

Relationship between Family Functioning and Academic Engagement of Secondary School Students: The Moderating Role of Resilience

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Abstract

This study investigated the moderating role of resilience in the relationship between family functioning and academic engagement among secondary school students in Ogun State, Nigeria. The descriptive survey research design was adopted. A sample of 1800 senior secondary school students selected through multi-stage random sampling technique participated in the study. Three instruments; Family Assessment Device (FAD), Utrecht Work Engagement Scale - Student and Connor-David Resilience Scale were used for data collection. Data analysis employed the use of Multiple Regression Analysis. Results revealed that Resilience predicted academic engagement (Coeff = .459; SE = .028; t = 16.488; p < .05). Family functioning predicted academic engagement (Coeff = .049; SE = .020; t = 2.431; p < .05). However, resilience inversely interacted with family functioning (Coeff = -.002; SE = .001; t = -1.971; p < .05) to predict academic engagement. It was concluded that the relationship between family functioning and academic engagement will be inversely moderated by resilience.

1. Introduction

The concept of academic engagement has received great attention in both theoretical and empirical literature [1 – 4]. Academic engagement is the totality of what makes an individual a student with behaviour uniquely fulfilling the identity nature of being a student. This is said to be of three components vis-à-vis behavioural, emotional and cognitive. All these three components are logically linked together in producing overall school success.

Academic engagement was found to be positively related to class collective efficacy [4] and all measures of achievement [5]. It was found to be negatively associated with teachers' emotional obstruction [6], shyness [5] and externalizing behavior [4, 7]. Student's academic engagement is influenced by basic psychological needs [8]. It has also been established that emotional creativity predicts intrinsic motivation and academic engagement of university students by the experience of positive emotions [9]. Students adopted more of problem- focused coping than emotion-focused

coping strategies and were academically engaged [10]. The more a person has psychological capitals, particularly optimism and hope, the more he/she would have academic engagement, with increased behavioral engagement as a main [11]. Higher disciplinary structure was associated with higher engagement, and higher student support was associated with higher engagement and grades [12]. However, evidence of the prediction of academic engagement by family functioning is sparse and not well investigated.

Family functioning is defined as the way in which the family members interact, react to, and treat other family members; it includes variables within the family such as communication styles, traditions, clear roles and boundaries, and the degree of fusion, flexibility, adaptation and resilience [13]. Family is a strong communicative base of adolescent development, even though environment has its own influence as well [14]. There was a significant correlation between the dimensions of family functioning and areas of self-esteem; except for lack of independence, and public, academic, and physical self-esteem [15]. Adolescents' reports of increased family functioning predicted decreased externalizing problems, as well as increased levels of familism and global self-worth [16]. There is a significant correlation between family function (except lack of independence) and students' academic achievement [17]. Adolescents with high or increasing family conflict trajectories, and low or decreasing family support trajectories, were at relatively greater risk of sexual risk behaviors and sexually transmitted infection [18]. Higher levels of adolescent family functioning were associated with less health risk behaviors and depressive symptoms [19].

The functioning of a family is a significant factor in the context of tobacco, alcohol, and drug use [14]. When a family experiences stress, an adverse event, a traumatic event, or a life change (positive or negative), the family enters a period of adjustment. The majority of family functioning models have evolved from a systems theory, which conceptualizes family as a type of "ecosystem" made up of many interdependent parts. As such, family functioning models emphasize the interconnected of each element within the family system, and posit that to fully understand an individual operating in a family,

it is necessary to see how the entire unit functions. Family functioning has been shown to relate significantly negatively with Adolescent Health Risk Behaviors and Depressive (HRB/DS0 [19]. Family functioning is among the most important factors ensuring the mental health of family members. Disorder or disturbance in family functioning would cause many psychological problems for family members [20]. Almost 17 percent of quality of life variance among addicts could be explained by dimensions of family functioning namely: roles and communication [21]. A significant relationship between family functioning score and total aggression score [22].

Secondary school adolescents develop successfully against odds; this is in line with resilience. Resilience is an everyday general term meaning elasticity and stretch, which refers to the ability to recoil or spring back into shape, after bending, stretching or being compressed [23] and is enabled by internal, individual assets as well as the resources available in a person's environment to support healthy development [24]. For humans, this term refers to the ability to withstand or recover quickly from difficult conditions. Resilience is broadly defined as the ability to respond adaptively to challenges or adversity [25]. It is the individual attributes that are related to the process of successfully adapting to the environment in the face of adverse conditions [26].

It is the ability to reduce the chances of a shock, to absorb a shock if it occurs (abrupt education of performance) and recover quickly after a shock (re-establish normal performance) [27]. The conceptualization of resilience as a trait shows the characteristic that a person has, that allows success in the face of adversity [28-30].

Resilience has been found to be re correlated with negative symptoms, defeatist beliefs, depression/anxiety symptoms, and social cognition [25]. There were no significant correlations with nonsocial cognition or psychotic symptoms. Resilience was correlated with community functioning in the domains of work, independent living, and social and family relationships. The relationship between resilience and Post Traumatic Growth was curvilinear: The highest levels of PTG occurred when resilience levels were moderate [31]. PostTraumatic Growth (PTG) and resilience are positively related [32]. Resilience was negatively related to distress but positively related to psychological well-being [33] to mention a few.

The relationship between adverse experiences and later development has been explored by many researchers, leading to the conceptualization of resilience as a factor explaining the normal or optimal development of some individuals exposed to adversity [34]. Perceived stressful life events could also affect school adjustment through the mediation

of resilience [35]. Emotion regulation ability is a significant predictor of adolescents' resilience [36].

Resilience has been found to moderate the associations between parental problem drinking and adolescents' internalizing and externalizing behaviors of Korean adolescents [37], hassles and psychological distress [38], emotional intelligence and clinical communication ability among Chinese practice nursing students [39], exposure to violence and Posttraumatic Reexperiencing in Mi'kmaq Youth [40], ostracism and depression among Chinese adolescents [41], academic burnout and the perception of psychological health in nursing students [42], perceived stress and binge eating symptoms among young adult women [43], longitudinal linkage between adolescent Posttraumatic Stress Disorder Symptoms and Posttraumatic Growth [44] and Posttraumatic Growth and adolescent academic burnout in a post-disaster context [45].

However, the moderating effect of resilience between family functioning and academic engagement has not been established. Generally, from the trend and direction of the literature, it has been established that for the secondary school adolescents to have a wholesome academic engagement, they should be able to adjust positively to different emotional provoking situations arising from schools and families; all these demand their resiliency level.

It was therefore hypothesized that resilience would moderate the relationship between family functioning and academic engagement of secondary school students.

2. Method

2.1. Design

This study adopted a descriptive survey research design of the *expost facto* type. The communication mode of data collection for the present study is survey. The object of a survey is to provide a quantitative or numeric description of some fraction of a population (a sample) by asking relevant questions that address some unknown aspect of the population [46].

The topical scope of this study is statistical rather than a case study. The research environment is the field rather than the laboratory as could be in the experimental research. The time dimension is cross sectional since data are to be collected at the same time and not over a long period of time as is in the case of the longitudinal studies. The nature of the relationship between the variables is descriptive. Conceptually therefore, the study is an *expost facto*, survey, descriptive, cross- sectional, field, and statistical study.

Dependent variable of the study was academic engagement. The independent variable was family functioning while the moderating variable of the study was resilience.

2.2. Participants

A sample size of 1,800 Senior Secondary School students was used for this study. This was selected through the multistage stratified random sampling technique. The first stage of selection was the selection of three local Government Areas from each of the three Senatorial Districts. A list of all the Local Government areas in the Senatorial Districts was made from which three local government areas were selected randomly from each of the Senatorial District.

Thereafter, five senior secondary schools were randomly selected through simple random sampling technique from each of the selected local government areas. Finally, forty senior secondary school; twenty each from SSI and SSII students were randomly selected from each of the forty-five schools were sampled, amounting to one thousand and eight hundred senior secondary school students I and II for this study. The choice of SSI and SSII was because cases of school dropout, inferiority complex, bad peer influence and many more are predominant among them.

2.3. Instruments

2.3.1. Utrecht Work Engagement Scale-Student (UWES-S). Academic engagement was assessed using the UWES-S, a modified version of the UWES [47] which was adapted for use in student samples. The UWES-S is a 14 item scale that is made up of three subscales, namely; vigour (5 items: e.g. “*When I am studying, I feel mentally strong.*”), dedication (5 items: e.g. “*I find my studies to be full of meaning and purpose*”) and absorption (4 items: e.g. “*Time flies when I am studying.*”). The scale has a seven point frequency rating scale ranging from 1 = strongly disagreed to 7 = strongly agree. Cronbach alpha coefficients of 0.68 and 0.80; 0.91 and; 0.73 and 0.75 have been reported for vigour, dedication, and absorption respectively [48].

2.3.2. The Family Assessment Device (FAD). Family functioning was measured using The Family Assessment Device (FAD) - a self-report screening instrument that assesses family functioning [49]. FAD is based on the McMaster Model of Family Functioning (MMFF) which described the

characteristics and structural organisation of families to differentiate between healthy and unhealthy patterns. FAD consists of 60 items rated on a 4-point Likert scale, from “Strongly agree” to “Strongly disagree”. This instrument consists of seven scales; six dimensions of family functioning identified by MMFF and a General Functioning scale. The six scales are: Problem Solving (e.g. *We usually act on our decisions regarding problems.*), Communication (e.g. *You can't tell how a person is feeling from what they are saying*), Roles (e.g. *When you ask someone to do something, you have to check that they did it.*), Affective Responsiveness (e.g. *We are reluctant to show our affection for one another.*), Affective Involvement (e.g. *If someone is in trouble, the others become too involved*), and Behaviour Control (e.g. *You can easily get away with breaking the rules*) and general functioning (e.g. *In times of crisis we can turn to each other for support*).

The FAD has a high levels of consistency across different types of families, acceptable levels of test-retest reliability, low correlations with social desirability, moderate correlations with other self-report measures of family functioning, and differentiates significantly between clinician-rated healthy and unhealthy families 6 of 7 scales have reported internal reliability above.70

2.3.3. Connor-Davidson Resilience Scale.

Resilience was assessed using the Connor – Davidson Resilience Scale CD – RISC originally developed to collect data on student’s level of resiliency [50]. The CD-RISC comprised of 25 questions. The respondents were asked to answer in terms of how they have felt within the last month. Each question will be rated on a 5-point Likert-style scale, ranging from not true at all (0) to true nearly all the time (4). Cronbach alpha values of between 0.79 and 0.88 have been reported for the scale [50].

2.4. Procedure

The three instruments were administered on the participants in their various schools. Students sampled in each school were seated in a classroom and assured of the confidentiality of information provided in the instruments. The filled-out questionnaires were collected the same day they were completed. Data collected were analysed using both descriptive statistics of means and standard deviation to provide the description of data. Moderation Analysis was done using the Conditional Process Analysis macro [51]. Results were tested at .05 level of significance.

3. Results

3.1. Preliminary results

Results in Table 1 indicated that academic engagement, family functioning and resilience are variously positively related. Academic engagement is significantly related to family functioning ($r =$

$.251$; $p < .01$) and resilience ($r = .438$; $p < .01$). Family functioning is also related to resilience ($r = .490$; $p < .01$).

Table 1. Descriptive Statistics and Correlations Indices for the Study Variables

	Academic Engagement	Family Functioning	Resilience
Academic Engagement	1	.251**	.438**
Family Functioning		1	.490**
Resilience			1
Min.			
Max.			
Mean	61.711	136.137	71.642
Std. Dev.	13.539	17.020	11.994
Skewness			
Kurtosis			

** . Correlation is significant at the 0.01 level (2-tailed).

3.2. Moderation analysis

Table 2. Coefficients for the moderating role of resilience between family functioning and academic engagement

Antecedents	Consequence (Academic Engagement)					
	Coeff	SE	t	p	LLCI	ULCI
Constant	61.923	.306	202.354	.000	61.323	62.523
Resilience	.459	.028	16.488	.000	.404	.514
Family Functioning	.049	.020	2.431	.015	.009	.088
Resilience X Family Functioning	-.002	.001	-1.971	.049	-.004	.000
Model Summary	R = .442; R ² = .196; F(3,1796) = 145.620; p = .000					

Results in Table 2 revealed that resilience predicted academic engagement (Coeff = .459; SE = .028; $t = 16.488$; $p < .05$). Family functioning also predicted academic engagement (Coeff = .05; SE =

.020; $t = 2.431$; $p < .05$). However, resilience interacted inversely with family functioning (Coeff = -.002; SE = .001; $t = -1.971$; $p = .05$) to predict academic engagement.

Table 3. Conditional effect of Family Functioning on Academic Engagement at values of Resilience

Resilience	Effect	SE	t	p	LLCI	ULCI
-11.994	.074	.027	2.774	.006	.022	.127
.000	.049	.020	2.431	.015	.009	.088
11.994	.023	.021	1.138	.255	-.017	.064

Values for quantitative moderators are the mean and plus/minus one SD from mean.

Values for dichotomous moderators are the two values of the moderator.

Results in Table 3 revealed that for students with low level of resilience, the relationship between family functioning and academic engagement was stronger (Coeff = .074; se = .027; $t = 2.774$; $p = .05$) than for those with average level of resilience (Coeff

= .049; se = .020; $t = 2.431$; $p = .05$). However, relationship between family functioning and academic engagement was not significant for students with high level of resilience (Coeff = .023; se = .021; $t = 1.138$; $p > .05$).

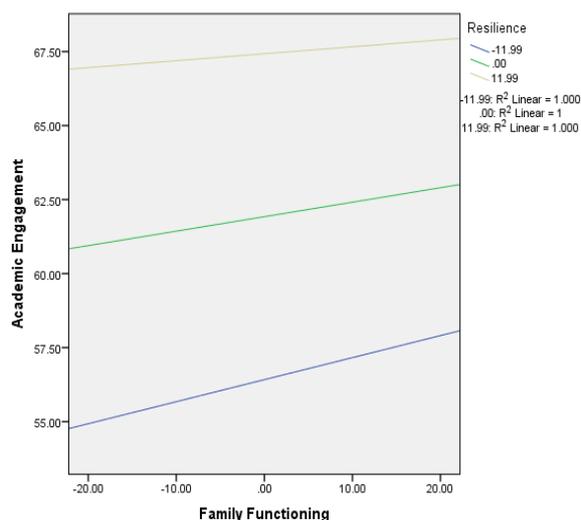


Figure 1. Chart of Moderating Role of resilience between family functioning and Academic Engagement

4. Discussion

This study investigated the moderating role of resilience between family functioning and academic engagement among secondary schools students in Ogun State, Nigeria.

Preliminary analysis indicated positive and significant relationships among academic engagement, family functioning and resilience. Also, resilience predicted academic engagement as hypothesised.

Moderation analysis showed significant moderating (but inverse) effect of resilience on the relationship between family functioning and academic engagement. This was shown in the conditional effect of family functioning on academic engagement at different levels of resilience. Surprisingly, family functioning was found to predict academic engagement better when the resilience was low and average but not when resilience was high. This implies that students with low level of resilience from low functioning families would engage more in academics. This calls for a greater understanding of the mechanism by which resilience should buffer the negative effect of family functioning on academic engagement.

Findings however indicated that there is no significant effect of family functioning on academic engagement at high level of resilience. That indicates that resilience may not be required for academic engagement of students from highly functioning families.

The findings of this study whereby family functioning has been observed to affect academic engagement is not amazing as previous studies have established such directions as family functioning affects academic performance and academic

performance is affected by academic engagement [52].

5. Conclusion

Based on the findings of this study, it was concluded that resilience significantly but negatively moderated the relationship between family functioning and academic engagement of secondary school students. This finding however calls for studies to determine the underlying mechanism in the moderating role of resilience in the relationship between family functioning and academic engagement.

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