LETTERS TO THE EDITOR

Public health medicine and primary care

Sir—Professor Bhopal's editorial on the relationship between public health and general practice is important, and was a valuable review of the scene. It is not quite clear, however, that general practice necessarily wishes to be called primary health care and indeed in terms of the original WHO definition this would include sanitation, clean water, the built environment, and some hospital secondary care departments such as accident and emergency and genito-urinary medicine.

He makes the important point that "ultimately health care and health are the same" and this certainly needs to be restated. Professor Bhopal raises a difficult issue in writing that a public health doctor may find it "more practical to work with managers and administrators, and general practitioners' representatives rather than joining with general practices in solving their 'coal-face' problems". But these are the actual problems that patients face, and remaining distant from them runs the danger of diminishing the public health doctors' understanding and ability to be effective. In my recent Harben lecture, I tried to demonstrate some of the possibilities. According to Professor Bhopal, "inequalities have been a major concern of public health doctors but not of the general practitioner . . .", and here I must strongly disagree. There is simply no substitute for understanding inequalities experienced by patients through direct face to face contact, both day and night, with those who suffer them. The best way of obtaining real understanding is by repeatedly visiting their homes and listening to them face to face. It is a long tradition of general practitioners to care first hand for the underprivileged. It is simply not true that "health inequalities have been a major concern of public health doctors but not of the general practitioner".

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Getting to GRIP with a problem

Sir—We read your recent editorial on getting research into practice with interest.1 We would like to share some of our experiences in a related field.

About three years ago, a chance remark by a new trainee in public health about doctors leaving medicine was related to the postgraduate board of medical and dental education. Other similar anecdotes came to light. The question, "Is there a problem and what effect might it have on medical care?" was asked. The trainee was encouraged to speak to the postgraduate dean and to seek funding for a small project. A research fellow was appointed and the study began. Further funding was obtained to study another group. Results came through suggesting that there was indeed a large problem. A feasibility study looking at the potential for providing a service was undertaken. Presentations were made at numerous conferences and seminars. A network of individuals with similar interests was created. A booklet dealing with the issue was distributed and later published.2 Funding for the service was agreed just 18 months after the original remark, although it took another nine months to start it up. A follow up study was arranged, plus a considerably expanded version of the original study. The service began. A course requested by the respondents of the original survey was organised. Dissemination of the results of the first survey, to anyone with an interest or contribution to make in the area began. The service started to receive referrals from other interested parties. A further piece of work was suggested with a view to expanding the service to accommodate the other parties. Finally, three years after that chance remark, a paper was published.

This describes the history of a project looking at stress in doctors, the setting up of a counselling service to manage the problem, the production of a book to help individuals manage their stress better, a course to help medical students, a mountain of work, and finally "the gold standard", a peer reviewed paper. It may not be about creating a change in mainstream medical practice, but it is about doctors learning to admit that they may have a problem, and learning to do something about it. The outcomes? A ton of paper, sore feet, and a hoarse voice. The buying of hundreds of books, the training of medical students, the admission by doctors that they have a problem, the learning to seek help, and perhaps (and less easy to measure) better patient care and one less breakdown or suicide in the profession. Should GRIP nor be about these things?

Our lessons?

• Catch the crest of a wave — when a topic is of interest make use of it.

• Have a champion — a figure head who believes in the work and will shout about it.

• Have a driver or two — people who will do the work necessary to support the champion.

• Demonstrate the importance of the topic with solid research.

• Point out the benefits to the organisation and individual.

• Talk to someone — speak at conferences, share work with like minded people, network, and share lessons through the grapevine. Don't be afraid to write to people offering information. Most people welcome it.

• Worry about getting the papers published later — do the change management first.

• Think about your audience and publish in the appropriate place — and if it scores 0 in the university funding exercise, so be it.

Perhaps it is time to look at the marketing. After all, look at what Anne Diamond did for the Back to sleep campaign — if that isn't Getting Research into Practice, what is?

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Emotional reactions and colposcopy

Sir—In their recent paper Gath et al observed that further investigation by colposcopy after an abnormal cervical smear is generally associated with increased levels of anxiety and depression. This finding may be relevant to
the debate on whether women with minor cytological abnormalities (squamosa atypia or koilocytosis) should be immediately assessed by colposcopy or should be followed up by repeat colposcopy. Although colposcopy is certainly more sensitive than cytology, its prompt and extensive use in assessing women with abnormal smears has been questioned because it may have negative psychological effects.1,2

Within a prospective study (European Community ESC 93-102330) that compared the diagnostic accuracy of six months' cyto logical surveillance to immediate colposcopic assessment in women with minor histological abnormalities, we have measured the level of psychological discomfort (anxiety) in two comparable, age-matched subgroups of 50 women assessed according to the two policies. Psychiatric symptoms were quantitatively and qualitatively assessed by the Spielbergier state-trait anxiety inventory (STAI),3 and by the Z-test.4 The latter focused on the analysis of "anatomical" contents which are strongly associated with anxiety.4 Psychiatric tests were administered immediately before colposcopy, which was then repeated a week later as shown in Table 1. As stated in the table, a minor statistically significant (mean (SD) score: colposcopy = 44.6 (10.9); repeat smear = 40.7 (8.7); p<0.05; z = 3.48; df = 10, p = 0.01) increase in anxiety was observed in the group of women undergoing colposcopy according to the STAI test. No difference, however, was observed in the response to Z-test between the two groups, which showed comparable frequencies of anatomical contents.

Results of psychiatric assessment of two comparable groups of women with minor cytological abnormalities and undergoing immediate colposcopic assessment (group A), or cyto logical surveillance after six months (group B)

<table>
<thead>
<tr>
<th>Test</th>
<th>Group A</th>
<th>Group B</th>
</tr>
</thead>
<tbody>
<tr>
<td>State-trait anxiety inventory:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Score 20–39</td>
<td>19</td>
<td>28</td>
</tr>
<tr>
<td>Score 40–55</td>
<td>23</td>
<td>19</td>
</tr>
<tr>
<td>Score &gt;55</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>&quot;Z&quot;-test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absence of anatomical contents</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>Anatomical contents present</td>
<td>28</td>
<td>29</td>
</tr>
</tbody>
</table>

Our findings agree with those of Gath et al who suggest that colposcopic assessment in women with minor cytological changes is not associated with major psychiatric morbidity. In particular, the level of anxiety is not significantly greater than that associated with cyto logical surveillance. Thus, the latter policy should not be preferred to immediate colposcopic assessment on the grounds of minor psychiatric morbidity.


describe the level with Z-test.

Review of the article by Knox: Leukemia clusters in childhood

SIR—In 1994 an article was published by Professor Knox presenting the results of a geographical analysis of childhood leukemia clusters in the United Kingdom.3 The objective of this analysis was to validate a previously demonstrated spatial clustering of childhood leukemias by investigating the relative proximity of map features to clusters located compared with control locations. Based on 9406 childhood leukemias and non-Hodgkin lymphomas, including 264 (0.3%) pairs (or more) of cancer cases at 100 km or less, Knox compared the level of agreement in these relationships to that expected by chance.5

Knox (1994) showed that the spatial distribution of childhood leukemias was more sensitive to minor differences in the data than the classical epidemiological approach. The clustering was identified by means of a statistical test called the Knox' test.

The Knox test is a method of selecting controls for cases in a geographic area, and it is based on the idea that a cluster of cases is more likely to occur in a region than would be expected by chance. The Knox test compares the number of cases and controls within a specified distance to the number expected if the cases and controls were randomly distributed. The test is based on the Poisson distribution, and the expected number of cases within a given distance is calculated using the formula:

\[ \text{Expected number of cases} = \frac{\text{Total number of cases}}{\text{Total area}} \times \text{Area of interest} \]

The observed number of cases within a given distance is then compared to the expected number using a chi-square test. If the observed number of cases is significantly greater than the expected number, the cluster is considered to be statistically significant.

To perform the Knox test, one needs to define the study area, the distance range, and the expected number of cases and controls. The study area is usually defined as the geographical area covered by the data, and the distance range is usually defined as the maximum distance from the centroid of the cases to the controls.

The Knox test was widely used in the 1990s for the analysis of spatial patterns of cancer cases and controls. It was used to identify clusters of childhood leukemia, and it was also used to study the spatial distribution of other diseases, such as breast cancer and melanoma.

Knox (1994) noted that the Knox test was not the only method to detect spatial clustering, and it was not the most powerful method. However, the Knox test was widely used in the 1990s, and it was considered to be a good method to identify potential cancer clusters.

In conclusion, the Knox test is a widely used method to detect spatial clustering of cancer cases and controls. It is based on the Poisson distribution, and it is simple to perform. However, it is not the most powerful method, and other methods, such as the Moran's I and the Getis-Ord G statistic, are more powerful for detecting spatial clustering.


Smoking and health promotion in Nazi Germany

SIR—Hermann Brenner’s letter seems to consider that our article “Smoking and health promotion in Nazi Germany”1 should have contained a “definitive, informative individual-level studies” of interventions aimed at reducing smoking. This seems to rather spectacularly miss the central point of our piece, which is that to understand smoking behaviour in populations, some knowledge of the historical and social background is required. By discussing the possible reasons for the continuation high levels of smoking in Germany, backed up by a cohort analysis stretching back to those who initiated their smoking during or before the second world war, and not referring to the possible long term influence of one of the most dramatic (and fortunately, in what it accompanied, historically unique) prohibitionist movements the world has seen, seems bizarre. This is especially the case since the reasons Brenner cites for the remaining high rates of smoking – the lack of restrictive smoking policies in workplaces and on transport, together with a paucity of health education activity amongst youngsters – are exactly those which the Nazis implemented, with little success.

Understanding behaviour as complex as smoking requires a considerably more sophisticated view of how the world is than one which sees individual-level motivation as...
Emotional reactions and colposcopy.

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