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RESEARCH ARTICLE

# Guidance and Counselling Programme and Overall Adjustment of Teenage Mothers: Evidence from Secondary Schools in Kenya

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**Abstract:**

***Background:***

School adjustment is multifaceted that involves an array of demands varying in kind and degree which requires a variety of coping responses. Several teen mothers have been re-admitted to secondary schools in Kenya.

***Objective:***

The present study investigated the Guidance and Counselling Programme and Adjustment of Teenage Mothers in Secondary Schools in Kenya.

***Methods:***

The study adopted ex post facto's Causal-comparative research design. The target population of the study was 242 re-admitted teenage mothers from selected schools in Ugenya Sub County, Kenya. The sample size comprised of 138 re-admitted teenage mothers who underwent the counselling programme and 104 re-admitted teenage mothers who were integrated back to the school without going through the counselling programme. Academic adjustment Questionnaire, Social Adjustment Questionnaire, Emotional Adjustment Questionnaire, Psychological Adjustment Questionnaire, Attitude towards Guidance and Counselling Questionnaire were used to collect data. The questionnaires had a good internal consistency of minimum $\alpha = 0.78$. The data were analysed by both descriptive statistics such as frequency counts, standard deviation and percentages, and inferential statistics such as multiple regression techniques.

***Results:***

The results of the study revealed that student mothers registered the highest rating in social adjustment and they recorded the least rating in academic adjustment. However, the findings of the study revealed that students who had gone through formal counselling generally registered higher adjustments than those who did not pass through formal counseling. The teenage mothers' attitude had a mediating effect on the relationship between guidance and counselling program and the overall adjustment of teenage mothers.

***Conclusion:***

School principals should provide comprehensive guidance and counselling programs to ensure the holistic adjustment of teenage mothers in schools.

**Keywords:** Guidance, Counselling program, Adjustment, Teenage mothers, Secondary schools, Kenya.

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|---|---|---|---|

## 1. INTRODUCTION

Adjustment has been defined as the result of equilibrium, which may be affected by either of these processes [1]. Abdullah *et al*. [2] defined school adjustment in terms of school achievement which covered students' academic achievement and personal growth. Thus, school adjustment is multifaceted that involves an array of demands varying in kind and degree which requires a variety of coping responses or adjustments. These include academic adjustment, psychological adjustment, emotional adjustment and social adjustment. On the other hand, guidance and counselling is a process of helping individuals become fully aware of themselves and the ways in which they are responding to the influences of their environment [3]. Egbo [4] further explains

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that guidance and counselling assist a person to establish some personal meaning for their behaviour and to develop and classify a set of goals and values for future behaviour. Anchored on Bronfenbrenner's theory of ecological systems, the study sought to investigate the adjustment of teen mothers in Kenyan schools. According to the bio-ecological systems theory, human development is continuously influenced by various interconnected, interacting environmental systems [5]. Of very key interest in this system, is the chronosystem, according to which changes in the developing person, or the ecological contexts influencing development, can influence the direction of development [6, 7]. Keeping this in mind, it is important to consider certain changes and different circumstances in adolescents' lives, such as becoming pregnant, and how pregnancy and parenting influence their lives from there onwards. Thus, the present study sought how the adjustment of teenage mothers is affected by a school-related factor which is guidance and counselling.

Adolescent mothers experience many physical, psychological, mental and social challenges according to Mangeli, *et al*. [8]. Similarly, Van Zyl, *et al.* [9] highlight factors contributing to the pregnancies and the challenges participants experience during pregnancy and parenting such as poverty, stigma, loss, and lack of parenting skills. The complexity of being mothers in their parents' houses is illuminated. Other challenges are associated with teenage motherhood. For example, children and grandchildren of adolescent mothers have been identified to be less ready for school [10]. It has also been reported that there is an additional variance in children's school adjustment, over and beyond the contribution of children's evaluation of their parents [11]. Regarding factors affecting teen mothers' adjustment, a study by Orwa, *et al*. [12] revealed that most re-admitted teen mothers in schools with introvert personality types had a lower social adjustment. Foregrounding studies have revealed that very scanty information is available on readmitted teen mothers in schools which is the focus of the present study. In Ugenya Sub- County, Kenya, there are about 242 known cases of re-admitted teenage mothers distributed in 23 secondary schools whose age brackets fall between 12 to 18 years [13]. This is the effect of a free return to school policy for girls initiated by the Kenyan Ministry of Education for girls who had dropped out of school due to pregnancy. Teen motherhood is threatening to impede Kenya's effort in attaining the Millennium Development Goal (MDG) of Education. Various interventions have been undertaken to address the gender gaps in the education sector created by teen pregnancy and subsequent motherhood. In Kenya, there is a policy that allows teen mothers to be re-admitted back to school [14]. The Kenyan return to school Policy states that girls who become pregnant should be admitted back to school unconditionally and that the principals and Education Officers should assist such girls to be re-admitted to other schools to avoid psychological and emotional suffering.

### 1.1. Literature Review

Research on adjustment among teen mothers in school exists. For example, on the effectiveness of guidance and counselling and adjustment, the study by Ngai, *et al.* [15] in China indicates that women who receive the childbirth psychoeducation program have significant improvement in learned resourcefulness and an overall reduction in depressive symptoms compared with those who only receive the routine childbirth education after adjusting for baseline group differences on age and social support. Similarly, Sparks [16] posits that both experimental and control groups show evidence that providing programs that support adolescent mothers in the school setting increases the chances that they would remain in school. In contrast, the study by Chigona and Chetty [17] in South Africa concludes that teen mothers are not able to succeed academically if the support they need from school, home and community is insufficient. However, the study by Howe [18] in the Northern Eastern United States of America reveals that some students raise their grades throughout the counseling period, while others experience lower grades throughout. Besides, the study by Brown [19] in the United States of America indicates that young mothers are more likely to depend on financial assistance compared to adult mothers. However, if the adolescent mothers came from families that support them financially then they did not show any significant difference in adjustment.

Isararunings, *et al.* [20] in Thailand revealed that, in comparison with non-teenage mothers, a greater proportion of re-admitted teenage mothers have insufficient income, don't own their homes, were single parents and have fewer consultations with health personnel. In contrast, the study by Oyefara [21] in Osun state, Nigeria showed that socio-economic background reveals a significant direct relationship between age at first childbirth and educational attainment at $P<0.01$. Similarly, Olausson, *et al.* [22] in Sweden indicated that compared to women who give birth at ages 20 -24, those who are teenage mothers have significantly increased odds of each unfavorable socio-economic outcome in later life. The study by Onzima [23] showed that there is a significant and positive correlation between the parents' level of education, income and occupation. The study by Vaghela [24] concluded that adolescent girls' students from nuclear and joint families differ significantly in their scores of social adjustment as well as emotional adjustment. Auni *et al.* [25] also revealed that guidance and counselling programme has inadequately contributed to students' social adjustment as a result of inadequate facilities and ineffective strategies of guidance and counselling being used in schools. Similarly, Sasikala [26] revealed that the socioeconomic status of mothers has a significant influence on the personal adjustment of adolescents. Besides, Kyalo and Chumba [27] revealed that Guidance and counseling programme has a critical role to play in assisting students to adjust to the University. Okita [28] revealed that guidance and counselling programmes have a positive impact on the academic performance of students. Similarly, Gatua, *et al.* [29] indicated that guidance and counseling services in secondary schools have statistically significant impact on the level of social and emotional adjustments. On the contrary, Auni, *et al.* [25] revealed that guidance and counselling programme has inadequately contributed to students' social adjustment. From the reviewed literature, most studies focus on teen mothers who are out of school, but the present study examines re-admitted teen mothers in secondary schools.

Studies have shown that there are several effects of teenage motherhood on the girls when they return to school. Upon re-admission back to school, Karimi [30] found that the re-admitted learners lacked financial, emotional and social support in order to cope with educational challenges successfully. Omoni [31] added that teenage mothers are depressed and that their depression ranged from being moderate to severe depression. Undie *et al*. [32] demonstrated the complexity of teenage pregnancy and motherhood problem and the challenges faced in the education sector in response to the same. Similarly, Onyango, *et al.* [33] reiterated that stigmatization of teenage mothers affects their general well-being and even participation in classroom work and learning. From the reviewed literature, there are varying patterns of findings and conclusions. Firstly, discrepancies are evident in the nature of relationships that exist on predictors of adjustment among students. Secondly, some studies are on teen mothers who are not in the school set up. Therefore, these foregrounding findings necessitated the present study. Thirdly, no study had combined several predictor variables on adjustment among teen mothers in schools since most studies investigated individual factors. Fourthly, no reviewed study had studied different adjustments together unlike the present study. Given the scarcity and inconsistency of past results on the predictors of school adjustment among teenage mothers in schools, the present research was therefore necessary. Most current studies focus on one variable in the analysis, but the present study develops a model that combines several variables. Other studies are on University students but the present study is majorly on secondary school students. The present study examines the guidance and counselling program and overall adjustment of teenage mothers in Secondary Schools in Kenya. The following research hypotheses are tested:

**H1:** Guidance and counselling program is positively related to academic adjustment (H1a), emotional adjustment ($H_1$b), psychological adjustment ($H_1$c), social adjustment ($H_1$d) and overall adjustment ($H_1$e) of teenage mothers

**H2:** Teenage mothers' attitude has mediating effect on the relationship between guidance and counselling program and their academic adjustment ($H_2$a), emotional adjustment ($H_2$b), psychological adjustment ($H_2$c), social adjustment ($H_2$d) and overall adjustment ($H_2$e) of teenage mothers

## 2. RESEARCH METHODOLOGY

### 2.1. Research Design

The study adopted ex post facto's Causal-comparative research design. A causal-comparative is a type of quantitative investigation that seeks to discover possible causes and effects of a personal characteristic by comparing individuals in whom it is present with individuals in whom it is absent [34]. Moreover, the independent variables in retrospect and their possible relations to, and effects on, the dependent variable or variables are analyzed. This design was considered appropriate for the present research because it attempts to identify the causes or consequences of differences in a non-experimental setting [35].

### 2.2. Participants

The target population for the study was 242 re-admitted teenage mothers from selected schools in Ugenya Sub County, Kenya. The number of teenage mothers who had undergone Guidance and counselling and any other form of therapy was 138 (Category 'A') re-admitted teenage mothers, while 104 (Category 'B') had not gone through any known formal counselling. This was revealed by a preliminary survey [36]. Fisher's formula, as reported by [37] was employed to select 138 re-admitted teenage mothers who were integrated back to school after going through the counselling programmes and 104 re-admitted teenage mothers who were integrated back to school without going through the counselling using to Simple random sampling technique.

### 2.3. Measures

The biographical section sought information that included socioeconomic status, attitude towards guidance and counselling, school category, birth order and age of the re-admitted teen mothers in school. These tools collected the views of the re-admitted teenage mothers on how they adjusted to schoolwork and other aspects of overall adjustment. Academic Adjustment Questionnaire (AAQ) is an extension of School Inadaptation Questionnaire (SIQ); the Social Adjustment Questionnaire was adapted from Weissman & Bothwell [38]; the Emotional Adjustment questionnaire was an adopted inventory developed by Patil in [39]; and the Psychological Adjustment Scale (PAS) was adapted from the scale of [40]. The overall adjustment measure had four parts, namely academic, emotional, psychological and social adjustment. The Academic Adjustment Questionnaire had 12 items with a 5-point Likert scale namely: Always, Frequently, Sometimes, Rarely and Never, which were used to collect the views of the re-admitted teenage mothers on how they adjusted to classwork and school as well as the academic work in general. A sample of the items on the Academic Adjustment Questionnaire was "The harder I work at taking a test, the more confused I get when I think of my child" [36].

The Emotional Adjustment Questionnaire had 20 items on a five-point Likert scale namely: Always, Frequently, Sometimes, Rarely and Never. A sample of the items on the Emotional Adjustment Questionnaire was "When I am with other students, I feel that they are glad I am with them". The Psychological Adjustment Questionnaire had 10 items on a five-point Likert scale namely Always, Frequently, Sometimes, Rarely and Never. A sample of the items on Psychological Adjustment Questionnaire was "In class, or in a group, I am unlikely to express my opinion because I fear that others may not think well of it or of me" [36]. The Social Adjustment Questionnaire contained 10 statements with options on a 5-point Likert scale. A sample of the items on social adjustment was "My relationship with others is affected because of my status". Attitude towards Guidance and Counselling Questionnaire had 20 items both positive (10) and negative (10) with a response format on a five-point Likert scale namely Strongly agree, agree, undecided, disagree and strongly disagree. A sample of the items on Attitude towards Guidance and Counselling was "I feel that the counselor probe too deeply

into my personal life" [36].

### 2.4. Validity & Reliability of Questionnaires

Construct, face and content validity of the measures were established using expert judgments by two psychologists in Kenya. Construct validity measures the extent to which the items in a scale all measure the same construct [41], and can be evaluated by the use of factor analysis. Cronbach's alpha coefficient analysis was used to investigate the internal consistency of the measures since it is the most reliable test of inter-item consistency reliability for Likert scaled or rating scaled measures. Equally, the internal validity of the constructs in the measures was tested by subjecting the survey data to suitability tests using factor analysis. Factor analysis was used to find out the variables with greater significance in each measure and to examine their dimensionality on the variable. Principal Components Method (PCM) approach helped the researcher to cluster the common factors and to retain a small number of factors that had the highest influence, as explained by Oso and Onen [42]. According to Jolliffe and Cadima [43], analysis of principle components describes inter-dependencies among the items of a variable and is usually aimed at sorting a few factors which explain most of the information on the variable construct. In this study, the extraction of the factors followed the Kaiser Criterion where an eigenvalue of 1 or more indicates a unique factor. To avoid a situation where a variable had more than 1 substantial factor loadings (cross- loadings), an orthogonal, Varimax rotation method was used to redistribute the factor loadings such that each variable measures precisely one factor; all factor loadings less than a coefficient of 0.4 were suppressed. The reliability for multi-item opinion items was computed separately for all the sub-scales in the measures and the coefficient alpha of these variables is reported in Table **1**.

**Table 1. Validity and Reliability of the Measures.**

| Factors | Item | Factor loading | Cronbach Alpha |
|---|---|---|---|
| Academic Adjustment | 1 | 0.765 | .0.716 |
| | 2 | 0.742 | |
| | 3 | 0.811 | |
| | 4 | 0.799 | |
| | 5 | 0.721 | |
| | 6 | 0.651 | |
| | 7 | 0.619 | |
| | 8 | 0.714 | |
| | 9 | 0.699 | |
| | 10 | 0.877 | |
| Emotional Adjustment | 1 | 0.735 | 0.724 |
| | 2 | 0.776 | |
| | 3 | 0.754 | |
| | 4 | 0.767 | |
| | 5 | 0.766 | |
| | 6 | 0.715 | |
| | 7 | 0.759 | |
| | 8 | 0.788 | |
| | 9 | 0.766 | |
| | 10 | 0.733 | |
| Social Adjustment | 1 | 0.688 | 0.719 |
| | 2 | 0.701 | |
| | 3 | 0.713 | |
| | 4 | 0.722 | |
| | 5 | 0.706 | |
| | 6 | 0.7 | |
| | 7 | 0.698 | |
| | 8 | 0.674 | |
| | 9 | 0.654 | |
| | 10 | 0.765 | |
| Psychological Adjustment | 1 | 0.824 | 0.778 |
| | 2 | 0.811 | |
| | 3 | 0.803 | |
| | 4 | 0.805 | |
| | 5 | 0.801 | |

*(Table 1) cont.....*

| Factors | Item | Factor loading | Cronbach Alpha |
|---|---|---|---|
| | 6 | 0.799 | |
| | 7 | 0.803 | |
| | 8 | 0.818 | |
| | 9 | 0.831 | |
| | 10 | 0.841 | |

**Source:** Survey data (2019), SPSS Analysis.

From the results in Table **1**., 40 items are loaded on four factors. The four factors were as follows: the academic Adjustment (10 items), social adjustment (10 items), Emotional Adjustment (10 items) and psychological adjustment (10 items). In total, the adjustment questionnaire consisted of 40 items. The alpha factors reported for each sub-scales were academic Adjustment (0.716), social adjustment (0.719), Emotional Adjustment (0.724) and psychological adjustment (0.778). The alpha values were all above 0.70, indicating a suitable internal consistency. All the measures had Cronbach's alpha co-efficient above 0.7, which is adequate as reported earlier [37]. This indicates that the measures had a good internal consistency of the minimum. All the items had high loading in each factor. In all the four sub-scales, each formed one factor, implying that all the items in each scale measured the same theme in the various aspects of adjustments. This means that all the items in each component were created and used in the analysis. Thus, based on the results, it was appropriate to conclude that the data were of adequate internal reliability and validity, hence were suitable for further analysis.

### 2.5. Procedure

After obtaining ethical clearance from the Kenyan National Commission for Science Technology and Innovation (NACOSTI), a specific date for data collection was agreed upon and questionnaires were administered to the re-admitted teenage mothers' category A and re-admitted teenage mothers' category B in the secondary schools. The researcher visited the schools with questionnaires to be filled by the respondents. Quantitative data was collected using questionnaires from the sampled re-admitted teenage mothers. The researcher waited and collected questionnaires to ensure an adequate return. The teen mothers took between 30-45 minutes to complete the sets of questionnaires administered. Completed questionnaires were then collected for purposes of analysis.

### 2.6. Data Analysis

The responses collected from the questionnaires were edited to delete errors and correct additions and omissions. Numerals were then assigned to the answers by coding so as to limit the responses into the limited number of categories. Data was then analyzed using the statistical package for social sciences Version 23. The data were analyzed using descriptive statistics such as frequency counts, standard deviation and percentages, and inferential statistics such as Regression analysis techniques.

## 3. RESULTS

### 3.1. Background Information of Respondents

The findings indicate that more than half, 98 (59.0%) student mothers were integrated back to school after being inducted through the counselling programme, 68 (41%) respondents had been integrated back to school without being counseled. Based on school type, mixed secondary schools had the bulk of re-admitted teenage mothers who took part in the study; 78 (79.6%) of the category were from mixed secondary schools and only a negligible 20 (20.4%) were from girls' schools. This was replicated in category B respondents, where a majority of 55 (80.9%) of them were from mixed secondary schools. Overall, only 33 (19.9%) of all the re-admitted teenage mothers who took part in this study were from girls secondary schools. Regarding the age of the respondents, the study established that a substantial majority of the re-admitted teenage mothers were under nineteen years of age. Besides, 60 (36.1%) of all those who took part in the study, were below 15 years. It also showed that only 32 (19.3%) of the students' mothers who participated in the study were above nineteen years of age. It was noted that category 'A' and 'B' respondents showed an almost similar distribution in age; whereas majority 45 (45.9%) of the category 'A' respondents were in the age group of 15-19 years, category 'B' also had the bulk 29(42.6%) of them being in the same age bracket. During the period that the respondents were in their current schools, it was reported that 113 (68.1%) of the re-admitted teenage mothers had been in their schools for only a year and 34 (20.5%) being less than one year during the survey.

On their socio-economic background, the findings of the study established that 100 (60.2%) of the re-admitted teenage mothers who took part in the survey were from families whose monthly income was at most Ksh. 10,000/=(about $100), while only 29 (17.5%) of them had their parents earning more than Ksh. 20,000/=(about $200) monthly income. This indicates that most of the respondents were from the humble economic background. It was also noted that more than half 86 (51.8%) of the parents of student mothers, had at most primary education, and about 11 (6.6%) of them had no formal education at all. These findings correlate with low income discovered among the parents earlier stated. On the number of siblings the respondents had, the findings indicate that a bigger proportion, 75 (45.2%), of the respondents, had at least 5 siblings. This means that most of the parents had more than 5 children. Moreover, the findings show that most of the respondents were either 1$^{st}$ or 2$^{nd}$ born; 62 (37.3%) and 56(33.7%). Therefore, most of these re-admitted teenage mothers revealed that they felt that they had to step into their parents' shoes and help them economically.

### 3.2. Relationship between Guidance and Counselling and Students' Adjustments

**$H_a$1:***Guidance and counselling program is positively related to academic adjustment ($H_1$a), emotional adjustment*

*($H_1$b), psychological adjustment ($H_1$c), social adjustment ($H_1$d) and overall adjustment ($H_1$e) of teenage mothers.*

Pearson Product Moment Correlation analysis was used to establish the relationship between guidance and counselling and students' adjustments Table **2**. summarizes the results of correlations, mean and standard deviations for the variables.

From the results in Table **2**, it is evident that the readmitted students registered overall adjustment of 2.24 (SD=0.43), with the highest adjustment reflected in social adjustment at a mean of 2.53 (SD=0.68), while the least adjustment was in academics at 1.63 (SD=0.74). However, the findings of the study revealed that students who had gone through formal counselling generally registered higher adjustments than those who did not pass through formal counseling.

Regarding relationships, it is evident that guidance and counselling program had a statistically significant positive correlation with the overall adjustment and other aspects of adjustments. Equally, the results of the study revealed that there was generally a positive correlation among the aspects of adjustments. Therefore, it was concluded that G&C program is positively related to academic adjustment, emotional adjustment, psychological adjustment, social adjustment and overall adjustment of teenage mothers.

### 3.3. Influence of Guidance and Counselling Program and Academic, Emotional, Psychological, Social and Overall Adjustment of Teenage Mothers

The study sought to investigate the relationship between Guidance and counselling program and academic, emotional, psychological, social and overall adjustment of teenage mothers. The hypothesis was stated as:

**$H_a$2:***Guidance and counselling program has a statistically significant influence on academic adjustment (H1a), emotional adjustment (H1b), psychological adjustment (H1c), social adjustment (H1d) and overall adjustment (H1e) of teenage mothers*

#### *3.3.1. Guidance & Counselling Program and Academic Adjustment Among Student Mothers*

A regression analysis was done to establish how much academic adjustment could be accounted for by the variables such as student category, gender, age and school type of student mothers. The results are presented in Table **3**.

From model 4, the sig.value of student category (G&C) =.000, which is far less than .05, indicates that there was enough evidence to reject the null hypothesis. Therefore, it was concluded that there is a statistically significant positive influence of G&C on Academic adjustment of re-admitted teenage mothers. The value of Adjusted R Square (0.318) in model 4 indicates how much of the variance in the academic adjustment was explained by the variables such as gender, student category, age of student mothers and school type implying that the model accounted for 31.8% of the variance in academic adjustment among student mothers. Equally, when the study sought to investigate the level of contribution of the Gender, student Category, Age and School Type the results indicate that each independent variable contributes differently to the model. For example, the student category (guidance and counselling) had the highest influence on academic adjustment, while age made the least contribution in explaining the variability of the model. The variable student category (G&C) had the largest Unstandardized coefficient (B= -0.625), meaning that a unit improvement in G&C leads to 0.625 units

**Table 2. Mean, standard deviation and correlation for the variables.**

| Variable | Descriptive Statistics | | Correlations | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| G&C (1) | 1.61 | 0.49 | 1 | | | | | | |
| Academics (2) | 1.63 | 0.74 | 0.355** | 1 | | | | | |
| Emotional (3) | 2.5 | 0.46 | 0.264** | 0.195* | 1 | | | | |
| Psychological (4) | 1.87 | 0.89 | 0.280** | 0.378** | 0.215** | 1 | | | |
| Social (5) | 2.53 | 0.68 | 0.228** | 0.288** | 0.255** | 0.208** | 1 | | |
| Attitude (6) | 3.41 | 0.92 | 0.352** | 0.700** | 0.342** | 0.617** | 0.604** | 1 | |
| Overall Adjustment (7) | 2.14 | 0.43 | 0.276** | 0.676** | 0.266** | 0.659** | 0.828** | 0.409** | 1 |

**Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).

**Table 3. Summary of hierarchical regression analysis for variables predicting academic adjustment.**

| | Mode 1 | | | Model 2 | | | Model 3 | | | Model 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variable | B | SE B | Sig. | B | SE B | Sig. | B | SE B | Sig. | B | SE B | Sig. |
| Gender | -0.796 | 0.131 | 0 | -0.763 | 0.123 | 0 | -0.709 | 0.123 | 0 | -0.729 | 0.122 | 0 |
| Student category | | | | -0.5 | 0.101 | 0 | -0.47 | 0.101 | 0 | -0.625 | 0.126 | 0 |
| Age | | | | | | | -0.19 | 0.08 | 0 | -0.184 | 0.08 | 0.022 |
| School Type | | | | | | | | | | 0.257 | 0.126 | 0.044 |
| Adjusted $R^2$ | | 0.178 | | | 0.285 | | | 0.304 | | | 0.318 | |

B- Unstandardized coefficient SE B - standard error of the unstandardized coefficient.

rise in academic adjustment, with the other variables held constant. The unstandardized value for the age of student mothers was the lowest at -0.184, indicating that it made the least contribution to the model; a one unit change in the age of student mothers would only lead to a .184 units change in academic adjustment, with the other variables in the model held constant. All the variables contribute statistically significant change in the model.

### *3.3.2. Guidance & Counselling Program and Emotional Adjustment Among Student Mothers*

A regression analysis was done to establish how much academic adjustment could be accounted for by the student category (G&C), gender, age and school type. The results that are presented in Table **4**. reveal that age and gender were automatically left out in the regression.

The sig.value of student category (G&C) being .000 <.05 indicates that there was sufficient evidence to reject the null hypothesis, hence, it was concluded that there is a statistically significant influence of G&C on the emotional adjustment of re-admitted teenage mothers. From the summary, the value of Adjusted R Square (0.84) indicates how much of the variance in the emotional adjustment among student mothers. This was explained by the two variables- student category (guidance and counselling) and school type. It indicates that the model accounted for 8.4% of the variance in emotional adjustment among student mothers. This is the proportion of variance in the emotional adjustment that is explained by the student category and school type. Further, the coefficient values indicate that each variable contributes differently to the model. For example, the student category (guidance and counselling) still had the highest influence on emotional adjustment, while the school type made the least contribution in explaining the variability of the model. The student category (G&C) had the largest unstandardized coefficient of 0.090, meaning that one rise in G&C services results in 0.090 units improvement in emotional adjustment, with the other variable held constant.

### *3.3.3. Guidance & Counselling Program and Psychological Adjustment Among Student Mothers*

A regression analysis was done to establish how much of psychological adjustment could be accounted for by the student category (G&C). The results presented in Table **5** reveal that gender, age and gender were automatically left out in the regression.

The sig.value of student category (G&C) being .000 <.05 revealed that there was sufficient evidence to reject the null hypothesis and conclusion reached that there is a statistically significant influence of G&C on the psychological adjustment of re-admitted teenage mothers. From the regression model in predicting psychological adjustment using student category (G&C), when all other variables such as Gender, Age, Salary, number of Siblings, Education, Order of birth and School Type were controlled, the value of Adjusted R Square, 0.073, indicates that the model accounted for 7.3% of the variance in psychological adjustment. This is the proportion of variance in the psychological adjustment that is explained by the student category (G&C). This was shown by coefficients values indicating that the independent variable contributed differently to the model. From the results of Coefficients presented in Table **5**, the effect of the student category (guidance counselling programme) was highly influential (.512) on the psychological adjustment among student mothers, when all other variables were held constant. It means that the effect of guidance and counselling programme on psychological adjustment was highly significant.

### *3.3.4. Guidance & Counselling Program and Social Adjustment Among Student Mothers*

A regression analysis was done to establish how much social adjustment could be accounted for by the student category (G&C), school type and gender. The results are presented in Table **6**.

**Table 4. Summary of hierarchical regression analysis for variables predicting emotional adjustment.**

| | **Mode 1** | | | **Model 2** | | |
|---|---|---|---|---|---|---|
| **Variable** | **B** | **SE B** | **Sig.** | **B** | **SE B** | **Sig.** |
| Student category | -0.248 | 0.071 | 0.001 | -0.364 | 0.09 | 0 |
| School Type | | | | 0.191 | 0.089 | 0.035 |
| Adjusted $R^2$ | | 0.064 | | | 0.084 | |

B-Unstandardized coefficient SE B - standard error of the unstandardized coefficient.

**Table 5. Summary of hierarchical regression analysis for variables predicting psychological adjustment.**

| | **Mode 1** | | |
|---|---|---|---|
| **Variable** | **B** | **SE B** | **Sig.** |
| Student category | -0.512 | 0.137 | 0 |
| Adjusted $R^2$ | | 0.073 | |

B-Unstandardized coefficient SE B - standard error of the unstandardized coefficient.

**Table 6. Summary of hierarchical regression analysis for variables predicting social adjustment.**

| | Mode 1 | | | Model 2 | | | Model 3 | | |
|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **B** | **SE B** | **Sig.** | **B** | **SE B** | **Sig.** | **B** | **SE B** | **Sig.** |
| Student category | -0.319 | 0.107 | 0.003 | -0.591 | 0.131 | 0 | -0.592 | 0.13 | 0 |
| School Type | | | | -0.447 | 0.133 | 0.001 | 0.468 | 0.132 | 0 |
| Gender | | | | | | | -0.267 | 0.125 | 0.034 |
| Adjusted $R^2$ | | 0.046 | | | 0.103 | | | 0.122 | |

B-Unstandardized coefficient SE B - standard error of the unstandardized coefficient.

The student category (G&C) has sig. Value= .000 <.05 which indicates that there was sufficient evidence to reject the null hypothesis, hence, it was concluded that there is a statistically significant influence of G&C on social adjustment of re-admitted teenage mothers. From the regression model, the value of Adjusted R Square (0.122) indicates that 12.2% of the social adjustment among student mothers was explained by the variables including student category, school type and gender. This means that the model accounted for 12.2% of the variance in social adjustment among student mothers. However, when the study sought to investigate the level of contribution of each of the three variables (student category, school type and gender) factored in the model, the results indicate the variables had varied influence. For example, guidance and counselling were highly significant in influencing the overall adjustment among the student mothers. This was because the unstandardized value for the student category was -0.592 with a standard error of 0.130. This implies that the variable guidance and counselling (student category) had the largest effect on the rise in overall adjustment among student mothers, with the other variables held constant.

#### *3.3.5. Guidance and Counselling Programme and Overall Adjustment Among student Mothers in Secondary Schools*

The study finally investigated how much of the overall adjustment could be accounted for by the student category (G&C). The results of the model summary are presented in Table **7**.

The results presented in Table **7** indicated that the student category (G&C) has sig. value= .000 <.05, implying that there was sufficient evidence to reject the null hypothesis, hence, it was concluded that there is a statistically significant influence of G&C on overall adjustment of re-admitted teenage mothers. When all the variables were factored in the regression model using stepwise regression, variables such as age, salary, number of sibling, education, order of birth and school type were automatically removed from the model because of the lack of significant effect. However, the gender and student category (G&C) accounted for 15.5% (Adjusted R Square =0.155) of the variance in overall adjustment. Equally, when the study sought to investigate the level of contribution of these two variables (gender and student category) in the prediction model of the overall adjustment among student mothers, the results revealed that gender had relatively more effect on overall adjustment compared to student category. This was shown by coefficient values indicating that each independent variable contributes differently to the model, with gender having a greater influence on total adjustment among student mothers. However, both gender and student category (G&C) had a statistically significant influence on the prediction model.

### 3.4. Mediation Effect of Attitude on the Relationship between Guidance and Counselling Program and Academic, Emotional, Psychological, Social and Overall Adjustments

**Ha2:***Teenage mothers' satisfaction at the guidance and counselling program mediates the relationship between guidance and counselling program and their academic adjustment ($H_2a$), psychological adjustment ($H_2b$), emotional adjustment ($H_2c$), social adjustment ($H_2d$) and overall adjustment ($H_2e$).*

The study investigated the mediation effect of attitude on the relationship between guidance and counselling program and academic, emotional, psychological, social and overall adjustments. The hypothesis was stated as follows:

H1: The relationship between G&C program and academic adjustment among students is not mediated by their attitude.

Regression analysis was used to investigate the hypothesis that attitude has no mediating effect on the relationship between G&C and academic adjustment. Results using PROCESS show that guidance and counselling program is positively related to Teenage mothers' attitude (B= .3022, SE=063, p <.001), and teenage mothers' attitude is positively related to their academic adjustment (B = 1.167, SE=.1049, p <.001). These results support the mediational hypothesis. However, the results revealed a partial mediation effect given that G&C was still a significant predictor of academics even after controlling the mediator, student attitude, B = .1884, SE = .090, p=.038. Nonetheless, there was a significant indirect effect of guidance and counselling program on academic adjustment via teenage mothers' attitude significant (estimate = 353, 95% CI [0.190, 0.540]. Hence, it was concluded that hypothesis 3 (a) was supported. This confirmed that attitude has a mediating effect on the relationship between G&C and academic adjustment among teenage mothers.

H2: The relationship between G&C program and psychological adjustment among students is not mediated by their attitude.

**Table 7. Summary of hierarchical regression analysis for variables predicting overall adjustment.**

| | Mode 1 | | | Model 2 | | |
|---|---|---|---|---|---|---|
| **Variable** | **B** | **SE B** | **Sig.** | **B** | **SE B** | **Sig.** |
| Gender | -0.338 | 0.08 | 0 | -0.323 | 0.078 | 0 |
| Student Category | | | | -0.23 | 0.064 | 0 |
| Adjusted $R^2$ | | 0.092 | | | 0.155 | |

B-Unstandardized coefficient SE B - standard error of unstandardized coefficient.

Regression analysis was used to investigate the hypothesis that attitude has no mediating effect on the relationship between G&C and psychological adjustment. Results using PROCESS show that guidance and counselling program is positively related to Teenage mothers' attitude (B= .3022, SE=063, p <.001) and teenage mothers' attitude is positively related to their psychological adjustment (B = 1.263, SE=.1402, p <.001). These results support the mediational hypothesis. G&C was no longer a significant predictor of psychological adjustment after controlling for the mediator, student attitude, B = .130, SE = .120, p=.280 (ns), consistent with full mediation. Approximately 38% of the variance in psychological adjustment was accounted for by the predictors ($R^2$ = .384). The indirect effect was tested using a percentile bootstrap estimation approach with 10000 samples. The results indicated a significant indirect effect of guidance and counselling program on psychological adjustment via teenage mothers' attitude (estimate = 382, 95%, CI [0.206, 0.583]. Hence, it was concluded that hypothesis 3 (b) was supported. This confirmed that attitude has a mediating effect on the relationship between G&C and psychological adjustment among teenage mothers.

H3: The relationship between G&C program and emotional adjustment among students is not mediated by their attitude.

Regression analysis was used to investigate the hypothesis that attitude has no mediating effect on the relationship between G&C and emotional adjustment.

Results using PROCESS show that guidance and counselling program is positively related to Teenage mothers' attitude (B= .3022, SE=063, p <.001) and teenage mothers' attitude is positively related to their emotional adjustment (B = 0.3115, SE=.0849, p =003), supporting the mediational process. However, partial mediation was established given that G&C was still a significant predictor of emotional adjustment even after controlling for the mediator, student attitude, B=.1539, SE=.0728, p=.0361. Roughly 14% of the variance in emotional adjustment was accounted for by the predictors ($R^2$ = .141). The indirect effect was tested using a percentile bootstrap estimation approach with 10000 samples. The results showed a significant indirect effect of guidance and counselling program on emotional adjustment via teenage mothers' attitude (estimate = 0941, 95%, CI [0.0404, 0.1682]. Therefore, it was concluded that hypothesis 3 (c) was supported, implying that attitude has a mediating effect on the relationship between G&C and emotional adjustment among teenage mothers.

H4: The relationship between G&C program and social adjustment among students is not mediated by their attitude.

Regression analysis was used to investigate the hypothesis that attitude has no mediating effect on the relationship between G&C and social adjustment. Results using PROCESS show that guidance and counselling program is positively related to Teenage mothers' attitude (B= .3022, SE=063, p <.001) and teenage mothers' attitude is positive related to their social adjustment (B = 0.9768, SE=.1089, p <.001). Further, G&C was no longer a significant predictor of social adjustment after controlling for the mediator, student attitude, B = .0241, SE = .0934, p=.7963 (ns), which is consistent with full mediation. Approximately 37% of the variance in social adjustment was accounted for by the predictors ($R^2$ = .365). The indirect effect was tested using a percentile bootstrap estimation approach with 10000 samples. The results showed a significant indirect effect of guidance and counselling program on social adjustment via teenage mothers' attitude (estimate = 2952, 95%, CI [0.1599, 0.4506]. Thus, it was concluded that hypothesis 3 (d) was supported. This confirmed that attitude has a mediating effect on the relationship between G&C and social adjustment among teenage mothers.

H5: The relationship between G&C program and overall adjustment among students is not mediated by their attitude.

The study sought to investigate the mediating effect of student attitudes on the relationship between G&C and overall adjustment. Hence, regression analysis was used to investigate the hypothesis that attitude has no mediating effect on the relationship between G&C and overall adjustment. Results using PROCESS show that guidance and counselling program is positively related to Teenage mothers' attitude (B= .3022, SE=063, p <.001) and teenage mothers' attitude is positively related to their overall adjustment (B = 0.8634, SE=.0485, p <.001). In addition, G&C was no longer a significant predictor of overall adjustment after controlling for the mediator, student attitude, B = -.0164, SE = .0416, p=.3433(ns), which is consistent with full mediation. Approximately 69% of the variance in overall adjustment was accounted for by the predictors ($R^2$ = .686). The indirect effect was tested using a percentile bootstrap estimation approach with 10000 samples. The results showed a significant indirect effect of guidance and counselling program on overall adjustment via teenage mothers' attitude (estimate = 2609, 95%, CI [0.1428, 0.3884]. Thus, it was concluded that hypothesis 3 (e) was supported. This confirmed that attitude has a mediating effect on the relationship between G&C and overall adjustment among teenage mothers. Therefore, it was concluded that student attitude has a significant mediation effect on the relationship between guidance and counselling and overall adjustment.

## 4. DISCUSSION

The study investigated the relationship between guidance and counselling program and academic adjustment, emotional, psychological, social and overall adjustment of teenage mothers. The findings indicated that guidance and counselling program had a significant influence on adjustment, with the other variables held constant. Guidance and counselling still had the highest influence on emotional adjustment, while the school type made the least contribution in explaining the variability of the model. Guidance and counselling programme was highly influential on the psychological adjustment among student mothers when all other variables were held constant. The guidance and counselling programme had the highest influence on the social adjustment of student mothers. It can be concluded that guidance and counselling are highly significant in influencing the overall adjustment among the student mothers. These findings correlate with the study of Ngai *et al* [15] in China which showed that women receiving the childbirth psychoeducation program had significant improvement in learned resourcefulness and an overall reduction in depressive symptoms compared with those who only received the routine childbirth education after adjusting for baseline group differences on age and social support. Similarly, the study by Howe [18] revealed that some students improved their grades throughout the counseling period, while others experienced lower grades throughout. In addition, Kyalo and Chumba [27] revealed that Guidance and counseling programme had a critical role to play in assisting students to adjust to the university. Similarly, Sparks [16] found that both experimental and control groups showed evidence that providing programs that support adolescent mothers in the school setting increases their chances of remaining at school. Auni *et al*. [25] revealed that guidance and counselling programme had inadequately contributed to students' social adjustment as a result of inadequate facilities and ineffective strategies of guidance and counselling being used in schools. In contrast, Chigona and Chetty [17] study in South Africa showed that teen mothers were not able to prosper academically if the support they needed from school, home and community was insufficient.

The study also investigated the relationship between Teenage mothers' attitudes at the guidance and counselling program and academic, psychological and social adjustments. The findings indicated that the student attitude has no significant effect on the relationship between guidance and counselling and on overall student mother adjustment. The study also investigated whether or not the Teenage mothers' attitudes at the guidance and counselling program mediate the relationship between guidance and counselling program and their academic, psychological and social adjustments. These findings indicate that guidance and counselling are associated with psychological adjustment scores as mediated by students' attitude. In agreement, Okita [28] revealed that guidance and counselling programmes had a positive impact on the academic performance of students. Gatua, *et al*. [29] indicated that guidance and counseling services in secondary schools had a statistically significant impact on the level of social and emotional adjustments.

## CONCLUSION

In conclusion, the re-admitted teenage mothers after undergoing guidance and counselling programme showed higher levels of adjustment academically, emotionally, psychologically and socially than those re-admitted without initial guidance and counselling. Guidance and Counseling services significantly enhanced teenage mothers' adjustment in the four areas of adjustment namely academic, emotional, psychological and social. Guidance and Counselling accounted for variation in the overall adjustment of re-admitted teenage mothers. The attitude towards guidance and counseling was a great determinant of overall adjustment among re-admitted teenage mothers. Teenage mothers' attitude towards G&C programmes enhanced their adjustment positively because the study found that improvement in attitudes towards Guidance and Counselling resulted in an increase in adjustment. On the basis of these findings, it is recommended that school principals should be entrusted to provide comprehensive programs that ensure holistic adjustment of teenage mothers in schools. This would enhance their identity meaning and purpose in life as they go through the system in order to achieve their goals in life. This is because the study findings showed that the majority of teenage mothers adjusted moderately in all four aspects of adjustment.

## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was approved by the National Council for Science Technology & Innovation, Kenya under approval no (NACOSTI)/P/16/55487/12452.

## HUMAN AND ANIMAL RIGHTS

Not applicable.

## CONSENT FOR PUBLICATION

Informed consent was taken from all the participants when they were enrolled.

## AVAILABILITY OF DATA AND MATERIALS

The data shall be shared on request by the corresponding author [A.M] upon reasonable request.

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None.

## CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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Declared none.

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