Members of the Board of Community Psychologists 1993-1994

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Network, Vol. 8, No. 3, 1993, i
Editorial

The Fourth Biennial Conference of the Society for Community Research and Action (SCRA) was held in Williamsburg, Virginia in June. The non-North American contingent was larger than ever and Australasia was well represented (numerically at least). Three New Zealanders and five people from Australia attended. Even more pleasing was the positive attention that the contributions from Australasia and the other non-North Americans received. The quality of these contributions was such that the President of SCRA, Irma Serrano-Garcia, was moved to attempt to have an entire edition of The Community Psychologist devoted to papers from an International Poster session. Although this did not eventuate, there will be an international column in The Community Psychologist. It was also notable that Tom Wolff made special mention of the international contributions in his invited address. Chris Sonn and Adrian Fisher have presented their views of the conference in this edition.

There are proposals to recognise the status of international community psychology more formally in the structure of SCRA. I would encourage people to join SCRA. Membership costs $US29. This entitles members to copies of the American Journal of Community Psychology and The Community Psychologist. Membership forms can be obtained from the editor, who’s address appears on the inside back cover. I would also encourage people to consider attending the next biennial conference in 1995.

This edition of Network includes an article co-authored by the eminent Dr. Audrey Armour who is internationally known for her work in social impact assessment. She presented a longer version of this paper at CSIRO in Perth in August, 1993. Although she is a sociologist working in social and environmental impact assessment, she has many of the features one would attribute to an effective community psychologist. Social impact assessment deals with the attempt to measure the impacts the social infrastructure of communities who will be affected by potential development. Essential to assessing the social impacts of a particular facility is some understanding of how communities can be identified and their ability to cope with stressful change.

She is both an academic and a practitioner. While her dual positions make her working life more difficult, it has offered her a strong intellectual position to consider community. Her professional background has led her to have to defend her conclusions, not only to colleagues, but to courts. The litigious nature of siting urban and industrial waste landfills in North America has meant that she has had to be very certain of what she is doing. This has led her to a perspective or world view that is both appreciative and critical of the academic approach to understanding people. In October and November she was in court having to defend the concept of community she deals with in this paper. While her appearances in court have caused considerable stress, it does give a context for her research that most academics do not have.

While my enthusiasm for her work is obvious, there is an important point that stems from the form of her work. That is that community psychological theory needs to be grounded in the community. The community needs to be involved in setting both the research methodologies and the research questions. Without this input, community psychology could become yet another sterile field of academic nonsense.
COPING WITH IMPACTS: AN APPROACH TO ASSESSING COMMUNITY VITALITY

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Steve Cohen
Stalford Associates, West Roxbury, Massachusetts, USA

and

Doug Hurley
Goldfarb Consultants, Toronto, Canada

The planning, construction, operation and decommissioning of industrial plants, resource extraction projects, waste management facilities, and other major undertakings have the potential to bring about significant changes in the way of life of a community. Bachrach and Zautra (1985) would label such undertakings as "community stressors" in that they can affect a large number of people in a given area and bring about problems which can only be resolved through collective action. However, communities, like individuals, differ in their abilities to cope with change. Some communities will easily be able to mobilise their resources and take effective action in the face of problems. Others will succumb to feelings of hopelessness and powerlessness. It is important, therefore, in planning major projects, especially if it involves selecting a preferred development site, to have a sound understanding of the relative abilities of potentially affected communities to deal with possible impacts.

This paper will report on the results of an effort to address this concern in a social impact study conducted as part of a landfill site selection process now underway in the Province of Ontario, Canada. Since November 1990, the Interim Waste Authority (IWA), a provincial crown corporation, has been conducting a six step process to identify three landfill sites, one for the regional municipality of Peel, one for the combined area of Metropolitan Toronto and York Region, and one for the regional municipality of Durham (Map 1). The proposed landfill facilities will range in size from 230 ha to 320 ha and each is intended to meet regional disposal requirements for a 20 year period from 1996 to 2015. Steps 1 to 5 of the site search process have been completed and Step 6 is now underway. Steps 1 to 3 of the site search process involved constraint analysis to identify possible candidate areas in each region and an initial long list of candidate sites. Step 4 involved a comparative evaluation of the initial long list of sites to identify a final long list of sites. Step 5 analysis reduced each region's long list to a short list of candidate sites. Step 6 involves the selection of a preferred site in each region.

The aim of the social impact assessment (SIA) in Step 6 is to assess the potential of each proposed landfill to affect the day-to-day quality of life of residents in the area, the services and facilities that contribute to their quality of life, and the community in which the residents live and of which they are a part. Thus, social impacts are
being assessed at three scales: individual households, groups/agencies/organisations responsible for the delivery of services and operation of facilities, and the community as a whole. With respect to community impacts, four key questions are being addressed: Will people's satisfaction with their community as a place to live be seriously diminished? Will a loss of satisfaction affect people's attachment to the community and lead them to move out or become less involved in community affairs? Will the community's cohesion be affected as a result of either resident displacement (both voluntary and involuntary) and/or resident disruption (e.g., through interference with patterns of social interaction)? And will the community be able to cope with adverse effects? It is this last question which is the subject of discussion here.

The Concept of Community Vitality

Community psychologists and sociologists have long been concerned about the ability of communities to take effective action to address their problems. Leonard Cottrell (1964) coined the term "community competence" to describe the capabilities of a community to act collectively and respond constructively to the problems it faces, whether these are internally or externally generated. He defined a "competent community" as one in which the various constituents of the community are able to collaborate in identifying the problems and needs of the community, achieve a working consensus on goals and objectives, agree on ways and means to implement the agreed upon goals, and collaborate in the required action. Cottrell identified eight characteristics that must be present to a considerable degree among the constituents of a community, or available to them, for them to function as a competent community. These are:

1. **Commitment to the community.** Residents value "community" and their locality. They regard the community as something worthy of substantial effort to sustain and enhance. They see that their interests and welfare are tied to the well-being of the community and, more importantly, that they have a role to play in maintaining community functioning.

2. **Self-other awareness.** Constituents of the community are clear about their own identities and the positions they hold on community issues. Moreover, they also clearly perceive how their own interests relate to the interests of others and have realistic views about the extent of consensus and conflict shared with others.

3. **Articulateness.** Constituents of the community are able to express clearly their views on community matters, attitudes, needs and intentions. They are also able to express their perceptions of their positions and intentions on issues in relation to those of others.
4. **Communication skills.** Residents are not only able to give out information about themselves, they are also able to listen and hear what others are saying. They are able and willing to correct erroneous perceptions and work towards the establishment of common meanings and goals.

5. **Ability to contain and accommodate conflict.** Residents possess a repertoire of skills for resolving conflicts and strive to sustain relationships. They show versatility and inventiveness in the use of established procedures and in the development of new procedures to work out accommodations on issues.

6. **Willingness to participate.** Residents are willing to contribute to the identification of community goals and to ways and means for their achievement. They are willing to become involved in community affairs.

7. **Capability to manage relations with the larger society.** Constituents of the community are able to utilise the resources and support that the large system makes available and to act to reduce threats to the community posed by the larger system. This includes being able to utilise experts and specialists without being controlled by them.

8. **Machinery for facilitating participant interaction and decision making.** There are regularised modes of procedures and rules for achieving consensus and making decisions. These are flexible and responsive to community needs.

In developing this list, Cottrell (1964) drew upon "fragments of practical experience, observation, and relevant conceptualisation" (p. 198). He made no claim that this list of characteristics is exhaustive and he noted that the characteristics are not mutually exclusive.

Bowles (1981) put forward the notion of "socially vital" communities to describe a set of characteristics of a community which affect its capacity to mediate and control the impacts of large-scale development on the community's social life. Based on a review of literature relating to community and community processes, Bowles identified nine characteristics of socially vital communities which distinguish them from non-vital communities. These are: many collective events, high levels of participation in collective events, many collective events internally organised and controlled, many services provided or acquired through internal and informal social networks, informal social networks invoked in times of stress and times of joy, very few members socially isolated from other members of the community, persisting structures of internal governance, capable of organising to respond to an imposed or impacting event, and most members conceptualise impacting events in terms of impact on the collectivity as well as impact on them personally. In Bowles' view, socially vital communities possess political efficacy, that is, "the capability to
organise, mobilise resources, and act in an effective manner in dealing with either internal problems or external centres of power (or groups) which take actions having consequences for the community and its members" (p. 60).

Bowles' (1981) notion of a socially vital community is consistent with Cottrell's (1964) concept of a competent community, although Bowles' definition of vitality tends to draw in more aspects of a community's social life than just its collective problem-solving capabilities. It is also a less pejorative term and for this reason the term "community vitality" instead of "community competence" was adopted for use in the social impact assessment of IWA's landfill siting options.

In 1985, two U.S. researchers at the University of Virginia, Goeppinger and Baglioni, developed and field tested a procedure for assessing a community's potential ability to problem-solve which relied on residents' perceptions of community functioning. They wanted to devise a method of community needs assessment which would identify community strengths instead of deficits and enable community workers to direct their interventions towards enhancement of these strengths. They began by preparing a draft list of possible indicators for each of Cottrell's eight dimensions. This list was refined through two Q-sorts by community practitioners, theoreticians and researchers. Using a telephone survey method, they then field-tested the list of twenty two indicators in five rural towns ranging in size from 1,000 to 3,000 persons. The five communities differed in terms of size, median age, dependency ratio, average home value, amount of owner-occupied versus renter-occupied dwellings, and the standard of housing.

Their specific research objectives were to determine which indicators discriminated among the five communities and which specific dimensions of Cottrell's model of "community competence" this set of indicators represented. The results of the research are shown in Table 1. It was determined that fourteen of the twenty-two items helped to distinguish among the five communities and these indicators represented six of Cottrell's eight dimensions. The two dimensions of Cottrell's framework which were not represented by the indicators were articulateness and communication skills. The researchers suggested that this result may be due to the fact that these two dimensions may not be separable and that further research is needed to determine if they are unique and separate characteristics of community vitality.

These 1985 research findings were used as the basis for designing an approach to assessing the relative vitality of the communities identified by the IWA as candidate sites for its proposed landfill facilities.
### TABLE 1
Dimensions and indicators of community vitality*

<table>
<thead>
<tr>
<th>Cottrell's Dimensions</th>
<th>Indicators from 1985 U.S. Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>Proportion of family members in the community</td>
</tr>
<tr>
<td></td>
<td>Pride in appearance of the community</td>
</tr>
<tr>
<td>Conflict containment and accommodation</td>
<td>Speaking out on issues</td>
</tr>
<tr>
<td></td>
<td>Working together</td>
</tr>
<tr>
<td></td>
<td>Crime in general problematic</td>
</tr>
<tr>
<td></td>
<td>Juvenile crime problematic</td>
</tr>
<tr>
<td>Machinery for facilitating participant interaction and decision making</td>
<td>Influence exerted by community residents on town</td>
</tr>
<tr>
<td></td>
<td>Shared decision-making power</td>
</tr>
<tr>
<td>Management of relations with larger society</td>
<td>Influence exerted by community residents on county</td>
</tr>
<tr>
<td></td>
<td>Effectively represented to county</td>
</tr>
<tr>
<td>Participation</td>
<td>Use of local services</td>
</tr>
<tr>
<td></td>
<td>Organisation membership</td>
</tr>
<tr>
<td>Self-other awareness and clarity of situational definitions</td>
<td>Adequacy of services</td>
</tr>
<tr>
<td></td>
<td>Freedom to participate</td>
</tr>
</tbody>
</table>

* Adapted from Goeppinger and Baglioni (1985)

### The Study Method

As in the University of Virginia study, reliance was placed upon residents to provide information about the community's social characteristics. This meant developing a reliable survey instrument. The report of research results from the University of Virginia study included a list of the survey questions that had been asked in that case. However, it was necessary to refine the questions to make them more appropriate to the Metropolitan Toronto context. The survey instrument used in the U.S. study was developed for application in small, relatively isolated rural communities. The questions asked reflected very traditional concepts of "community" and it was felt that, although these may have some relevance in very
rural settings, their applicability to urban and suburban communities was suspect. For example, one set of questions asked people how often they go to the bank or do their shopping in the community. In today's age of automated banking machines, telemarketing and regional shopping plazas, such questions may no longer be appropriate measures of community living.

The list of indicators was also refined. Initially, all fourteen indicators identified by the University of Virginia researchers as ones that distinguished among the five communities were incorporated into the SIA survey instrument. In addition, four other indicators were included, the first three of which were among the original twenty-two indicators tested by the U.S. researchers: length of residence, feelings about moving, perceptions of local politics, and overall satisfaction with community.

However, not all eighteen indicators made it into the final version of the survey instrument. As a check to the flow, comprehension and timing of the questionnaire, a pre-test was conducted before the actual interviewing began. As a result of this process and considerations of length twelve indicators of community vitality were incorporated in the SIA survey instrument.

Timing of the Survey

It has been common practice in the social impact assessment field to conduct resident surveys after candidate sites have been made public. The reason for this is not methodologically based but due to the fact that social impact studies have tended to be initiated only at this stage in the planning process. The problem is that this late timing makes it difficult to assess potential social impacts since there is no prior benchmark against which to measure community functioning. For example, without information on the community's level of cohesion prior to the project announcement, it is difficult to determine the extent to which the information gathered on community cohesion reflects on-going cohesiveness or simply the effect of the announcement in uniting concerned residents. Conducting resident surveys after project announcements also begs the question of the extent to which residents' responses were influenced by their knowledge that their community has been selected as a site for a proposed development. Without pre-announcement information on residents' satisfaction with community services, for example, it is difficult to determine the extent to which ratings given to certain services were influenced by fears that these services may be somehow put in jeopardy as a result of the proposed project.

It has come to be recognised that in order to obtain valid and accurate measurements of the potential impact of a proposed project, it is necessary to have data and information on the community as it was before the project was announced.
For this reason, the Interim Waste Authority decided to initiate the SIA survey process in advance of candidate site announcements. The survey was conducted after Step 3 and before the announcement of a long list of candidate landfill sites. However, the data were not tabulated until the short list of sites was identified at the end of Step 5.

Needless to say, solving one problem created others. Given that it was not known at the time the survey was initiated which candidate sites would be on the short list and which communities would be potentially affected, the approach taken to delineating survey areas and drawing a reliable sample required careful consideration.

**Survey Areas**

The survey was stratified to provide data for three geographic areas: the IWA study area as a whole (encompassing the three regional municipalities), each regional municipality, and specific sub-areas or communities within each region.

The delineation of sub-regional areas was based on the candidate areas and initial long list of sites identified in Step 3 of the site search process. Candidate areas often contained clusters of candidate sites which sometimes even overlapped each other. The challenge was to define survey areas that were large enough to be assured of capturing "the community" around each candidate site but not so large as to contaminate the sample with a lot of ineligible respondents. The following four-part approach was taken:

1. **Map the candidate areas/sites.**
   The candidate areas and initial long-list of candidate sites identified in Step 3 were shown on a 1:50,000 topographic map of each region.

2. **Identify potentially affected communities.** All urban settlements (hamlets, towns, etc.) within 3 to 5 km of each candidate site were identified and the extent of their contiguous physical development was marked on the map.

3. **Delineate survey areas.**
   Agricultural and land use specialists involved in the IWA landfill site search process were asked to provide advice regarding the factors that should be taken into account in delineating survey areas around each candidate site on the long list.

   When the short list of candidate sites became known at the end of Step 5 (November, 1992), the data base was adjusted to move those sub-regional samples not relevant to the short list into the regional sample. Before this was done, the location of each survey respondent was plotted using GIS mapping on a base map.
showing postal code boundaries to reveal the geographic distribution of respondents. On the basis of this information, adjustments were made to some of the sub-regional samples to add regional respondents into the sub-regional areas and vice-versa. In addition, respondents were mapped to illustrate the communities identified within the telephone interview and, where required, the boundaries for the sub-regional areas were revised to reflect resident perceptions of "the community" in the area. The final sample sizes and selected sub-regions are shown in Table 2.

Sampling Procedures

The budget for the survey allowed for a total of 4600 telephone interviews. In all three regions, a sample of 200 was to be taken in each of the sub-regional areas. In addition, a sample of 200 was to be taken in the area within each region that was not included as part of the sub-regional survey areas. This sample plus the sub-regional samples would be combined to provide an overall regional sample. Disproportionate sampling techniques were used within each regional municipality and sub-regional study area to deliver a male-female sample composition for each area that is sixty percent (60%) female household heads and forty percent (40%) male household heads. The sample was designed to be more heavily weighted to female household heads because females have been found in many public opinion polls to typically express greater sensitivity to environmental issues than males.

In the final analysis, a total of 4535 interviews were conducted. This included 1200 interviews in Peel Region, 2004 in Metro/York Region, and 1331 in Durham Region.

STUDY RESULTS

Tables 3 and 4 provide data for each of the twelve indicators of community vitality. Table 3 shows results for three indicators which were addressed in "YES/NO" questions. Chi-square was used as a test of differences between each sub-region within each of the three regions. The significances are shown below the percentages in Table 3. Table 4 shows the results of tests of mean differences for the remaining nine indicators. In each case, the $R^2$ showing the amount of variation explained by the communities is below each set of means. Means marked with the same letter are not statistically different from one another.

The analyses revealed that the four communities in Peel Region (P1, P2, P3/5, & P6) with candidate landfill sites are significantly different for nine of the twelve indicators. No one community attained the best scores on all nine items and thus none can be described as being more vital in an overall sense than any of the other
All four possess particular strengths and weaknesses in regard to their potential ability to cope with problems. However, Pl scored best for seven of the indicators which would indicate that it possesses more coping strengths than the other three communities. The P2 community appears to be at the other end of the scale. It scored the worst on seven of the nine indicators which would indicate that it is probably the weakest in terms of community vitality of the four communities identified as candidates for a landfill site.

### Table 2

<table>
<thead>
<tr>
<th>Region</th>
<th>Actual Sample</th>
<th>Households*</th>
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<tbody>
<tr>
<td>PEEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-region Area P1</td>
<td>200</td>
<td>1,813</td>
</tr>
<tr>
<td>Sub-region Area P2</td>
<td>200</td>
<td>3,118</td>
</tr>
<tr>
<td>Sub-region Area P3/5</td>
<td>158</td>
<td>2,201</td>
</tr>
<tr>
<td>Sub-region Area P6</td>
<td>199</td>
<td>2,992</td>
</tr>
<tr>
<td>All other Peel</td>
<td>448</td>
<td>215,650</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1205</td>
<td></td>
</tr>
<tr>
<td>METRO/YORK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-region Area M2</td>
<td>200</td>
<td>4,263</td>
</tr>
<tr>
<td>Sub-region Area M4</td>
<td>201</td>
<td>4,756</td>
</tr>
<tr>
<td>Sub-region Area M8</td>
<td>315</td>
<td>874</td>
</tr>
<tr>
<td>All other York</td>
<td>1288</td>
<td>112,640</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2004</td>
<td></td>
</tr>
<tr>
<td>DURHAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-region Area</td>
<td>200</td>
<td>4,483</td>
</tr>
<tr>
<td>Sub-region Area</td>
<td>131</td>
<td>554</td>
</tr>
<tr>
<td>All other durham</td>
<td>1000</td>
<td>122,944</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1331</td>
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</table>

Pl has the highest percentage of residents (77%) who would want to move to a place in the same community, if they had to move for any reason, as well as the highest percentage belonging to civic groups (34%). Residents in Pl have lived in the community for longer periods of time than residents in other communities. Their average length of residence is 10 to 15 years. Residents of Pl, as well as those in P5 and P6, differ from residents in P2 in the following additional respects: they are less
### Table 3
Community Vitality Measures: Dichotomous Items

<table>
<thead>
<tr>
<th>Vitality Measure</th>
<th>Total</th>
<th>PEEL</th>
<th>M1</th>
<th>M2</th>
<th>M4</th>
<th>M8</th>
<th>D4</th>
<th>D6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.5 Family in community</td>
<td>35%</td>
<td>40%</td>
<td>38%</td>
<td>27%</td>
<td>35%</td>
<td>28%</td>
<td>28%</td>
<td>39%</td>
</tr>
<tr>
<td>Q.16 Want to move in same community</td>
<td>71%</td>
<td>77%</td>
<td>59%</td>
<td>75%</td>
<td>72%</td>
<td>74%</td>
<td>53%</td>
<td>69%</td>
</tr>
<tr>
<td>Q.34a Belongs to civic group</td>
<td>27%</td>
<td>34%</td>
<td>23%</td>
<td>20%</td>
<td>29%</td>
<td>22%</td>
<td>13%</td>
<td>23%</td>
</tr>
<tr>
<td>Q.34b Belongs to religious group</td>
<td>45%</td>
<td>49%</td>
<td>45%</td>
<td>42%</td>
<td>42%</td>
<td>48%</td>
<td>35%</td>
<td>30%</td>
</tr>
<tr>
<td>Q.34c Belongs to community boards</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
<td>7%</td>
<td>6%</td>
<td>8%</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>Q.34d Belongs to other comm. group</td>
<td>34%</td>
<td>37%</td>
<td>27%</td>
<td>37%</td>
<td>36%</td>
<td>24%</td>
<td>17%</td>
<td>30%</td>
</tr>
<tr>
<td>Vitality Measure</td>
<td>Total</td>
<td>PEEL</td>
<td></td>
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<tr>
<td>Q.19 How much do you speak out on differences**</td>
<td>2.63</td>
<td>2.50 b</td>
<td>2.92 a</td>
<td>2.54 b</td>
<td>2.56 b</td>
<td>2.68 b</td>
<td>3.07 a</td>
<td>2.68 b</td>
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<td>Q.20 How often do people work together to settle differences**</td>
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<td>Q.21 Crime is a problem in this community*</td>
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<td>Q.22 Local politicians represent my views*</td>
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<td>Q.23 Local politics sewn up*</td>
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Means marked with the same letter are not statistically different from one another.

* Measured on a scale of 1-5: Strongly agree (1) to Strongly disagree (5).

** Scale was Always (1), frequently (2), sometimes (3), rarely (4).
likely to agree that "many people do not care about how our community looks" and more likely to say that people speak out on issues.

The P2 community, on the other hand, has the fewest who would want to move in the same community (59%), has the second lowest percentage of residents belonging to civic groups (23%), are more likely to agree that "many do not care how the community looks (mean = 3.72), and are less satisfied with their area as a place to live (mean = 1.65). They are also less likely to say that people in their area speak out on differences (mean = 2.92).

In the Metro/York Region, the three communities with candidate landfill sites are significantly different for ten of the twelve indicators. Here too, no one community attained the best scores on all ten items and thus none can be described as being more vital in an overall sense than any of the other communities. They all possess particular strengths and weaknesses in regard to their ability to cope with problems. However, the M4 community scored the lowest on nine of ten indicators which would indicate that it is probably the weakest in terms of community vitality of the three communities with candidate sites. M2 and M8 both scored highest on four separate indicators and tied for highest on two others. They are obviously stronger in terms of community vitality than M4, although it is not possible to say which is strongest.

The M4 community has the fewest who say they would want to move in the same community if they had to move for any reason (53%), the lowest percentage of residents belonging to civic groups (13%), and the lowest percentage of residents belonging to other community groups (17%). Residents of this community have lived in the community for less time (mean = 2.88), are more likely to agree that "many do not care how the community looks" (mean = 2.97), and are less satisfied with their area as a place to live (mean = 2.04). They are less likely to say that people in their area speak out on differences (mean = 3.07) and they are also more likely to regard crime as a problem in their community (mean = 2.60).

In the Durham Region, the differences in the two communities with candidate landfill sites are slight. On only two items do these two areas differ. D4 residents have lived in their area significantly fewer years than D6 residents (more than 2 to 5 years compared with more than 5 to 10 years), and D4 residents believe that people speak out less frequently on differences than do D6 residents. The fact that there are only two differences on the twelve indicators suggests that there is no difference in the level of community vitality between the two communities.
NEXT STEPS

The household survey process is being repeated as part of the Step 6 social data collection process. The results of the Step 6 survey will then be compared with the results of the pre-site announcement baseline survey so that any discrepancies can be identified and accounted for in the assessment of potential social impacts.

Community vitality is only one of four community impact factors being examined in the assessment of potential social impacts of IWA's proposed landfill facilities. And social impacts are only one of more than a dozen categories of impacts being evaluated by the project planning team and provincial decision-makers. Nonetheless, community vitality is a critical factor at this stage of the site selection process when fundamental decisions are being made about which three landfill sites are the preferred ones. There will be impacts at whatever sites are selected and the IWA is committed to putting in place a comprehensive impact management program to mitigate as much as possible negative effects. The basic aim of impact assessment, however, is to prevent problems, not just mitigate them. Information on the relative capabilities of candidate communities to cope with potential problems will enable the IWA to meet this objective. Moreover, by taking into account the relative strengths of the candidate communities, the IWA will be able to fulfill another important objective which is to ensure that its siting decisions are equitable and do not make relatively disadvantaged communities worse off.

REFERENCES


LANDFILL SITING: HOW COUNTRY PEOPLE WON AGAINST THE CITY

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The issue of landfill siting is a contemporary problem because of the increasing production of waste and urban growth. As the amount of land available for waste disposal is decreasing, urban authorities are looking further afield for landfill disposal sites. When the environment is used to meet the needs of one group at the expense of another, this frequently leads to conflict between the two groups. This was what faced the Kopuku Action Committee in relation to the Auckland Regional Council's (ARC) landfill proposal at Kopuku Mine in the North Waikato region of Aotearoa (New Zealand). The Kopuku Action Committee formed to oppose the proposed landfill siting because the nature of the proposed landfill led to local people's fears about their health and well-being.

In Aotearoa, the amount of waste per person is considerably higher than many other countries (Jayne, 1989). For example, each person living in Auckland is estimated to generate between one quarter and one third of a tonne of refuse annually (Auckland Regional Council, 1989). The concept of landfills is still synonymous in many people's minds with "tips" and "rubbish dumps". Solid waste management and land disposal are controversial and volatile issues overseas, but the "politics of garbage" are only just beginning here (Bullard, 1983). Local authorities in Aotearoa still view landfills as a safe solution to waste disposal, but who wants to live next door to a potentially hazardous landfill site?

In 1987, the ARC decided on a 50 year strategy for waste disposal, with a renewed emphasis on the use of landfills as a waste disposal method. To fulfil this plan, the ARC narrowed down its options to four possible sites, with the Kopuku Mine being one of them. The community response to siting of landfills is usually translated by the authorities as "nimbyism" or the "not-in-my-backyard" syndrome (Freudenberg, 1984; Kemp, 1990). However, the nimby label may be simplistic: a convenient label used by those in authority to categorise public concerns (Freudenberg).

Landfill Proposal

The proposed landfill was to be sited in an open-cast coal mine owned by the New Zealand Dairy Group. The coal was primarily used for a coal-fired power station on the banks of the Waikato River at Meremere. The mine is adjacent to another coal mine and bounded on one side by the Whangamarino wetlands, home of many endangered species and protected under the international Ramsar Convention. The surrounding areas were dominated by three commercial activities: agriculture, mining and forestry. However, there have been severe reductions in the mining and forestry industries in recent years with the loss of a number of services and businesses from the area.
The mine site was attractive because of (a) its size and thirty plus year life; (b) its proximity to main road and rail transportation, both of which were to be used to transport the waste and leachate to and from Auckland; and (c) the isolated rural location, with a small population of approximately 1800. In addition, and maybe the most important consideration in these hard economic times, the site was viewed as the cheapest out of the sites, excluding one proposed at Weiti (Auckland Regional Council, 1989).

Kopuku Action Committee

A study of the effects of the landfill proposal and of participation on the Kopuku Action Committee members was carried out in 1991. The proposed siting of a landfill in a rural community to meet the needs of those in a large city was a situation ripe for conflict, because of the differing interpretations of the landfill proposal by those involved. The conflicting interpretations led to the coalition of local opposition in the form of the Kopuku Action Committee. The Committee of fourteen men and women held public meetings and used their own networks to get support and technical expertise. The Committee was an informal action group in its structure and operation. There was an inner core or clique including the chairperson, treasurer and secretary, plus a wider group of local people who regularly attended monthly meetings, raised funds, wrote letters and canvassed support. The Committee chose to work within the system, although there were those who advocated more radical tactics to get their message across, such as dumping cow manure at the ARC offices in Auckland or blocking a local bridge thereby delaying Auckland holiday-makers. These proposals were countered by the knowledge that the Committee funding come from a reactionary farming lobby, who would not approve of such tactics. The Committee had formed after an initial public meeting and the Committee members regarded themselves as representatives of community opinion. Fund-raising activities made enough money for them to employ a barrister at the planning hearings.

The Committee was characterised by strong, uncompromising leadership and there was a common belief among members that without the dedication and drive of the chairperson the Committee may not have been so successful. The chairperson was well known locally, because of his job which involved contact with the farming community which also enabled him to canvass many local people for support.

The proposal initially generated a groundswell of local opposition, which was aggravated by an ARC proposal to spray the leachate on local farmland and forestry, instead of transporting the total amount of leachate back to Auckland. Local people feared the consequences of this action on their health, and social and economic well-being.

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Sense of Control

By 1991, the Committee had been operating since 1989, and the ARC had still not made any decisions regarding the landfill siting. The Committee had wound down with the loss of momentum in planning proceedings. The Committee members were disempowered, because of their dependency on the ARC's decision about whether to proceed with the landfill and until that decision was made, members could not proceed with fund-raising to cover their legal costs in Planning Tribunal hearings. Sense of control emerged as crucial to the understanding of empowerment and powerlessness which fluctuated throughout the life of the Action Committee. Being involved in the Committee fostered that control, but the more recent inactivity, due to the ARC's indecision, rekindled feelings of powerlessness and a loss of control.

On the other hand, the formation of the Kopuku Action Committee gave the members a greater sense of collective efficacy, as they believed that their collective action had delayed the landfill, and the Committee's formation and activities had served to equalise the balance of power, which before had seemed to be tipped in the ARC's favour. By taking action, the Committee members assumed that they had a way to control what happened regarding the proposed landfill.

The Baffle

The adversarial nature of the quasi-judicial planning process generated a polarisation of both sides, so that the ARC became the enemy. The language used by Committee members reinforced that depersonalisation and polarisation, and their perceptions of the local and national authorities changed accordingly: the planning process became known as a battle between David and Goliath, "us and them".

Distrust and cynicism about local authorities developed as Committee members became further involved in the landfill planning process. Members no longer took things for granted and the suspicious way the ARC and other key players were perceived meant members relied more on their own sources for information, cross-checking any information that they did receive from the authorities. Despite invitations and letters giving the members information, the members disregarded that information to some extent, because they perceived the authorities as untrustworthy. The lack of community involvement in the initial planning, the leachate issue, statements in the media and other reports to the effect that the site was desirable because of the small population, and the delayed decision making, all served to devalue the Committee and the community's concerns by not acting on them.
Self Help and Consciousness Raising

Committee members used the Committee as both a self-help and consciousness raising group, though neither of these concepts would ever have been explicitly stated in the operations of the Committee. The Committee functioned as a self-help group, because members became more aware of other issues and their environment, and because members learnt more about waste and waste disposal from banding together, and pooling and increasing their knowledge. The wetlands came to be recognised for their unique qualities, whereas before many local people practically ignored the wetlands or "swamp" as they were known.

The support given by the Conservation Department to the proposed landfill and the Department's decision to close the small, local rubbish dump confused the local residents, who perceived that the Conservation Department was colluding with the Auckland Regional Council on the landfill proposal. The Department was not the only authority to be viewed with suspicion. The New Zealand Dairy Group, which owned the mine, was viewed as another example of a double dealing institution. The Group was perceived to be selling the local dairy farmers a raw deal: a money spinning landfill on one hand and, on the other, a landfill which could pollute their stock and ruin the dairying industry in the area.

Waste disposal in rural communities is especially difficult, because of the lack of facilities and the small, scattered population, and some members believed that the landfill issue had generated a changed farming attitude about chemical spraying and an increased number of community recycling facilities. Members took on a policing role and they became role models in regard to waste disposal, both within their families and in the wider community. Interestingly, the 40 year old mine which could be viewed as a major polluter and environmental threat was accepted because local people believed that they knew what was happening there. The proposed landfill seemed to contain too many uncertainties.

Political Literacy

The Committee became a reliable source of information for the community because of members' collective increased knowledge and skills, and the community's mistrust of the authorities. This then generated a degree of power. Learning about the landfill issue in its wider context and about the planning process involved was useful to the Committee members, who gained knowledge about the resource planning process. The members acquired a degree of political literacy and technical knowledge. This kind of literacy undermines the term of nimbyism, which has been used to label responses to environmental threats as pure self-interest and

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"environmental paranoia" by a public who cannot "understand" such complex problems (Freudenberg, 1984, p. 446).

The members were affected by their participation in the politico-legal system because they had to learn about the processes leading up to the hearings, the hearings themselves, and activities following the hearings. These effects were a loss of faith in the system and altered perceptions of the authorities and other institutions involved. Having a lawyer was a way of legitimating the Committee's argument and for them to become part of the system by facilitating their entry into the system. The Committee chairperson became a translator for the rest of the Committee and he acted as a mediator and buffer between the Committee and the politico-legal structures as other people did not have time to do all the reading. To some extent, the chairperson was a gatekeeper and because of his role and knowledge there was dependency on him.

Sense of Community and Social Support

The strong sense of community, which is usually associated with empowerment, was not especially evident in the findings of the study, perhaps because of recent changes in the Kopuku area with the closure of the forest mill and another coal mine, but also possibly due to changing social patterns and the lack of a focal point in the community. Interestingly, the longer term residents in the Kopuku area were less involved, even though they were perceived to be those with a greater financial investment in the area and more to lose. The Committee held three large public meetings in the area and this may have engendered a transient sense of community: transient in the sense that the issue lost momentum as time went on.

The notion of enhanced sense of community also related to social support. There was an expectation that the Committee would give members a strong feeling of social support, particularly since the setting was rural, although this did not turn out to be the case. Members said this was because the Committee work was very task oriented and they were too busy doing things to be worrying about developing friendships and strong bonds. Other factors may have been the diversity of those involved and the distance they lived from each other.

Powerlessness and Empowerment

The frustration and helplessness which led to Committee members' powerlessness resulted from the inequality of resources, the way the group themselves operated, stress and indecisiveness. There was a powerlessness created by a loss of control. The proposed landfill and then the issue of land-based leachate disposal effectively widened the net of those affected and this was helpful to garner more support but it
also moved the issue to a much broader and more diverse area. The formation of the Committee helped to overcome the sense of powerlessness because the Committee was a vehicle to effect change through social and political action, even though participating in the Committee was also stressful (Kieffer, 1984). As members gained knowledge, they gained confidence and power. Individual learning became a major source of collective power and this was also illustrated in the Love Canal situation, which some Committee members identified with strongly (Levine, 1982).

Committee Leadership

Even though the Committee leadership was exerted in a "power over" style, the common goal of the Committee overrode any negative feelings about the style of leadership, and individual members retained the belief that they could assert themselves if necessary. This belief may have helped them to retain their sense of control. There was no antagonism towards the chairperson for adopting such a style of leadership, although some members commented that the formation of a core group, a clique which enabled decisions to be made rapidly, was alienating. By doing something about the landfill proposal the Committee members were able to reduce the stress they experienced. However, the ARC indecision was stressful and an uncontrollable factor because it later became the ARC "calling the tune". The delay in decision making and the resulting stress was also experienced in the Love Canal situation (Valinsky, cited in Hess & Wandersman, 1985). For the chairperson, the experience was transforming, although he questioned whether the changes were necessarily for the better. Were the costs too high? He acknowledged though that his participation had given him status, respect, knowledge and recognition in the local community.

For four years since 1988, the Committee members were living with uncertainty, unable to make plans for their future and this sense of helplessness reflected in members' comments about the indecision. The Committee was forced into inactivity since late 1990 because they believed that there was nothing they could do until the ARC decided what was going to be done about Kopuku. Because the landfill proposal became a chronic stressor, and the Kopuku Action Committee became inactive, there was a danger that members would become accustomed to the proposed landfill.
Conflicting Cultures

The existence of two cultures, one technical and the other of a more practical nature is aptly demonstrated in the Kopuku Action Committee's involvement in the planning process. The failure to acknowledge that there will be different interpretations by the public and the expert is a major factor in resource conflict and miscommunication (Freudenberg, 1984). The expert or technical view of the landfill as controllable is one which reflects the predominant patriarchal worldview.

In the planning process in the example of the Kopuku Action Committee, local knowledge was disregarded and devalued because of the traditional idea that an expert has to be a professional. The local people believed that not lining the mine was foolhardy as the fault in the mine could lead to leachate contamination of their ground-water, which was used for stock drinking water. As well as this, the locals believed that the microclimate in the area with its heavy winter fogs was not taken into account when assessing the risks from the landfill gas.

While the planning process dragged on, the Committee members realised that they too could be experts, as the effect of the newly acquired knowledge was empowering. Personal growth has been closely associated with political activism (Kieffer, 1984; Edelstein & Wandersman, 1987) and those most closely involved in the Committee were individually empowered by the acquisition of new skills, knowledge and an enhanced self-confidence and efficacy.

If landfills continue to be used in Aotearoa as would appear to be the case, then the whole issue needs reappraisal. This study introduced the human element in order to draw attention to the complexities in landfill siting. Rather than trying to convince people of the merits of a waste disposal facility, planners need to provide residents with information, which they will understand, so that residents can then make their own decisions about the facility. Very early involvement in the planning process is also crucial. Even though there were attempts made to communicate with the rural residents, these contacts were not very meaningful and sometimes untimely, for example, flyers were sent during calving time and subsequently ignored. The rural community involvement was perceived to be a charade to many locals, as they saw that the agenda for the landfill had already been set. True, there was a certain anti-urban sentiment which was heightened as time went on and the differing perceptions of the rural and urban communities to the proposed landfill became more and more obvious. However, community consultation has to be started at an earlier stage and in this case, the local communities were asked for involvement after the proposals had been developed. For the local residents, their input was devalued and the power play between the key players inequitable and initially inaccessible.

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Conclusion

Since better waste recycling and reduction methods were introduced in Auckland, the need for such large scale landfills like the proposed one at Kopuku Mine have been reduced. One wonders why these methods were not introduced earlier in the planning process. It would seem that there was a tunnel vision associated with landfills as the one and only option in waste management. Subsequently, the delays in the planning processes associated with the varying proposed sites made it imperative to find alternative solutions and this meant that the requirement for the proposed landfill at Kopuku Mine was eventually withdrawn midway through 1992, four years after the initial proposal. The costs were high in terms of uncertainty and stress for the local, rural community and hundreds of thousands of dollars for the Auckland community.

REFERENCES


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THE COMMUNITY IMPACT OF CHRONIC ENVIRONMENTAL DISASTERS

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Traditionally, disasters have been defined in terms that emphasise catastrophic and sudden impact. For example, Fritz (1961) defined disaster as “an event, concentrated in time and space, in which a society, or a relatively self-sufficient subdivision of a society, undergoes severe danger and incurs such losses to its members and physical appurtenances that the social structure is disrupted and the fulfilment of all or some of the essential functions of the society is prevented. Skeet (1977) defined disaster as “an occurrence of such magnitude as to create a situation in which the normal patterns of life within a community are suddenly disrupted and people are plunged into a state of helplessness and suffering”. Accordingly, research on the impact of disasters on communities and their members has focused on suddenly occurring, large scale, catastrophic natural (e.g. floods, earthquakes) or technological (e.g. dam failure) events.

However, more recent interest in disaster classification (e.g. Berren, Santiago, Biegel & Timmons, 1989; Taylor, 1989) has increased awareness of the range of events that could fall under the generic heading of ‘disaster’. Consequently there has been increased acknowledgment of the fact that events which may exert their impact over a prolonged period and, consequently, significantly undermine individual, social and community well-being (e.g. pollution, unemployment, urban over-crowding, salinity) could be labelled disasters. Defining events in this way provides an opportunity to draw upon the information, lessons and interventions developed to deal with disasters to understand the impact of chronic events on communities and to frame solutions to manage chronic environmental problems.

Chronic environmental disasters can result in community members facing direct physical threat, for example from chemical or environmental pollution. In some cases the threat from such sources may appear suddenly. Even where an event may pose no direct physical threat (e.g. salinity), psychological and social well-being can be threatened because existing social and community structures may be disrupted or destroyed, and a sense of community could be replaced by one of conflict (Bolin, 1988; Sawtell and Bottomly, 1989). This conclusion has wider implications because it implies that community-based, rather than individual-based, solutions will be required to deal with these problems. Further, the chronic nature of these problems means that there can be no ‘quick-fix’ solutions. Interventions will have to be carefully managed over possibly lengthy periods of time, and those utilising community mobilisation will have to be sustained over long periods of time and under conditions of changing membership and interests. While they may provide a useful starting point, existing approaches to the management of disaster impact will
need to be developed from their essentially short-term focus to one which embraces the chronic nature of community environmental disasters.

This is not to say that chronic environmental problems and their impact have been ignored. Rather, chronic events and their consequences have been considered predominantly in a technological and/or economic light at the expense of considering social impacts and solutions (Sawtell and Bottomly, 1989). As the research in this area has grown it has become increasingly apparent that the successful management of disasters, whether they be acute or chronic, requires the synthesis of social, technological, political, and social strategies. But unless the nature of the social and community impact is understood and used to frame appropriate interventions, the success of other strategies will be muted.

Chronic environmental disasters will, for the foreseeable future at least, represent a significant threat to communities in many areas. While efforts directed at their prevention are important, interventions designed to meet the remedial and recovery needs of communities will be required to cater for their effects. Developing effective intervention strategies will require an understanding of the community dynamics of chronic environmental disaster, and the factors and issues that have to be considered in devising and implementing psychosocial interventions.

This paper will discuss issues drawn from the disaster literature and comment on their implications for understanding the social impact of chronic social, physical and environmental hazards on individuals and communities. The implications of these findings for promoting adaptation will also be discussed. The emphasis on adaptation is important. With chronic events the long term, and possibly permanent, period of impact means that intervention should function both to assist victims to adapt to their situation and in mobilising community action in a way that serves to focus it into an effective resource that provides community members with a sense of control over a problem.

Event Causes and Impact

A major determinant of the manner in which disaster impacts on individuals and communities depends on whether they are natural in origin or whether they could be defined as human-induced or technological in origin. Natural disasters are probably the easiest to define. Within this category would be earthquakes, floods, famine and other events that could generally be described as "acts of God". Human-induced and technological disasters (e.g. chemical pollution, dam failure) can be further sub-divided into those resulting from acts of "omission" or "commission" (Berren et al., 1989). Acts of omission tend to result not from acts of deliberate malevolence, but rather from such things as poor planning, attempts to save money,
or a lack of information about, or consideration of, the long term implications of a
course of action. Examples of this type of disaster would include a failure to take
adequate precautions in locating chemical or nuclear installations, overuse of
chemical fertilisers, and land clearance programs. Acts of commission, on the other
hand, are performed with the specific intent of inflicting harm on others. Examples
of this type of event would include acts of terrorism and sabotage. Most chronic
environmental disasters fall into the "acts of omission" category. While some may
express themselves as natural problems (e.g. salinity) the root cause (no pun
intended) can be attributed to ill-considered human actions such as land clearance.

Event type has an important bearing on individual and social impact (Berren et al.,
1989). While their impact, in terms of geographical destruction and actual or
potential loss of life, tends to be greater, the psychosocial impact of natural disasters
is relatively less pronounced, generally because they are perceived as unavoidable
"acts of God". Human-induced or technological events often generate a relatively
more substantial psychosocial impact because this class of event is perceived as
being more preventable. Perceived and attributed responsibility, and heightened
feelings of loss of control, increase impact potential and create a specific set of
problems that will have to be surmounted prior to the implementation of strategies
designed to directly manage the problem.

Becoming a victim of an act of omission could take several years to develop. People
and communities may only become aware of their victim status as a result of some
public report, inquiry, or event which focuses their attention on the fact that they
and their community are faced with a specific problem. Alternatively, a problem
may build up gradually over several years until it reaches a level where it begins to
threaten individual or community integrity (e.g chemical pollution, salinity).
Victims of acts of omission may thus not become aware of having attained this
status until well into the period of tangible event impact and they may retain their
victim status for a prolonged period. This would be particularly true for those
affected by problems stemming from environmental degradation, such as urban
overcrowding, water pollution or salinity, because they build up over long periods
and have extensive periods of impact. Consequently, the period of event impact and
the period of social impact may not coincide, contributing to problems with regard
to problem definition and acceptance. Chronic environmental events thus have
implications for both the assessment of community impact and for the planning and
delivery of interventions designed to deal with the problem.

The likelihood of community stressors being human-induced acts of omission will
create substantial psychosocial impact, generate anger at those seen as responsible,
and undermine the community's sense of control over environmental events. These
contextual issues would have to be tackled prior to developing and implementing
plans to deal with the environmental problem. The long term nature of the problem means that seeking a means for resolution or containment will require a synthesis of community and political action, and the availability of appropriate support and intervention strategies and resources.

The Distribution of Impact Amongst Victim Groups

An accurate assessment of the social impact of a disaster can be developed only after it has been acknowledged that the risk of developing psychosocial problems is not distributed evenly throughout a community. The relative composition of their membership can create significant differences between communities, resulting in difficulty in defining rural communities in any uniform manner, even where they face the same environmental problem. The nature and magnitude of the social impact of environmental disasters will require an audit of the proportions of risk groups within a community and that assessment be weighted to take account of the relative proportions of high risk groups within a community. In addition, a knowledge of the risk status of community members has implications for the nature of the intervention strategies that are developed. Intervention strategies should thus be contingent on the composition and risk status of community membership. Strategies will have to be tailored to cater for the often diverse needs of different risk groups. Defining victim and risk status and the manner in which it influences problem definition is an area that would benefit from more research.

Children represent a major high risk group. Although much is known about their reactions to acute disasters, less is known about their reactions to chronic environmental stressors. Children can be affected indirectly by the reactions of their parents (who may have been directly affected). Alternatively children can be affected directly through processes of attributing blame (e.g. with regard to their property being managed badly and thus "causing" a problem such as salinity). In isolated communities, the process of attributing blame in this way can create a "ripple effect" that heightens the victim status of many groups.

Older adults also constitute a special (high) risk group, especially with respect to emotional problems arising over a long period of time as a result of, for example, (progressive) loss of livelihood and future economic instability and uncertainty. Some of these problems only become evident some time after the event and the realisation of a reappraised future can take time to sink in. Occupational and social disruptions can create future problems (e.g. adapting to retirement), particularly if needs related to the event remain unresolved.

Socioeconomic factors can influence people's attitudes and reactions to stressful situations in a number of ways. In particular, they can have a pronounced impact on the readiness with which individuals will seek and accept help voluntarily for
emotional distress. Social and cultural differences, especially with respect to language, economic level and ethnicity can be important determinants of the nature, magnitude and duration of responses. Socially isolated groups can display sub-cultural patterns of attitudes and life patterns as a consequence of geographic isolation and dependence on a single occupational source (e.g. farming/mining communities). Language barriers may endanger individuals through, for example, inability or difficulty understanding information presented in an unfamiliar language. Differences in language and custom, if ignored, will lead to frustration and failure by those attempting to render services. Similar problems could interfere with a sub-group's ability to obtain or use resources. Cultural and ethnic beliefs and practices will influence how problems are defined and the sources from whom help and assistance is likely to be sought. Response strategies would have to cater for this variability (Tierney & Baisden, 1983). Further, recent immigration may leave individuals with no, or inadequate, family or social support. The impact of a traumatic event may also be heightened for this group by the fact that their employment status is likely to be less secure and they will be less knowledgeable about available sources of assistance. Information and advice for this group will require the channelling of outreach, advisory and support services, and assistance through local religious and cultural resources and representatives. Representatives of cultural groups should thus play a central role in the process of planning how to meet the needs of cultural groups. Demographic, social and cultural heterogeneity within a community must be taken into account in defining both the manner in which an event is likely to impact on the community and the strategies that are implemented to promote adaptation.

Community Impact and Community Action

Chronic environmental events create problems whose impact may persist for several years. It may take decades to rectify or contain environmental problems, and several more years may be required to restore a community to previous levels of social stability (Taylor, 1989). The most obvious starting point for determining community impact involves defining the nature and magnitude of the destruction or threat posed by an event. With chronic technological events, it is generally the economic magnitude of a disaster that triggers response. However, the use of such "objective" (and community wide) criteria provides few insights into the manner in which the event exerts its psychosocial impact on a community and its inhabitants. While economic factors will constitute an important element in determining the overall impact of an event, a focus on these factors to the exclusion of others will generate an incomplete picture which will provide an inadequate basis for comprehensive planning and the subsequent implementation of effective solutions.
While the actual threat may be discernible in certain physical or economic indices, the perceived threat is a subjective assessment of the risk faced by actual or potential victims. Further, their assessment of their situation may be unrealistic either because they do not recognise the threat or because they choose to deny the existence of a problem (Mileti, 1980; Sawtell and Bottomly, 1989). Integrated community-based response will be unlikely unless a problem is perceived and is recognised as such by all victims. At present there are few guidelines about how to generate this acceptance. One thing that is clear is that simply providing information does little to influence perception and action.

A sole focus on economic or technological approaches to addressing problems may generate additional social problems. Disaster research has highlighted the fact that catastrophic events stimulate a complex set of social processes into activity that can exacerbate pre-existing social and economic trends in affected communities (Bolin, 1988). Bolin continues by pointing out that the manner in which individuals, communities and formal agencies respond to disaster may constitute a significant source of psychosocial stress over and above that generated by the event itself. These response generated demands can prolong the period of impact and may generate psychosocial problems which are more pronounced and longer lasting than those emanating from the event (Quarantelli, 1985).

Response generated demands are triggered by, for example, decisions to evacuate, relocate, temporarily house, or provide aid. These demands would be particularly likely following, for example, floods and bushfires. Relocation or being housed in temporary accommodation can result in victims interacting more closely with local, state and federal bureaucracies whose decisions regarding local needs are frequently made from a point some distance (both physically and psychologically) from the event itself. The psychosocial impact of unfamiliar locations and aid provision which may be unsuited to the victims' real needs exacerbates psychosocial problems, disrupts access to support networks, and creates major obstacles to the process of adaptation (Milne 1977; 1979). Milne continues by saying that maintaining a sense of community and pre-existing support networks provides a "therapeutic community". The support provided from within a community assists members to confront the challenges they face and assists them in the task of coping with problems presented during the recovery phase. Social and political responses (e.g. relocation) that disrupt this support network, or access to it, increase the risk of victims experiencing psychosocial distress and/or prolonging the period of psychosocial impact. Consequently, planning must start from within the community, address its needs, and work outwards from there. There is a considerable body of literature on crisis intervention in smaller communities (Tierney and Baisden, 1983). This literature could provide a useful basis for the development of strategies to deal with chronic community stressors. However, care must be taken to ensure that the strategies are adapted to deal with community
stressors which may exert a detrimental influence over communities for prolonged periods.

Some chronic environmental disasters (e.g. those triggered by the dumping of chemical or toxic waste) could also result in the necessity for relocation and, consequently, generate some of the above problems. However, the role of this type of response with other types of events may be less obvious. Relocation may not be seen as an element in response to problems like salinity, but it could arise if families make a decision to move from an affected area. Pre-existing psychosocial problems (arising from exposure to an environmental stressor), loss of normal community support networks, and patterns of attribution of responsibility, will render the subsequent process of adaptation more difficult. The social response to such events should cater for this eventuality. This will require a detailed needs analysis to define problems and potential losses, and the provision of structured support tailored to cater for the specific needs of those affected in this way.

Understanding the social processes involved is particularly important in situations where action to eliminate or contain a situation will be necessitated over several years and which will involve a consensus response from community members. However, community support and cohesion may be worn down or disrupted by the impact of the chronic stressor. Environmental problems, such as salinity, exert an influence that may not be evenly distributed over a community. Some areas, and consequently properties, will be more seriously affected than others. For example, uneven distribution of impact will increase the role of factors such as attribution of blame in determining problem definition and responsibility for action. Community impact is also strongly influenced by the fact that the perceived impact of the problem is a highly subjective phenomenon and the existence of a problem may be denied (Sawtell and Bottomly, 1989). The uneven distribution of impact can generate additional problems. The greater the ratio of damaged to undamaged areas in a community, the greater the likelihood of community members experiencing negative psychosocial effects (Quarantelli, 1985). An uneven distribution of impact and effect, coupled with a tendency to deny the existence of a problem, increases the difficulty of generating community consensus to deal with the problem.

The net effect of these factors will be a disruption of the sense of community and of the networks that would normally exist to assist coping and adaptation. The chronic nature of problems such as salinity makes it all the more imperative that support networks are maintained and nurtured. Membership of formal support groups has been demonstrated to provide benefits. Sawtell and Bottomly (1989) observed a relationship between stress symptom intensity and membership of groups established to control salinity. Farmers who did not belong to such groups reported stress symptoms at a higher frequency. This suggests that intervention must
prioritize the maintenance or re-development of community support and cohesion. This is vital if the whole community is to be mobilised to tackle the problem and should precede other aspects of any remedial strategy, whether economic or psychosocial.

Psychosocial Intervention

As a starting point for planning systematic psychosocial intervention it seems logical to use existing models that have been developed to investigate the impact of environmental stressors on communities. One model which has been tested in community contexts (Bachrach and Zautra, 1985) has emphasised the role of three factors. These are:

1. **Self-efficacy** - individuals' appraisal of what they are capable of performing in a given situation,
2. **Sense of community** - feelings of belonging and attachment for the people and places where they live, and
3. **Coping style** - whether problem focused (i.e. strategies focus on doing something to deal with a problem) or emotion focused (i.e. strategies focus on suppressing or denying emotional reactions to an event).

In general, individuals' perception of efficacy and sense of community determine their appraisal of their community role in relation to the threat and how they respond. A greater sense of self-efficacy and sense of community and the use of a problem focused coping style promoted community involvement. A lack of efficacy and a low sense of community, coupled with the use of an emotion focused style, had a strong negative influence on community involvement.

If applied to chronic environmental problems such as salinity, the above conclusions serve to further emphasise earlier concerns. A sense of community is an important determinant of community involvement. However, the unequal distribution of impact may result in those who remain unaffected seeing no reason for them to act in order to deal with a (non-existent) problem. Alternatively they may see it as a problem that belongs to others. The net effect is community fragmentation. The fact that technological solutions may not take effect for several years would, in the absence of interventions to the contrary, heighten feelings of futility and reduce the sense of individual and community efficacy. Studies of disaster populations who perceive themselves as being unable to change what had happened tended to use emotion-focused coping (Bachrach and Zautra, 1985). Taken together, these findings support the inference that the social dynamics of an environmental problem create a situation where community involvement and, consequently, concerted action, is less likely.

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Conclusions

While considerable attention has been paid to the manner in which disasters exert an acute impact on communities, less attention has been paid to the chronic community stress. The disaster literature could play a significant role in developing understanding of the manner in which such chronic events affect individuals and communities and provide a basis for developing response strategies. However, differences between the events typically discussed within the disaster literature and the chronic environmental problems discussed here, with respect to their nature and temporal characteristics, suggest that caution should be exercised within this process. It may prove fruitful for community psychologists and disaster psychologists to develop closer links and work together to explore the implications of disaster research for understanding the dynamics of chronic community stressors and to develop appropriate and effective interventions to deal with chronic community stressors.

Irrespective of the hypothesised effectiveness of economic or technological interventions to deal with chronic environmental problems, implementation will be less effective because the psychosocial dynamics of the community under stress will act against effective implementation. It follows that the first stage of intervention must involve an analysis of the current levels of efficacy and sense of community and the prevailing coping style. Interventions to develop or enhance positive psychosocial elements will be a necessary precursor to implementing actions to manage community stressors.

The social impact of disasters is a function of a number of interacting elements. This paper has discussed a few of these. The cause of an event influences both its subjective impact and the response strategy. Careful consideration of the latter is particularly important when dealing with chronic environmental disasters. An accurate assessment of the social impact of disasters must also take account of the fact that psychosocial impact is likely to be unevenly spread throughout a community. Some groups are more at risk than others. This factor also has implications for the interventions that are implemented to manage the consequences. Clearly more research is needed in this area. For example, the development and testing of contingency models of chronic environmental disaster impact could be of considerable benefit both for understanding patterns of impact and for intervention planning and implementation.

The effective management or containment of chronic environmental problems requires the development and implementation of support services which integrate economic, technological, psychological and social strategies (Sawtell and Bottomly, 1989). The importance of such integration is supported by the observation that positive psychosocial recovery is correlated with the receipt of state and federal aid.
that is perceived by the victims as being adequate (Bolin, 1988). Perceived inadequacy or the inappropriateness of aid or support will serve to prolong psychosocial impact. Although an integrated solution is called for it would appear that the overall success of such an integrated strategy will be driven by understanding and catering for the psychosocial needs of victims. Until social awareness and understanding drives the process, the outcomes are likely to fall short of expectations.

REFERENCES


WATER PURIFICATION POLICY : PUBLIC RESPONSE TO CHLORAMINATION

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Ballarat University College

This article is based on the following study, carried out by the Conservation Behaviour Research Group and supported by the Ballarat Water Board.

BACKGROUND

As the natural resources upon which we depend for our existence come under greater threat of depletion or pollution, the development of resource use policy by governing bodies, such as Water Boards, is emerging as an important issue. The proposed chloramination of a regional urban drinking water supply highlights some important questions about the development and implementation of municipal resource use policy, particularly the relationship between the public utility governing Board, its designated experts, and the consumer community - and how this relationship can be fostered to maximise harmonious and responsible resource management.

Traditionally, public resource management authorities have had access to both consumer representations and technical expertise through their Boards. Three aspects of these Boards are open to question. Firstly, how adequate are these Boards as representatives of communities that are increasingly educated, articulate and diverse? Secondly, can reliance on scientific data and economic efficiency continue to be regarded as a sufficient basis for community acceptance of policy decisions? Finally, how can these Boards engage in (and be seen to engage in) the most effective communication with their consumers, both in gauging public opinion and in disseminating policy decisions and the rationale behind them?

The underlying question that is being addressed here is: how can the relationship between a Board and the community of consumers be configured to optimise policy development that is both judged by experts, and seen by consumers, as being in the best interests of the community? This question is at the basis of the moves for consultation with the consumer community about policy decisions, as exemplified in Melbourne Water's Water Resources Review which sought community responses to the problem of the disparity between the demand for, and supply of, water. This article intends to highlight some aspects of this issue through considering, albeit briefly, a series of decisions about water purification policy, and the public's response to this policy.

The Problem: Drinking Water Quality

A Water Board for a large regional city was faced with a serious threat to the purity of the water supply, deriving in large part from the proximity of housing development and farming activities to its catchment areas and storage dams. It should be pointed out that this region has a longstanding reputation for the purity and pleasantness of its water, in spite of a number of
reports indicating that its bacterial contamination levels exceeded minimum W.H.O. standards.

The Water Board addressed this problem in two ways. Firstly, by increasing zoning controls on building activities in the catchment area, it aimed to limit contamination of the water at the point of collection. At this stage some public disaffection was aroused among residents in the catchment area who did not want limitations placed on land and - by implication - community development. Secondly, the Board investigated methods of water purification that might better combine effectiveness, practicality, and palatability (in contrast to the current practice of chloramination).

A study commissioned to explore the scientific costs and benefits of various water purification techniques recommended the adoption of chloramination - the addition of small amounts of chloramines (chlorine and ammonia) to the drinking water. The benefits cited include the fact that chloramines were effective in reducing bacterial contamination to acceptable levels because they remained active in the water longer than chlorine. Secondly, because the amounts required are comparatively minute, the taste and smell of the water are not affected as with chlorine. The study cited the use of chloramines over the last five decades in various municipal water supplies both in Australia and overseas. The main problem with the use of chloramines cited in the study concerns situations where chloraminated water comes into direct contact with the blood supply, for example, with gill-breathing animals and dialysis patients. Special filters are available to render chloraminated water harmless in such cases. Further, the chloramines can be added to the water supply after it has entered the reticulation system so that aquatic life in the storage facilities is not affected.

The Solution: Introducing Chloramination

The Board concluded that chloramination was the most appropriate purification method for its situation. Public interaction with the Board at this stage occurred through the regional newspaper (which sparked an irregular debate in the Letters to the Editor column) and also a pilot chloramination program in a small outlying town. Residents in the town were invited to participate in the pilot program, informed about the chloramination process, and their questions and opinions were discussed. These residents generally responded positively to the consultation process. The pilot project was judged a success and a timetable for the introduction of chloramination into the main supply was set up.

The Board adopted a public information strategy to prepare consumers for the change in the water supply. This consisted of further newspaper articles (including the Letters column), an information brochure sent to ratepayers with water rates, and a television advertisement was screened during the Barcelona Olympics.
Measuring community response

The impact of this public information strategy was assessed through a postal survey using an instrument developed in consultation with Board personnel. The Chloramination Survey consisted of five sections:

1. Knowledge about chloramination
2. The impact of the Board's information strategy
3. Attitudes towards chloramination
4. Opinion about the service provided by the Water Board
5. Demographic data (gender, residential area).

The subjects were obtained from three sources:

1. A random sample of ratepayer rolls
2. A random sample of the telephone directory
3. Participants from a water conservation study.

In all, 500 surveys were sent out addressed to 'The Householder' with Reply Paid envelopes. Of these, 114 were returned in time for analysis (a response rate of 23%). While acceptable, the response rate was lower than expected, so the returns were checked for demographic bias. However, in terms of both residential area and gender, the distribution was remarkably even and judged to be adequately representative of the community.

RESULTS

Knowledge about chloramination

The results of the survey revealed that, in spite of the public information strategy, the community knew very little about chloramination. Of the three knowledge items, almost half of the subjects did not obtain any correct answers, while one third correctly answered only one question (see Table One). Most respondents could not distinguish between chloramination and chlorination. Others believed that the Water Board was planning to chlorinate their water (obviously not realising that they were already drinking chlorinated water). Others raised questions about dental health, possibly confusing it with fluoridation. Just over half of the respondents expressed the belief that the water supply was adequately pure (including 21.9% who believed it to be the purest in the State). Finally, there were no significant differences in responses between males and females, or subjects residing in different regions of the city.
The particular nature of the subjects' knowledge is further revealed in an open-ended section at the end of the survey. Here, a majority of subjects (81.3%) expressed a desire to know more about chloramination, raising many questions, particularly about aspects of public health - for example, its effect on allergies, arthritis, ulcers, and cancer. Others questioned whether the Water Board had thoroughly researched all alternatives. Questions were also raised about the cost and ethics of its implementation, and its effect on water taste and smell. A number of respondents expressed resentment that the water they believed had always been of good quality was being tampered with, and there were several who presented very well-prepared arguments against the process.

These questions and comments indicated a number of things. Firstly, that apart from a small, well-informed and articulate group of subjects, most respondents knew very little about chloramination, including aspects of it that were specifically targeted in the public information strategy (for example, water taste and smell). Furthermore, this lack of knowledge extended to the current state of the water supply (that it is below standard) and thirdly, many subjects clearly knew little about effective means of water purification techniques (for example, by suggesting the use of water filters).

This low level of knowledge about the process of chloramination was accompanied by a broad array of concerns centring around the health of the public, of domestic pets (including snakes), and of water life in areas influenced by run-off and drainage. Thus, while the effectiveness of chloramination in decontaminating water was not questioned, many general and specific concerns were expressed about its side-effects, indicating a wariness in the community possibly based on the understanding that many of today's environmental problems have resulted from a focus on the benefits of a process rather than its unintended costs.

<table>
<thead>
<tr>
<th>Scores on Knowledge subscale</th>
<th>Percent (N=114)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>40.7</td>
</tr>
<tr>
<td>1</td>
<td>32.7</td>
</tr>
<tr>
<td>2</td>
<td>17.7</td>
</tr>
<tr>
<td>3</td>
<td>8.8</td>
</tr>
</tbody>
</table>
The impact of the public information strategy

The responses to this section of the survey indicated that less than half of the subjects recalled having seen any one of the kinds of publicity sent out by the Board (see Tables 2 and 3). The brochures were the most frequently recalled. However, the newspaper articles and letters were reported as having had most effect on informing subjects about chloramination and inducing a more positive attitude towards it. In fact, for all sources of information, most subjects stated that their attitudes had not changed as a result of exposure to them or that their attitude had become more unfavourable. Once again, no gender or location differences were found in responses, except that respondents living to the north of the city were significantly more likely to recall having seen the Board’s information brochures.

Table 2
Per cent responses to publicity strategy

<table>
<thead>
<tr>
<th>Source</th>
<th>Publicity recalled</th>
</tr>
</thead>
<tbody>
<tr>
<td>News articles</td>
<td>30.7</td>
</tr>
<tr>
<td>Brochures</td>
<td>36.8</td>
</tr>
<tr>
<td>T.V. Ads</td>
<td>22.8</td>
</tr>
</tbody>
</table>

Table 3
Responses of those who had recalled publicity

<table>
<thead>
<tr>
<th></th>
<th>News articles</th>
<th>Brochures</th>
<th>TV Ads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understood it</td>
<td>60.0</td>
<td>79.4</td>
<td>79.4</td>
</tr>
<tr>
<td>Learned something</td>
<td>65.8</td>
<td>85.5</td>
<td>69.3</td>
</tr>
<tr>
<td>Attitude more positive</td>
<td>22.8</td>
<td>28.8</td>
<td>15.3</td>
</tr>
</tbody>
</table>

Attitudes to chloramination

In this section of the survey, subjects rated their agreement with 20 statements on a five point scale (from Strongly Disagree through Unsure to Strongly Agree). Total scores on
this scale provided an indication of the overall attitude to the chloramination process. Table 4 clearly shows the uncertainty of half of the subjects. Further, it reveals that the positive attitudes are, overall, weaker than the negative attitudes.

Thus the lack of knowledge and low level of recall of publicity about chloramination are, understandably, reflected in a prevailing uncertainty in attitudes towards its introduction. Many subjects are unsure about whether it is a safe process, both in terms of public health (40.7%) and its environmental effects (58.4%), as well as whether it has been adequately researched (55.8%), and whether it will affect water taste and smell (66.4%).

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Negative</td>
<td>8.7</td>
</tr>
<tr>
<td>Negative</td>
<td>9.6</td>
</tr>
<tr>
<td>Quite Negative</td>
<td>10.5</td>
</tr>
<tr>
<td>Unsure</td>
<td>48.2</td>
</tr>
<tr>
<td>Quite Positive</td>
<td>16.7</td>
</tr>
<tr>
<td>Positive</td>
<td>4.4</td>
</tr>
<tr>
<td>Very Positive</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Table 4
Overall attitude towards chloramination

To further complicate the picture, 58.6% of respondents agreed with the statement that the drinking water was already pure enough, and yet 48.9% agreed that the Water Board was being responsible in introducing chloramination, while 42% agreed with a statement expressing concern about possible health risks resulting from chloramination.

In summary then, while generalisations can be made about the overall attitude to chloramination, (about 20 per cent positive, 30 per cent negative, and 50 per cent uncertain), it is clear that the community response is complex. Thus the Board’s assumptions about the acceptability of chlorination based on the belief in the public’s reliance on their capacity for judicious policy development and on the success of the pilot program may not be entirely justifiable.

Further indications of this are provided by an examination of the relationship between knowledge and attitudes regarding chloramination. Those who recalled having seen the chloramination publicity were significantly more knowledgeable about it. However, these subjects’ attitudes towards chloramination were significantly more negative than those who did not recall having seen the publicity. Speculation about this relationship between a high level of knowledge about chloramination, a high level of recall of publicity, and a negative attitude towards it must include a simple causative relationship where the more one knows
about chloramination, the less one approves of it. On the other hand, one must also consider the possibility that these subjects (assuming that they are representative) were already wary about environmental changes such as chloramination, and that they were thus sensitised to further information that would confirm their initial suspicions.

Opinion of the Water Board

The responses to this section of the survey were predominantly positive, with the majority of subjects rating the services provided by the Board as being excellent or satisfactory (see Table 5). Comments offered in this section varied from the general to the specific, but none related to water purification as such. A small group of subjects (7%) complained about the "high-handed" and "authoritarian" nature of the Board, the lack of public consultation in decision-making, and the lack of information that it provided about water costing and treatment.

Table 5
Opinions of the Water Board (%)

<table>
<thead>
<tr>
<th></th>
<th>Service Quality</th>
<th>Customer Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>24.6</td>
<td>23.7</td>
</tr>
<tr>
<td>Satisf.</td>
<td>62.3</td>
<td>54.4</td>
</tr>
<tr>
<td>Unsatisf.</td>
<td>7.9</td>
<td>9.6</td>
</tr>
<tr>
<td>No opinion</td>
<td>5.3</td>
<td>12.3</td>
</tr>
</tbody>
</table>

Summary of results

1. Low level of public knowledge about chloramination.
2. Strong desire for further information.
3. Belief that the drinking water quality is acceptable.
4. General and specific concerns about chloramination, with regard to health and the waterways.
5. Low level of recall of chloramination publicity.
6. Uncertain attitude to chloramination, with a tendency towards the negative.
7. Recall of chloramination publicity associated with higher level of knowledge and more negative attitude.
8. Generally positive evaluation of the Board's services.
IMPLICATIONS FOR POLICY DEVELOPMENT AND IMPLEMENTATION

This small study has rendered findings suggesting that the community response to water policy decisions is complex, and that the process of providing information about those decisions is not necessarily adequate as a basis for their acceptance in the community. Indirectly, it begs the question as to whether public utility governing bodies can rely on the public's faith in their authoritativeness as policy makers in developing and implementing policy.

There are three areas of discussion deriving from this study that reflect aspects of this broader question: the effectiveness of the Board's communication with the consumer community, the community's opinion about policy decision-making processes, and finally, the complexity of the role of the Board as a responsible authority on the one hand, and as a representative of community values and beliefs on the other.

Firstly, then, with regard to the Board's public information strategy: the main findings of this community survey are the prevailing lack of knowledge about chloramination, uncertainty about the wisdom of its introduction, and the desire for a wider airing of the issue. The possibility that the low level of knowledge about chloramination in the survey is indicative of apathy rather than inadequate communication is mitigated by the predominance of the requests for further knowledge and expressions of concern about its effects. Rather, the findings suggest two things: firstly that the public information strategy adopted by the Board was not effective in community knowledge about chloramination to consumers. Secondly, the Board cannot assume that a publicity campaign based on providing knowledge will influence attitudes in a simple way. This supports findings in previous studies of water use behaviour (Watson, Moore and Murphy, 1989; Watson, Murphy and Moore, 1991) in which knowledge about, and attitudes towards, water conservation were not significantly related.

It is also worth noting that newspapers appear to have been the most effective means of communicating with this regional urban community in comparison with the more costly brochures and television advertisements. This reiterates the finding by Watson, Murphy, and Moore (1991) that newspapers were the most important source of information about water conservation. It is likely that this predominance of the print medium is a reflection of the way regional communities function, in that the local newspaper is seen as an important source of community events and is thus widely patronised.

However, it is of particular interest in that information in newspapers is set in a context of a wide variety of other information, while brochures and advertisements are topic-specific. Furthermore, the information reported by a journalist may be seen as more impartial (and more believable) than advertising or publicity material which may be seen as motivated by vested interests and thus less trustworthy.
The second general area of discussion concerns the community's opinion about decision-making processes. A number of aspects of the findings suggest that the community would prefer a greater amount of information and consultation prior to policy development, rather than being informed after the event. This may be why the participants in the pilot program were more positive than the respondents to this survey. The former were involved in ongoing consultation as a small community throughout the program. While the Board endeavoured to inform water consumers of its policy, was always open to public interaction, and consulted regularly with a group of volunteer ratepayers, this does not offer the same opportunity for widespread public ownership of the policy that the pilot program did. The latter's success suggests that such consultation would have the dual effect of informing consumers in an effective way about the issue at hand as well as increasing the likelihood of cooperative interaction between the Water Board and its consumers.

The very positive assessment of the Water Board's services and customer relations suggests that the uncertainty and suspicion about chloramination is not based on a conspiracy theory about the high handedness of the Board, but rather on a genuine lack of familiarity with the issue and a certain feeling of helplessness within the community. The various comments in the survey responses requesting more information and consultation suggest that the consumers would like both to be more informed about resource management practices as well as to inform the Board about their opinions on the issues at hand.

Finally, the role of the Board vis-a-vis the community is undoubtedly increasingly complex. On the one hand, it is charged with the responsibility for making a decision about water purification, and on the other hand, it is faced with a diverse, articulate, and concerned community. By and large, the community appears to believe in the good intentions of the Board, but it would like to understand more of the issues and decisions concerning the water that it consumes. Thus the process of policy development seems to be straightforward in comparison with successful policy implementation. One problem with the latter is the clash of priorities and the effect of hidden agendas. For example, to what extent are objections to water policy decisions motivated by other factors (such as community development or land values) and to what extent does being a member of the Board, and thus loyalty to it, override the responsibility to represent community opinion (with its diverse values and priorities)? Finally, what is the balance between the Board's role in initiating the provision of information, and simply being responsive to community enquires?

In conclusion, then, this study has measured the response of a particular community to a specific water purification policy. In doing so, it has thrown light on some general issues about municipal water policy development, indicating that the consumer community is concerned, even sceptical, about changes to water provision that may affect public and environmental health. It also indicates a variation in the effectiveness of communication methods with the public, and that a simple relationship between knowledge and attitudes cannot be assumed. The potential ambiguity of the role of water authorities as community representatives and as responsible experts is further complicated by the community's desire...
for more consultation about issues prior to decision-making. As a parthian shot, it is suggested here that some of these anomalies may be overcome by viewing community diversity as a positive, healthy quality; by seeing the airing of issues for discussion as beneficial, even cathartic, rather than as opening a Pandora’s Box; and, finally, by seeking to interact with the community on policy matters rather than just to inform it.

REFERENCES


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Psychologists for the Prevention of War
Peace Research Project Grant

The grant is made annually to assist a student enrolled in a fourth year psychology program and who is carrying out an empirical project on a peace topic.

The award is for a minimum of $300. If there is sufficient merit, more than one grant may be awarded, depending upon funding.

Information about the grants can be obtained from Dr. John Davidson, Co-ordinator for the Peace Research Project Grant, Department of Psychology, University of Tasmania, GPO Box 252C, Hobart, 7001.

Entries must be lodged by April 10th.
A TASTE OF A COMMUNITY PSYCHOLOGY CONFERENCE: A STUDENT'S REPORT ON THE 4TH BIENNIAL CONFERENCE ON COMMUNITY RESEARCH AND ACTION

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The 4th Biennial conference by the Society for Community Research and Action, was held at the College of William and Mary in Williamsburg, Virginia (USA). Prior to leaving Australia to attend the conference, my expectations of the conference were quite unfocussed. What I anticipated was, to an extent, guided by what community psychologists do in Australia and also my reading and impressions of community psychology as a progressive action oriented discipline. In particular, themes surrounding indigenous cultures, the role of community psychologists as agents of social change, and my own interests in ethnic and racial minorities and sense of community influenced my anticipations for the conference. Naturally, I looked forward to seeing and meeting some of the well-known people of the discipline and to interact with others who had similar orientations. It also provided an update on theoretical and applied activity being pursued and it stimulated some interest in new areas. To an extent most of my expectations were met in various ways and in different settings.

The conference started with an international poster session which highlighted the global reach of community psychology. There were presentations from more than 12 countries (e.g., Argentina, Australia, Canada, China, Germany, Mexico, Scotland). These presentations highlighted the various personalities of community psychology, its applications and its underpinning values.

Tom Wolff (Director of Community Development, Massachusetts Area Health Education Center) delivered one of the invited addresses titled "Working with communities". He spoke of his experiences and orientations in his work as a community psychologist. Perhaps the most commanding aspect of his address was his commitment to action and his emphasis on the notion that people have the power to mobilise things. "I am an applied community psychologist" was the phrase he used to perhaps promote an atmosphere of activism and demonstrate the position community psychologists occupy. This message and the energy with which the speaker delivered it set the tone for the conference.

Certain aspects of the conference were more appealing than others. I felt that the informal nature of the poster session, the social events, and informal talks facilitated the meeting of international and local participants. These allowed me (as a student) to get an insight into some of the less obvious realities of community psychology politics. More important for me was the opportunity to establish networks with students, academics and practitioners. These network's provided me with some sense of reassurance about community psychology and its applications.
Perceptions of the Williamsburg Conference

On a slightly different note, these informal occasions made me realise how isolated I was in terms of my racial background, my research interest and my support networks. The great benefit, however, was that I could establish permanent links with other people of colour with whom I can have a continuing dialogue. In a personal conversation, Bob Newbrough emphasised the important role such supportive networks have in the process of discovery. These networks can now serve as a context within which I can validate some of my views and experiences as a black South African community psychology student.

As the conference progressed I felt that the international flavour I had expected, perhaps one of cultural diversity, was under-represented. I was especially looking forward to sessions concerning issues of culture, racism, and ethnicity. Specifically, I was interested in the role of community psychology in addressing social inequities and disempowerment in relation to race relations. But, as it seemed, there was an imbalance between the amount of work involving research and that focussing on action, especially with regards to social change and minority groups.

However, this did not detract from the value of the conference and, as I mentioned, some of my expectations were met in different ways. At this point it is worth mentioning an observation about the participation of minorities. There were few African-American presenters and only one native American presenter. This was perhaps not unusual, but interesting, because it was obvious that those who do research on ethnic and racial minorities, are usually not from ethnic or racial minorities. For me this highlighted some of the issues of doing research in culturally different settings. In particular, questions about background assumptions and values that investigators bring to the research and how these impact on the groups involved.

Doug Perkins (University of Utah), Marc Zimmerman (University of Michigan), Ken Maton (University of Maryland) and Thom Moore (University of Illinois), presented papers in a session titled "Empowerment theory, research and policy". In this session the notion of cultural relativity was echoed by Rappaport (who was a discussant) when he suggested that social scientists are in a position to create and validate people's world views and should aim to define reality from the perspective of the people we try to empower (cultural relativity).

A number of elements prefaced this statement and reinforced the idea of cultural relativity. Firstly it was suggested that empowerment is context specific and consequently, when addressing empowerment, you need to consider the implications of the situation. Secondly, empowerment involves multiple levels of analysis, therefore these levels will require one to address empowerment in terms of multiple variables. And thirdly there was a recurrent theme which highlighted
the value and importance of background qualitative information in relation to the skills and knowledge the practitioner brings to the setting.

As a black person from South Africa a symposium titled "Understanding and overcoming oppression: The political sphere of primary prevention" was more in line with what I hoped for. Several issues were discussed, ranging from how psychologists deal with indigenous groups and minorities to the need to recognise the potential contributions of African American spiritual and religious movements to community psychology. Each presentation contributed something significant to how I perceive and interpret my research and to my orientations.

The first speaker was Pamela Johnson from Wilfred Laurier University. She is an indigenous North American and raised issues regarding oppression and how this relates to native people. Among other things, she suggested that the way in which dominant groups deal with oppressed groups and the concepts used to describe and deal with the accompanying experiences of oppression often do not capture the meaning associated with the experiences of the oppressed. It was also stressed that experiences associated with colonialism and oppression have shattered the world views of many indigenous groups and this reality is often reflected in various manifestations of identity and how groups cope with their environment. Furthermore, through the transmission of cultural knowledge by means of stories and myths, world views and grief is passed on from one generation to another. This obviously impinged on the way these groups live in a white dominated world, and it was emphasised during this talk that perhaps we should address the way in which the white world coexist with oppressed groups. This symposium also highlighted the notion that one needs to understand the culture with which you are dealing, and respond with the appropriate levels of sensitivity required.

Rod Watts (DePaul University) spoke about using consciousness raising (or education for critical consciousness) as a means to counter oppression. This process involves sociopolitical education, a process which can facilitate empowerment and create an awareness about the various disempowering ideologies and forces which impinge on one’s life. Accordingly, it was mentioned that the process of consciousness raising can facilitate and create new avenues for social change.

An important component of this presentation was the use of creative, multiple and context specific methodologies (especially in settings which prevent or do not facilitate the rigour of scientific methods). This illustrated community psychology's commitment to the use of various modes of data collection and analyses. It also highlights the implications of the social context in planning and developing interventions. This particular intervention further demonstrated the
translation of oppressive ideologies into action, that is, awareness building to facilitate empowerment and action.

It was mentioned that community psychologists have recognised the role of liberation theology in the struggles of the oppressed in Latin America. However, Randolph Potts (DePaul University) suggested that the role of spirituality and religion in the struggles of the oppressed in the USA has not been recognised entirely. Some of the obstacles which have inhibited the exchange of ideas between community psychology and spiritual movements of oppressed groups were highlighted. Nevertheless, he argued that community psychology should go beyond disciplinary boundaries in order to bring the voices of oppressed groups into the discipline. This idea can be extended to incorporate other empowering movements and the potential contributions such movements can make to community psychology. This also alludes to the benefits associated with interdisciplinary collaboration and the importance of exploiting and building on the strengths of community level movements and groups.

These symposia, and the informal networking, provided some of the highlights for me and stirred a lot of personal feelings and experiences. As a student of psychology this learning experience has contributed to both my personal and professional growth. Upon reflection I can identify the changes that I have undergone as a result of this novel experience.
I'M NOT ANY KIND OF _______ AMERICAN!

Adrian Fisher
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In attending the 4th Biennial Conference of Div. 27, APS, I was looking forward to all types of things and, on reflection, I think that most of these were well met. I was looking forward to meeting old friends and making new ones, of hearing what was happening in the field, what activities people were up to, what theories are driving their work, and gathering information on new ideas for teaching. The 3rd Biennial in Tempe provided me with an opportunity to do some of these (even though I did my graduate study in the USA).

Most importantly to me, I was looking forward to the formal inclusion of international sessions in the program. These were developed comments and representations made by international participants at Tempe, and many messages on the email to anyone whose address fell into the wrong hands. (I would like to give a special acknowledgment and thanks to Fabricio Balcazar for organizing the international offerings, and to the Organizing Committee for their work on this.)

From this perspective, the Conference worked very well for me. There was the poster session, 3 symposia, and the keynote address by Maritza Montero, all of which focused on themes of Community Psychology education and training, practice, and philosophies around the world.

Maritza's speech on Community Psychology in North and South America was for many a major highlight of the Conference. It placed the practice and ideals of Community Psychology in both a professional and a political context. In this way illustrating both the underlying ideals as well as the necessary adaptations and permutations in the local action.

For those of us who had travelled many thousands of miles, and many hours in the air, this was a welcome inclusion into the activities of the Society. It is important for us that our work in Community Psychology is recognized and that people may actually learn from what is occurring in other parts of the world. This also helps our push for the international membership to be recognized in a more formal way within the structure of the Society as a vibrant, active, but different set of Community Psychologists. In addition, it can serve to provide a support network somewhat independent of our various ties with Community Psychology in the USA.
This theme of support networks is a key to the success and value people place on the Biennials. They provide a forum like no other in which the like minded can gather and share their ideas, successes, and learn from each other. It is still one of the most open of meetings available. This still occurred to some extent at Williamsburg (I even met someone I had studied with 10 years before in Australia). However, there were some limitations to its success.

To me, the locations did not really facilitate the informal contacts as much as had happened at Tempe and the future site selection processes should keep this in mind. The spread of meeting rooms and dorms reduced quite a bit the chances for bumping into people. The first while was spent trying to find rooms, or work out how long it would take to get from one place to the next. A compact site with a central meeting area would be far more desirable, to my mind. (Perhaps the basketball play-offs should also be considered to make sure people have a focus on the conference.)

Other aspects of the Biennial were also of great interest and use to me. I attended part of the Directors of Community Programs workshop to look at issues of education and training. These sessions are useful to reaffirm what we are doing in our own way, and to warn us against some of the opposition that can arise from our colleagues. We are, in Australia, perhaps in a stronger position as we have had for many years strong government supported Community Health and Community Mental Health sectors with which Community Psychology is most congruent.

The opening address by Tom Wolff was also a speech of importance. It provided people with a charge that there really are things that we can do as applied psychologists which have significant real world impacts on the lives of members of our communities. "Please repeat: 'I am an applied Community Psychologist'." That his session was the impetus for the start of a men's group, to discuss issues in our relationships with women and domestic violence, is a sign of what can come from becoming aware of the power people hold to bring about change through their own actions.

There were other sessions devoted to empowerment theory which I found important. I know there were some grumbles about the "non-applied" nature of some of the work reported. Too bad! A discipline that does not have a theory base is a discipline in trouble. We have recognized the need for application in and of our work, but we must have a base on which to sustain this. If we look at issues of accreditation and identification with the discipline, we should also look at what are the distinctive areas of theory we develop and can then put into action? These have to be the features that identify us as a field that are made obvious to all.
Not that it was all roses and there were a few challenges to held positions. I had a major negative experience just as the conference was getting under way (I had even forgiven by then the 3 am phone call I received in Melbourne) when I read the first couple of questions on the evaluation sheet, the day before the conference. The first question was the general kind, I even forget what. It was probably gender or type of work/study.

The next one I read gave me a lot of trouble. It asked me my race or ethnicity and proceeded to list all types of "___ Americans", and then "Other__". Having looked forward to an internationalisation of SCRA and the Biennial, I really could not deal with it. I wrote on the form that I thought it was the trick question for cultural diversity and relativism. Perhaps my response was a little extreme, but others I spoke to, from various countries, also objected to that question. I started this piece by saying I looked forward to a process of inclusion for international participants, and immediately felt excluded by this question.

Despite these last comments, and after taking time to reflect, I must say my thoughts of the Biennial are basically positive. The chance to take part in such meetings, to see old friends and to meet new ones cannot be surpassed. That one's views and positions are challenged is a healthy sign for the discipline.

I would like to express my congratulations to the site committee, particularly to Joe Galano and his band of assistants for the work they put in to develop the conference and all that they did to have it run so smoothly.
Information for Authors

Network is published quarterly (April, August and December). Contributors should submit their manuscripts to the editor no later than one month prior to publication date. Manuscripts should be typed or submitted on a computer disk using any standard DOS or Mac word processing Word or WordPerfect are preferred packages. Manuscripts should be sent photo ready. The format to be used is the general style described in the Publication Manual of the American Psychological Association (3rd ed., 1983) except that spelling should conform to the Shorter Oxford Dictionary.

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