The group was similar in size to a focus group and within the range of 5-15 participants recommended for conducting NGT (Becker, et al., 2005). The group was culturally and linguistically diverse (CALD) and consisted of four Vietnamese people (one male and three females) and three females from the Maltese, Filipino and Latin-American communities, respectively. The participants' ages ranged from early 20s to over 50. An outline of the 10 week CHIC program is shown

Table 1
CHIC program outline and session details

Week 1: Introductions – This first session will involve meeting other community members in the group and introducing our interests in health. The CHIC coordinator will provide an overview of the project, including the new CHIC website. Some favourite health websites/topics will be explored including Body Mass Index and fruit and veggie calculators, personalised healthy food pyramids, healthy living calendar, world's healthiest foods and healthy recipe sites.
Week 2: Community Health Evidence Base (CHEB) – A power point presentation of the CHEB resource which is an informative summary of public health issues and health statistics in Australia, Victoria and Victorian communities will be presented in this session. Issues such as life expectancy, causes of death and illness and differences in health outcomes due to factors such as age, gender and geographical location are presented.
Week 3: Thinking about health in our community – In this session we will focus on the Brimbank community and will discuss some of the community health issues of interest to us as a community. Are some health issues more urgent/important to us? What are some of the reasons for these particular health problems? Is our community healthy?
Week 4: Good ideas and choosing a manageable task – Today, we will 'brainstorm' ideas about actions that can be undertaken to improve health in our community. We will list our good ideas on project paper and prioritise and decide on a manageable task using the 'Nominal Group Technique'.
Week 5: Planning for success – In this session we will develop a plan of action for our chosen idea. What needs to be done? Who will do what? Who can help? Do we need to apply for funding to enable the undertaking of the project? We will have the next 4 weeks to undertake our project or get it to a stage where it could be undertaken (if it is a large project).
Week 6-9: Action stages 1 to 4
Week 10: Celebrate our achievements – Program members will be asked to bring in a small plate of healthy food to share. We will have a chance to reflect on and evaluate our experience and opinions of the program and celebrate our achievements.

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in Table 1. This outline formed part of a colourful brochure and flier advertised during the recruitment stage of the research. Participants were recruited by distributing the brochure and flier to various public services in the Brimbank region including: Isis Primary Care, Migrant Resource Centre, Good Shepherd Youth and Family Services and St Albans, Keilor and Deer Park public libraries.

The program was held in a large refurbished classroom at Victoria University, St Albans Campus, Melbourne. As shown in Table 1, the program consisted of both education and research components and "data collection" was not the intention in every session. For example, session one was an introductory rapport building session and, together with session two and three, was designed to be informative and educative. Week one to three of the program included introducing the group to a range of internet based health information and disease prevention resources; epidemiological evidence about the extent of the chronic disease problem; and focused information on the health and wellbeing of the Brimbank community. On the other hand, the nominal group technique in session four was a more formal research method that yielded data. Sessions five to nine involved a process of planning for action that could improve health in the community and which could be observed, documented and evaluated by the researcher. A formal evaluation with participants was also undertaken at the end of the program. However, once again the main focus of the present work is on one part of the CHIC program – the application of the Nominal Group Technique.

NGT process

An adapted form of NGT was used in the fourth session of the CHIC program to generate ideas about actions that could be undertaken to improve health in the Brimbank community and to prioritise and decide on a manageable task. A six-slide PowerPoint presentation demonstrating the method (Totikidis, 2009) was developed and shown to participants prior to beginning. The first slide consisted of an overview of five steps in NGT followed by an explanation of each step of the process as follows.

1. Generating Ideas

- In this step, each person is required to write down as many ideas as they think of about possible projects we could undertake to improve health in the community.

  This is a quiet phase when you write your ideas without discussing with any one else.

2. Recording Ideas

- We will then transfer all our good ideas (to promote health in our community) onto a chart for everyone to see.

3. Discussing/Clarifying Ideas

- In this step we discuss the ideas so that there are no misunderstandings about what they mean.

  The person who generated the idea may describe the idea and other members of the group can ask questions.

4. Voting/Rating Ideas

- We are going to use 1 to 5 stars to rate our favourite ideas.
- You will be given five coloured cards with 1 to 5 stars on each one as shown below.
- You will be required to write the name of the five ideas you like the most on the cards.

  Write one idea on each card using the preference guide on the right.

5. Summing the Ratings

- The ratings will now be transferred to the chart.

  The idea with the highest total stars/score will be the 'group decision' about which idea we will develop further in the coming weeks to help improve health in the community.

In the first step, participants were asked to reflect on something we could do or plan to do as a team to improve health in the community. It was explained that it would have to be a reasonably small project that could be designed and implemented with around $500 in funds from the available budget. The researcher participated as both a facilitator and participant in the NGT in order to demonstrate the method and to engage as

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one of the CHIC team. Each participant was given note paper and a pen and was asked to quietly and independently list their ideas. When participants were finished, the notes where collected and all the ideas were transferred to an Excel data sheet that was projected onto a big screen. Each idea was then discussed by the person who suggested it so that everyone was clear about its meaning. Some ideas that were very similar were combined.

Following the generation, listing and clarification of ideas as described in steps 1 to 3, participants were asked to rate their favourite ideas using a simplified five-card rating system developed by the present researcher (step 4). This involved giving each person a set of five small coloured cards consisting of a rating from one to five numbers and stars on each card and asking them to write their five favorite ideas on the cards. The usual procedure in NGT is that all the ideas are rated by each person. Nevertheless, the researcher had used this system on a previous occasion several years ago and found that rating errors were very easily made by participants. For example, some ideas were given the same rating which then confused the whole numbering sequence. A lesson learned was that it is a difficult and lengthy task to rate 50 or so ideas! Moreover, since the aim of the session was to arrive at a single idea for action, there seemed little point in rating every single idea. An example of the card rating system is shown in Table 2.

When participants finished writing down and rating their five favourite ideas, each person in turn read out the responses while the researcher transferred them to the Excel sheet. The ratings for each idea were then summed and the item totals were ranked so the highest rating was at the top of the datasheet.

NGT results

The technique yielded 48 excellent ideas that could be undertaken to improve health in the community. Table 3 consists of the 20 favourite ideas that received a 1 to 5 rating from at least one person. The top rated idea received a score of 16 out of a possible 40 which indicates quite a dispersed rating from participants. That is, not everyone gave this particular idea the top score of five.

The main themes that emerged included strategies relating to *health information, awareness or education*; strategies focused on *healthy eating, food and cooking*; and strategies focused on particular subgroups or locations such as *schools, communities, workplaces and clubs*.

The remaining 18 ideas that were generated but not rated within the top five by participants are listed below. The themes identified earlier also apply to the present list and in addition a theme related to *exercise/ activities* and to *competitions/twinning* can also be identified in the list. *Partnering* (e.g., with

Table 2
Five degree idea rating system used in the NGT
Note: The size of each card was 38mm x 69mm. Rows above are shown narrower than actual cards used.

Rating on each card	Description
1*	1 star - Not a bad idea (purple card)
2**	2 star - A good idea (blue card)
3***	3 star - A very good idea (green card)
4****	4 star - An excellent idea (orange card)
5*****	5 star - My most favourite idea (yellow card)

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Table 3
Participants' ratings of five favourite ideas to promote health in our community

Good Ideas Generated	Participant Number								
	1	2	3	4	5	6	7	8	Total
	Ratings								
Provide free information – free cooking class, recipes	1	4	4	1	5		1		16
Healthy school lunches (healthy lunchbox competition)				3			5	4	12
Advocacy materials – develop brochure/pamphlets and distribute to library, schools, churches, hospital, shops	5				3				8
Health awareness Community groups/similar to neighbourhood watch ('Health Watchers')			3		1	1		3	8
Competitions among various communities	2	2	2		2				8
Information sessions run in school, welfare clubs, groups, doctor				4		4			8
Focus on young people's health		1	1		4				6
Supermarket and fresh food market tours with a qualified nutritionist		3					3		6
Conduct a forum about health promotion				5					5
Coordinate with Local Government Units – for promotion in their locality (particularly to health department)			5						5
Health awareness day at a school level								5	5
More education programs at grass root levels e.g., senior citizens clubs, youth clubs						5			5
Talk with the group about the importance of health promotion		5							5
Establish steering committees	4								4
Healthy cooking sessions at community level							4		4
Health promotion in the workplace – occupational, health & safety, nutrition				2				2	4
Media releases (local newspaper)						2		1	3
Health awareness day at a community level						3			3
Advertise on SBS*	3								3
Community information session							2		2

Note: * SBS (Special Broadcasting Service) is Australia's multicultural and multilingual radio broadcaster.

local government and local agencies) was another theme that emerged among the responses

- Network with different welfare agencies to advocate/promote health nutrition
- Health information sessions for people living in different areas
- Programs for primary and high schools
- Articles for newspaper, magazines, school news letter
- Fliers to drop at libraries & doctors' clinics
- Health seminar
- Talk shows on community radio

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- Cooking programs to promote healthy eating
- Aerobic, swimming, tai chi, yoga meditation programs for communities
- Walking groups
- Disadvantaged groups – unemployed (health)
- Twinning ethnic minority groups regarding health programs share ideas, recipes
- Free Brimbank health calendar
- Poster competition – Healthy eating
- Community education/awareness – discussion fliers to drop libraries, doctors
- Organise more short courses about good food and healthy life styles

After further group discussion of the results, it was decided that some of the top rating ideas could be combined into a single project. For example, the provision of free health information, brochures and pamphlets, free cooking class and recipes could be part of a healthy school lunch competition or festival. Such a program could involve parents as well as children. During the session we discussed the importance of early intervention around healthy eating and adequate exercise for children especially in light of the growing rate of obesity and diabetes among children. One of the CHIC members who worked in a local primary school then shared a story with us that formed a guiding metaphor for our work. As the (Vietnamese) multicultural officer for the school, this particular member is often called upon to discuss issues concerning the wellbeing of a child with his or her parents. Healthy food or the lack of it was a common problem and she mentioned that it was not uncommon to find that a child had two packets of potato chips or sweets and lollies with not much or nothing else in their lunch box. Often, parents did not know how to deal with this problem and reported that the child refused to eat healthy food and would either bring it back home or throw it away. This metaphor of *the child with two packets of potato chips or sweets for lunch* demonstrates the importance of health promotion at the school level.

Although it is not within the scope of this paper to discuss, our guiding metaphor led to the development and implementation of a successful school wide health promotion project called the 'Healthy Munch, Lunch and Crunch Program'. The program included involving children from a local primary school in learning about health and healthy eating, a healthy art show, a free healthy lunch day, distributing national nutritional guidelines to all parents and children, and forming new partnerships and associations with organisations interested in continuing the health promotion effort in the school and beyond.

Other CHIC activities included initiating and participating in two media releases with a local newspaper and the university and a public celebration with healthy food in the final week. The celebration attendees consisted of the CHIC team members, students/staff of the university, two politicians with strong interests in health and the Brimbank community and the principal, assistant principal, teachers and parents from the local primary school. Service providers and social workers from various organisations, including Centrelink, Western Region Outreach Service, Good Shepherd Youth and Family Service and the Indo-Chinese Elderly Refugee Association also attended. A summary version of the health promotion messages of the CHIC program together with talks on health by the politicians were delivered at the celebration, thereby extending the reach of the health promotion messages to the broader community.

Discussion

The nominal group technique is a useful 'brainstorming' or idea generating method that also simplifies group decision making processes. An application of NGT in a community based action research/health promotion program known as the Community Health Information Collaboration was discussed in this article to enable other community researchers to utilise the method in similar community based action research. The research showed that NGT can be used

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just as well for generating solutions to public health problems as it can be for identifying problems as shown in the Makundi et al. (2006) study discussed earlier. Some of the research observations/reflections arising from this study were that the NGT process itself was fun to use in the community group and was no more difficult than a bingo game. Participants showed an inquisitive interest in the technique and laughed and engaged with each others ideas during the feedback stages. However, two to three hours are needed to complete the technique and thorough explanation of the steps is needed to ensure there are no misunderstandings about what to do. This is especially important in the final rating on coloured cards to ensure participants know the difference between a rating of one and rating of five and so that they know that any idea can be rated (not just the ones that they personally generated).

Projecting the instructions on the screen at each step and being aware of the participant experience at all times are keys to the success of the technique, and may be particularly important in a CALD group. The NGT facilitator must also ask questions to gauge the satisfaction and thinking of the group at various stages.

Two major benefits of the NGT were the generation of so many practical ideas and the mutual sense of accomplishment felt by the group. This can be gauged by a number of positive comments made by participants at the end of the session and by the high ratings given to the evaluation statement: "I believe we generated some great ideas on how to promote health in our community" (rated 5 on a scale of 1 to 5 by each participant). Although further planning was required after the initial generation of ideas, the process was smooth and amicable. That is, there was no observed conflict of any kind and a general acceptance and support of the decision making process and top rated ideas. On the other hand, most of the participants felt that some of the ideas could be combined to form a single project so some flexibility as well as further discussion after generating ideas is advised. As mentioned elsewhere, the exercise led to the development of a successful school wide health promotion program involving children and parents, media releases and a public celebration.

A point to note is that the method of recruitment attracted participants who already had an interest in health, and it is not known whether the tool would be as successful with a sample that has no interest or knowledge of the subject matter or community. One of the disbenefits of the NGT was the lack of 'rich data' that is characteristic of other qualitative methods such as focus group and individual interviews. Moreover, although NGT is suitable for small sample sizes, a small sample size precludes any comparisons of results on the basis of factors such as culture, age and gender. On the other hand, the advantage of NGT over these methods is the very 'succinct' and practical information generated and little need for in depth analysis. This makes it a valuable method for action and applied research where the time saved can be used in developing and implementing better health promotion programs for the community.

The relevant and practical themes arising from the research also showed that participants gained sufficient understanding and knowledge from the educative components of the program to be able to propose particular interventions to promote health and prevent chronic disease in the community. Returning again to the 11th Trans-Tasman Community Psychology Conference sub-themes on engaging others, creating change and translating theory into action; this research makes a contribution to knowledge about methods that can successfully engage community members in the decision making processes concerning community action and change.

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