

Stress and Coping Strategies: The Case of Working Women in Botswana

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Abstract: The study examined stress factors affecting working women and the coping strategies that they use. The sample comprised 160 randomly selected professional women in Botswana. Data was collected with a factor-analyzed questionnaire whose Cronbach Alpha reliability was .84. ANOVA analysis showed no significant difference among participants in stress factors ($F = .369 > .05$ NS) and significant difference in stress coping strategies ($F = 9.19 < .05$). Scheffe post hoc analysis showed nurses and secondary school teachers as homogeneous and primary school teachers as a different subset. Plausible causal factors of the observed stress coping skills difference among the study participants were discussed. The study recommended reduction in workload for nurses, secondary and primary school teachers in Botswana and the establishment stress reduction centers in their workplace.

Key words: Stress, nurses, teachers, stress, Botswana

INTRODUCTION

It is acknowledged that many women in paid employment have two jobs, one in the workplace and another home-making; and they face management of both roles^[1]. In settings where the impact of HIV/AIDS is like Botswana; this duality of roles for the formally employed woman is fast evolving into a triadic model^[2]. The components of this model are the reproductive role of being a wife and a mother, the career role of formal employment and the community role of having to respond to social demands from extended family members and people in the larger community.

Media reports have noted that twenty-five percent of the adults in Southern Africa (Botswana inclusive) are HIV-positive, the disease is cross-sectional in operation and the youth especially the workforce are the hardest hit^[3]. In Botswana, HIV/AIDS pandemic has forcibly categorized the population into two types of persons, the infected or the affected^[2]. Persons in the work force are included among the infected category^[4].

Substantiating how HIV/AIDS has seriously affected the work force, Hasen^[5] noted that nearly 1 million African students a year are deprived of a teacher because of the disease, absenteeism is common among ill instructors and morale is declining among colleagues who have had to stand in for the ill ones. Analyzing this experience from stress and stress coping viewpoint, it has been asserted that social and psychological historical realities have an impact on coping and adaptive strategies therefore; create a great deal of stress^[1]. Yet stress reduces productivity^[6]. People living in Botswana are either infected or affected by HIV/AIDS pandemic (Mberengwa and Onyewadume), this experience may be stressful (Napholz,). These people include female workers hence, it may be deduced that the

female worker in Botswana is at-risk of stress. Therefore, it is expedient to empirically investigate stress factors affecting working women in Botswana and the stress coping skills that they use; as they grapple with the performance of their triadic roles.

Purpose: The purpose of this study was to find out the stress factors that affect the participants of this study and the coping strategies that they use.

HYPOTHESES OF STUDY

The study investigated two hypotheses at .05 level of significance as follows:

- There is no significant difference among the working women, in the stress factors that affect them.
- There is no significant difference among the working women, in the coping strategies that they use.

RESEARCH QUESTIONS

The study investigated two research questions:

- Is there any significant difference among the working women in the stress factors that affect them in the course of their triadic role performance?
- Is there a difference among participants on the stress coping strategies that they use?

MATERIALS AND METHODS

Subjects: The research sample comprised one hundred and sixty working women (55 primary school teachers, 48 secondary school teachers and

57 nurses) in Gaborone, the capital city of Botswana. Their mean age was 39 years. The informed consent of these women was received after duly giving them information about the nature and importance of the study.

Instrument: A questionnaire constructed by the researcher was used to collect quantitative data from the research sample. The construct validity of the questionnaire was established by application of Factor analysis to the quantitative data that were collected. Using the principal component and orthogonal rotation techniques (Varimax) produced eleven factor groupings, six factors measuring stress (Appendix 1a and 1b) and four measuring coping strategies (Appendix 1a and 1c and are as explained below:

Factor 1: Wifehood stress-Stress due to being a wife to one's husband and in the African culture, simultaneously being a wife to members of the husband's family. Factor loadings of the questionnaire items were as follows:

Factor 2: Being a wife .603; 'all in-laws', .877; 'Mother in-law'.907; 'Father in-law'.840; 'Sister in-law'.918;

'Brother in-law' .819

Factor 3: Motherhood stress: Stress as a result of one's responsibility to one's little children .824; to adolescents .634; being a mother .831.

Factor 4: Workplace stress: Stress received in general from the workplace .752; workload .526; co-workers .740 and customers (i.e. students or patients).519.

Factor 5: Community-role related stress: Stress received from members of a person's biological family).635, stress from siblings (one's brothers and sisters) .614, stress from community demands-.673.

Factor 6: Contracting HIV anxiety-related stress-.Stress due to being anxious about the possibility that one being HIV-positive with time, 610.

Factor 7: Stress due to the impact of HIV/AIDS (E.g increased number of orphans in the community) .700

Stress-coping factors

Factor 8: Going-out coping skill: Going out for dinner.697, holiday with family.851, personal holiday. 752.

Appendix 1(a): Rotated component matrix of questionnaire items

	Component									
	1	2	3	4	5	6	7	8	9	10
Workplace stress	0.056	-0.198	-0.057	0.752	-0.005	0.068	0.127	0.211	-0.023	0.022
Workload stress	0.213	-0.004	0.198	0.526	0.063	0.091	0.370	-0.009	0.025	0.068
Co-workers stress	0.083	-0.019	0.111	0.740	-0.073	0.056	-0.001	-0.079	-0.047	0.029
Customers	0.244	0.201	0.073	0.519	-0.021	0.308	0.096	-0.031	0.080	0.126
Family members	0.069	0.206	0.246	0.196	-0.002	0.635	0.173	-0.049	-0.105	0.029
Little children	0.141	0.033	0.824	-0.010	0.038	0.252	0.063	0.058	0.041	-0.072
Adolescent children	0.301	0.049	0.634	0.089	0.060	0.156	-0.158	-0.132	-0.103	0.125
Being a wife	0.603	.053	0.169	0.221	0.095	0.234	0.043	0.146	-0.181	-0.091
Being a mother	0.114	0.043	0.821	0.153	-0.008	0.009	0.176	0.091	0.077	-0.020
All inlaws	0.877	-0.061	0.052	0.177	0.053	0.048	-5.826E-05	0.076	0.031	0.006
Mother-inlaw	0.907	0.072	0.074	0.073	0.029	0.015	-0.036	0.042	0.007	0.126
Father -inlaw	0.840	0.030	0.147	0.014	0.089	0.113	0.097	0.041	0.024	0.097
Sister-inlaw	0.918	0.001	0.030	0.080	-0.030	0.082	0.071	-0.077	0.041	0.005
Brother-inlaw	0.819	0.025	0.104	-0.022	0.089	0.098	0.080	0.000	-0.019	-0.020
Brothers and sisters	0.263	0.123	0.132	0.192	0.078	0.614	-0.049	0.070	-0.023	0.092
Community demands	0.188	-0.168	0.100	0.028	0.054	0.673	0.111	-0.034	0.321	-0.070
Financial concerns	0.057	0.280	-0.008	0.118	-0.016	0.297	0.431	0.284	-0.047	-0.040
Contract hiv/aids	0.079	-0.051	0.009	0.172	0.066	0.052	0.211	-0.030	-0.085	0.610
Impact of hiv/aids	0.085	-0.121	0.187	-0.003	0.164	0.192	0.700	0.078	-0.099	0.034
Go out for dinner	0.090	0.697	0.094	-0.199	0.287	0.007	0.048	0.010	0.124	0.203
Holiday with family	0.065	0.851	0.152	-0.040	0.054	0.054	0.038	0.080	-0.015	-0.009
Cook delicious meal	0.060	0.198	-0.103	-0.070	0.317	-0.120	-0.118	0.340	0.176	0.376
Select stress reducing food	0.127	0.287	0.193	0.041	0.247	0.098	-0.048	0.212	0.337	0.307
Delegate duty to maid	0.156	0.034	-0.066	-0.174	0.382	-0.013	0.058	0.133	0.618	-0.225
Talk with person involved	0.106	-0.045	0.049	-0.101	0.859	0.005	-0.020	0.044	0.038	0.020
Exercise	0.049	0.241	-0.005	-0.062	0.124	0.486	-0.147	0.220	-0.153	0.460
Fix a new hair style at the saloon	-0.005	0.328	0.112	-0.241	0.048	-0.165	0.056	0.456	0.408	0.079
Religion	0.176	0.132	-0.029	-0.115	0.193	-0.081	0.046	0.199	-0.713	0.007
Personally holiday	-0.087	0.752	-0.120	0.075	-0.050	0.132	-0.060	0.107	-0.109	-0.070
Music	-0.023	-0.019	-0.072	-0.027	0.061	0.229	-0.043	0.644	-0.191	0.344
Long hrs of sleep	0.142	0.171	0.086	0.189	0.035	-0.061	-0.155	0.702	0.031	-0.146
Discuss with person involved	0.050	0.185	0.064	0.080	0.761	-0.021	-0.079	0.012	-0.013	0.188
See counsellor	0.112	0.319	-0.277	0.006	0.399	0.169	-0.003	0.225	-0.177	-0.265
Seek advice from co-worker	-0.107	0.022	0.058	-0.115	0.253	0.139	-0.627	0.374	-0.058	-0.218
Seek advice from friend	-0.003	-0.086	0.040	-0.238	0.221	0.066	-0.696	0.278	-0.109	-0.003

Extraction method: Principal component analysis. Rotation method: Varimax with kaiser normalization

Appendix 1b: Summary of factor analysis of questionnaire items

Factors	Items	Factor Loadings
Wifehood related stress	Being a wife	0.603
	All in-laws	0.877
	Mother in-law	0.907
	Father in-law	0.840
	Sister in-law	0.918
Motherhood related stress	Brother in-law	0.819
	Little children	0.824
	adolescent	0.634
Workplace related stress	Being a mother	0.821
	Workplace stress workload	0.752
	Co-workers stress	0.740
	Customers	0.519
Family- of origin related	Family members	0.635
	Brothers and sisters	0.614
	Community demands	0.673
Impact of HIV/AIDS	Impact of HIV/AIDS	0.700
Contract HIV/AIDS	Contract HIV/AIDS	0.610

Factor 10: Relaxation skills: Music 644 and Long h of sleep.702.

Factor 11: Personal coping skills Delegate duty to maid .618 Religion .713.

The percentage of the total variance explained by each of the eleven Components are graphically displayed in Appendix 2.

To establish the reliability of the instrument, Cronbach Alpha reliability was computed. This yielded a score of .85, a very high reliability score therefore the test is considered very reliable. This result is presented in Appendix 3.

Questionnaire items that had loadings less than .4 were discarded during factor analysis therefore, were not included in hypothesis testing. Furthermore, to reduce ambiguity, the item 'seek advice from co-workers' was discarded because it loaded under two different components (.501 and, .579).

To establish the internal consistency of these items, the Crombach-Alpha internal consistency technique was used. This yielded very high scores for both stress and stress coping components of the questionnaire. This explanation is graphically displayed in Appendix 2.

Appendix 1c: Result of factor analysis on coping questionnaire items

Vacation- related	Go out for dinner	0.697
	Holiday with family	0.851
	Personally holiday	0.752
Communication related	Talking with the person involved	0.859
	Discuss with the person involved	0.761
Relaxation	Fix new hair style	0.456
	Music	0.644
Personal style	Long hours of sleep	0.702
	Delegate duty	0.618
	Religion	0.713

Factor 9: Communication coping skills: Talk with person involved .859, discuss with the person involved .761

Appendix 2: Total variance of stress factor explained

Component	Initial eigenvalues			Rotation sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.300	17.999	17.999	4.697	13.420	13.420
2	3.716	10.616	28.615	2.537	7.249	20.669
3	2.550	7.287	35.901	2.220	6.343	27.012
4	1.903	5.438	41.339	2.184	6.239	33.251
5	1.781	5.088	46.427	2.128	6.081	39.332
6	1.577	4.506	50.933	2.070	5.914	45.246
7	1.344	3.841	54.774	1.976	5.645	50.891
8	1.214	3.468	58.242	1.883	5.380	56.271
9	1.102	3.149	61.391	1.535	4.386	60.656
10	1.053	3.008	64.399	1.310	3.743	64.399
11	0.993	2.838	67.237			
12	0.942	2.691	69.928			
13	0.887	2.533	72.461			
14	0.850	2.428	74.889			
15	0.755	2.156	77.045			
16	0.715	2.043	79.088			
17	0.664	1.898	80.986			
18	0.640	1.828	82.814			
19	0.594	1.698	84.512			
20	0.586	1.673	86.185			
21	0.554	1.583	87.769			
22	0.513	1.465	89.234			
23	0.476	1.361	90.595			
24	0.458	1.308	91.902			
25	0.435	1.244	93.146			
26	0.380	1.085	94.231			
27	0.365	1.044	95.275			
28	0.298	0.850	96.125			
29	0.278	0.794	96.919			
30	0.261	0.745	97.665			
31	0.223	0.638	98.302			
32	0.212	0.607	98.909			
33	0.157	0.449	99.358			
34	0.118	0.336	99.694			
35	0.107	0.306	100.000			

Extraction method: Principal component analysis

Appendix 3: Cronbach's alpha reliability statistics on factorized questionnaire

Cronbach's alpha	Cronbach's alpha based on standardized Items	N of Items
0.719	0.723	13

RESULTS

The results of the study showed that:

- There was no significant difference among the women on the factors that stress them (F= .66>.05 NS); as shown in Table 1. That is, they were similarly stressed.
- There was a significant difference among the women on the coping strategies that they used to manage stress. (F=7.75< .05 NS) as shown in Table 2. As shown by Scheffe post hoc analysis (Table 3); secondary school teachers and nurses were a homogeneous subset in their use of coping strategies. Therefore, as a pair they differed from the primary school teachers who constituted another subset. These results are presented in the Tables below:

DISCUSSION

Discussions on the findings of this study are presented as follows:

Hypothesis 1: The results of the One-Way Anova computed on data that was collected showed that there was no significant difference among the women on the factors that stress them (F= .66>.05 NS); as shown in Table 1. That is, the three categories of working women were affected by stress factors. This finding corroborates the report of the American Association of Orthopaedic Surgeons^[7] which stated that the American nursing profession is experiencing heavy workloads and mandatory overtime overstaffing. In addition, the report noted that work overload is a major contributory factor to increasing shortage of nursing personnel in America, this shortage impacts negatively on the quality of patient care and patients' safety. Commenting, the American Association of College Nursing^[8] noted that this may cost more, given the cost of replacing burn-out nurses and caring for patients with poor treatment outcomes.

These current findings corroborate the case in Botswana in which nurses are overwhelmed by work overload^[9]. Editorial noted that the workload as well as low pay, lack of opportunity for advancement and poor work environment has forced some nurses to seek greener pasture elsewhere. In addition, it explained that Botswana lacks varied health personnel therefore; nurses have had

to carry the burden of health care on their shoulders. With respect to HIV/AIDS, Modikwa^[10] observed that acute staff shortage hampers effective dispensation of anti-retroviral therapy. Patients become more ill and the demand for nursing care and attendant workload for nurses increases.

Despite the enormity of this workload, sometimes work outside nursing job description is added to the work load of nurses. Examples include asking all workers in a hospital including nurses, to do a general cleaning of the hospital premises^[11]. In the case reported by Staff Writer, it hospital authorities noted that the cleaning would be followed by more community projects.

If used as a reference point, the case of America in which work overload led to shortage of nursing personnel^[7] may be an indicator that work overload of nurses in Botswana may lead to acute shortage of nursing personnel in the country overtime. Already media observation claims that nurses in Botswana are immigrating to the United Kingdom in search of greener pastures^[9].

Apparently, the findings of this present study also confirm an earlier study conducted by the University of Glasgow^[12] which observed that among others, workload is a major cause of stress to teachers. An explanation for work stress among teachers in Botswana is that the Botswana National Policy of Education^[13] stipulates a multiple role-structure for teachers and this tantamount to a heavy work load. For example, the policy stipulates that guidance should be taught at both primary and secondary schools. As such, above the normal teaching of their respective school subjects, every primary school teacher and volunteer secondary school teachers are to teach guidance as a school subject. In addition the number of orphans in Botswana schools are increasing and teachers are expected to take care of them^[14]. These demands substantiate work overload and proneness to stress of these workers.

Table 1 : Anova summary of stress factors affecting working women

	Sum of squares	df	Mean square	F	sig.
Between groups	119.339	2	59.670	0.369	0.692
Within groups	25402.405	157	161.799		
Total	25521.744	159			

Table 2: Anova summary of stress coping strategies

	Sum of squares	df	Mean square	F	sig.
Between groups	1120.844	2	560.422	9.197	0.000
Within groups	9567.056	157	60.937		
Total	10687.900	159			

Table 3: Scheffe Table

Profession	N	Subset for alpha = 0.05	
		1	2
Pry schl tr	55	40.8182	
Sec schl tr	48		46.3542
Nurse	57		46.4211
Sig.		1.000	0.999

Hypothesis 2: Results of the One-Way ANOVA computed on data showed a significant difference among the women on coping strategies that they used ($F=7.75 < .05$ NS). This result is presented in Table 2. To establish where the significance was, Scheffe post-hoc analysis was computed. Results showed that secondary school teachers and nurses were a homogeneous subset in their use of coping strategies while as a pair, they differed from the primary school teachers who constitute another subset (Table 3).

This finding tends to corroborate media report^[15] in Botswana that some secondary school teachers are already complaining through media resources that the newly introduced teachers shift project to the secondary school amounts to long working hours; therefore government should pay for what they consider the extra hours. It is note worthy that this project was earlier introduced at the primary school and the primary school teacher forbore it. This difference in response to this project may be an explanation for the difference observed in this study.

Secondary school teachers and nurses are from comparable institutions whereas the primary school teachers are from a lower level of education. Possibly, the observed difference in their coping strategies may be due to the quality of information that primary school teachers have compared to their counterparts who are in another subset. With their level of education, one expects nurses and secondary school teachers to be better informed than the primary school teacher. Furthermore, it is expected that they are better paid therefore; they may afford exclusive stress reduction services like going to the gymnasium, holidaying, eating out with friends and family members and hiring a maid to reduce house chores workload from them.

Time-out from work may be lacking. Being a home room teacher, the primary school Teachers' daily teaching schedule is often at a stretch therefore, in-between class sessions breaks are rare. In addition, in the bid to self-improve, a lot of primary school teachers pursue higher studies rather than de-stress during the holidays.

RECOMMENDATIONS OF STUDY

Based on the findings of this study, the following recommendations are hereby made:

- To enhance effective performance of their triadic roles, the workload of nurses, secondary and primary school teachers in Botswana, should be reduced.
- Furthermore, their job description should avoid making them, a jack of all trades.
- Workplace stress coping centers should be made available especially to primary school teachers.

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