

COPING STRATEGIES OF HOUSEHOLDS IN THE TIMANE COMMUNITY OF IDUTYWA, EASTERN CAPE, SOUTH AFRICA

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OPSOMMING

Die studie waaroor in hierdie artikel verslag gelewer word, het die hanteringstrategieë van huishouding in die landelike gemeenskap van Timane ondersoek. 'n Deursnee-onderzoek-ontwerp is gebruik, waarin 'n *Coping Strategy Index* (CSI)-vraelys gebruik is wat deur Maxwell en Caldwell (2008:2) ontwerp is om data in te samel. Die respondente is lukraak uit gekose huishoudings in toegewese gebiede in die gemeenskap gekies.

Die meerderheid van die huishoudings (72%) het 'n staatstoelae ontvang. Van die totale huishoudings het 28% ouderdomspensioene en 38% kindertoelae ontvang. Die Spearman-korrelasiekoëffisiënt tussen die aantal kinders in die respondente se huishoudings en die CSI was 0,78 ($p < 0,001$).

Volgens die bevindings ervaar sekere huishoudings in die landelike gemeenskap van Timane voedselonsekerheid en die erns van die voedselonsekerheid wat ervaar word, verhoog proporsioneel met die aantal kinders in die huishouding.

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INTRODUCTION

Households are food secure when they have access to the quantity and variety of food they need throughout the year in order to live an active and healthy life. Healthy, well-nourished people are the result of successful social and economic development. South Africa was found to be food secure at national level in that it produces its main staple foods, exports surplus and imports what it requires to meet the demands of its growing population (Department of Agriculture South Africa, 2002: 08; Du Toit, 2011:4).

However, although South Africa produces enough food at national level, this has not guaranteed food security for all individual households, with food insecurity being most prevalent in informal settlements and rural households (Bonti-Ankomah, 2001:3; Du Toit, 2011:4). In trying to overcome the problem of food insecurity, the South African government has introduced strategies, such as social grants, with the aim of creating and supporting programmes that allow households access to sufficient food and water (Koch, 2011:4).

While self-reported hunger in South Africa has dropped from roughly 30% in 2002 to just 13% in 2011 (Statistics South Africa, 2014: 20), there are still poverty-stricken communities with household food insecurity (Oldewage-Theron et al, 2006:801-802).

One way to identify food insecure households or regions is to determine the coping strategies they use to offset threats to food and economic resources in the event of hardship, and the frequency with which they have recourse to them (Corbett, 1988:1103).

A study conducted in a low-income rural area in Malaysia showed that households in which more children went to school, decreased their expenditure on education in an attempt to decrease their overall household expenditure, so as to obtain more food (Shariff & Khor, 2008:31). Furthermore, households were found to borrow money in order to buy food, obtain food from family and neighbours, and reduce the number of meals in order to decrease food insecurity

(Shariff & Khor, 2008:31). Similarly, in a study conducted in Ethiopia, a positive relationship was found between household size/number of children and the number of coping strategies used (Regassa, 2011:43).

Another study conducted in the Vaal Region of South Africa indicated that coping strategies used by households during times of food insecurity had an impact on their nutrition. These strategies included decreasing the variety of foods consumed, decreasing portions size of food during meals and skipping certain meals (Oldewage-Theron et al, 2006:802). Increased food prices globally have also been seen to influence the need for coping strategies in households (D'Souza & Jolliffe, 2012:282).

It is important to study the coping strategies of any region, as this allows researchers to measure the benefits of food aid programmes, if there are any, and also provides information on whether a food crisis is approaching (Maxwell & Caldwell, 2008:2). Currently, no studies have been conducted to determine the food insecurity situation of households in the community of Timane in Idutywa, Eastern Cape, South Africa.

Therefore, there is value in conducting a study of the household coping strategies of this community and using this as a proxy to evaluate the level of food insecurity and coping strategies employed by the community in the event of hardship. The aim of the research reported on here is to investigate the coping strategies of this community, which will give an indication of the food insecurity situation. Timane is located in the Eastern Cape Province of South Africa and is the province with one of the highest levels of food insecurity in the Country (The Eastern Cape Department of Economic Development, Environmental Affairs and Tourism, 2013:4).

RESEARCH METHODOLOGY

Prior to the study, written permission for the collection of data was obtained from the chief of the community. Ethical clearance for this research was granted by the Ethics Committee of the College of Agricultural and Environmental Sciences, University of South Africa.

Research design and sampling

A cross-sectional survey design was used to obtain responses to questionnaires regarding the coping strategies of households in the rural community of Timane, which is a sparsely populated area in rural Idutywa, Eastern Cape,

South Africa. In this study, the total population of Timane (2,000 approximately) was divided into five groups according to geographical distribution (north, east, south and west and central). Households (N = 60) were randomly selected from the groups (12 per group). In 2013 sixty adults, who buy and prepare food in each household representing the sixty selected households, were interviewed, to provide information on the coping strategies of their entire household.

Questionnaire used

A standardised and validated Coping Strategy Index (CSI) questionnaire, with a socio-biographic data collection section was used to gather data on the coping strategies of households in times of limited access to food (Maxwell & Caldwell, 2008:2). The CSI is a tool developed in Ghana, Kenya and Uganda and used in many African Countries, Asia and the Middle East for early warning, monitoring and assessment (Maxwell & Caldwell, 2008:1) The CSI measures what people do when they are unable to obtain enough food; this tool is easy to administer and yields information that is simple to analyse, and because it is quick to administer, it can yield information quickly (Maxwell & Caldwell, 2008:1). The severity weight score of each coping strategy is the consensus rank attributed to it by the focus groups when they rank each coping strategy as either extreme (4), less extreme (3), moderate (2) or least extreme (1) (Maxwell & Caldwell, 2008:11). The frequency rank of a particular coping strategy is determined by each household by picking any of the following scale of relative frequencies: (5) All the time (everyday), (4) Pretty often (3- 6 weeks), (3) Once in a while (1-2 weeks), (2) Hardly at all (less than a week) and (1) (Never) as described previously ((Maxwell & Caldwell, 2008:42).

Focus groups interviews

Eight focus groups, each consisting of five selected respondents who buy and prepare food in each household from diverse socio-economic backgrounds across the entire community of Timane, were used to conduct a mini study in which the various coping strategies in the CSI questionnaire were ranked using the following severity weight score: extreme (4), less extreme (3), moderate (2) or least extreme (1).

The rank severity weight score and the frequency rank score are used to calculate the coping strategy of each household. The CSI of a

TABLE 1: THE SOCIO-BIOGRAPHIC DETAILS OF RESPONDENTS OF HOUSEHOLDS SHOWING THEIR AGE, MARITAL STATUS, LEVEL OF EDUCATION AND NUMBER OF YEARS LIVED IN TIMANE (N=60)

Age Group	Number of Households	Percentage (%)
22- 25	1	2
26-35	15	25
36-45	11	18
46-55	21	35
56 and above	12	20
Marital Status	Number of Households	Percentage (%)
Married	29	48
Separated	2	3
Single	2	3
Unmarried staying with partner	13	22
Widowhood	14	24
Highest Level of Education	Number of Households	Percentage (%)
Junior Primary Education	4	7
No formal education	2	3
Can read and write	17	28
Secondary Education	18	30
Senior Primary	13	22
Tertiary Education	6	10
Number of years lived in Timane	Number of Households	Percentage (%)
10 Years	2	3
15 Years	1	2
25 Years	1	2
26 Years or Older	56	93
56 Years and Older	12	20

household is obtained by adding the products of the severity weight scores and the frequency rank scores of all the coping strategies used (Maxwell & Caldwell, 2008:13).

Validity and reliability of the questionnaire instruments were tested in the pilot study with the focus groups by conducting duplicate interviews with the same instrument and then comparing the results of the two sets of responses.

Data collection

Data collection was conducted by means of interviews with willing respondents in Sotho (the dominant language in Timane) or in English, depending on the language proficiency of a respondent. The principal researcher assisted those who could not read or write, in completing the questionnaire. All respondents gave their consent by signing the consent form before data collection.

Analysis of the data

The focus group data was only used to determine the severity weight score of the

different coping strategies. The coping strategy of each household was calculated by adding the products of the severity weight scores and the frequency rank scores of all the coping strategies. The mean CSI was calculated by adding up the total CSI of all households and dividing it by the number of households. The percentage utilisation of a particular coping strategy at a particular relative frequency is equal to the number of households at that particular relative frequency/total number of households.

Statistical Package for Social Sciences software, version 16 (SPSS Inc., Chicago, IL, USA) was used to analyse all the data. Descriptive data are presented as percentages, means, Spearman's correlation coefficients and SDs.

RESULTS

Socio-biographic information

The majority (55%) of the respondents were aged 46 and above, and 27% were 35 years or younger (Table 1). Seventy per cent of respondents were cohabiting with spouses, 48%

TABLE 2: SOURCES OF INCOME AND CSI OF HOUSEHOLDS OF RESPONDENTS (N=60)

Sources of Income	Number and percentage of Households	Mean CSI of the Subgroups
Salaries and Wages		
Salary – Permanent	7 (11,67%)	26
Salary – Temporary	5 (8,33%)	27
Small business	3 (5%)	10
State Grants		
Old age pensions	17 (28,33%)	31
Child support grant	23 (38,33%)	39
Foster care grant	1 (1,67%)	24
Disability grant	2 (3,33%)	18
Allowance		
Money from husband	2 (3,33%)	17
Total	60 (100%)	189

CSI = Coping Strategy Index, SD = 29,18 and Mean = 52

TABLE 3: THE DISTRIBUTION OF CHILDREN IN THE HOUSEHOLDS OF RESPONDENTS AND THEIR COPING STRATEGY INDEX

Number of Children	Numbers and percentage in Households	Mean CSI of the Subgroups
0	7 (11,7%)	30
1 to 2	22(36,7%)	35
3 to 4	22(36,7%)	46
5 to 6	7(11,7%)	15
>7	2(3,3%)	18
Total	60 (100%)	-

were legally married and 24% of the respondents were widowed (Table 1). Only 3% of respondents had no formal education and could not read or write (Table 1). The majority of the respondents (93%) had lived in Timane for more than 25 years (Table 1).

As shown in Table 2, 25% of the households included members who receive salaries and wages. Close to 12% of households included members earning a permanent salary, 8% a temporary salary, and 5% with small business as a source of income. Furthermore, 38% and 28% of the households contained members who received state grants, i.e. child support grants and old age pensions respectively.

Close to 88% of the households represented in the study had children, 37% had one or two children, 37% had three or four children, and 3% had seven to nine children (Table 3).

Household coping strategies used

The four most frequently used coping strategies under 'All the time' (every day) arranged in order starting with the most frequently employed were: (1) Restrict consumption by adults in order for small children to eat; (2) Rely on less

preferred and less expensive foods; (3) Borrow food, or rely on help from a friend or relative; (4) Ration the money you have and buy prepared food (Table 4).

As shown in Table 4, nine of the thirteen coping strategies were never used by 60% or more of the households. Starting with the least utilised, these were: (1) Purchase food on credit; (2) Skip the entire day without eating; (3) Gather wild food, hunt, or harvest immature crops; (4) Consume seed stock held for next season; (5) Send household members to eat elsewhere; (6) Feed working members of the household at the expense of non-working members; (7) Ration the money you have and buy prepared food; (8) Send household members to beg; (9) Restrict consumption by adults in order for small children to eat (Table 4).

The CSI of households

As shown in Table 5, the mean score for the coping strategy of households (N=60) was 51, with a standard deviation (SD) of 32. Furthermore, the CSI of the majority of households (75%) was below the mean.

Based on source of income, the 4 groups of

TABLE 4: PERCENTAGE UTILISATION OF THE DIFFERENT COPING STRATEGIES BY HOUSEHOLDS IN THE PAST 30 DAYS AS MEASURED BY THE CSI QUESTIONNAIRE (N=60)

Coping Strategies	Percentage utilisation at different Frequencies (%)				
	All the time (Every day)	Pretty often (3- 6 weeks)	Once in a while (1-2 weeks)	Hardly at All (less than a week)	Never
a) Rely on less preferred and less expensive foods?	17	5	53	10	15
b) Borrow food, or rely on help from a friend or relative	12	8	43	10	27
c) Purchase food on credit?	0	0	5	0	95
d) Gather wild food, hunt, or harvest immature crops?	2	2	10	0	87
e) Consume seed stock held for next season?	0	0	12	3	85
f) Send household members to eat elsewhere?	7	2	8	0	83
g) Send household members to beg?	8	3	15	5	68
h) Limit portion sizes at mealtimes?	8	5	60	7	20
i) Restrict consumption by adults in order for small children to eat?	20	0	12	2	67
j) Feed working members of household at the expense of non-working members?	7	3	10	2	78
k) Ration the money you have and buy prepared food?	10	7	12	2	70
l) Reduce number of meals eaten in a day?	0	2	45	3	50
m) Skip entire days without eating?	2	0	5	2	92

TABLE 5: THE CSI RANGES OF HOUSEHOLDS OF RESPONDENTS (N=60)

Number and percentage of Households	CSI range
41 (68%)	0 - 30
4 (7%)	31 - 50
19 (18%)	51 - 80
4 (7%)	>81
Total = 60	

CSI = Coping Strategy Index, SD = 32,3 and Mean = 50,6, N = 60

households with the highest CSI, starting with the highest, were (Table 2): (1) Households of respondents receiving a child grant; (2) Households of respondents receiving an old-age pension; (3) Households of respondents earning a temporary salary; and (4) Households of respondents earning a permanent salary. The CSI of households (N=51) increased steadily from 30 to 46 for households with zero to four children and decreased sharply to 15 and 18 for households (N=9) with five children and above (Table 3).

Correlation of CSI with number of children or adults in household

The Spearman correlation coefficient between

the number of children in respondents' households and CSI was 0,78 at $p < 0,001$.

DISCUSSION

Socio-demographics of respondents

The study revealed that the majority of households included adults who were over the age of 45, with only a few including adults younger than 25. The finding that most households included older members was consistent with findings that older people are becoming a significant part of the total population in developing countries (Oldewage-Theron & Kruger, 2009:300). The high number of adults over the age of 45 may also be

attributed to the high acquired immunodeficiency syndrome (AIDS) death rate in South Africa among adults in the younger age groups (Birnbaum et al, 2011:281). Another possible contributor to the gap between young adults and adults over the age of 45 is the exodus of young adults from rural areas in favour of life in urban areas (Statistics South Africa, 2011:17; Sommers, 2010:319) in order to take advantage of better employment opportunities and improved service delivery. Urban areas are perceived to provide a wider spectrum of opportunities than rural areas, which has made moving to urban areas more attractive to young adults, and has had an overall influence on rural-urban migration.

The fact that 70% of adults were either married or staying with a partner is attributable to the fact that marriage and companionship in the African society is considered an important milestone in one's life and the starting point of having children who will continue the family name (Dyer, 2007:70). A possible reason why 22% of respondents stayed with a partner, but were not married, is the fact that traditionally, people in the community pay *lobola* (bride price) to the family of the woman before the couple can officially marry. People who are unemployed and reliant on social grants may not have the money to pay the required *lobola* and for traditional marriage ceremonies that require money (Heeren et al, 2011:74).

Up to 90% of respondents were literate; of these, 40% had attended secondary and/or tertiary education institutions. This finding is consistent with research that shows that there has been an increase in the number of people receiving formal education in South Africa (Statistics South Africa, 2010:3). In the rural community of Timane there are three government schools within walking distance from households. This could explain the high level of literacy within the community, as people have easy access to schools where they can receive free education from the beginning of junior school to the end of high school.

The fact that less than 25% of households included no salary- or wage-earners can be attributed to the fact that rural livelihood is characterised by a combination of land-based entitlements, informal farming and non-farming economic activities, state social assistance and practices of social reciprocity (Neves & Du Toit, 2013:103). The fact that 60% of the households represented by respondents received state

grants, most of which took the form of old-age pensions and child support grants, indicates that South Africa's social security system contributes in reducing poverty among groups who are not expected to participate fully in the labour market, and therefore earn a low income: the elderly, those with disabilities, and children (Samson et al, 2006:1).

Household coping strategy

A high CSI score generally means that a household is unable to access enough food, and therefore has to rely on a number of coping strategies; conversely, the lower the CSI score, the fewer the coping strategies harnessed (Maxwell & Caldwell, 2008:2) leading to the assumption that the household is more food secure.

The fact that the majority of households (75%) had a CSI below the mean (51) implies the majority of households are on the better equipped regarding the use of coping strategies relative to the average of the Timane community. Furthermore, a large SD of 32 is indicative of the broad range of coping strategies employed by households. Similar results were obtained during a study involving households in informal settlements and rural areas in South Africa; it was shown that households with high CSI scores applied the largest number of coping strategies to improve food security (Kruger et al, 2008:10).

The households with three or four children had the highest mean CSI, with a value of 46, followed by the households with one or two children and the households with no children, with a mean CSI of 35 and 30 respectively.

The higher number of coping strategies used by households with three or four children might have arisen from the fact that there were more children per household who required adequate and nutritious food for their continued growth. When these households anticipated problems relating to food consumption, they tended to use more coping strategies in an effort to avoid these anticipated problems (Maxwell & Caldwell, 2008:2).

The Spearman's correlation coefficient between the number of children per household and CSI showed a strong positive monotonic relationship ($r = 0,78$ at $p < 0,001$). This strong positive correlation coefficient indicates that when the number of children in households increased, the coping strategies used by the households

generally increased, hence an increase in the food insecurity with the increase in the number of children in a household. This finding correlates positively with a similar study conducted among low-income communities in Malaysia, that were found to be more food insecure, and as a result to employ more coping strategies, such as borrowing money to buy food, receiving food from family members, relatives and neighbours and reducing the number of meals (Shariff & Kohr, 2008:29). The fact that households with no children had a fairly high CSI may possibly be attributed to the non-receipt of a child support grant income, and therefore greater food insecurity (Department of Social Development, SA Social Security Agency & United Nations Children's Fund, 2012:4).

Households of which members earned salaries from small business had the lowest CSI; this finding is consistent with the finding of a study conducted in Malawi, in which the households of owners of small businesses were found to be more food secure (Anderson, 2002:6). It has also been found through research that households with more employed members are better able to purchase adequate food supplies; employment plays an important role in food security and in decreasing the need to change behaviours to access food (Food and Agriculture Organization, 2012:10).

CONCLUSIONS

Households in the rural community of Timane in Idutywa are food insecure. The level of food insecurity is linked to the increase in the number of children in households, but does not differ much proportionately to the number of adults in households.

Special attention should be placed on households with many children as they are most likely to be food insecure. Authorities should ensure skill development and job creation in the rural communities hence allowing people to have an income which will enable them to buy food and to be less dependent on social grants. Furthermore, the cultivation and utilisation of indigenous foods in rural communities should be promoted.

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