

# Self-medication in three Orange Free State communities

C. VAN ZYL-SCHALEKAMP

**Abstract** A study on self-care among whites, blacks and coloureds also focused on different forms of self-medication, including non-compliance. Large differences were found in the self-medication behaviour of the three groups. Different correlates of non-compliance were explored, but self-medication was not found to be a substitute for formal medical care.

*S Afr Med J* 1993; 83: 345-346.

A survey of self-care practices among three ethnic groups in the Orange Free State included a number of questions on self-medication behaviour. These questions focused on: (i) medication with over-the-counter (OTC) medicines (i.e. those that may be bought without a prescription); (ii) using prescribed medicines in non-prescribed ways (e.g. changing the dosage or duration of use and allowing use by persons for whom the medicine had not been prescribed); and (iii) using home, folk or kitchen remedies, like herbs, honey, etc.

## Subjects and methods

A questionnaire was administered simultaneously to three multi-phase random cluster samples of respondents: (i) 149 white households in Bloemfontein; (ii) 150 households in Mangaung (the black township adjacent to Bloemfontein); and (iii) 137 households in Heidedal (the coloured township adjacent to Bloemfontein). A total of 45 interviewers, mostly students, were recruited to conduct interviews in their own communities. The questionnaire examined the following: (i) sociodemographic particulars of respondents (e.g. age, level of education); (ii) other correlates of self-care, like health knowledge; (iii) the differential availability and accessibility of professional health care; (iv) the perceived health status of the respondent and her (nuclear) family; and (v) the nature and extent of different self-care modalities, e.g. self-medication. The study was based on Andersen's behavioural model, also used by the World Health Organisation's study of health care.<sup>1</sup>

## Results

### Self-medication with OTC medicines

In several studies abroad it has been found that blacks use fewer non-prescribed medicines than whites.<sup>2-6</sup> In this study, however, the black group reported the highest use of non-prescribed medicines. Table I shows the family use of OTC medicine during a 2-week period for the three study groups.

In addition, the largest proportion of the black group's medicine use was non-prescribed: 70,3% of

TABLE I.  
Family use of non-prescribed medicine (%)

Medicines	White (N=149)	Black (N=150)	Coloured (N=137)
None	18,8	10,6	45,3
1-3 types	47,7	28,0	41,6
4-6 types	15,4	30,0	7,3
7-11 types	12,8	16,7	2,9
12 and more types	5,4	14,7	2,9
Total	100,0	100,0	100,0
Mean	3,8	6,5	1,9

$\chi^2 = 94,51$ ; significance = 0,00; uncertainty coefficient = 0,075.

medicine used was OTC medicine, compared with 46,8% for the white and 58,5% for the coloured group. The extent of medicine use in the black community is congruent with their relatively poor perceived health status, as identified in the study.<sup>7,8</sup>

Among whites, the types of medicine taken most often during the 2 weeks preceding the interview were painkillers, vitamins and minerals, remedies for sore throat and coughs, and remedies for the heart/blood pressure. The black respondents most commonly reported the use of painkillers, remedies for colds and influenza, laxatives and remedies for the heart/blood pressure. The type of medicine used most often in the coloured group was painkillers followed by laxatives, remedies for sore throat and coughs, and remedies for the heart/blood pressure. Very little use of home, folk or kitchen remedies was reported.

### Manipulation of prescribed medicines

#### Specific medicine requests

Sometimes doctors were requested to prescribe a particular type of medicine. This was reported by 47,6% of the white, 39,3% of the black and only 8,7% of the coloured respondents. Most white respondents (88,6%) indicated that a private practitioner was their usual source of formal care, compared with 29,3% of the black and 49,6% of the coloured respondents. For the white group, continuity and familiarity in the doctor-patient relationship certainly facilitate specific medicine requests.

#### Completing a course of prescribed medicine

The coloured group reported the lowest frequency of course-completion: 21,2% reported that they 'never' completed a course, and 34,3% that they 'often' or 'sometimes' completed a course. In the black group, 6,7% reported 'never' completing, and 46,7% 'often' or 'sometimes' completing a course. In the white group, 67,1% of the respondents asserted that they 'always' completed a prescribed course of treatment.

Among the most important reasons given by those respondents who said that they always completed a course of prescribed medicine were that non-completion involved danger or risks, that antibiotics especially had to be used up, and that instructions had to be followed. Non-completion was justified by the experience that the disease cleared up before the medicine was used up. Negligence and forgetfulness were also given as reasons by some respondents.

### Use of prescribed medicine by other family members

The use of prescribed medicine by other family members was found to occur most frequently among the white respondents. Table II illustrates the frequency of prescribed medicine used by other family members.

The most important motivation for medicine use by 'other' family members given by all three groups was that they sometimes suffered from the same complaint and that some of the medicine was left over. This response obviously also reflects on course-completion. Respondents who did not use medicine prescribed for others or permit family members to do so, felt that diseases differ and it would be dangerous or detrimental to their health to follow this practice.

TABLE II.  
Prescribed medicine use by 'other' family members (%)

Frequency of use	White (N=149)	Black (N=146)	Coloured (N=137)
Always	3,4	3,4	2,2
Often	11,4	5,5	8,0
Sometimes	30,2	16,4	16,8
Never	55,0	74,7	73,0
Total	100,0	100,0	100,0

$\chi^2 = 17,22$ ; significance = 0,0085; uncertainty coefficient = 0,022.

### Alterations in prescribed dosages

Black and coloured respondents in particular reported taking more or less than the prescribed dosage. Table III depicts the responses of the three groups with regard to alterations in dosage.

TABLE III.  
Alterations in prescribed medicine-dosage (%)

	White (N=149)	Black (N=147)	Coloured (N=136)
Always	1,3	2,0	8,1
Often	7,4	4,8	5,9
Sometimes	12,1	25,2	17,6
Never	79,2	68,0	68,4
Total	100,0	100,0	100,0

$\chi^2 = 19,87$ ; significance = 0,0029; uncertainty coefficient = 0,026.

The most important reasons given for dosage alterations were that the disease cleared up (i.e. less medicine was taken), or that more was taken to facilitate faster recovery or relief. Those who complied with dosage instructions emphasised that instructions *had* to be followed.

### The later re-use of prescribed medicine

The white group showed a bigger tendency toward later re-use; 44,3% in this group reported it, as opposed to 38% in the other two groups. The position of the three groups with regard to this practice is detailed in Table IV.

TABLE IV.  
Later re-use of prescribed medicine (%)

	White (N=149)	Black (N=148)	Coloured (N=136)
Always	0,7	6,1	5,1
Often	14,1	8,1	14,0
Sometimes	29,5	23,0	18,4
Never	55,7	62,8	62,5
Total	100,0	100,0	100,0

$\chi^2 = 13,70$ ; significance = 0,0031; uncertainty coefficient = 0,018.

The most important motivation for re-use was that medicine *can* be used again and will have the same effect on the same condition. Those who refrained from re-use claimed that medicine becomes old/toxic/ineffective.

### Checking the expiry dates of medicines

There are indications that there is little knowledge or even awareness of an expiry date on medicines, both in the black and the coloured groups. Just over 50% of the white respondents claimed that they 'always' checked the expiry dates on medicines, compared with 30% in the black and 36,5% in the coloured groups.

### Discussion

In all three groups, respondents indicated that self-medication was practised mainly when conditions were regarded as not serious or in cases where people had knowledge or experience of the condition. In addition, financial reasons for self-medication were given equal stress by all three study groups. Black respondents also emphasised the influence of medicine advertisements and friends' recommendations.

Self-medication with OTC medicine was not found to be a substitute for formal care: a positive correlation coefficient (Pearson) of 0,241 for the total sample (0,221 for whites, 0,234 for blacks and 0,112 for coloureds) was found between the use of prescribed and non-prescribed medicines. A greater use of prescribed medicine is therefore associated with a greater use of OTC medicines. The OTC medicine use of those who had consulted a doctor during the preceding year and those who had not were also compared. Substitution of self-medication for formal health care was also refuted in this case: those who reported a consultation showed a higher OTC medicine use than those who did not.

The most important factors statistically associated with non-compliance (self-initiated changes in the use of prescribed medicine) were a *long travelling time* to the usual source of formal health care and an *internal health locus of control*.<sup>7,8</sup> The latter concept applies to those persons who have an active and self-reliant orientation with regard to their personal health. Although less important than travel time and the health locus of control, perceived family morbidity, health knowledge, family size and patient age also played a role in non-compliance.

The most important overall finding was the consistent manner in which cultural differences, education, health knowledge and income played important roles.<sup>7,8</sup> Another matter that needs to be emphasised is that people make active decisions about compliance, based on available alternatives.

### REFERENCES

- Kohn R, White KL, eds. *Health Care — An International Study*. London: Oxford University Press, 1976.
- Bush PJ, Osterweis M. Pathways to medicine use. *J Health Soc Behav* 1978; 19: 179-189.
- Bush PJ, Rabin DL. Who's using nonprescribed medicines? *Med Care* 1976; 14: 1014-1023.
- Gagnon JP, Salber EJ, Greene SB. Patterns of prescription and non-prescription drug use. *Public Health Rep* 1978; 93: 433-437.
- Osterweis M, Bush PJ, Zuckerman AE. Family context as a predictor of individual medicine use. *Soc Sci Med* 1979; 13A: 287-291.
- Rabin DL, Bush PJ. Who's using medicines? *J Community Health* 1975; 1: 106-117.
- Van Zyl-Schalekamp CJ. Selsorg in siekte en gesondheid: 'n Medies-sosiologiese studie in drie gemeenskappe. D. Phil. dissertation, unpublished. Bloemfontein: University of the Orange Free State, 1990.
- Van Zyl-Schalekamp CJ, Van Rensburg HCJ, De Klerk GW. *Self-care in Three Communities: Patterns and Implications for Affordable Health Care*. Affordable Social Security (Report No. ASS/BBS-26). Pretoria: Human Sciences Research Council, 1991.