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A STUDY ON STRESS LEVEL AND COPING STRATEGIC AMONG PRIMARY TAMIL SCHOOL TEACHERS

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Abstract

The purpose of this cross sectional study is determine the level of stress and coping strategies among primary school Tamil teachers in Selangor state with regards to location and to investigate the relationship between the stress level and coping .Approximately 240 teachers became the research respondents. The data was gained by employing DASS 21 and Ways of Coping Questionnaire. Data was analyzed using MINITAB 14. Statistical analysis for the first and second objective is done based on ANOVA. Analysis shows that even though rural and urban teachers' depression level is the same, urban teachers' have higher anxiety and stress level. Besides, rural teachers use playful problem solving as their way of coping with stress whereas urban teachers use accepting responsibilities as the highest way of coping with stress. Through the analysis for stress level and location, since the p value is less than 0.05, null hypotheses can

be rejected and it proves that there is a significance difference between the stress level and location of the school. As for the analysis on coping and location, since the p value is less than 0.05, the null hypotheses can be rejected and it proves that there is a significant difference between coping strategies utilized by urban and rural teachers. Analysis to find if there is relationship between stress level and coping is done using One Way MANOVA analysis. Since all the p values are less than 0.05, the null hypotheses can be rejected and there is a significant difference between stress levels and coping level. It is intended that the results of this study will help to create awareness for Tamil school teachers to reach and maintain effective stress coping strategies for optimal level of emotional wellbeing

Keywords

Coping, Stress, Primary Tamil School Teacher

1. Introduction

Stress can be categorized as positive stress or eustress and negative stress or distress. Selye (1974) associates eustress with goal-oriented behavior. Folk man and Moskowitz (2004) found eustress stimulates people and produces positive outcomes. However, distress can decrease performance and can create problems mentally and physically (Lazarus, R.S and Folk man, S, 1984). In order to handle stress, coping mechanisms are used. Lazarus and Folkman (1984) refer to coping as the individual's evaluation of a situation that is used to deal with the stressor. Teachers, due to the work environment and life style, undergo a variety of stressful situations, which can be categorized as distress to which they have to be able to cope with.

Then again, many researchers in Malaysia has carried out studies on stress among the secondary school teachers (Chan Ching Ling, 2007; Lukman, 2008; Hishamudin, 2009; Owi ,2009; Kamil Nasuruddin, 2010;AziziYahya, 2010), minimal attention has been given to the teachers working in Tamil school (Vijayan Madhavannair 2010). Additional research is needed to study the stress level among primary Tamil school teachers.

Besides, researches on coping have been carried out with teacher trainees, school administrators, secondary school students and college students. (Low, Sew Kim, 1997: Quek, Peck Hea 1998: Muhamad Saiful Bahri Yusoff, 2010: Shadiya Mohamed S. Baqutayan et.al.

2012). Thus, it is believed by researcher on the scarcity of the study on coping among primary school teachers.

Additionally, the relationship between stress and job satisfaction and intention to leave has got the attention of Malaysian researchers. (Bakaran, 2011; Siva, 2010; Mail Vahanam 2009, Tuhit; 2010). As noted above, little studies reported on the relationship between stress and coping variables. To the researchers' best knowledge, this is the first attempt to explore the possible relationship between stress level and coping in a Tamil school climate.

To this end, the purpose of the present study is to determine and identify the stress level and coping with regards to location. Besides, it also attempts to shed light on the relationship stress level and coping.

2. Theoretical Background

Transactional theory of stress by Lazarus and Folkman serves as the foremost theory in this research due its psychological nature. Folkman and Lazarus (1985) defines stress as a dynamic a relationship between the person and the environment. The dynamic relationship includes primary and secondary appraisal. (Lazarus & Folkman, 1984). In primary appraisal individual judges the transaction with the environment whether it is benign, challenging or threatening. On the other hand, in secondary appraisal the individual assess on the resources available. (Samuel, B. Green, 1996)

Coping strategies leads to stress outcomes. Lazarus (1986) emphasized the existence of emotions involved in stress. DASS 21 will be used as an instrument to measure negative emotional states. (Lovebird, S.H. & Lovebird, P.F., 1995). Stress level which is the dependent variable will be measured with regards to the demographic independent variable which is location of school.

This research is intended by an interest in the actual coping process that people employ to manage the demands of stressful events, in contra to the trait oriented approach. Ways of Coping is derived from a cognitive-phenomenology theory of stress and will be used as a tool to identify the thoughts and actions the primary school Tamil teacher used to cope with a stressful encounter. The dependent variable of coping will also be measured by the independent variable of location.

Another the key premise of Lazarus and Folkman’s transactional model is that coping strategies mediate the relationship between stressor and the individual’s stress outcomes.(Goh, Y.W., Sawang, S., & Oei, T.P.S.,2010). This research has its concern to investigate the association between the stress level and coping with regards to the location.

3. Research Method

3.1 Research Design

This is study on stress among primary Tamil school teachers in Malaysia will be conducted using survey. The intended survey for this is cross sectional in nature. The instrument for this research is in the form questionnaire. This questionnaire consists of 3 sections as follows; Section A aims to collect demographic information , Section B deals with stress level determination by using DASS 21, Section C provides insights on coping process by utilizing Ways of Coping

3.2 Demographic Information

The first part of the questionnaire is aimed to collect demographic data such as below;

Table 1: Demography of respondents

Items	
1	Gender
2	Marital status
3	Age
4	Location of the school

3.3 DASS21

The 21 items is a short form of 42 items of DASS. (Lovebird, S.H. & Lovebird, P.F. (1995).The 7 items per scale includes three components such as depression, anxiety and stress. Though the intention of this section is to examine stress level among primary Tamil school teachers, the usage of DASS21 is feasible because stress is very broad and probably incorporates depression and anxiety.

Table 2: DASS 21 Scales

Scale	Items
Depression	21, 17, 16, 13, 10, 5,3
Anxiety	20, 19, 15, 9, 7, 4, 2
Stress	18, 14, 12, 11, 10, 8, 1

3.4 Validity & Reliability of DASS21

Construct validity for the DASS 21 was done for a large non-clinical sample. It was

concluded that DASS21 possess adequate construct validity. (Julie D. Henry & John R. Crawford, 2005). Reliability of DASS 21 has been established by using internal consistency, estimated with Cronbach's coefficient alpha (Julie D. Henry & John R. Crawford, 2005)

3.5 Ways of Coping

Researcher uses Ways of Coping which was revised in 1988 by Consulting Psychologists Press. Since it was not a public domain, researcher purchases it from Mind Garden, www.mindgarden.com. A major reason for the choice of this instrument was that this questionnaire focuses on a coping process in a particular stressful encounter.

3.6 Validity & Reliability of Ways of Coping

According to Susan Folkman (1988), the evidence of construct validity has been established as the results of studies are consistent with the theoretical prediction. That is coping strategies are varied in relation to demands and constrains as an encounter unfolds. Reliability of ways of coping has been done by using internal consistency, estimated with Cronbach's coefficient alpha which is believed by the pioneer researcher Susan Folkman as the appropriate compared to test-retest.

3.7 Pilot Test

A Pilot study was conducted to 40 primary Tamil school teachers from two schools from Sepang district. 20 teachers from SJK (T) Bandar Baru Salak Tinggi which is a urban school and 20 teachers from SJK (T) Telok Datoh which is a rural school were selected to participate in the pilot studies. These teachers had similar characteristics as the intended respondent. It was aimed to verify the validity & reliability of the questionnaire and to approximate the time needed to complete the questionnaire.

3.8 Validity of the Present Study

The content validity is needed for both the questionnaires so that it will suite according to the Tamil school climate. Content validity is achieved by asking to what extent the measurement can represent the content aspect measured. (Chua, 2012). Respondents became the judges of the content validity. From the judgment which was given in a form of comments (verbal and written), it was concluded that DASS21 had content validity for the Tamil school scenario. A little modification was made to the Ways of coping questionnaire. One example of items that needed more time to understand was rephrased as followings;

Item no : 33

Initial : I tried to make myself better by eating, drinking, smoking, using drugs, or medications, etc.

Rephrased: I tried to make myself better by eating, or medications, etc.

Words such as drinking, smoking and using drugs were eliminated from the initial item as it doesn't reflect well on the teaching profession

3.9 Reliability of the Present Study

Reliability for the study is done through the croanbach's alpha internal consistency reliability method. In this method, items that have high correlation value is believed to have high reliability. (Chua, 2012).Internal consistency reliability method for DASS 21 is as followings;

Table 3: Reliability of Dass 21

Scale	Alpha
Depression	0.85
Anxiety	0.82
Stress	0.89

The alpha coefficients for the eight scales of Ways of coping are as follows;

Table 4: Reliability of Ways of Coping

Scale	Alpha
Confronting scale	0.70
Distancing	0.60
Self-Controlling	0.66
Seeking social support	0.75
Accepting Responsibility	0.66
Escape –Avoidance	0.69
Planful Problem Solving	0.67
Positive Reappraisal	0.74

Sampling Procedure

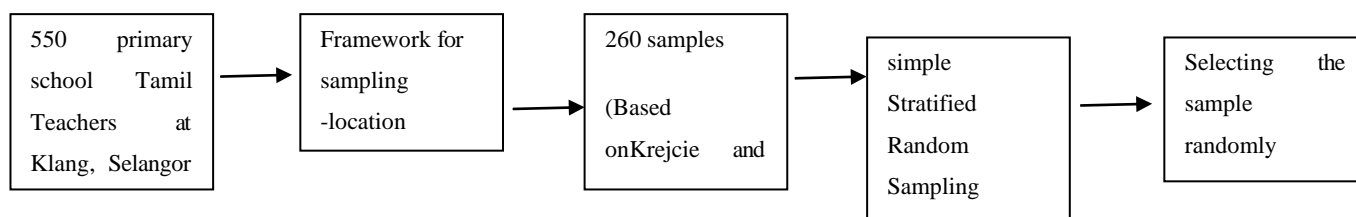


Figure 1: Sampling procedure.

The target population for this research is 550 Primary Tamil School teachers whom are working at Klang, Selangor. The framework for sampling includes location of school.

With regards to the table suggested population for 2,200 is 327. Researcher plans to choose a sample size of 260 though the needed sample as per suggested by Krejcie Morgan is 226. Under this procedure, the researcher ensured that each subsample has the same number of subjects.

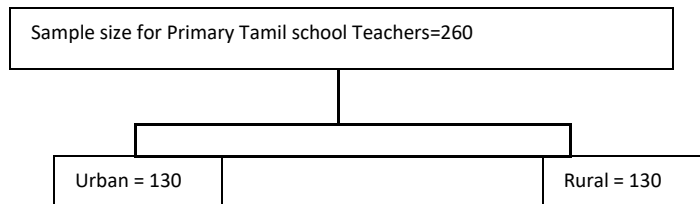


Figure 2: *Sample size proportion*

4. Study Results

Upon collecting the questionnaire, it was found that only 240 were usable. The new proportion is 120 teachers from urban and 120 teacher's rural teacher's .Data will be analyses using MINITAB 14.

- What is the stress level of the primary Tamil school teachers in Klang, Selangor? What are coping strategies utilized by the male and female teachers? The answers for above mentioned questions will be derived using ANOVA.
- Is there a relationship between the stress level and coping? MANOVA will be used to explore the strength of the relationship between the stress level and coping.

4.1 Descriptive Analysis According to Stress Level and Location

As for analysis on stress scales from urban teachers, the p value for all the scales is less than 0.05 thus it does have significant effect on the analysis. This can be seen in Table 5.

Table 5: *Table for stress scale response from urban teachers*

	Urban teachers	
	p value	R(adjusted)%
Did not apply	0.000	59.08

Some of The Time	0.000	71.52
Considerable Degree	0.000	79.62
Applied Very Much	0.000	80.89

The response from above Table 5 for ‘Applied Very Much’ gives the best result. It is influenced by the time factor by 80.89% as shown by the R-sq. (adjusted) in this analysis. The rest of the factors that influence, lie inside the error, which is $(100-80.89= 9.11\%)$. To test the statistical validity, the p value is observed. Since $p < 0.05$ as shown in Table 5, the scales have significant effect in this analysis.

In this case the data would be accepted to reflect that the linear relationship between scales and teachers is statistically valid.

As for analysis on stress scales from rural teachers, the p value for all the scales is less than 0.05 thus it does have significant effect on the analysis. This can be seen in Table 6

Table 6: *Table for stress scale response from rural teachers*

	Rural teachers	
	p value	R(adjusted)%
Did not apply	0.003	26.39
Some of The Time	0.000	56.32
Considerable Degree	0.046	15.65
Applied Very Much	0.000	40.74

The response from above Table6 for ‘Some of the Time “gives the best result. It is influenced by the time factor by 56.32% as shown by the R-sq. (adjusted) in this analysis. The rest of the factors that influence, lie inside the error, which is $(100-56.32 = 43.68\%)$. To test the statistical validity, the p value is observed. Since $p < 0.05$ as shown in Table 6 the scales has significant effect in this analysis.

In this case the data would be accepted to reflect that the linear relationship between scales and teachers is statistically valid.

Since the p value is less than 0.05, null hypotheses can be rejected and it proves that there is significance difference between the stress level and location of the school. The coefficient of determination shows the percentage of relationship between the stress level and the teachers from rural as well as urban locations.

4.2 Descriptive Analysis according to Stress Level

Table 7: Stress level

	Depression	Anxiety	Stress
Rural	Moderate Depression(15.38)	Normal Anxiety(7.3)	Mild Stress(18.28)
Urban	Moderate Depression (17.08)	Severe Anxiety (17.6)	Moderate Stress(20.28)

Based on analysis using DASS 21, rural teachers’ depression level, anxiety level and stress level are moderate, normal and mild respectively. As for urban teachers, moderate, severe and moderate respectively. Analysis shows that even though rural and urban teachers’ depression level is the same, urban teachers’ have higher anxiety and stress level.

4.3 Descriptive Analysis according to Coping and Location

As for analysis on coping scales from urban teachers, the p value for all the scales is less than 0.05 thus it does have significant effect on the analysis. This can be seen in Table 8.

Table 8: Table for coping scale response from urban teachers

	Urban teachers	
	p value	R(adjusted)%
Did not apply	0.000	44.08
Some of The Time	0.000	33.09
Considerable Degree	0.000	41.02
Applied Very Much	0.000	90.85

The response from above Table 8 for ‘Applied Very Much’ gives the best result. It is influenced by the time factor by 90.85% as shown by the R-sq. (adjusted) in this analysis. The rest of the factors that influence, lie inside the error, which is (100-90.85= 9.15%). To test the statistical validity, the p value is observed. Since $p < 0.05$ as shown in Table 8, the scales have significant effect in this analysis.

In this case the data would be accepted to reflect that the linear relationship between scales and teachers is statistically valid.

Since the p value is less than 0.05, the null hypotheses can be rejected and it proves that there is significant difference between coping strategies utilized by urban and rural teachers. The

coefficient of determination shows the relationship of coping strategies utilized by rural as well as urban teachers.

As for analysis on coping scales from rural teachers, the p value for all the scales is less than 0.05 thus the scales have significant effect on the analysis.. This can be seen in Table 9.

Table 9: Table for coping scale response from rural teachers

	Rural teachers	
	p value	R(adjusted)%
Did not apply	0.000	32.99
Some of The Time	0.042	16.10
Considerable Degree	0.000	91.67
Applied Very Much	0.000	42.53

The response from above Table 9 for ‘Considerable Degree’ gives the best result. It is influenced by the time factor by 91.64% as shown by the R-sq. (adjusted) in this analysis. The rest of the factors that influence, lie inside the error, which is (100-91.64 = 8.36%). To test the statistical validity, the p value is observed. Since $p < 0.05$ as shown in Table 10, the scales have significant effect in this analysis. In this case the data would be accepted to reflect that the linear relationship between scales and teachers is statistically valid.

4.4 Descriptive Analysis according to Coping

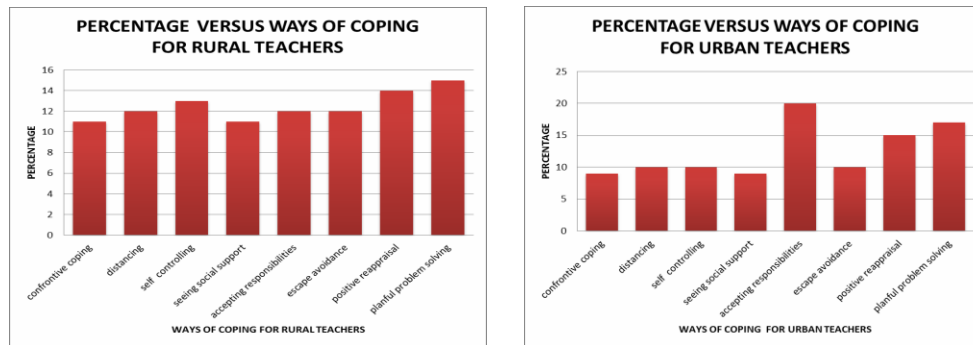


Figure 3: Teachers coping

The graph (left) indicates that rural teachers use playful problem solving as their way of coping with stress in school and followed by positive reappraisal way. The graph (right) indicates

that urban teachers use accepting responsibilities as the highest way of coping with stress followed by planful problem solving. The relationship between stress levels and coping ways is done based on the highest percentage for coping ways. For rural teachers the highest percentage for coping way is for planful problem solving and for urban teachers, accepting responsibilities coping way. One of the example are shown in the graph below. Thus the relationship between these ways and stress level is obtained through one way MANOVA. The results are shown in below Table 10:

Table 10: *One way MANOVA of relationship between stress level and coping*

	<i>Rural Teachers (Planful problem solving-coping way)</i>	<i>Urban Teachers (Accepting Responsibilities –coping way)</i>
	Wilks' P value	Wilks' P value
Stress	0.001	0.000
Anxiety	0.012	0.015
Depression	0.000	0.005

It can be seen that the p values for all the relationship is less than 0.05. Thus there is significant difference and proves there is strong relationship between stress levels and coping way. Null hypothesis can be rejected. Since all the p values are less than 0.05, the null hypothesis can be rejected and there is a significant difference between stress levels and coping level.

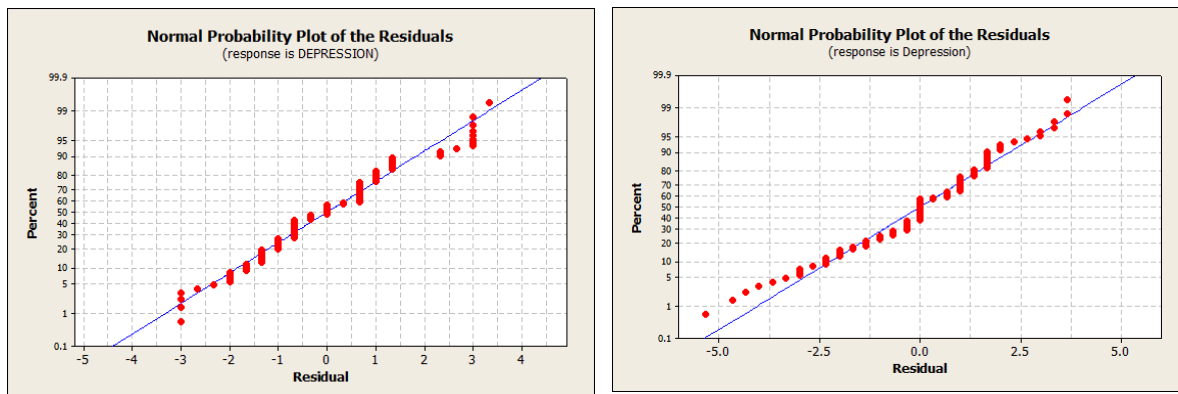


Figure 4: *Urban (left) and rural (right) Teachers (Accepting Responsibilities –coping)*

5. Conclusion and Suggestions

Based on the results mentioned above, the conclusions found are as follows: the stress

level between urban and rural teachers is not the same. This is parallel with the study conducted by Millicent (1999). Rural teachers use planful problem solving as the most used coping way while urban teachers use accepting responsibilities as their most used way of coping. There is a strong relationship between the stress level of teachers and the coping way. These results are in agreement with work done in Israel, by Zedan and Bitar (2012) in which a healthy family life, understanding and control of teaching, personal acquaintance with students and time for self - leisure activities was found to be among the most effective forms of coping. The more effective coping strategies are able to help in reducing the level of stress that is endured by the teachers. Even though this work was done abroad, it agrees with and strengthens the results of another study done locally in Malaysia by Baqutayan and Mai (2012). In this study it was found that university students that were taught coping strategies in dealing with academic stress were able to cope better with stress than those without knowledge of coping strategies. In fact, a follow-up study performed four years later found that students with knowledge of coping strategies showed superior academic ability when compared to those without such knowledge. This is a clear indication of the importance of good coping ways to deal with stress and improve performance.

Research done almost two decades ago by Allison (1997) looked at the relationship between different coping preferences and stress levels of school principals in Canada. The results from the study found that suitable coping strategies lead to less stress experience. To the researchers' best knowledge, this study appears to show that the relationship between stress level and coping has remained unchanged throughout the years.

On the basis of the results in this paper, several suggestions for follow-up research are as follows: Firstly, more variables can be used to study the relationship between stress level and coping, such as age and gender. Secondly, in order to study the consistency of the coping strategies used by urban and rural teachers, a longitudinal study can be performed with a similar Tamil school climate.

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