MEDIA USE AND PREFERENCE RELATED TO CORONARY HEART DISEASE OF THE COLOURED POPULATION OF THE CAPE PENINSULA

THE CRISIC STUDY

M. Steyn, K. Steyn

INTRODUCTION

In previous reports of the coronary risk factor study among the coloured population of the Cape Peninsula (the CRISIC study), it was shown that there was a great need for an effective CHD prevention programme (Steyn K. et al. 1985, 1986, 1987a, 1987b, 1989a, 1989b — accepted for publication). In order to develop an intervention programme for CHD, which will attempt to improve the population’s knowledge and behaviour regarding CHD a situation analysis is essential. Such an analysis should contain a disease profile, information on cultural and demographic matters, information on the knowledge, attitudes and beliefs concerning the disease entity, and on the use and preference in respect of communication media. As a part of the comprehensive CRISIC study in which the above factors were studied, the media use and preference of the population were examined with a view to suggesting media for conveying health messages.

STUDY POPULATION AND METHODS

By using a multi-staged probability sampling technique an age and sex-stratified sample of 976 respondents was randomly drawn from 485 120 coloured people in the age group 15 to 64 in the Cape Peninsula as reflected in the 5% subsample of the 1980 census. In each household drawn, only one member was selected. Criteria for exclusion from the study were pregnancy, being bedridden, mental retardation, carcinoma, leg amputation, drug therapy to counter tuberculosis, hospitalisation for more than one week during the previous three months and an inability or unwillingness to participate. The realised sample is shown in Table 1.

Trained field workers visited respondents in their homes. Data were collected by means of a pre-tested questionnaire. Two questions concerning media use and preference were asked: one on the media (sources) from which information about CHD prevention was obtained and the other on which media they considered to be the most effective in providing their community with information on the prevention of CHD.

RESULTS

Sources of Information

The sources of information through which the respondents had learnt how to keep their hearts healthy are shown in Table 2. Information was obtained in a greater measure from mass media (television, written material, radio and posters) than from interpersonal communication. Of the mass media television was mentioned most often (males 70%, females 67%), followed by reading matter (males 57% , females 55%), the radio (males 41%, females 40%), and lastly posters displayed in public places (males 44%, females 37%). Although there were relatively small differences between the different age groups, it is interesting to note that the males as well as the females in the younger age group (15 to 24 years) mentioned written materials and posters more often than did those in the older age groups, whereas they mentioned the radio less often.
### TABLE 1
**Sample distribution**

<table>
<thead>
<tr>
<th>Age in years</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-24</td>
<td>103</td>
<td>94</td>
<td>197</td>
</tr>
<tr>
<td>25-34</td>
<td>94</td>
<td>96</td>
<td>190</td>
</tr>
<tr>
<td>35-44</td>
<td>103</td>
<td>95</td>
<td>198</td>
</tr>
<tr>
<td>45-54</td>
<td>95</td>
<td>90</td>
<td>185</td>
</tr>
<tr>
<td>55-64</td>
<td>90</td>
<td>95</td>
<td>185</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respondents</th>
<th>15-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>94</td>
<td>96</td>
<td>103</td>
<td>95</td>
<td>90</td>
<td>478</td>
</tr>
<tr>
<td>Female</td>
<td>103</td>
<td>94</td>
<td>94</td>
<td>95</td>
<td>95</td>
<td>498</td>
</tr>
</tbody>
</table>

### TABLE 2
**Sources of health information according to sex and age**

<table>
<thead>
<tr>
<th>Source of information</th>
<th>% of participants in each age group</th>
<th>Age standardised rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents</td>
<td>15-24 25-34 35-44 45-54 55-64</td>
<td>15-64</td>
</tr>
<tr>
<td>Television</td>
<td>Male 68.1</td>
<td>70.8</td>
</tr>
<tr>
<td></td>
<td>Female 66.9</td>
<td>68.6</td>
</tr>
<tr>
<td>Written material:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pamphlets, books,</td>
<td>Male 62.8</td>
<td>57.3</td>
</tr>
<tr>
<td>newspapers</td>
<td>Female 59.2</td>
<td>56.4</td>
</tr>
<tr>
<td>Radio</td>
<td>Male 37.2</td>
<td>42.7</td>
</tr>
<tr>
<td></td>
<td>Female 34.0</td>
<td>42.6</td>
</tr>
<tr>
<td>Posters in public</td>
<td>Male 50.0</td>
<td>37.5</td>
</tr>
<tr>
<td>places</td>
<td>Female 38.8</td>
<td>37.2</td>
</tr>
<tr>
<td>Doctors or nurses</td>
<td>Male 14.9</td>
<td>21.9</td>
</tr>
<tr>
<td></td>
<td>Female 22.3</td>
<td>22.3</td>
</tr>
<tr>
<td>Friends</td>
<td>Male 23.4</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Female 25.2</td>
<td>23.3</td>
</tr>
<tr>
<td>Day hospitals/clinics</td>
<td>Male 14.9</td>
<td>10.4</td>
</tr>
<tr>
<td></td>
<td>Female 16.5</td>
<td>17.0</td>
</tr>
<tr>
<td>Teachers at school</td>
<td>Male 41.5</td>
<td>14.6</td>
</tr>
<tr>
<td></td>
<td>Female 37.9</td>
<td>10.6</td>
</tr>
<tr>
<td>Work</td>
<td>Male 16.0</td>
<td>18.8</td>
</tr>
<tr>
<td></td>
<td>Female 12.6</td>
<td>10.6</td>
</tr>
<tr>
<td>Children at school</td>
<td>Male 10.6</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>Female 7.8</td>
<td>5.3</td>
</tr>
</tbody>
</table>

* Since a stratified sample was used percentages for each sex group were standardised separately against the 5% subsample of the 1980 census.

### TABLE 3
**Categorised sources of information on the prevention of heart disease according to sex and age**

<table>
<thead>
<tr>
<th>Source of information</th>
<th>% of participants in each age group</th>
<th>Age standardised rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents</td>
<td>15-24 25-34 35-44 45-54 55-64</td>
<td>15-64</td>
</tr>
<tr>
<td>1. None</td>
<td>Male 10.6</td>
<td>17.7</td>
</tr>
<tr>
<td></td>
<td>Female 16.5</td>
<td>21.3</td>
</tr>
<tr>
<td>2. Health personnel</td>
<td>Male 1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>only</td>
<td>Female 1.0</td>
<td>2.1</td>
</tr>
<tr>
<td>3. Mass media only</td>
<td>Male 30.9</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>Female 23.3</td>
<td>32.0</td>
</tr>
<tr>
<td>4. People other than</td>
<td>Male 1.1</td>
<td>1.0</td>
</tr>
<tr>
<td>health personnel only</td>
<td>Female 1.0</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>Male 34.0</td>
<td>21.9</td>
</tr>
<tr>
<td>people other than</td>
<td>Female 31.1</td>
<td>12.8</td>
</tr>
<tr>
<td>health personnel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Health personnel</td>
<td>Male 2.1</td>
<td>-</td>
</tr>
<tr>
<td>and people other</td>
<td>Female -</td>
<td>0.9</td>
</tr>
<tr>
<td>than health personnel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Health personnel</td>
<td>Male 4.3</td>
<td>9.4</td>
</tr>
<tr>
<td>and mass media</td>
<td>Female 5.8</td>
<td>13.8</td>
</tr>
<tr>
<td>8. Health personnel,</td>
<td>Male 17.0</td>
<td>15.6</td>
</tr>
<tr>
<td>mass media and</td>
<td>Female 21.4</td>
<td>14.9</td>
</tr>
<tr>
<td>people other than</td>
<td></td>
<td></td>
</tr>
<tr>
<td>health personnel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>Male 100.0</td>
<td>99.9</td>
</tr>
<tr>
<td></td>
<td>Female 100.1</td>
<td>100.1</td>
</tr>
</tbody>
</table>

* Since a stratified sample was used percentages for each sex group were standardised separately against the 5% subsample of the 1980 census.

Doctors and nurses as sources of information featured in the fifth place (males 22%, females 24%) with more than one-third of the respondents of both sexes in the oldest age group (55 to 64 years) mentioning this source, whereas respondents in the youngest age groups mentioned it to a lesser extent. Only 14% of the males and 18% of the females learnt about preventing heart disease at day hospitals or clinics. In the youngest age group 42% of the males and 38% of the females stated that they had received information from teachers. These percentages were much lower for the older age groups. Their place of work as a source of information was mentioned by only 16% of the males and 11% of the females. The least mentioned source was schoolchildren conveying information at home.

According to their answers to this question, respondents were further subdivided into eight categories (Table 3). It appears that:

- 14% of the males and 17% of the females received no information at all (1) on the prevention of CHD.
- mass media as the only source of information (3) was mentioned by approximately one-third of both males and females.
- mass media as the only source (3), combined with people other than health personnel (5) (in other words without any information from health personnel), was mentioned by 58% of males and 50% of females.
- health personnel as the only source (2), combined with people other than health personnel and or mass media (6, 7 and 8) was mentioned by 28% of the males and 31% of the females — i.e. less than a third of each sex group received information from health personnel.
- the three types of sources — mass media, health personnel and people other than health personnel — combined (8) was mentioned by only 16% of the males and 17% of the females.

### Media Preferences

The respondents were also asked to select the three media which they considered to be the most effective for conveying information to their community on the prevention of heart disease from a list and to place them in order of priority. The results are shown in Table 4. Television was chosen most often: 78% of the males and 79% of the females listed it as first, second or third choice — similar for each age and sex category. This was followed by instruction given to schoolchildren (males 55%; females 50%). Again the trends were similar for each age and sex group. Newspapers (males 31%; females 36%) featured in the third place, lectures (males 30%; females 29%) in the fourth and day hospitals/clinics in the fifth (males 19%; females 26%). The two least preferred media were pamphlets and magazines.

When the respondents' first choices only were considered, the first five sources of
information in order of preference were
television, instruction at school, lectures,
and posters and day hospitals/clinics (table not
reported). Newspapers as a source was a
very popular third choice.

DISCUSSION
In view of the disease pattern related to
CHD, the apparently increasing CHD
mortality rate and the poor coronary risk
factor profile of the coloured population,
the need for a CHD intervention
programme for this population group is
evident. In the development of such a
programme the important role of media
use and preference should not be
overlooked.

No Information Received
With reference to the seriousness of the
CHD problem among the coloured
population, the finding of this study that
14% of the males and 17% of the females
had received no information on CHD
prevention at all is disconcerting. Effective
ways will have to be found to reach every
member of the population. In this study a
number of possibilities that need exploring
came to light.

Television
The most outstanding aspect of the
findings is that television was not only the
medium mentioned most frequently as a
source of information on the prevention of
heart disease by all the age and sex groups,
but that it was also the most preferred
source, both as first choice and overall as
one of three most effective ways of
reaching the community. This suggests that
more use can be made of television in a
health communication programme. The
interest in this audiovisual medium also
suggests that video programmes can be
shown to good effect in clinic/day hospital
waiting rooms. In this setting the electronic
media should ideally be used in
combination with interpersonal
communication between viewers and
health personnel in order to ensure that
information is correctly understood and
questions answered. Interpersonal
communication could for instance take the
form of small group discussions.

Radio
The radio, although mentioned as a source
of information by approximately 40% of
the respondents, was listed as one of three
most preferred sources of information by
less than 20% of the respondents. This
finding should be considered together with
the greater preference for television. It
should be borne in mind that the
population in this study was an urban one
and therefore had greater access to
television sets than would a rural
population. In the rural areas the radio
may well be a more popular source of
information. In the hospital or clinic
setting tape cassettes can, as in the case of
video programmes, be a useful aid to
health guidance if used in conjunction with
interpersonal communication.

Printed Material
Another important finding is that printed
material (magazines, pamphlets, books,
newspapers) was the second most
important source of information
concerning CHD prevention. However,
when preferred sources are considered, it
seems that newspapers were popular (both
as third choice and overall as one of three
most preferred ways of guidance) whereas
pamphlets and magazines were at the
bottom of the list. This finding may be due
to a greater exposure to newspapers than
to pamphlets and magazines and would
suggest that more attention should be paid
to using newspapers more extensively for
conveying information on the prevention
of CHD. Concerning the relative
unpopularity of pamphlets, it should be
borne in mind that pamphlets are often
designed for nationwide and cross-cultural
use and thus may not attract or hold the
attention of all readers. It is suggested that
any information material such as
pamphlets, posters and videos should not
only be designed for a specific target group
but that it should be developed in
co-operation with members of the group to
ensure that it ties up with the language and
idiom, perceptions and needs of the group.

The School
The school as a preferred source of
information was mentioned second most
frequently both as a first preference and
overall as one of three most effective
sources of guidance on CHD prevention.
However teachers as an actual source was
mentioned by less than one-quarter of the
respondents. These findings suggest that
the school can be used more effectively to
Teach CHD prevention. It also seems that
the school years are an ideal time for
health education as lifestyle, which is an
all-important factor affecting the incidence
of CHD, is learnt in childhood and is very
difficult to change in later years. Ideally
trained health educators should be used for
the health programmes in schools.

Place of Employment
As far as their place of work was
concerned, it is interesting to note that
only 16% of the males and 11% of the
females mentioned it as a source of
information on CHD prevention. As a
preferred source it was mentioned as one
of three most effective sources by 22% of
the males and 12% of the females. The
place of work was not perceived as an
effective source by the majority of the
respondents. However if it is taken into
account that a large part of a person's time
is spent at work and that his experiences at
work greatly influences his lifestyle, the
difficulties of education at work should be
seriously considered in any CHD
intervention programme. Trained health
ducators with appropriate aids should be
available to visit workplaces to give talks
to the workforce.

Health Personnel
A desire for interpersonal communication
was expressed by almost one-third of the
respondents who suggested lectures as one
of the three most effective ways of teaching
the community about CHD prevention. A
preference for receiving information from
day hospitals/clinics was also listed by
19% of the males and 26% of the females.
Less than half the respondents reported
that they had received information on

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**TABLE 4**

Preferred sources of information (first, second and third choices jointly) according to sex and age

<table>
<thead>
<tr>
<th>Source of information</th>
<th>% of participants in each age group</th>
<th>Age standardised rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Television Male</td>
<td>73.4</td>
<td>81.3</td>
</tr>
<tr>
<td>Female</td>
<td>75.7</td>
<td>78.7</td>
</tr>
<tr>
<td>Instruction to school children Male</td>
<td>61.7</td>
<td>54.2</td>
</tr>
<tr>
<td>Female</td>
<td>52.4</td>
<td>47.9</td>
</tr>
<tr>
<td>Newspapers Male</td>
<td>30.9</td>
<td>25.0</td>
</tr>
<tr>
<td>Female</td>
<td>36.9</td>
<td>35.1</td>
</tr>
<tr>
<td>Lectures Male</td>
<td>33.0</td>
<td>26.0</td>
</tr>
<tr>
<td>Female</td>
<td>33.0</td>
<td>26.6</td>
</tr>
<tr>
<td>Posters Male</td>
<td>21.3</td>
<td>21.9</td>
</tr>
<tr>
<td>Female</td>
<td>24.3</td>
<td>23.4</td>
</tr>
<tr>
<td>Day hospital/Clinic Male</td>
<td>18.1</td>
<td>16.8</td>
</tr>
<tr>
<td>Female</td>
<td>24.3</td>
<td>24.5</td>
</tr>
<tr>
<td>Radio Male</td>
<td>16.0</td>
<td>19.8</td>
</tr>
<tr>
<td>Female</td>
<td>15.5</td>
<td>19.2</td>
</tr>
<tr>
<td>At work Male</td>
<td>22.3</td>
<td>24.0</td>
</tr>
<tr>
<td>Female</td>
<td>10.7</td>
<td>13.8</td>
</tr>
<tr>
<td>Magazines Male</td>
<td>8.5</td>
<td>15.6</td>
</tr>
<tr>
<td>Female</td>
<td>17.5</td>
<td>17.0</td>
</tr>
<tr>
<td>Pamphlets Male</td>
<td>14.9</td>
<td>13.5</td>
</tr>
<tr>
<td>Female</td>
<td>9.7</td>
<td>13.8</td>
</tr>
</tbody>
</table>

* Since a stratified sample was used percentages for each sex group were standardised separately against the 5% subsample of the 1980 census.
CHD from health personnel. Nursing staff could contribute to effective health guidance but the real need is for appropriately trained health educators. They could for instance assist by leading group discussions after the viewing of television programmes and by treating every contact with patients as an opportunity for health education. Health education should become an important aspect of any health service and should be greatly expanded.

Mass Media and Interpersonal Communication

The findings of other studies (McAllister 1980; Steyn M. et al. 1981a, 1981b, 1987) have shown that although health education that is provided through the mass media alone does have some effect, programmes combining mass media and interpersonal communication are more successful in changing behaviour. It is therefore suggested that in planning any CHD intervention programme the very important role of health personnel as far as interpersonal guidance is concerned should not be overlooked. This is particularly important since the use of mass media seems to be effective especially in the area of creating an awareness of a situation whereas interpersonal guidance seems to be more effective when people have to be persuaded to adopt new ideas (Rogers 1983: 18; Bettinghaus 1980: 160). Although both types of media can be used to advantage in health education it should be borne in mind that the mass media can be used to reach a great number of people whereas interpersonal communication reaches fewer people but provides an opportunity for immediate feedback and therefore for clearing up any misunderstanding. Furthermore, as was illustrated by the findings of this study, many people are reached by the mass media or by interpersonal communication but not necessarily by both types of communication.

CONCLUSION

A multi-media approach is advocated for any intervention programme. In this way various communication media (interpersonal communication included) can be used in combination. Successful communication is not based on the use of one medium alone but on a multi-media approach in which various media complement each other. Such an approach has the advantage that the range and impact of a programme is greatly enhanced.

REFERENCES


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3. nurses of the Department of Health and Welfare.