



## Interrelationships among Parental Career Support, Students Science Self-Efficacy, and Career Decision Making in Muranga County Kenya

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### ABSTRACT

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Parents play a significant role in shaping their children's career choices. However, in Murang'a County, Kenya, there is a lack of research focusing on the specific aspects of parental support, and science self-efficacy, interacting with students' career decisions. Furthermore, there is a limited understanding of how parental factors, in conjunction with students' self-efficacy in science subjects, influence the career choices students ultimately make. This research aims to fill this gap by examining how parental career support and students' self-efficacy in science interact to influence career decision-making among students attending public secondary schools. The study was grounded in the Social Cognitive Career Theory, which prompted the following research inquiries; are there interrelationships between parents' support, students' self-efficacy for science, and students' career decision making. The study involved a sample of 482 students in the third year of public secondary schools. The sample size was determined using Cochran's formula. The selection of 11 schools, including both single-gender and mixed schools, was based on purposive sampling and proportionate stratified random sampling methods. Participants within these schools were chosen through random sampling. The data were gathered and analyzed using SPSS software. To test the hypotheses, statistical techniques such as Pearson's product moment correlation coefficient, analysis of variance, and multiple regression were employed. The study observed parents' support, self-efficacy in science, and career decision making were interrelated. Recommendations on the inclusion of specific parental attributes in enhancing science self-efficacy to improve students' choices in sciences were made.

### INTRODUCTION

The process of making career decisions extends throughout one's life, but those made during adolescence carry exceptional significance. These decisions not only reflect how adolescents manage the essential task of shaping their identity but also serve as reliable indicators of their academic performance and future career accomplishments (Koçak et al., 2021; Mann et al., 2020).

Secondary school serves as a crucial stage for career and higher education planning ((Perry et al., 2016) Perry et al.,

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2016). It's during this phase of education that students make pivotal choices about subjects, their level of commitment to studies, and their selection of post-secondary courses and institutions. These decisions significantly mold students' career paths and are influenced by a combination of environmental factors, personal attributes, and available opportunities (Chasanah & Salim, 2019) ; (Mahmud et al., 2022) Mahmud et al., 2022; Zhang et al., 2020).

Scholars focusing on STEM career choices generally concur that when students are empowered and provided with support to comprehend labor market signals, they tend to make more assured and well-informed career decisions ((Bolot & Odacı, 2017) Bolat & Odacı, 2017; (López et al., 2023) López et al., 2023; Monda et al., 2021) Monda et al., 2021). In a recent systematic review, López and colleagues (2023) categorized the factors influencing students' preferences for STEM

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careers into three groups: environmental, social, and personal. Notably, parental support and science self-efficacy (or its related measures) were identified as two of the most extensively examined variables within the environmental and personal psychological categories, respectively.

As per the Social Cognitive Career Theory, adolescents are more likely to make well-informed career choices when parents provide them with encouragement, motivation, and resources for career exploration. Researchers from various global contexts appear to have a common understanding of parental support, defining it as the psychological and economic resources that children receive through their relationships with their parents (Youn et al., 2023). Notably, research findings from diverse regions, including the United States (Covert et al., 2019; Reinhold et al., 2018), Australia (Akosah-Twumasi et al., 2021; Lloyd et al., 2018), China (Zeng et al., 2022), Indonesia (Chasanah & Salim, 2019; Suryadi et al., 2020), Kenya (Mwarari et al., 2020; Ogutu, 2017), Nigeria (Okwulehie et al., 2018), Romania (Maftei et al., 2023), South Korea (Youn et al., 2023), and Taiwan (Mao et al., 2017), consistently support the idea that parental support positively influences students' career decisions and their confidence in career-related abilities. Thus, parental career support was expected to correlate with students' career decision making in this study.

Research underscores the significance of self-efficacy as a crucial factor in fostering effective career decision-making and success among students, especially within the context of evolving labor market demands, elevated unemployment rates, and heightened competition (Hamzah et al., 2022). Self-efficacy has also been identified as a contributing factor to the diminishing interest in STEM subjects (Ballen et al., 2017; Blotnick et al., 2018). This might elucidate the reason why, on a global scale, governments and stakeholders have advocated for interventions aimed at increasing parental support and bolstering students' confidence in science subjects. These initiatives are seen as a means of enhancing their competitiveness in an ever-evolving labor market (Ardura & Galán, 2019; Mann et al., 2020; Metcalf & Wiener, 2018).

Demands for such interventions have been particularly pronounced in Asia and Africa, where achieving exceptional academic performance is a prerequisite for securing lucrative employment opportunities (Koçak et al., 2021; Shin et al., 2017). Nevertheless, despite many students possessing the potential for excellence in science subjects, they often exhibit low self-efficacy in these areas, leading them to perceive science subjects as challenging. This, in turn, impacts their level of interest and enjoyment in the sciences (Reinhold et al., 2018). When coupled with limited resources both within schools and households, it diminishes students' confidence in their ability to succeed in science-related careers (Koçak et al., 2021). Consequently, there is a need for a study that

delves into the interplay of social cognitive factors, namely parental support, and science self-efficacy, in shaping students' career decisions. Such a study is especially pertinent in the current context.

Research conducted within Murang'a County has consistently highlighted the issue of underperformance in mathematics and the sciences as a significant impediment to students' aspirations in science-related courses and careers (Kigamba, 2019; Kiplagat et al., 2017). This persistent challenge in mathematics and science education has contributed to a growing number of young individuals lacking the requisite qualifications for entry into various science-based professions (NCPD, 2017). Several factors have been identified as contributing to this underperformance, including issues such as drug and substance abuse, poverty, child labor, high rates of absenteeism from school, and parental discouragement (Kiplagat et al., 2017; Njuguna, 2021). Against this background, the current study set out to establish the interactions between parental career support, science and career decision making among secondary school students in Murang'a County, Kenya.

### STATEMENT OF THE PROBLEM

Although STEM careers offer higher salaries, lower unemployment rates, and greater relevance in today's digital economy, Kenya continues to observe a concerning pattern where many students, despite achieving high grades, especially in science subjects in the KCSE, opt for careers in humanities and social sciences. Furthermore, secondary school students consistently display a disconnect between their academic achievements and their career aspirations, particularly in the field of science. This phenomenon appears to exacerbate the disparity between academic accomplishments and the employability skills demanded by the modern job market, contributing to high unemployment rates and impeding economic development.

#### Purpose of the Study

The study aimed to evaluate the interactions between parental support, science self-efficacy and student career decision-making in public secondary schools in Murang'a County

#### Objective of the Study

To find out the interrelationships among parental career support, students' science self-efficacy, and career decision making.

#### Hypotheses of the Study

H<sub>01</sub> There are no significant interrelationships between parental career support, students' science self-efficacy, and career decision making.

### RESEARCH METHODOLOGY

The research adopted a correlational research design aimed at examining the statistical associations between parental career support, students' science self-efficacy, and career decision-making. The statistical test used to test the hypothesis was

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multiple linear regression, and path analysis.

**Research Instruments**

The questionnaire utilized combined three instruments, the career related parent support scale (CRPSS), the science self-efficacy scale, and career decision making scale (CDS) to determine parents' support of careers, self-efficacy in

sciences, and choosing a career. The questionnaire consists of four parts as shown in Appendix C. The participant's information is found on questions 1-6, questions 1-27, on facets of parents' support, and questions 1-4 on students' confidence in performing in science subjects at KCSE. Questions 1-18 tested the ability to decide on careers.

**Reliability of the scale**

**Table 1. Reliability Results for students Questionnaire**

Sub Scale	Domain	Cronbach's Alpha	No of Items
Parental Career Support	Instrumental assistance (IA)	0.68	7
	Career modeling (CM)	0.77	7
	Verbal encouragement (VE)	0.52	7
	Emotional support (ES)	0.72	6
Science Self-efficacy		0.58	5
Career Decision Making		0.68	18
Overall Cronbach's		0.74	49

The overall Cronbach's alpha of 0.73 was established for the questionnaire and this was within the accepted level of

internal reliability (Bryman, 2008).

**Sample size**

**Table 2**

School Type	Gender				Total	
	Male		Female		f	%
	f	%	f	%		
Boys only	78	15.66	-	-	78	16.18
Girls only	-	-	92	18.47	92	19.09
Mixed gender	158	32.78	154	31.95	312	64.73
Total	236	48.96	246	51.04	482	100.00

Note N=482

Among the 482 respondents, the largest proportion (64.73%) attended mixed-gender secondary schools, while those from boys-only and girls-only schools made up 19.08% and 16.18% of the sample, respectively. It's worth mentioning that just over half of the participants (51.05%) were females. However, within the sample from mixed-gender secondary schools, there were slightly more boys (32.78%) than girls (31.95%)."

**Data collection procedures**

The actual number of participants was recruited through random sampling. The researcher personally visited all the selected schools and distributed questionnaires to 498

respondents. These questionnaires were evenly distributed among two boys' schools, two girls' schools, and seven mixed-gender schools. Additionally, the researcher oversaw the accurate completion of the questionnaires and their subsequent return.

**Hypothesis testing**

The fourth objective of the current study was to find out the interrelationships between parental career support, students' science self-efficacy, and career decision. To achieve this objective, we tested the hypothesis that:

H<sub>4</sub>: There are significant interrelationships between parental career support, science self-efficacy, and career decision

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making. The hypothesis had two variables including career decision-making as the dependent variable and parental career support

and science self-efficacy as the independent variable. The hypothesis test was tested using Pearson's product-moment correlation as presented in Table 3

**Table 3. Correlations of Parents' Support, Self-Efficacy, and Career Decisions**

Variables	1	2	3
1. Parental Career Support	-		
2. Science-Self Efficacy	.10*	-	
3. Students Career Decision	.53**	.21**	-

Note: N = 482 \* p < .05. \*\*p < .01.

The results in table 4.29 showed that there was a positive significant correlation between parental career support and science-self efficacy and between parental career support and student's career decision. This indicates that with high parental career support, there is an improvement in science self-efficacy, and also high parental career support would be matched by an improved student career decision.

The results also showed a positive correlation between self-science efficacy and student's career decision. This implies that increased science self-efficacy would lead to an increased student career decision. With the correlation results

showing positive and significant interrelationships among the three study variables, the study hypothesis that there are significant interrelationships among parental career support, science self-efficacy, and career decision making was accepted. Hence, the null hypothesis was rejected.

Based on the above findings, further analysis was conducted to establish whether there were correlations between the sub-domains of parental support, students' confidence in sciences, and students' certainty in making decisions. The correlation results were as presented in Table 4.

**Table 4. Correlations of Parental Career Support Domains, Science Self-efficacy, and Career Decisions**

Variable	1	2	3	4	5	6
1. Instrumental Assistance	-					
2. Career Modelling	.12**	-				
3. Verbal Encouragement	.33**	.09	-			
4. Emotional Support	.22**	.24**	.56**	-		
5. Science Self-Efficacy	.11*	.03	.19**	-.04	-	
6. Students Career Decision	.29**	.11*	.72**	.34**	.21**	-

Note. N = 482. \* p < .05. \*\* p < .01.

The results in Table 4 revealed that science self-efficacy was significantly correlated to instrumental assistance and verbal encouragement domains of parental career support. However, the correlations were weak, with verbal support having a stronger correlation than instrumental guidance. The result implies that with increased verbal encouragement, science self-efficacy improves. The results were non-significant when correlated with science self-efficacy for career modeling and emotional support.

On the other hand, there was a significant positive correlation between student career decisions and the domains of parental career support. The correlations ranged from weak to strong. The correlation between verbal encouragement and a

student's career decision was the strongest. The results could imply that when students received verbal encouragement from their parents, their career decision improved. Correlation between emotional support and student's career decision was also moderate. The result could also be interpreted that student career decisions improve with increased emotional support from the parents.

The researcher performed a bivariate correlation analysis to establish the extent of interaction among parent support sub-domains, self-efficacy in science, and student occupational decisions. They were further analyzed by bivariate correlation analysis and Pearson product-moment correlation coefficient. The results are presented in Table 5.

**Table 5. Correlations of Domains of Parental Career Support, Science Self-Efficacy, and Career Decision**

Variable	1	2	3	4	5	6	7
1. IA	-						
2. CM	.12**	-					
3. VE	.33**	.09	-				
4. ES	.22**	.24**	.56**	-			

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5.	HSSE	-.09*	.01	-.14**	-.26**	-	
6.	LSSE	.17**	.01	.27**	.24**	-.75**	-
7.	SCD	.29**	.11*	.72**	.34**	-.13**	.28**

Note: N=482. IA = instrumental assistance; CM = career modelling; VE = verbal encouragement; ES = emotional support; HSSE= high science self-efficacy; LSSE = low science self efficacy; SCD = student career decision. \*  $p < .05$ . \*\*  $p < .01$ .

Results indicated that all the sub-domains of parental career support and science self-efficacy had a significant correlation with students' career decisions. All the sub-domains had a positive significant correlation with science self-efficacy except high science self-efficacy. This could be interpreted to mean that increase in high science self-efficacy was associated with a decrease in levels of students' career decision making, this could be because, with this high science self-efficacy, there are so many career choices that could

confuse the students.

A stepwise multiple regression analysis was performed. The first level was with parental career support and students' science self-efficacy as the predictor variables for students' career decision making. The second level was with the students' science self-efficacy as the predictor for parental career support. The model ANOVA results are presented in Table 6.

**Table 6. ANOVA for Regression of Parental Support and Science Self-Efficacy on Career Decisions**

Source	SS	df	MS	F	p
Regression	23.65	2	11.82	106.44	.00
Residual	53.21	479	.11		
Total	76.85	481			

Note. N = 482.

The regression equation was significant,  $F(2, 476) = 106.44$ ,  $p < .05$ . This meant that the two variables collectively had significantly predicted students' career decisions. The model had  $R^2 = .35$  implying that parental career support and science self-efficacy accounted for 35 % variance in students' career

decisions. The study also investigated the predictive values of students' self-efficacy and parental career support on students' career decision making. The results are presented in Table 7.

**Table 7. Predictive Weight of Students' Self-Efficacy and Parental Career Support on Career Decisions**

Variable	B	SEE	$\beta$	t	p
(Constant)	1.55	.19		7.98	.00
Students' Self-efficacy	.23	.06	.16	4.09	.00
Parental Career Support	.44	.03	.52	13.52	.00

Note. N = 482.

Results presented above show that both parental career support and students' self-efficacy had a positive and significant predictive weight on students' career decision making. Parental career support made a bigger contribution

than student's self-efficacy. Regression analysis between students' self-efficacy and parental career support was also carried out and the results are presented in Table 8.

**Table 8. Anova for Regression of Students' Self-Efficacy on Parental Career Support**

Source	SS	df	MS	F	p
Regression	1.09	1	1.09	4.90	.03
Residual	106.60	480	.22		
Total	107.69	481			

Note. N = 482.

The regression equation was significant,  $F(1, 480) = 4.902$ ,  $p < .05$ . This meant that students' self-efficacy significantly

predicted parental career support. The regression coefficient is presented in Table 9.

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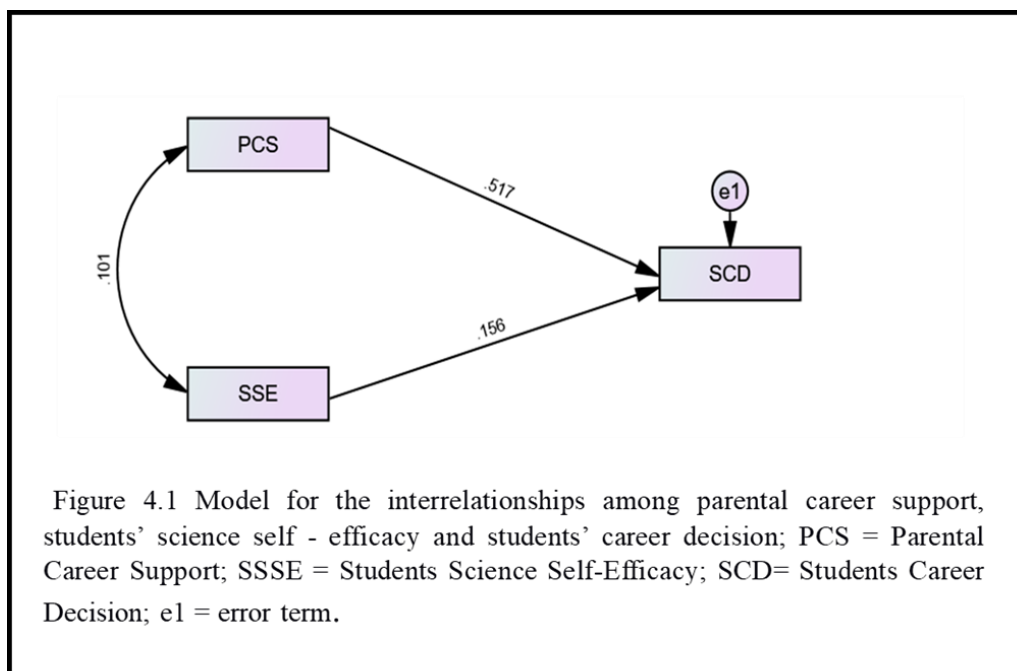
**Table 9. Regression of Students' Self-Efficacy on Parental Career Support**

	<i>B</i>	<i>SEE</i>	$\beta$	<i>t</i>	<i>p</i>
(Constant)	3.19	.23		13.71	.00
Students' Self-efficacy	.18	.08	.10	2.21	.03

Note. *N* = 482.

Results presented above show that students' self-efficacy ( $\beta = .101, p < .05$ ) had a positive and significant predictive value on parental career support. A path analysis was conducted to complement the multiple regression results. The analysis of

predictor variables' weights on each other and the outcome variable was established as presented in the path analysis diagram in Figure 4.1.



As shown in figure 4.1, the Relationship between parental career support and career decision-making was significant with a standardized regression coefficient of .517, a positive relationship was established. The relationship between science self-efficacy and career decision-making was significant with a standardized regression coefficient of .156, hence a positive relationship. Equally, the relationship between science self-efficacy and parental career support was significant with a standardized regression coefficient of .10, hence a positive relationship.

Since the interrelationships among the three study variables resulted in a positive and significant relationship, the null hypothesis on there being no significant interrelationships

between career decision-making and parental career support on science self-efficacy was rejected.

Following the study findings, further statistical analysis was carried out. The study employed multiple linear regression using enter method to find out the extent to which all the four sub-domains of parental career decision (instrumental assistance, career modeling, verbal encouragement, and emotional support) predicted student career decisions. Further, the two science self-efficacy sub-domains (high science and low science self-efficacy) were subjected to the same analysis method to predict student career decisions. The results are presented in Table 10.

**Table 10. Multiple Linear Regression Model Summary for Students Career Decision**

Model	<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	<i>SEE</i>
1	.72 <sup>a</sup>	.52	.52	.28
2	.73 <sup>b</sup>	.53	.53	.27

a. Predictors: (Constant), Emotional Support, Instrumental Assistance, Career Modelling, Verbal Encouragement.

b. Predictors: (Constant), Emotional Support, Instrumental Assistance, Career Modelling, Verbal Encouragement, High Science Self-Efficacy, Low Science Self-Efficacy

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As shown in the model summary presented in Table 10, the results show the differential contribution of parental career support and science self-efficacy sub-domains in explaining the variation in student career decisions. The result implied that parental career support explained over half (52 %) of the variations in students' career decisions. Adding science self-efficacy into the equation yielded ( $R^2 = .53$ ) meaning that in the presence of parental career support, self-efficacy only occasioned a mere 1 % change in the variations in student's

career decisions. However, the result revealed that 47% of the variations in students' career decision was unaccounted for. However, it can be concluded that parental career support and science self-efficacy need to combine when analyzing students' career decisions to strengthen each other. These findings stimulated the need to perform further analysis to establish whether parental career support and science self-efficacy predicated student career decisions significantly or not. The results are presented in Table 11.

**Table 11. Regression Analysis of Career Decisions, Self-Efficacy, and Parents' Support**

Model		SS	df	MS	F	p
1	Regression	40.32	4	10.08	131.61	.00 <sup>b</sup>
	Residual	36.53	477	0.08		
	Total	76.85	481			
2	Regression	41.03	6	6.84	90.68	.00 <sup>c</sup>
	Residual	35.82	475	0.08		
	Total	76.85	481			

a. Dependent Variable: Students Career Decision

b. Predictors: (Constant), Emotional Support, Instrumental Assistance, Career Modelling, Verbal Encouragement

c. Predictors: (Constant), Emotional Support, Instrumental Assistance, Career Modelling, Verbal Encouragement, High Science Self-Efficacy, Low Science Self-Efficacy

The results in Table 11 show that parental career support science self-efficacy was a significant predictor of students' career decisions ( $F(6,475) = 90.678, p < .05$ ). The predictive

weight of the sub-domains of parental career support combined with the sub-domains of science self-efficacy on students' career decisions are presented in Table 12.

**Table 12. Predictive Weights of Parental Career Support and Science Self-Efficacy on Students' Career Decision**

Variable	B	SEE	$\beta$	t	p
(Constant)	1.77	.17		10.77	.00
Instrumental Assistance	0.03	.02	.05	1.44	.15
Career Modelling	0.03	.02	.06	1.84	.07
Verbal Encouragement	0.44	.03	.72	17.92	.00
Emotional Support	-0.05	.02	-.10	-2.57	.01
High Science Self-Efficacy	0.03	.03	.05	1.02	.31
Low Science Self-Efficacy	0.06	.02	.13	2.70	.01

The results in Table 12 demonstrate that parental career support and science self-efficacy were significant predictors of students' career decisions. Notably, verbal encouragement is the best predictor of students' career decisions with a unit increase in verbal encouragement leading to a 0.723 increase in students' career decisions. The result would be interpreted to mean that verbal encouragement contributed positively to students' career decisions. Low science self-efficacy also significantly predicted student career decisions with a unit increase leading to a 0.133 increase in student career decisions. Additionally, emotional

support negatively predicted students' career decisions with a unit increase leading to a 0.103 decrease in students' career decisions.

On the contrary, there was no significant prediction ability for instrumental assistance ( $\beta = .048, p > .05$ ), career modelling ( $\beta = .060, p > .05$ ) and high science self-efficacy ( $\beta = .050, p > .05$ ).

Based on the results in Table 4.38 the regression equation is as follows:

$$\hat{y} = 1.773 + 0.44(\text{VE}) - 0.05(\text{ES}) + 0.06(\text{LSSE}), p < .05$$

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Where:  $\hat{y}$ =students career decision; VE = verbal encouragement; ES= emotional support; LSSE= low science self-efficacy.

Another path analysis was conducted using the sub-domains of parental career support and science self-efficacy to complement the multiple regression results (see Figure 4.2).

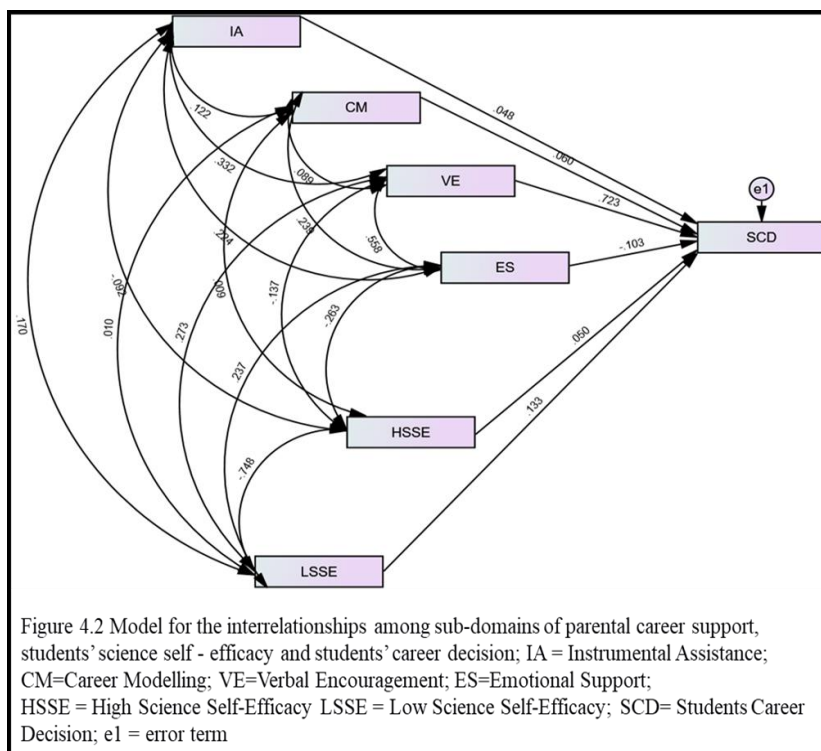


Figure 4. 2 illustrates the parental support factors as being linked to students' career decision-making with verbal encouragement ( $\beta=.0723$ ), Career modeling ( $\beta=.060$ ), instrumental assistance ( $\beta=.048$ ), Emotional support ( $\beta=-.0103$ ). Increases in the parental support factors will lead to an increase in student decision-making except for emotional support, which has a negative impact. High Science self-efficacy ( $\beta=.050$ ) and low self-efficacy ( $\beta=.133$ ) influence student career decisions. The figure shows that each of the parental factors affects high self-efficacy, IA ( $\beta=.092$ ), ES ( $\beta=-.263$ ), CM ( $\beta=.224$ ), and VE ( $\beta=.137$ ). Low science self-efficacy has each of the parental support factors impacting it, such as emotional support ( $\beta=.237$ ), verbal engagement( $\beta=.237$ ), role modeling ( $\beta=.010$ ), Instrumental assistance ( $\beta=.170$ ). The model proposes that science self-efficacy may mediate parents' support and students' ability to make career choices. The parental factors correlate with each other, supporting Chasanah & Salim, (2019) that verbal encouragement is vital, as parent encouragement enables students to work harder and select appropriate careers.

**DISCUSSION**

The fourth objective of the study was to find out the associations between parents' career support, students' self-efficacy in science, and career decisions. The results showed that parents were supportive of their children's careers, improving students' confidence in their ability to perform in

science. Additionally, students indicated the capability of making decisions in science. parental career support. The two variables contributed 30.5% (0.305) of the students' career decision-making. In comparison, other factors contributed to the remaining 69.5% of career decision-making. The results could be attributed to the fact that sciences are viewed as holding more career opportunities, as Halim et al. (2018) discussed in their study on science learning and careers. In addition, scholars have also pointed out that parents are the most influential factor as they play a significant role in the career decision-making among students. The perception demonstrates that when all other factors are held constant in the multiple regression results, a unit improvement in parents' support of careers added to a 51.7% increase in students' career decision-making.

Similarly, one unit increase in science self-efficacy could lead to a 15.6% increase in career decision-making. A study done by (Turner et al., 2019)found that an interrelationship exists only among students from a higher social-economic status. Among students from lower social-economic status in the USA science self-efficacy had strong relations with parental support but not with preferences of science career choice. The student's social status had a considerable impact on career choices. Similarly, parents of low social status in Murang'a discouraged their students from academic pursuits preferring jobs in informal settlements. The bias by the parent on low-skill jobs impacts science self-efficacy resulting in lower pass



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marks in sciences and the inability to pursue a career in science.

The study results reveal associations between parents' support of students' careers and their self-efficacy in science, leading to certainty in career options. The results showed that when other contributing factors were held constant, parental career support contributed a percentage of 10.1% to students' science self-efficacy. Science self-efficacy, in turn, contributed 15.6 % to career decision-making. Juan et al. (2018) in South Africa support the findings by observing that parent provision of career support, in turn, led to the acquisition of higher science self-efficacy. Garriott et al. (2017) noted verbal persuasion and emotional support had not influenced self-efficacy. As parents guide their children towards preferable careers, they tend to push and encourage the uptake of sciences with the belief that there are vast opportunities in science-related courses (Halim et al., 2018). Consequently, increasing student science self-efficacy.

Students with higher science self-efficacy motivate greater parental support for their science interests. The study results indicate that as student science self-efficacy increases, it positively impacts parental support. The student science self-efficacy had a significant effect on parental career support. In turn, the increase in parental support for the student career choices contributed 51.7% towards decisiveness in career choice. Student academic performance greatly predicts self-efficacy, which predicts interest in science and science careers Garriott et al. (2017). Therefore, the result implies that student with low science self-efficacy is more likely to perform poorly in their science subjects. Consequently, poor performance discourages or diminishes parents' hope in their children attaining a science-related career. Lloyd et al. (2018) findings support these arguments, where students indicating interest in science learning were considered more intelligent, were enrolled in prestigious schools, and were facilitated considerably more. The observation is endorsed by Wachira (2018). The study identified that 54% of students in Nyandarua County, Kenya, felt their parents had confidence in their science performance, encouraging them to choose science careers.

Emotional support has a constant indication as a significant negative factor in students' decision-making. The model depicts a relationship between verbal persuasion and emotional support as having the greatest value. The findings supported by Mao et al. (2017) study reveal negative correlations between students' confidence in science and emotions. The study presented emotional support as predicting and not mediating students' decisions. Findings of a study done by Naugah et al. (2020) made contrasting observations of parental democratic practices regarding decisions made by their children. Parents indicated students were autonomous and competent in making choices. Role models were indicated as having influenced some of the students' decisions Parent verbal discussions on student

career choices may promote negative feelings among students, especially if they are derogatory. Parents may demean specific career proposals by students.

The current study shows modeling of careers interacts with self-efficacy in science and career decisions. Wachira, (2018) informed parental support developed self-confidence and academic performance in students. Despite the provision of resources for students' studies, few parents exhibited occupations that inspired their children. Likewise, Mwarari et al. (2020) indicated the unavailability of parents limited advice and information necessary for the development of occupational ideas. Prosperous parents were quoted as being busy while parents in one formal employment were hesitant to engage in academic events. These studies inform that absent parenting practices may lead to indecision in career choices in this study.

### CONCLUSIONS

The study established support of students' careers by parents was interlinked with their confidence to perform in science subjects and with their choice of a career. Parents' support had a greater correlation than that of science self-efficacy with career decision making. The results highlight the very important role of the parent in influencing students' career decisions. Science self-efficacy was influenced by parents' career support, and it subsequently influenced students' career decisions. The results indicate the importance of parents in influencing the students' confidence in their science subjects and subsequently the students' choice in a science related career.

### RECOMMENDATIONS

1. The study discovered that the determination of science career choices by students was linked to parents' involvement and the certainty they had in their science capabilities. Parents' support of students' careers increased their science self-efficacy which in turn increased their certainty of a career choice.
2. The study results indicate the importance of the parent with respect to science self-efficacy and career choice. The Ministry of Education, School administrators, and teachers can develop programs that significantly involve parents in the process of career development.

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