SOCIO-ECONOMIC FACTORS INFLUENCING THE USE OF COPING STRATEGY AMONG FARMERS AND HERDERS AFFECTED BY CONFLICT AT GIRON MASA VILLAGE, KEBBI STATE, NIGERIA

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ABSTRACT: *This study was conducted at Giron Masa village, located 30km from Yauri town. The study determines the Socio-economic Factors influencing the use of coping Strategy among Farmers and Herders during post-conflict situation. Simple random sampling technique was used to select one hundred (100) respondents (50 farmers and 50 herders) from the study area. Logistic regression (LR) analysis was used to ascertain the socioeconomic variables that influenced the use of the coping strategy among the farmers and herders affected by conflict. The results of the study shows that age, income, family size and farming experience were significant and thus influenced the use of POCS among farmers. Annual income and production system influenced the use of Problem Oriented Coping Strategy (POCS) among herders. Age, farm size and farming experience were found to be significant in influencing the use of Emotion Oriented Coping Strategy (EOCS) among farmers. Specifically, years of herding experience increased the use of emotion oriented coping strategy among herders. The use of Social Support Coping Strategy (SSCS) among farmers was influenced by educational level; farm size and farming experience, while the variables are not collectively significant in influencing the use of SSCS among the herders. The research recommends the adoption of communal coping that entails the application of cooperative problem solving processes within the family and other social units dealing with stressful life events should be used as coping strategy in the event of farmer-herder conflict*

KEYWORDS: Farmers, Herders, Conflict, Coping Strategy

INTRODUCTION

People develop assumptions and expectations about the world they live in throughout their lives. These are often influenced by upbringing, personal life experiences, personality, cultural norms and individual belief systems. Experiencing violence confronts survivors with information that is generally inconsistent with their pre-conceptions of the world. In order to heal from this experience, this new information must be processed until the potentially traumatic experience is assimilated and integrated into a new or existing worldview. This is called *the coping process* and is considered a normal process experienced by everyone exposed to potentially traumatic experiences (Creamer, 1990). The 'normality' of the reactions refers to the absence of a disorder but should not imply that the psychological process of working through the emotions of helplessness and anger are postponed for better times (Bar-on 1996)

The way in which people cope with violence depends on the culture and their personality together with external circumstances such as the availability or otherwise of community and

family support. Irrespective of this, each survivor is confronted with two psychological mechanisms during *the coping process: intrusion and avoidance* (Foa *et al.* 1989). Conflicts actors employ coping strategy in order to protect their psychological intactness. Effective strategy should enhance their psychological adaptation despite the traumatic stress. Research has not, however, provided a generally valid differentiation between effective and ineffective coping strategy. Some evidence shows that problem-focused and active coping correlates negatively, and emotion-focused coping correlates positively, emotional and behavioral problems (Compas *et al.,* 1996). Similarly, the findings on the role of avoidance versus approach coping in enhancing psychological adjustment are somewhat mixed. Some researchers obtained evidence that avoidance coping strategy, especially denial and distraction, are associated with poor psychological and social adjustment (Kliewer *et al.,* 1998), while others maintain that coping effectiveness depends on the nature of stress (Band and Weiss, 1988).

An individual's ability to cope with a traumatic event can also be influenced by the coping style used during the actual traumatic event and the first stages of the coping process. Problem-focused coping is where a person channels his or her resources to solve the stress-creating problem. The opposite is emotion-focused coping, in which the tension aroused by the threat is reduced through intra-psychic activity such as denial or changing one's attitude toward the threatening circumstances. This coping style can be useful for reducing stress in circumstances where the survivor has no control over the outcome of the event (where torture or abduction is involved, for example). Dissociation is a disruption of cognitive functions (Bremmer *et al.,* 1992)

METHODOLOGY

Study Area

The study was conducted at Giron-Masa village, along Giron Masa grazing reserve located 30km from Yauri town. It is situated in Shanga Local Government Area (LGA) South most tip of Kebbi State. The reserve lies between latitude $11°06^{1}$, 483" N and longitude 04°42', 356" E. The vegetation is that of typical northern guinea savanna, which consist of an almost continuous grass cover of not less than 1 meter in height. There are clumps of interspersed tree cover which averages 25-50 feet in height with a mixture of fine-leaved thorny trees and broad leaved deciduous species. The thick tree cover is found along streams and depressions (Udu, 1991). The mean annual rainfall of the area is 1040 mm. The rainy season lasts for 5-6 months between April/May to October with heaviest amount in August, (Adefolalu, 2007)). Temperature ranges from a minimum of 15-24°C in December/January to a maximum of 32-39°C in April/May. Relative humidity varies between 28-40% in the morning to 21-33% in the afternoon (Adefolalu, 2007)). The soil consist of well drained sandy loam soil and clay or clay loam soils on the Fadama site. It is rich in organic matter especially the nomads settled spots. The people of Giron Masa village are predominantly farmers and herders.

Data Collection and Analysis

Interview schedules were used to collect relevant data for the study. The Test-retest method was used to determine the reliability of the instrument. This was carried out among 10 respondents that were not included in the study sample. Simple random sampling technique

was used to select one hundred (100) respondents (50 farmers and 50 herders) from Giron Masa village. The interviews were conducted with the assistance of three well-trained enumerators.

Logistic regression analysis (LR) was used to ascertain the socioeconomic variables that influenced the use of the coping strategy of farmers and herders. The Logistic regression analyses of socioeconomic variables influencing the use of each of the three categories of coping strategy (the dependent variable) among farmers and herders are presented in Tables 1-3. The ML- (maximum likelihood) binary logistic regression model was used, with convergence achieved after 5 iterations. At degree of freedom 10 – which is the number of independent variables, the critical LR statistic (R^2) is 18.0370 at 0.05 probability level. This means that the calculated LR statistic must be higher than 18.0370 for logistic regression coefficients for any categories of the coping strategy to be collectively statistically significant at 0.05 probability level.

Logistic regression with existence of resource use conflicts as a binary dependent variable was assessed using existence of resource use conflicts. The prediction model was developed by using regression coefficient (β) to predict the coping strategy of resource use conflicts in the study area. The logistic regression was used to show the following relationships:

i. Between dependent variable i.e. coping with resource use conflicts in crop production and ten independent variables assumed to influence the existence of resource use conflicts in the study area. The independent variables included in the analysis were: age, gender, education level, annual income, household size, size of enterprise, production system, production motive, farming experience and tenure arrangement.

ii. Between dependent variable i.e. coping with resource use conflicts in herding of animals and ten independent variables assumed to influence the existence of resource use conflicts in the study area. The independent variables included in the analysis were: age, gender, education level, annual income, and household size, size of enterprise, production system, production motive, herding experience and tenure arrangement.

RESULTS AND DISCUSSION

Socio-economic Factors influencing the use of Problem Oriented Coping Strategy (POCS) among Farmers and Herders affected by Conflict in the Study Area

Results in table 1 shows that age (p = 0.009), income (p = 0.026), Family size (p=0.027) and farming experience (0.061) were all significant and thus influenced the use of POCS by farmers. This means that the use of POCS among farmers increased with age, farm income, family size and farming experience. On the other hand, the variables were also found to be significant (LR statistic= 20.623; p = 0.0141<0.05). However, the significance of annual income and production system in influencing the use of problem oriented strategy among herders could be noted from their respective p-values. Desire to maximize income could lead to more resort to problem oriented strategy among herders. Educational level however implies, perhaps, that increasing level of education might encourage use of POCS among the farmers and herders. The significance of production system might indicate that, as the farmers and herders change their production pattern, the use of problem-centered coping strategy increased.

The study further revealed that the herders were perhaps more security conscious (73.6%) than the farmers. Herders tighten the security of their herds in anticipation of reprisals from the farmers for destruction of their crops, thus the herders used charms (63.9%) and prepare for the worst (66.7%) to attack the farmers.. While the use of seeking assistance from friends, relatives and the herders' association (Miyetti Allah Cattle Breeders Association (MACBAN) was the most often used SSCS (63.9%) among the herders. It was followed by seeking help from traditional institutions (19.5%). Engaging in litigation and seeking assistance from the local government were found to be the least coping strategy adopted by the herders.

Table 1: Distribution of Farmers and Herders according to Socio-economic Factors influencing the use of Problem Oriented Coping Strategy (POCS) among Farmers and Herders affected by Conflict in the Study Area

Independent Variables	Coefficient	Standard Error	P	R²	Remarks
Age					
Farmers	0.63	0.26	0.009	0.793	*
Herders	0.27	0.33	0.22	0.582	
Gender					
Farmers	0.08	0.03	0.62	0.795	
Herders	0.04	0.001	0.46	0.763	
Education level					
Farmers	0.008	0.015	0.66	0.874	
Herders	0.004	0.013	0.52	0.648	
Annual income					
Farmers	2.1×10^6	5.62×10^{-7}	0.026	0.722	*
Herders	0.189	0.032^1	0.023	0.634	*
Household size					
Farmers	0.34	0.019	0.027	0.618	
Herders	-0.012	0.01	0.44	0.803	
Production system					
Farmers	0.008	0.003	0.118	0.909	
Herders	0.046	0.025	0.04	0.712	*
Size of enterprise					
Farmers	6.65×10^{-6}	2.5×10^{-6}	0.025	0.902	*
Herders	0.006	0.022	0.19	0.811	
Production motive					
Farmers	0.032	0.233	0.69	o.911	
Herders	3.39×10^{-6}	5.2×10^{-6}	0.61	0.762	
Occupation experience					
Farmers	-0.049	0.021	0.061	0.831	*
Herders	0.051	0.011	0.721	0.813	
Tenure arrangement					
Farmers	-0.008	0.22	0.496	0.933	
Herders	-7.12×10^{-4}	2.36×10^{-4}	0.571	0.912	
Constant					
Farmers	-0.057	0.349	0.714		
Herders	-0.073	0.543	0.816		

* Significant at p=0.05

LR statistic (10 df): Farmers= 23.244; Herders= 20.623 Probability (LR stat): Farmers= 0.0154; Herders= 0.0141

McFadden R² (collective): Farmers= 0.4523; Herders= 0.4159

Socio-economic Factors influencing the use of Emotion-oriented Coping Strategy (EOCS) among Farmers and Herders affected by Conflict in the Study Area

The result of the Logistic regression analysis of the use of emotion oriented strategy among farmers and herders affected by conflict was presented in table 2. An LR statistic (i.e. chi-square value) of 15.422 and $p = 0.0024 < 0.05$ showed that at least one variable was significantly different from zero and the variables were collectively significant in influencing the use of EOCS among the farmers. Age, farm size and farming experience were found to be individually significant in influencing the use of EOCS among farmers. This implied that as farm size increased, the use of EOCS also increased. The significance of farm size in influencing the use of EOCS among the farmers might be due to the fact that increasing farm size requires more commitment from the farmer and he thus becomes more attached to the farm materially, physically and emotionally. He therefore uses every affordable strategy to combat actual and potential farm-related threats. Age and farming experience, however, recorded negative coefficients which connotes inverse relationship with the use of EOCS among farmers. Farming experience and age, which are interrelated, increased with decreasing use of EOCS among the farmers, suggesting that they relied on more realistic coping strategy, other than emotional ones, with increasing age and farming experience.

Among the herders, socioeconomic characteristics were also found to significantly influence the use of emotion-oriented coping strategy, as indicated by the result of the Logistic regression analysis presented in Table 2. With p-value of $0.034 < 0.05$ and LR statistic of 16.624, the variables under consideration were collectively significant. Specifically, years of occupation experience among the herders increased the probability of using emotion oriented coping strategy. Also, with increasing age, the tendency to use EOCS was found to increase.

Table 2: Distribution of Farmers and Herders according to Socio-economic Factors influencing the use of Emotion-oriented Coping Strategy (EOCS) affected by Conflict in the Study Area

Independent Variables	Coefficient	Standard Error	P	R²	Remarks
Age					
Farmers	-0.46	0.212	0.031	0.524	*
Herders	-0.45	0.031	0.103	0.913	*
Gender					
Farmers	0.09	0.25	0.45	0.812	
Herders	0.04	0.21	0.19	0.922	
Educational level					
Farmers	0.045	0.012	0.26	0.786	
Herders	0.032	0.001	0.32	0.904	
Annual income					
Farmers	6.2×10^{-7}	2.38×10^{-6}	0.39	0.824	
Herders	2.20×10^{-6}	6.21×10^{-6}	0.17	0.844	
Household size					
Farmers	0.22	0.04	0.26	0.861	
Herders	0.06	0.02	0.23	0.36	
Size of enterprise					
Farmers	2.60×10^{-6}	9.52×10^{5}	0.045	0.618	**
Herders	0.053	0.028	0.74	0.624	

Production system					
Farmers	0.005	0.326	0.52	0.861	
Herders	9.1×10^{-7}	2.4×10^{-6}	0.66	0.861	
Production motive					
Farmers	0.050	0.031	0.81	0.901	
Herders	0.045	0.003	0.32	0.925	
Farming experience					
Farmers	-0.043	0.012	0.043	0.775	
Herders	-0.037	0.015	0.027	0.832	**
Tenure arrangement					
Farmers	0.001	0.026	0.83	0.914	
Herders	0.015	0.242	0.47	0.907	
Constant					
Farmers	-0.057	0.488	0.847		
Herders	-0.561	0.323	0.79		

LR statistic (10 df): Farmers= 15.422; Herders= 16.624   Probability (LR stat): Farmers= 0.0024; Herders= 0.034;

McFadden R² (collective): Farmers= 0.3126; Herders= 0.6412

Socio-economic Factors influencing the use of Social Support Coping Strategy (SSCS) among Farmers and Herders affected by Conflict in the Study Area

Social support may involve situations in which stressors are appraised as a shared problem, but are mainly perceived as the responsibility of the person who is stressed; or situations in which stressors are appraised as an individual problem, but the responsibility is shared within a social network. The result in table 3 shows that the use of SSCS among farmers was found to be influenced by educational level; farm size and farming experience. The LR statistic (19.213) and probability value (0.0028<0.05) indicate the collective significance of the variables in influencing the use of SSCS among farmers. With increasing level of education, farmers perhaps become more aware of social support possibilities, and therefore, adopt SSCS. Increasing farming experience and farm size among farmers might also increase their social support-seeking abilities. Result in Table 3 also shows that with an LR statistic of 17.243 and a p-value of 0.0013>0.05, the variables are not collectively significant in influencing the use of social support-seeking strategy among the herders. The reason for this might be that herders did not always use social support-seeking strategy to cope with conflict.

Table 3: Distribution of Conflict Actors according to Socioeconomic Factors influencing the use of Social Support Coping Strategy (SSCS) among Farmers and Herders affected by Conflict in the Study Area

Independent Variables	Coefficient	Standard Error	P	R²	Remarks
Age					
Farmers	0.33	0.012	0.363	0.810	
Herders	0.25	0.015	0.82	0.611	
Gender					
Farmers	0.212	0.20	0.004	0.834	
Herders	0.019	0.01	0.036	0,807	
Educational level					
Farmers	2.17×10^{-6}	9.66×10^{1}	0.032	0.665	*
Herders	0.021	0.02×10^{1}	0.221	0.418	
Annual income					
Farmers	-6.5×10^{-6}	2.25×10^{1}	0.46	0.783	
Herders	0.008	0.03	0.21	0.861	
Household size					
Farmers	0.462	0.025	0.69	0.902	
Herders	0.023	0.253	0.46	0.795	
Size of enterprise					
Farmers	-0.005	0.234	0.026	0.614	*
Herders	0.044	0.041	0.77	0.811	
Production system					
Farmers	0.033	0.028	0.87	0.911	
Herders	2.7×10^{7}	9.3×10^{7}	0.43	0.843	
Production motive					
Farmers	0.019	0.015	0.62	0.872	
Herders	-0.015	0.22	0.28	0.714	
Herding experience					
Farmers	0.327	0.026	0.009	0.863	*
Herders	0.003	0.015	0.610	0.772	
Tenure arrangement					
Farmers	-0.031	0.014	0.021	0.913	
Herders	0.001	0.023	0.53	0.877	
Constant					
Farmers	-0.048	0.513	0.921		
Herders	-0.690	0.318	0.906		

* Significant at p=0.05 LR statistic (10 df): Farmers= 19.213; Herders= 17.243 Probability (LR stat): Farmers= 0.0028; Herders= 0.0013 McFadden R² (collective): Farmers= 0.4522; Herders= 0.342

CONCLUSION AND RECOMMENDATION

This research has attempted to broaden an understanding of various coping employed by farmers and herders during post-conflict situation to restore psychological intactness. Whereas individuals may attempt to relieve stress by solving the problem at hand or regulate their emotional responses, or by avoiding thinking about the event all together. However, in examining coping as a process over time, the research realized a need of important modifications with respect to the dynamic of the stages as a result of unpredictable adverse events that the participants also had to deal with as they occurred.

The study observes that some of the coping strategy most often employed by the conflict actors to relieve tension in order to continue production process do not adequately favor production systems of the conflict actors. For example, some conflict actors have the competence to ask for social support from their relatives or friends, but that should not be conflated with knowledge about the resources available to an individual and how these come into play in a proactive coping process. Whether a respondent actually receives the social support he/she reports to have the competence to ask for, depends upon contextual barriers such as prior input in the relationship, and the kind of resources available within the social support network. For instance, if the request for support was motivated by financial challenges, somebody in your support network needs to have either the financial resources to provide a loan; or applicable knowledge on how to solve the situation in other ways. The fact that a person affected by conflict has vainly asked for social support previously and kept track of the inputs in the relationship, he might not be willing to entertain such request for assistance in future. The competence to ask for social support, then, is merely a small step in a larger process.

The study therefore, recommends the need to include the establishment of common goals as an initial stage in the proactive coping process. However, while reaching toward the goals, group members also needed to tap into their resources to prevent unforeseen potential stressors along the way. Communal coping that entails the application of cooperative problem solving processes within the family and other social units dealing with stressful life events should be used as coping strategy in the event of farmer-herder conflict. In this model, communal coping and social support are distinguishable along dimensions of appraisal and action. In communal proactive coping strategy, group members feel collectively responsible for their future well-being and co-operate to promote desired outcomes and prevent undesired changes. The communal proactive coping process should be followed according to the order we observed them over time: forming common goals, resource accumulation, recognition of potential stressors, initial appraisal, preliminary coping efforts, and recognition of another potential stressor.

The study also indicated that adherences to religious teachings and meaningful involvement of the religious and community leaders in the coping process of the conflict actors have also been found to be an effective coping mechanism. What is of importance here is that people may co-operate to appraise a shared life situation and accumulate resources collectively to improve it in culturally meaningful ways.

REFERENCE

Adefolalu, D. O. (2007). Nigerian Eco Climatic Atlas for north West Zones, Centre for Climate change and freshwater resources. Federal University of Tech., Minna, Nigeria, Ajiboye (Nig.) Ltd.

Band, E.B., and Weiss, J. R. (1988). How to feel better when it feels bad: Children's perspectives on coping with everyday stress. Developmental Psychology, 24, 247–253.

Bar-On, D. (1996). Attempting to Overcome the Intergenerational Transmission of Trauma: Dialogue between Descendants of Victims and Perpetrators. New Harven, London, Yale University Press.

Bremmer J.D., Southwick S., Brett E., Fontana A., Rosenheck R., and Charney D (1992). Dissociation and Posttraumatic Stress Disorder in Vietnam Combat Veterans. American Journal of Psychiatrics. 328-332.

Compas, B., Worsham, N., Ey, S., & Howell, D.C. (1996). When mom and dad had cancer II. Coping, cognitive appraisal, and psychological distress in children of cancer patients. Health Psychology, 15, 167–175.

Creamer M., Burgess P., Pattison P., (1990). Cognitive Processing in Post-Trauma Reactions: Some Preliminary Findings. Psychological Medicine, 597 – 602.

Foa E.B., Steketee G. and Rothbaum B.O. (1989). Behavioral Cognitive Conceptualization of Post-Traumatic Stress Disorder: Behavior Therapy, 715-723.

Goldfried, M. R., & Davison, G. C. (1994). Clinical behavior therapy. New York7 Wiley. 32pp.

Gujarati, D. N. (2004) Basic Econometrics. Tata-McGraw-Hill Edition. Pp. 222-223.

Judge, G. G; Hill, G. R; Griffiths, W. E; Lutkephol, H; and Lee, T. C. (1982). Introduction to the Theory and Practice of Econometrics. John Willey: New York. 71pp.

Kliewer, W., Lepore, S.J., Oskin, D., & Johnson, P.D. (1998). The role of social and cognitive processes in children's adjustment to community violence. Journal of Clinical and Consulting Psychology, 66, 199–209.