



The Association between Socio-demographic Factors and the Six Protective Factors that Foster Resilience among Tanzania Primary Schools Teachers

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Stress has been counted as a major problem for many teachers; something led some of them to have ineffective job performance within teaching profession. This study designed to examine the association between socio-demographic factors and the six protective factors that foster resilience among Tanzania primary schools teachers. And it was guided by a research question which stated that how have socio-demographic factors associated with six protective factors that foster resilience among Tanzania primary schools teachers?

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A total numbers of participants who filled and completed questionnaires were six hundred sixty two. The questionnaire had 36 items measuring six protective factors strongly associated with resiliency within teachers. And it was a Likert Scale ranged from strongly agree to strongly disagree. The six protective factors are such as purpose & expectations (PE), nurture & support (NS), positive connections (PC), meaningful participation (MP), life guiding skills (LGS), and clear & consistent boundaries (CCB).

Confirmatory Factor Analysis (CFA) was applied since we wanted to confirm the usability of scale items to Tanzania primary schools teachers. Basic descriptive statistics such as frequency, percent mean and standard deviation were calculated and used to describe the sample and the characteristics of the respondents. And since resilience of every domain was continuous variables multiple linear regression analysis was performed to determine association of resilience of every domain.

The results of this study show that to a large extent these six protective factors have a great contribution in promoting resilience to primary schools teachers in Tanzania. The factors have been different in developing the level of resilience for the respective teachers according to the environment in which the teachers work in, something leads to different responses for each socio-demographic factors used in this study.

Keywords: Resilience; protective factors; socio-demographic factors.

1. INTRODUCTION

Teaching is among of the most complicated and challenging professions around the world due to its intellectual and emotional nature of the service providing [1,2]. Numerous challenges and setbacks have been emerging in teaching which causes stresses, attrition demotivation and burnout of some teachers especially during five years of teaching which known as “the vulnerability period” (Wang, 2021). And it is well known that teachers are among of pillars of education system in any nation since they carry personal feelings, values and emotions within classes. They also care much their own mental well-being which is important thing in educational context. They know what to teach, how to teach and where to teach. By knowing these it helps them to cope against stress and challenges facing them within education system at the same time [3].

Accordingly, Teachers with better resilience remain within teaching profession, although they are mostly affected by the challenges which led them to have poor performance of their teaching. This happens because teachers are mostly facing many problems such as high workload, limited support from societies, fear to be challenged, poor time management and poor knowledge on how to control students’ behaviour within and outside class on how to satisfy students’ needs [4].

The reason beneath these problems facing teachers in many countries is that there is inadequacy of teacher education programs and training which prepare them for the reality of their

job and resilience something increases tensions and challenges to teachers. They mostly prepare and develop teachers for pedagogical skills and students’ test performance without working on other things such as social and emotional aspects of teaching. That is why, many countries has professional teachers who are technically expert in their teaching subjects but are not able to cope effectively with the emotional stressors, something resulting to attrition and burnout to occur [5].

Thus, teacher education programs and training must take a different approaches moving from “negative stressors” that brings problems for teachers to “positive factors and emotions which is resilience”. This will enable teachers to remain in their profession despite its setbacks facing them.

Therefore, the objective of this study was designed to examine the association between socio-demographic factors and the six protective factors that foster resilience among Tanzania primary schools teachers. Also, it answered one basic question which stated as follows: How have socio-demographic factors associated with six protective factors that foster resilience among Tanzania primary schools teachers?

2. REVIEWS OF THE LITERATURES

2.1 The Overviews of the Concept of Resilience

Previously researchers have studied resilience from various disciplines such as psychology, psychiatry and sociology, but recently they

have based more on biological disciplines including genetics, epigenetics, endocrinology and neuroscience. And for all disciplines there are two difference centers in the conceptualization of the term resilience. The first center is that conceptualize resilience as a personal trait while the second center is that conceptualize resilience as a dynamic process. These two centers produce narrow and broaden concept of resilience.

The narrow concept considers resilience as a personal trait operating after a single short-lived trauma. Whereby early researches on resilience were focused much on the selective strengths such as intellectual functioning, which helped people to survive against adversity. Thus the types of adversity were broadened to include negative life events across the lifespan which statistically associated with change against difficulties.

On other side the broaden concept considers resilience as a dynamic process which based on the protective factors or mechanisms that contribute to a good outcome, despite of experiencing with stressors which are shown to carry significant risk for developing psychopathology. This interactive concept refers to relative resistance towards environmental risks on overcoming stress. Thus, the dynamic process of positive adaptation in the context of significant adversity is based on multi-dimensional characteristic that varies with context, time, age, gender and cultural origin, as well as within an individual subject to different life circumstances.

Indeed, these two different centers which conceptualize resilience together acknowledge on two points which are various factors and the systems which contribute as an interactive dynamic process that increases resilience in relative to adversity. And resilience may be observed into context of specific time which cannot be present across all life domains. Accordingly there are multiple sources and pathways to define the concept of resilience. Often they can be looked through interaction of human being with environments which based on biological, psychological, dispositional attributes and social support and systems such as family, school, friends and community.

2.2 The Operational Concept of Teachers' Resilience

Krovetz [6] believe that the resiliency concept posits a belief in the ability of every person to

overcome difficulties if the important protective factors are present in that person's life. Wang [5] believe that teacher resilience has a crucial role to play in teaching and teacher education around the world. However, few practical attempts have been made to systematically improve and (re) build this characteristic in teachers. Despite the lack of consensus on an operational concept of teachers' resilience, most of the scholars have given out the concept of resilience which uses similar domains as evidence. In that matter this study conceptualizes resilience in different angles from different scholars' views.

According to Herrman et al. [7] resilience refers to the positive adaptation or the ability to maintain or regain mental health, despite experiencing adversity. It is a multifaceted, dynamic process that comprises interaction among teachers and the contextual resources that permits them to bounce back and forth from negative stressors and traumatic events within the field [8]. Also Henderson [9] justified that resilience is the capacity to successfully adapt to, bounce back from difficult events or situations. As suggested by Bobek [10] that the adaptation to such challenges events and bouncing back from difficulties might actually increase the level of one's competence.

Sun & Stewart [11] described resilience as an ability of individual's to overcome difficulties and challenges facing them in their life circumstances and risk factors, since it is a perspective which conceptualize successful adoption of human being despite of risk. It is also described as the interaction between risk and protective factors that specifically based on the process which comes as a results from individual's reaction to risk factors or vulnerabilities, that are present in the environment [12].

Although there is no single consensus of the concept of resilience paradigm, this study stand with general agreement that the term has its construct and components regarding individual's characteristics which include family structure, internal and external environments. Thus a resilient teacher has the following characteristics which are high level of autonomy, empathy, better problem solving skills and supportive peer relationships [11].

2.3 The Importance of Teachers' Resilience in Education System

Gates [13] believe that resiliency is not an innate characteristic, but it is a result of both internal

and external process. So, in education system resilience generates different positive outcomes for both teachers and students (Wang, 2021). For teachers it generates macro-level and for teachers and students it generates micro-level. More specifically, resilience to teachers minimizes stress and burnout and it improves their commitment, job satisfaction and well-being. As these builds teachers' instructional quality, work enjoyment, motivation, professional identity, retention, agency and self-efficacy [14-16].

Teachers are mostly emphasized to have more resilience within teaching environment something influenced by social interaction. By doing so, their teaching performance and students performances within schools will increase much. Correspondingly, teachers' resilience brings students at schools to have better engagement with teachers, motivation, and academic achievement [17]. Thus, there is a great need of integrating teachers' resilience into educational systems and teacher education programs using different models since they help teachers to prepare themselves for coping with the realities of their work.

For example, the study by Wang [5] show that few countries like Australia, the United States, Spain, and the Netherlands have taken operational steps to apply a systematic approach to build resilience in their pre-service and in-service teachers by using groundbreaking model proposed by Mansfield et al. [18]. According to him, the model provide to teachers and the education system together with teaching processes an infusion of sights, something help a nations in creating resilient teachers with better and effective teaching.

The researcher believes that if the country cannot follow this proposed model which helps teachers to have more resilience and integrate it within education system many problems will occur and lead to poor performance of the teachers and students respectively. For example up to 2019 China had 15 million teachers and 230 million students, but the quality of teaching was constantly declining especially in remote areas because of teachers' attrition and burnout [19]. This is due to the reason that teacher education programs have been facing a formidable challenge to prepare teachers who are resilient force for both pedagogically

and socio-emotionally tough when teaching large group of students [5].

3. METHODOLOGY

3.1 Instrument for Data Collection

A 36 items questionnaire developed by Muller et al. [20] was applied during data collection. This instrument has undergone several modifications which increased its validity and reliability [13]. She also explained that Muller, Gorrow & Fiala, [21] conducted a pilot study with the resilience instrument containing 34 items. Twelve items were removed from the instrument after the authors and panel of experts analyzed the results of the pilot study. The remaining 22 items were used in the study of Muller, Gorrow & Fiala, [21] "Considering Protective Factors as a Tool for Teacher Resiliency". After further modifications of this questionnaire, 36 items were finally produced and used in the study of Muller et al. [20] "Comparing Protective Factors and Resilience among Classroom-based Teachers and Community-Based Educators".

Henderson & Milstein, [22] indicated that the questionnaire is a five point Likert Scale from which participants were supposed to choose their responses from strongly agree (5), somewhat agree, (4), neutral (3), somewhat disagree (2) and strongly disagree (1). This instrument measured the degree of each of the six protective factors such as purpose and expectation (PE), nurture and support (NS), positive connections (PC), meaningful participation (MP), life guiding skills (LGS) and clear and consistent boundaries (CCB) [13]. Some important issues such as demographic variables and attitudes were added as a means of modifying the items of this questionnaire. So, uniform procedures and similar items were regarded as a means of increasing self-report of validity and reliability.

3.2 Participants and Area of the Study

The participants of this study were Tanzania primary schools teachers from two selected regions which are Dodoma and Kigoma whereby two municipalities which are Dodoma Municipal City Council and Kigoma-Ujiji Council were used. And two districts available in Dodoma region which are Bahi and Kongwa were used also during data collection.

A total number of 710 printed questionnaires were distributed to participants within mentioned areas whereby only 662 were fully filled and returned. The data were entered to the software ready for the analysis. Dodoma region had 510 printed questionnaires in total and Kigoma region had 200 printed questionnaires. The returned questionnaires from Dodoma which were dully filled and entered into software were 497. While questionnaires returned from Kigoma region which were dully filled and entered into software were 165.

3.3 Data Analysis

Basic descriptive statistics such as frequency, percent mean and standard deviation were used to describe the sample and the characteristics of the respondents. Since resilience of every domain were continuous variables multiple linear regression analysis was performed to determine the influence of demographic characteristics of respondents with association of resilience of every domain on nature and support, purpose and expectation, positive connection, clear and consistent, meaningful participation and life guiding skills. This was presented by general multiple linear regression model which presented by this formula. Where, $E(Y_i)$ is the mean of the response variables, x_i 's are independent variables and β_i 's are their respective parameters.

$$E(Y_i) = \beta_0 + \beta_1 x_1 + \dots + \beta_p x_p$$

3.4 Statistical Software used for Analysis

Analysis was performed using IBM SPSS version 25 with significance level of 5%. This means that an independent variable with p-value less than 0.05 indicating significant difference.

4. RESULTS

4.1 Demographic Characteristics for Respondents

Respondents of this study who filled the questionnaires were 662. During analysis process education level as variable was grouped into four categories. The aim was to get actual association between socio-demographic factors and the six protective factors that foster resilience among Tanzania primary schools

teachers. The frequencies for this variable indicate that 354 (53.47%) were certificate holders, 171 (25.83%) were diploma holders, 116 (17.52%) were degree holders and 21 (3.17%) were master degree holders. Other variables included and their frequencies are such as sex, marital status, age, teaching experience, teaching region and working district (Table 1).

4.2 Reliability Analysis

Generally, many quantities of interest in social sciences and other field, such as anxiety or job satisfaction, are impossible to measure explicitly. In such cases, we ask a series of questions and combine the answers into a single numerical value. However, when items are used to form a scale they need to have internal consistency. In this study Cronbach's alpha was computed to examine internal consistency or reliability of our instrument. It measures how well a set of variables or items measures a single, one-dimensional latent aspect of individuals.

The Cronbach's alpha values ranges from 0 to 1 and the values above 0.7 represent an acceptable level of internal reliability. The Cronbach's alpha values for the six protective factors ranged between 0.726 and 0.787. This indicates that there is high level of internal consistency for our scale (Table 2).

4.3 Confirmatory Factor Analysis on Six Protective Factors that Foster Resilience among Teachers

4.3.1 Nature and support and its association with socio-demographic factor on building resilience among teachers

The parameter estimates, standard error together with p-values of the fitted linear regression model were performed for the factors associated with resilience on nature and support. The analysis was adjusted for education level, sex of respondents, marital status, age of respondents, teaching experience and teaching region. The result revealed that resilience on nature and support was significantly related with age ($\hat{\beta} = -0.0152$, $p=0.0107$), and teaching experience ($\hat{\beta} = 0.0150$, $p =0.0116$). This implied that as age increase leads to an average decrease of resilience on nature and support by 0.0152 units. Also as unit increase of teaching experience, the average increase of resilience on

nature and support increase by 0.0150 units. Other variables were not significantly associated with natural and support (Table 3). However with regard to sex it was noted that females were less likely to have good resilience on natural and support as compared to males by 0.0325 units. With respect to marital status results showed that divorced were less likely to have good resilience on natural and support as compared to married by 0.1175 units. While participant who were single were more likely to have good resilience on natural and support as compared to married by 0.0165 units (Table 3).

4.3.2 Purpose and expectation and its association with socio-demographic factor on building resilience among teachers

The parameter estimates, standard error and p-value of the fitted model were performed for the factors associated with resilience on purpose and expectation. The analysis was adjusted for education level, sex of respondent, marital status, age of respondent, teaching experience and teaching region. The results indicated that resilience on purpose and expectation were statistically influenced by age ($\hat{\beta} = -0.0176$, $p=0.0080$) and teaching experience ($\hat{\beta} = 0.0169$, $p=0.0106$). With regard to age of respondent it was observed that a unit increase in age leads to decrease of resilience on purpose and expectation by 0.0176 units. In other hand the unit increases in years of teaching experience, the score of resilience on purpose and expectation increase by 0.0169 units (Table 4).

4.3.3 Positive connection and its association with socio-demographic factor on building resilience among teachers

Linear regression model of the effect of demographic factors on the resilience on positive connection were performed. The results showed that resilience on positive connection was significantly associated with education level ($p=0.0118$), marital status ($p=0.0166$), age ($\beta=-0.0152$, $p=0.0177$), teaching experience ($\beta=0.0165$, $p=0.0099$), and teaching region ($\beta=-0.1379$, $p=0.0033$) (Table 5).

With regard to education level the results showed that those respondents with masters level of

education were less likely to have good resilience on positive connection by 0.2848 units as compared to those with certificate level of education ($\beta=-0.2848$, $p=0.0118$). And with respect to marital status, those respondents who were divorced were significantly less likely to have good resilience on positive connection by 0.2043 units as compared to those who were married ($\beta=-0.2043$, $p=0.0166$). On other side, age of respondents had negative influence in resilience on positive connection. Regarding years of experience the result showed the unit increases in years of teaching experience lead the increase in resilience on positive connection by 0.0195 units. Participant from Kigoma region were less likely to have good resilience on positive connection by 0.31379 unit as compared to Dodoma ($\beta=-0.31379$, $p=0.0033$) (Table 5).

4.3.4 Clear and consistent boundaries and its association with socio-demographic factor on building resilience among teachers

Multiple linear regression analysis was used to assess factors associated with resilience on clear and consistent. The results showed that only teaching region was significantly associated with resilience on clear and consistence ($p=0.0443$) whereby respondents from Kigoma were less likely to have good resilience on clear and consistence ($\beta=-0.0939$, $p=0.0443$) compared to Dodoma. Other factors were not significantly associated with resilience on clear and consistence boundaries (Table 5).

4.3.5 Meaningful participation and its association with socio-demographic factor on building resilience among teachers

Linear regression model for factors associated with resilience on meaningful participation were performed. It was observed that resilience on meaningful participation was significantly associated with education level and age of respondents. With respect to education level those respondents who had masters level of education were significantly less likely to have high resilience on meaningful participation as compared to those respondents of certificate level ($\beta=-0.2138$, $p=0.0274$). And with regard to age of participants the result showed the unit increase in age, the resilience on meaningful participation decrease by 0.0122 units ($\beta=-0.0122$, $p=0.0254$) (Table 7).

Table 1. Demographic characteristics for respondents

Variable	Frequency	Percent
Education level		
Certificate	354	53.47
Diploma	171	25.83
Degree	116	17.52
Masters	21	3.17
Sex of the respondent		
Male	212	32.00
Female	450	68.00
Marital status		
Married	555	83.84
Divorce	37	5.59
Single	70	10.57
Age (in years)		
Less than 30	60	9.06
30 – 39	279	42.15
40 – 49	222	33.54
Above 49	101	15.26
Teaching experience (in years)		
Less than 10	180	27.19
10 – 19	298	45.02
20 - 29	125	18.88
Above 29	59	8.91
Teaching region		
Dodoma	495	74.77
Kigoma	167	25.23
Working district		
Dodoma city	374	56.5
Bahi	55	8.31
Kongwa	67	10.12
Kigoma Municipal	166	25.08

Table 2. Reliability statistics of the cronbach's alpha

Domain	Cronbach's Alpha	Number of Items
Nature and support	0.730	6
Purpose and expectation	0.726	6
Positive connection	0.748	6
Clear and consistent	0.741	6
Meaningful participation	0.787	6
Life guiding skills	0.740	6

Table 3. Socio-demographic factors associated with resilience on nature and support

Parameter	Estimate	Standard Error	Pr > t
Intercept	4.5994	0.1598	<.0001
Education level			
Diploma	-0.0676	0.0431	0.1172
Degree	0.0319	0.0496	0.5209
Masters	-0.1904	0.1050	0.0701
Certificate	Reference		
Sex			
Female	-0.0325	0.0405	0.4217
Male	Reference		

Marital status			
Divorce	-0.1175	0.0791	0.1377
Single	0.0165	0.0609	0.7862
Married	Reference		
Age			
Age	-0.0152	0.0059	0.0107
Experience			
Experience	0.015	0.0059	0.0116
Teaching region			
Kigoma	-0.0362	0.4735	0.4057
Dodoma	Reference		

Table 4. Socio-demographic factors associated with resilience on purpose and expectation

Parameter	Estimate	Standard Error	Pr > t
Intercept	4.5462	0.1783	<.0001
Education level			
Diploma	-0.0356	0.0481	0.4596
Degree	0.0228	0.0553	0.6810
Masters	-0.14133	0.1171	0.3339
Certificate	Reference		
Sex			
Female	0.0173	0.0471	0.7025
Male	Reference		
Marital status			
Divorce	-0.1174	0.0882	0.1838
Single	0.0451	0.0679	0.5070
Married	Reference		
Age			
Age	-0.0176	0.0066	0.0080
Experience			
Experience	0.0169	0.0066	0.0106
Teaching region			
Kigoma	0.0800	0.0485	0.0997
Dodoma	Reference		

Table 5. Association between the demographic and resilience on positive connection

Parameter	Estimate	Standard Error	Pr > t
Intercept	4.6767	0.1717	<.0001
Education level			
Diploma	-0.0346	0.0463	0.4559
Degree	-0.0266	0.0533	0.6184
Masters	-0.2848	0.1128	0.0118
Certificate	Reference		
Sex			
Female	-0.0637	0.0435	0.1436
Male	Reference		
Marital status			
Divorce	-0.2043	0.0850	0.0166
Single	0.0195	0.0655	0.7658
Married	Reference		
Age			
Age	-0.0152	0.0064	0.0177
Experience			
Experience	0.0165	0.0064	0.0099
Teaching region			
Kigoma	-0.31379	0.0468	0.0033
Dodoma	Reference		

Table 6. Association of demographic characteristic and resilience on clear and consistent boundaries

Parameter	Estimate	Standard Error	Pr > t
Intercept	4.0545	0.1737	<.0001
Education level			
Diploma	0.0456	0.0462	0.3237
Degree	0.0041	0.0532	0.9387
Masters	-0.0777	0.1126	0.4902
Certificate	Reference		
Sex			
Female	-0.0443	0.0434	0.3072
Male	Reference		
Marital status			
Divorce	-0.1521	0.0848	0.0733
Single	0.02483	0.0653	0.7039
Married	Reference		
Age	-0.0083	0.0063	0.1895
Experience	0.0089	0.0063	0.1616
Teaching region			
Kigoma	-0.0939	0.0466	0.0443
Dodoma	Reference		

Table 7. Association of demographic characteristic and resilience on meaningful participation

Parameter	Estimate	Standard Error	Pr > t
Intercept	4.6765	0.1472	<.0001
Education level			
Diploma	-0.0019	0.0397	0.9609
Degree	0.0545	0.0457	0.2331
Masters	-0.2138	0.0967	0.0274
Certificate	Reference		
Sex			
Female	-0.0506	0.0373	0.1752
Male	Reference		
Marital status			
Divorce	-0.1092	0.0729	0.1346
Single	0.0289	0.0561	0.6063
Married	Reference		
Age	-0.0122	0.0055	0.0254
Experience	0.0088	0.0055	0.1069
Teaching region			
Kigoma	0.0198	0.0401	0.6221
Dodoma	Reference		

4.3.6 Life guiding skills and its association with socio-demographic factor on building resilience among teachers

As presented in methodological section multiple linear regression analysis was used to assess factors associated with resilience on life guiding

skills results. The results revealed that resilience on life guiding skills were not significantly associated with demographic characteristics of respondents however results showed female were less likely to have high resilience on life guiding skills as compared to male ($\beta=-0.0279$, $p=0.4837$) (Table 8).

Table 8. Association of demographic characteristic and resilience on life guiding skills

Parameter	Estimate	Standard Error	Pr > t
Intercept	4.6627	0.1575	<.0001
Education level			
Diploma	0.0035	0.0425	0.934
Degree	0.0809	0.0489	0.0982
Masters	-0.0899	0.1035	0.3851
Certificate	Reference		
Sex			
Female	-0.0279	0.0398	0.4837
Male	Reference		
Marital status			
Divorce	-0.0266	0.0779	0.7332
Single	0.0249	0.0600	0.6774
Married	Reference		
Age	-0.0096	0.0058	0.1003
Experience	0.0085	0.0058	0.1437
Teaching region			
Kigoma	0.0152	0.0429	0.7238
Dodoma	Reference		

5. DISCUSSION

This study designed to confirm how six protective factors that foster resilience as presented by Muller et al. [20] which are Nature and Support (NS), Purpose and Expectation (PE), Positive Connection (PC), Clear and Consistent Boundaries (CCB), Meaningful Participation (MP) and Life Guiding Skills (LGS) associated with Tanzania primary schools teachers' demographic factors. The target was to confirm whether demographic factors of respondents such as age, teaching experience, sex, marital status, educational level and teaching region contribute in building primary schools teachers' resilience within profession. This is because the six protective factors are branded as important factors in establishing resiliency of individuals among population sample of pre-service and public schools teachers Muller et al. [21].

According to Carroll [23] the retention of teachers all over the world has emerged as a major challenge within nations for all public schools with high rates of attrition which costing billions of U.S dollars each year. For example in recent years Tanzania government has taken effective initiatives in retaining teachers of all levels of basic education. The initiatives taken are such as providing long and short courses to teachers, organizing seminars, short meeting and providing frequent knowledge to teachers on how to work effectively. All of these have been helping teachers in building resilience within teaching

profession. Therefore, it is imperative to determine all ways which can be useful to increase retention rates of teachers so that the nation will continue holding well qualified and experienced teachers for the benefit of the society [20].

Gates [23] believe that in areas or personal importance as protective factors, most of teachers used sense of agency, strong group support, achievement pride and competence in building resilience within teaching profession. She also believes that teachers who always showed a strong sense of agency they had abilities to control and face what happens to them. They are able to control easily all reactions happens at work which increases stress to them by having the best way of combatting against raised problem. Thus, resilience to teachers depends heavily upon the nature of the work environment, colleagues and aspirations or beliefs. These results are different to the results of this study on the factor of age of respondents.

The results of this study confirmed that there is little association between age and the resilience of teachers in the factors of nature and support, purpose and expectation, positive connection and meaningful participation. This implied that to some extent when ages of respondents were increasing it lead to an average decrease of resilience in the mentioned factors. It was seen that a unit increase on age of respondents leading to resilience decrease something

influence negative resilience. The fact indicates that as the age of a teacher increases, the less resilience at work. This is different from those who are employed at a young age who seem to have good resilience since they have more love of work in the early years of employment and work much hard. As justified by Benard [24] that, the presence of these protective factors has been shown to support the occurrence of resiliency among people of different ages especially those with new contact of employment.

Always resilience might manifest itself within an individual, a community, or group to make those involved stronger and better able to survive against stress within teaching profession Muller et al. [21]. So, poor schools administrative is one of the common reason why teachers fail to have resilience something led them to leave the classrooms and teaching profession [25].

Indeed, the results of this study on teaching experience indicate that resilience of teachers was increasing in average rate in the factors of nature and support, purpose and expectation and positive connection. The factors observed that the increase of experiences in teaching had positive units increase of resilience to teachers. For example while years of teaching goes on, it led to the expansion of teaching experience to teachers something enable them to increase their resilience within teaching profession. As advised by Muller et al. [21] that educational stakeholders must develop and implement new resilience strategies such as creating school-based social networking sites which is the most effective one to increase retention rate of teachers within profession. Thus, Bobek [10] concluded that within classroom, resilience is an important element in promoting teacher retention and better work performance.

According to Perrone, et al. [26] men and women are not differing in terms of facilitating variables that promote their career success like academic resilience or career-related help-seeking behavior. The study affirms that females were less likely to have high resilience compared to males on the factors of nature and support and life guiding skills respectively. It was seen that males are having good resilience because they mostly socialize much within societies around them. Thus, females are having little socialization as compared to males since they mostly work at specific time and go back home for serving their families. They have little time to meet with other

people for gaining new ideas which help them in building their resilience within profession. As found by Greenglass and Burke [27] that female teachers experience more significant roles conflicts than their counterparts males.

This is different to Mullers' et al. [20] findings which shows that females reported to have higher levels of resilience of each of the six protective factors than males. As females depend on strong and caring relationships in building and foster their resilience while males always tend to seek their solutions more individually to their problems Bernard [28]. He also concluded that self-esteem, self-efficacy and personal control are better resilience predicators among women than men within profession. This was contrary to Feingold [29] who reported that men had higher self-esteem than females and they have more self-confident. Muller et al. [20] also declared that other authors in their studies were found differences in the level of protective factors between men and women.

The results on marital status indicated that married participants had better resilience within teaching profession compared to divorced participants on the factors of nature and support and positive connection. This shows that most of married teachers had better working commitments something enable them to have better teaching efficacy. For divorced participants it shows that most of them have been facing stresses caused by the situation of living alone after separation with their loved one. This had brought them working under normal situation something makes them to have poor teaching performance. As indicated in the Richardson's resilience model of 1990 that in order for a person to become more resilient against adversities, there must be a set of stressors around him/her [13].

According to Ingersoll & Strong [30] teachers who participate fully in the training programs in any level of education are reporting higher job satisfaction something enable them to have better job commitment and retention in the profession than those who have not. Achieving these teachers should have a clear set of job responsibilities which helps in minimizing ambiguity role and promote teachers supports [13]. As the results of this study on education level observed that participants with certificate had better resilience on the factors of positive connection and meaningful participation compared to those with master degree level and

bachelor degree who were less likely to have good resilience.

This was caused by the factor that most of teachers who have bachelor degree and those with master degree they feel that they are the best teachers with best training programs than teachers with certificate level. They believe that they are not supposed to be classroom teachers rather to become educational officials who stay within offices and direct others to teach students within classrooms something which is wrong perception. This is different to teachers with certificate level who love their job by teaching students within classrooms and they have teaching commitments. The reason behind is certificate teachers have an intrinsic motivation and emotional commitment together with opportunities to learn and develop teachers in this teaching profession [13] since a resilient individuals mostly they have an ability to successfully adopt working environment despite of faced challenges [31].

Thus, the result of this study from two teaching regions which are Dodoma and Kigoma on the factors of positive connection and clear and consistent boundaries revealed that participants from Dodoma had better resilience within teaching profession compared to those from Kigoma who had less likely to have good resilience. The reason behind is that most of schools from Dodoma have better teaching environments as compared to those from Kigoma. According to Muller et al. [21] if schools conditions are conducive to fostering resiliency to teachers, then the number of teachers who will remain and thrive will increase despite of less than ideal conditions within schools environments. As this helps teachers to associate fully their roles and teaching responsibilities within schools environment, something brings effective social interactions with others within settings. The findings match with Bemard's [28] findings which show that three factors which are family, school and environment help individuals through adversities.

Also teachers from Dodoma whenever they face problems they have better chance to meet with educational officials from two ministries responsible for educational matters within the country. The ministries are Ministry of Education, Science and Technology (MoEST) and ministry of President's Office, Regional Administration and Local Government (PO-RALG). This is different to participants from Kigoma who need

much time and resources to meet these officials whenever they have problems within profession something increases stresses to them, since the headquarters of these ministries are allocated in Dodoma and it is very far to travel from Kigoma to Dodoma.

To solve this problem there must be an establishment of teachers caring relationship, high teachers expectations and teachers opportunities which will enable them participating fully within teaching activities. As this will increase their teaching morale since they will have better resilience. So, it become apparent that always positive relationships and interactions with colleagues as well as better working environments is an important factors in fostering teachers' resilience Muller et al. [21].

6. CONCLUSIONS

The data of this study were gathered from two regions which Dodoma and Kigoma. These regions are very far from each other. The aim was to get different resilience information of teachers who work in these regions. It was observed that most of teachers from Dodoma region had better resilience than those from Kigoma region. This was justified by one big factor that teachers from Dodoma region had better chance to get help from educational stakeholder who work at the Ministry of Education, Science and Technology (MoEST) and ministry of President's Office, Regional Administration and Local Government (PO-RALG).

The study conclude that there is great association between participants socio-demographic factors and the six protective factors that foster resilience which are purpose and expectation (PE), nurture and support (NS), positive connections (PC), meaningful participation (MP), life guiding skills (LGS) and clear and consistent boundaries (CCB) to Tanzania primary school teachers. Indeed their resilience was varying based on specific factors. Thus not all factors had the same direction to all socio-demographic factors of respondents but each factor had different perspective and direction in building resilience to Tanzania primary schools teachers who were researched.

7. RECOMMENDATIONS

It should be noted that this study has been conducted in only two regions as previously mentioned. So the researcher advices other researchers to research on the association

between socio-demographic factors and the six protective factors that foster resilience among primary schools teachers in other regions found in Tanzania as the aim is to look if factors from these regions are similar to the new regions will be researched.

The researcher also advises that other studies like this one should be done to look at the level of junior and senior secondary school teachers. This will further help to know if the source of stress and factors for resilience for primary school teachers in Tanzania is the same for secondary school teachers.

Lastly, the government of Tanzania should make sure that the study stand as a source of relevant information in providing and eliminating the problem of stress for teachers and increasing resilience to them. Thus, through this study the government gets to know in deep source factors for stress and how to build resilience to teacher and its impacts. Ruther than that this will leads to poor performance of teachers in promoting education in Tanzania.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Mercer S. The wellbeing of language teachers in the private sector: an ecological perspective. *Langu. Teach Res* 1. 2020;3510:1-24. DOI: 10.1177/136216882097
2. Sikma L. Building resilience: using BRiTE with beginning teachers in the United States. In: *Cultivating Teacher Resilience* Mansfield CF, editor. Singapore: Springer. 2021;85-101. DOI: 10.1007/978-981-15-5963-1_6
3. Pishghadam R, Derakhshan A, Zhaleh K, Al-Obaydi LH. Students' willingness to attend EFL classes with respect to teachers' credibility, stroke, and success: a cross-cultural study of Iranian and Iraqi students' perceptions. *Curr Psychol*; 2021. DOI: 10.1007/s12144-021-01738-z.
4. Kelly N, Sim C, Ireland M. Slipping through the cracks: Teachers who miss out on early career support. *J Teach Educ.* 2018;46(3):292-316. DOI: 10.1080/1359866X.2018.1441366
5. Wang Y. Building teachers' resilience: practical applications for teacher education of China. *Front Psychol.* 2021;12(August): 738606. DOI: 10.3389/fpsyg.2021.738606, PMID 34456836
6. Krovetz ML. Resiliency: A key element for supporting youth at-risk. *Clearing House.* 1999;73(2):121-3. DOI: 10.1080/00098659909600163.
7. Herrman H, Stewart DE, Diaz-Granados N, Berger EL, Jackson B, Yuen T. What is resilience? *Can J Psychiatry.* 2011;56(5):258-65. DOI: 10.1177/070674371105600504, PMID 21586191.
8. Li M, Yang Y. A cross-cultural study on a resilience-stress path model for college students. *J Couns Dev.* 2016;94(3):319-32. DOI: 10.1002/jcad.12088.
9. Henderson N. The resiliency route to academic success. *A guide for counselors and teachers*, 113. Temple Univ Cent Res Hum Dev Educ. 2004;113 .pdf.
10. Bobek BL. Teacher Resiliency: A key to career longevity. *Clearing House.* 2002;75(4):202-5. DOI: 10.1080/00098650209604932.
11. Sun J, Stewart D. Development of population-based resilience measures in the primary school setting. *Health Educ.* 2007;107(6):575-99. DOI: 10.1108/09654280710827957.
12. Luthar SS. Resilience and vulnerability: Adaptation in the context of childhood adversities. New York: Cambridge University Press; 2003.
13. Gates Z. A study of the protective factors that foster resilience in teachers. University of Southern Mississippi; 2018. Available: <https://aquila.usm.edu/dissertations/1540>
14. Brunetti GJ. Resilience under fire: perspectives on the work of experienced, inner city high school teachers in the

- United States. Teach Teach Educ. 2006;22(7):812-25.
DOI: 10.1016/j.tate.2006.04.027
15. Doney PA. Fostering resilience: a necessary skill for teacher retention. J Sci Teach Educ. 2013;24(4):645-64.
DOI: 10.1007/s10972-012-9324-x
16. Richards KAR, Levesque-Bristol C, Templin TJ, Graber KC. The impact of resilience on role stressors and burnout in elementary and secondary teachers. Soc Psychol Educ. 2016;19(3): 511-36.
DOI: 10.1007/s11218-016-9346-x
17. Li Q, Gu Q, He W. Resilience of Chinese teachers: why perceived work conditions and relational trust matter. Measure Interdisc Res Perspect. 2019a;17(3):143-59.
DOI: 10.1080/15366367.2019.1588593
18. Mansfield CF, Beltman S, Broadley T, Weatherby-Fell N. Building resilience in teacher education: an evidenced informed framework. Teach Teach Educ. 2016;54:77-87.
DOI: 10.1016/j.tate.2015.11.016.
19. Li Q, Zhu X, Lo LNK. Teacher education and teaching in China. Teach Teach. 2019;25(7):753-6.
DOI: 10.1080/13540602.2019.1693429
20. Muller S, Dodd A, Fiala K. Comparing protective factors and resilience among classroom-based teachers and community-based educators. Education. 2014;134(4):548-59.
DOI: 10.2753/CED.
21. Muller SM, Gorrow TR, Fiala KA. Considering protective factors. Education. 2011;131(3):545-56.
22. Henderson N, Milstein M. Resiliency in schools: making it happen for students and educators. Thousand Oaks, CA: Corwin Press; 1996.
23. Carroll T. Policy brief: the high cost of teacher turnover. National Commission on Teaching and America's Future; 2007 [cited Jul 20, 2013]. Available: <http://nctaf.org/wp-content/uploads/2012/01/NCTAF-Cost-of-Teacher-Turnover-2007-policy-brief.pdf>.
24. Benard B. Resiliency: What we have learned. San Francisco: West Ed.; 2004.
25. Bernshausen D, Cunningham C. The role of resiliency in teacher preparation and retention. Paper presented at the American Association of Colleges for Teacher Education 53rd Annual Meeting, Dallas, TX. March 1-4; 2001.
26. Perrone KM, Sedlacek WE, Alexander CM. Gender and ethnic differences in career goal attainment. Career Dev Q. 2001;50(2)December:168-78.
DOI: 10.1002/j.2161-0045.2001.tb00981.x
27. Greenglass ER, Burke RJ. Work and family precursors of burnout in teachers: sex differences. Sex Roles. 1988;18(3-4):215-29.
DOI: 10.1007/BF00287791
28. Bernard B. Fostering resilience in children. ERIC Database. (ED386327); 1995.
29. Feingold A. Gender differences in personality: A meta-analysis. Psychol Bull. 1994;116(3):429-56.
doi: 10.1037/0033-2909.116.3.429, PMID 7809307.
30. Ingersoll RM, Strong M. The impact of induction and mentoring programs for beginning teachers: A critical review of the research. Rev Educ Research. 2011;81(2): 201-33.
DOI: 10.3102/0034654311403323
31. Howard S, Johnson B. Resilient teachers: Resisting stress and burnout. Soc Psychol Educ. 2004;7(4):399-420.
DOI: 10.1007/s11218-004-0975-0

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