THE 'DOP' SYSTEM AROUND STELLENBOSCH — RESULTS OF A FARM SURVEY

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Objectives. To document the number of farms operating a 'dop' system (payment of workers with alcohol instead of wages), to estimate the number of farm workers affected, to describe how the system operated and to characterise adverse social conditions on the farms.

Population. Farms served by the mobile clinics of the Cape Metropolitan Council's Health Department in the Stellenbosch area.

Methods. Cross-sectional prevalence survey. Nurses collected data from patients attending mobile clinics.

Results. A prevalence of 9.5% was detected in respect of farms operating the dop system, with an estimated 780 workers affected. The most common practice was a daily provision of 750 ml wine to male workers. Social conditions on the farms in question were poor and wages were low. Child malnutrition was the most common health problem identified.

Conclusion. The dop system, although illegal, has been documented to occur in the Stellenbosch area. Programmes to address the dop system and alcohol abuse, based on a primary health care approach, are a priority in the rural areas of the Western Cape.

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Payment of farm workers with alcohol in place of wages, known as the 'tot' or 'dop' system, is a peculiar and seemingly tenacious feature of South African agriculture. The dop system originated in the early years of colonial settlements in the Cape when indigenous pastoralist and coastal peoples were induced to enter service on farms in return for payment with tobacco, bread and wine.[1] This tradition became an institutionalised element of farming practice in the Cape over the next 300 years and an important element of the social control exercised over indigenous peoples of the region.[1] High levels of alcohol abuse have been reported among farm workers in the Western Cape[2,3] and of alcohol-related trauma in rural areas,[4] and these may be related to the legacy of the dop system.

Despite legislation that has made the dop system illegal since 1928,[5] anecdotal evidence suggests that it is still in use on farms in the region. Data on the current extent of this practice are difficult to obtain. The Rural Foundation has stated that the dop system operates on 1 - 2% of farms (KWV Wineries, Paarl — internal memorandum, 1996) but, in contrast, a study of pesticide hazards in a rural area of the Western Cape found that workers reported a prevalence of 20% in respect of current dop use on farms.[3]

The health impact of excess alcohol consumption linked to the dop system may be substantial, and may pose huge problems for effective delivery of health services in the rural areas. Indeed, in 1994, the Draft Provincial Health Plan for the Western Cape identified alcohol abuse as one of the most important rural health priorities in the province.[4] At about the same time, nurses delivering primary care services on the Stellenbosch farms raised their concerns about the ongoing use of the dop system and its impact both on the health of their clients and on their ability to deliver adequate services. Their impression was that the problem was far more prevalent than stated by the Rural Foundation. As a result of the staff's initiative, a task team was set up to address the problem of the dop system in the region. The task team's first activity was to quantify the problem by means of a survey, in order to inform future interventions. The study objectives were to document the number of farms and farm workers affected, to describe how the dop system operated and to characterise the adverse social conditions on these farms.

METHODS

A cross-sectional prevalence survey was conducted from October to December 1995. The study population included all farms served by the mobile clinics of the Cape Metropolitan Council Health Department, Stellenbosch division. These clinics cover a wide area of approximately 2 400 km^2 ranging from Klapmuts in the north, to Kuils River in the west to Somerset West in the south. The population of the rural farming areas around Stellenbosch is estimated to be 40 000.

Data were collected by means of a semi-structured questionnaire. Nurses visiting farms in their mobile clinics administered the questionnaire to clients. If patients indicated that wine was supplied to them by the farmer — this was the definition of dop used for this survey — a questionnaire was filled out for that farm. On farms where no dop was reported,

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no questionnaire was completed. The questionnaire had been developed over a series of training meetings with staff and was well understood by participating staff members. Key questions, in addition to the amount of alcohol provided and the frequency with which this occurred, were whether the workers had any choice in receiving money instead of wine and whether the farmer sold wine to the workers. The volume of alcohol given to workers was recorded and converted to 750 ml bottle equivalents for analysis. To gain insight into the developmental and social needs of the workers, nurses were asked to record on the questionnaire the most common problems encountered on the farms.

To check consistency of responses, staff were encouraged to administer the questionnaire to more than one respondent per farm. Data on the different forms were compared for inter-observer variability. There was no independent verification of the facts reported by the respondents. Data were analysed with the Epi Info database programme. Official figures of the total number of productive farms in the area were obtained from the Health Inspectorate of the district's Health Department, to provide a denominator with which to calculate a prevalence rate.

RESULTS

An estimated 382 farms in the area were canvassed. Forty-five forms were returned. All the respondents were women attending the mobile clinics. There were 7 farms where duplicate forms were available to serve as validation. There was 100% agreement on the frequency of dop, amounts of dop given, whether women received dop, and whether workers had the choice of wages instead of dop. With regard to the number of permanent workers on the farms, there was agreement on 3 of the 7 farms, and a difference of 2 or 3 workers (6.6 - 20% of total workers) on the other 4 farms. With regard to wages, there was agreement on 3 farms; differences of between 5.1% and 16.6% were reported for the other 4 farms.

The number of farms where the farmer supplied wine to the workers totalled 38 (9.5% (95% CI 6.6 - 12.4%) of the official figure of 400 productive farms in the Stellenbosch area). The majority of these farms (68%) were located to the west and north-west of Stellenbosch — mainly along the Bottelary, Koelenhof, Lyndoch and Polkadraai roads. Data on the number of permanent workers on dop farms were available for only 23 farms, which had a total of 471 workers. By extrapolation, it appears that about 780 workers might be affected on the 38 farms. Thirty-two of the farms had a dop system as defined by the strictest criterion — where wine was provided free to the workers as part payment for services rendered. On 10 of these 32 farms, there was no choice of whether to receive money instead of wine. Workers on the remaining 6 farms had wine supplied to them at a cheap rate by the farmers. The practice reported most commonly was a daily bottle of wine, given out on 66% of farms. The frequency and the amounts of wine given out are shown in Table I. On half the farms, dop was not given to women. Only one farm reported that African workers participate in the dop system.

Table I. Dop (wine-for-work) practices on Stellenbosch farms

	No. of farms
Frequency	
Weekly	6
Twice weekly	1
Daily	22
More than daily	4
Weekly amounts per worker	
< 750 ml	4
750 - 2 250 ml	4
2 250 - 4 500 ml	5
4 500 - 6 750 ml	14
> 6 750 ml	6

Data for 5 farms were not available.

Social conditions and problems

The median weekly wage for women (R67.50) was significantly less ($P = 0.008$; Mann-Whitney test) than the median weekly wage for men (R90.00). Lower wages were paid on the 10 farms which gave the workers no choice of whether to receive money in lieu of dop — median wages were R77.00 for men and R52.50 for women, statistically lower than on the other farms ($P = 0.02$; Mann-Whitney test).

The most common developmental problems reported by the nurses related to child malnutrition, housing, alcohol, lack of personal hygiene and spouse abuse. Child malnutrition was perceived by the nurses to be the most important problem, mentioned first for 8 farms (22%) and for 17 farms (45%) in all.

DISCUSSION

Our figure of 9.5% (6.6 - 12.4%) of farms practising the dop system in the Stellenbosch region was higher than that reported by the Rural Foundation. We have, in the interim, become aware of more farms practising the system. The reasons for their initial omission are unclear, but may relate to increased trust in the clinic services on the part of the farm workers or to raised awareness as a result of the survey.

With regard to reliability, the interviewers performed the survey on the job, and not in dedicated research time. They had also received little training in the actual administration of the questionnaire, although they had played an integral part in drawing it up. This lack of training may have given rise to some information bias or to poor reliability. However, the results of the repeat questionnaires for 7 farms showed that there was complete agreement in respect of key variables related to alcohol provision on these farms, which leads us to believe that reliability was good.

A number of other factors may have given rise to biases. The farms on which the survey was done were those to which the mobile clinics had access during the time of the survey; the respondents were also all female, and all patients of the mobile clinics. There was self-reporting of alcohol-related activity with no opportunity to verify data. The questionnaire had to be administered clandestinely for fear of the nurses jeopardising their roles as health care providers on farms — there is no automatic access to farm workers' homes because of the Trespass Act (Act 6 of 1959). The provision of the new Bill of Rights in the South African constitution that enshrines access to health care services is, as yet, untested on farms. The livelihood of workers was also considered, as people were afraid of the 'powerful' farmer who could easily evict them. These factors may have served to bias the prevalence found, although it is not clear in which direction. However, we do not believe that the impact of any biases could have made a substantial difference to the order of magnitude obtained.

This survey has documented that the dop system still exists on a number of Stellenbosch farms, especially to the west and north-west of the town, despite an effort on the part of the wine industry to modernise its image and its labour relations, particularly in the Stellenbosch area. In the light of this evidence, we believe that the dop system may also operate in other parts of the Western Cape, and may be more common than is publicly recognised. Some documentation in support of this contention is provided by data on the prevalence of the system reported by fruit industry workers[3] and by a single case report of mass pesticide poisoning in the Western Cape in 1994 when workers' wine was contaminated by a nematicide.[7]

The wages on the affected farms are low, reflecting a general state of poor social development on these farms. Only one farm belonged to a development organisation, viz. the Rural Foundation. Wages on those farms where alternatives to dop were not offered were significantly lower, suggesting that the social development on these farms is particularly low. The extent and type of social problems identified on the farms in the survey are typical of poverty and social marginalisation. It should be noted, however, that there was no control group against which to compare results.

Some striking gender differences were noted. Women were paid significantly less than men and were less likely to receive dop. Yet it is often the women who bear the brunt of their partners' alcohol abuse, even if they do not drink themselves. Health programmes aimed at addressing the dop system will need to explore these gender issues further and take them into account when planning interventions.

The study raised difficulties in respect of how to define the dop system. The Liquor Act states that the giving of liquor as wages or as a supplement is illegal.[5] However, a supplement is commonly defined as a necessity added to remedy deficiencies. It makes no sense to call a necessity illegal. There are no clarifying statements in the Liquor Act that help to define dop. The KWV, in a recent newsletter, understands dop to mean the provision of alcohol to workers during working hours.[8] Such a definition would mean that even if the farmer provided alcohol to the workers every evening, it would not constitute dop.

It is our view that the dop system operates where the worker can expect to receive alcohol regularly as a benefit of employment. Given the addictive nature of alcohol, the powerful position of the farmer, who is both employer and landlord, and the absence of alternative choices available to farm workers, it is important to advocate a definition that embodies the interests of the workers. Nevertheless, whatever definition is used and whatever the legal situation, the continuance of any system where an employer regularly supplies alcohol to workers — such as has been documented here — should be condemned and ended. Many farmers will defend the system as an individual lifestyle choice — just as they enjoy the fruits of their labour in the evening, so should their workers. We believe rather that the system enslaves workers individually and as a community.

The dop is a socially entrenched system, and we believe it underpins much of the alcohol abuse prevalent in the working class population of the Western Cape. We recognise that stopping the dop system is not an easy task and it requires a substantial commitment from employers and employees in terms of time, motivation and resources. However, there are farms where programmes have been successfully introduced and where the dop system has been stopped. Our contact with these farmers and farm workers therefore convinces us that there is no justification for failing to tackle the problem. We would expect the wine industry to distance itself conclusively from the dop system by, for instance, making markets unattainable to those farms which continue the practice. We recognise that wine farms are not the only offenders, and believe that the manufacturers (co-operatives) should follow the lead of one Western Cape co-operative[9] and stop selling *swartvarkies* — large canisters of cheap wine, from which the dop is dispensed.

Ultimately, eradication of the dop system is a major challenge to health workers providing services to farming communities, and one which demands an integrated, intersectoral response based on the primary health care approach. Education, public awareness raising, advocacy and lobbying, as well as provision of clinical services for alcohol-addicted individuals, should form the core of such a programme and be integrated in a community development framework. An initiative drawing on government health services, NGOs, and farmer and farm worker organisations is currently under way in the Stellenbosch area as a result of this study.

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