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## PERSONAL FACTORS AS PREDICTORS OF ACADEMIC RESILIENCE AMONG PUBLIC SECONDARY SCHOOL STUDENTS IN TURKANA COUNTY, KENYA.

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### ABSTRACT

**Introduction:** Students from Turkana County compete for the same education benefits as those in the least marginalized counties with some succeeding and thriving. It is necessary to establish the factors that promote academic resilience hence the investigation of personal factors that promote academic resilience.

**Purpose:** This study was an investigation of the relationship between personal factors and academic resilience among public secondary school students in Turkana County.

**Methodology:** This study's philosophical underpinning was pragmatism. It employed a mixed methods approach using the concurrent triangulation design analysis. The instruments of data collection tools were questionnaires and interview schedules. The sample size consisted of 382 students who responded to questionnaires, and 10 teachers and 10 students for the interview schedules. For the questionnaires, the Cronbach Alpha Coefficient overall output was .845. The content, construct and criterion-related validity were also established. Similarly, the trustworthiness and authenticity of the qualitative data was established.

**Results:** The study found out that there was a statistically significant strong positive correlation ( $r = .712$ ,  $n = 378$ ,  $P > .05$ ) between personal factors and academic resilience. Sense of meaning and purpose had the strongest associations with academic resilience, followed by autonomy and sense of self ( $r = 0.599$ ,  $P < 0.05$ ), and then social competence ( $r = 0.544$ ,  $P < 0.05$ ). Further, indicators of personal factors explain 51.0% of the variation in academic resilience.

**Recommendations:** The study recommended that both parents and teachers should play an active role to support students to develop and increase social competence, autonomy, and sense of self, meaning, and purpose in their lives, and nurture positive relationships to enhance academic resilience.

**Keywords:** Personal factors, Academic Resilience, Turkana County



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## **PUBLIC INTEREST STATEMENT**

This study may benefit the Kenya Institute of Curriculum Development in developing, reviewing, and approving programs that meet the resilience-building necessities of the learners. The findings from this study may be collected, documented, and catalogued in the KICD data bank as curriculum support information that may be disseminated to educational institutions, learners, and other relevant organizations to leverage the personal factors that boost academic resilience.

## **INTRODUCTION**

Personal factors consist of elements in the bio-system that determine the child's unique traits and these traits were influenced by the microsystem which together influenced the development of a child's resilience. According to Graber et al. (2015), an individual's dispositional features invariably aided them in tackling seemingly insurmountable issues and coping with everyday pressures that erode well-being over time with imperceptible sluggishness. Motti-Stefanidi (2015) continued by stating that resources for youth adaptation can emerge from both their social context and their personal characteristics.

Ungar et al. (2004) described a rich structure of the factors that contribute to resilience, including self-efficacy, the ability to survive with uncertainty, perceived social support, parental involvement, satisfying the needs of the child, social competence, and meaningful relationships with others, perceptions of equality and social justice and access to school education, cultural/spiritual identification, link to religious organizations, and more.

Personal factors refers to students' social competence, autonomy, and sense of self, as well as their sense of meaning and purpose. The ability of a secondary school student to respond to others with empathy, solve problems, relate cooperatively, and communicate effectively is referred to as social competence. On the other hand, autonomy and sense of self is a secondary school student's ability to think and behave independently and exercise control of themselves and their environment through a sense of self-efficacy, self-awareness, and an internal locus of control while the sense of meaning and purpose refers to the ability of the secondary school students to

remain focused on their purpose in education and life, set their goals and work towards them, and remain motivated. The personal factors that were examined in this current study were; social competence (empathy, problem-solving, cooperation, and communication), autonomy and sense of self (self-efficacy, self-awareness, locus of control), sense of meaning and purpose (goals, motivation, and aspiration) which were considered internal student assets. Chung (2008) reiterated that individual characteristics may help to reintegrate resilience-building disruptions emanating from their school or home.

In Indonesia, Rukmana and Ismiradewi (2022) using quantitative technique investigated self-efficacy and academic resilience among a sample of 54 new students in the Department of Psychology, University of Ahmad Dahlan Yogyakarta Force 2020 during the Covid-19 era. Using cluster random sampling and regression analysis, the results of the study found that there is a significant positive relationship between self-efficacy and academic resilience ( $r=0.686$ ,  $P<0.01$ ). However, while the reviewed study used a quantitative technique, this study utilized a mixed-methods approach. Further, the reviewed study consisted of a sample of 54 university students while the current study used a sample of 378 high school students. The two samples differ in their size and also the target group, it was worth finding out if there would be any difference among high school students.

Using a quantitative technique, Mwangi et al. (2015) conducted a correlational analysis among 390 form three students in Kiambu County to investigate the relationship between internal protective factors and academic resilience. The findings of the study revealed that among social competence, autonomy and sense of self, sense of

meaning and purpose, whereas all the three had a significant relationship with academic resilience, the strongest relationship was discovered between a sense of meaning and purpose and academic resilience ( $r(388) = .93, p.01$ ), followed by autonomy and sense of self ( $r(388) = .78, p.01$ ) and finally social competence and academic resilience ( $r(388) = .34 (p.01)$ ). While this reviewed study was purely quantitative, the current study used a mixed-methods approach. Again, the study having been conducted in Kiambu, a county not categorized as marginalized cannot be generalized to Turkana County.

Erberber et al. (2015) undertook a study to examine academic resilience cross-nationally among students from low socioeconomic backgrounds using data from 2011 eighth-grade TIMSS (Trends in International Mathematics and Science Study), a large-scale, cross-national assessment of fourth- and eighth-grade students' mathematics and science achievement as well as information from the student and school questionnaires from 28 educational systems across the world, to categorize the subset of academically resilient students in each educational system and to investigate influences that may lead to academic resilience. The findings of the study revealed that of the 28 educational systems, students from 20 systems demonstrated that high educational aspirations appear to be the strongest and most consistent predictor of academic resilience. However, while the reviewed study used a quantitative approach, the current study used a mixed-methods approach in a single location to find out if the same would be true of secondary school students in Turkana County in the Kenyan context.

Mullin (2019) emphasizes autonomy, or the ability to direct one's actions in pursuit of goals that are personally meaningful to one, as a personal resource that boosts resilience in children. Turner et al. (2017) researched to determine the resilience of students pursuing architecture degrees. The goal of the study was to define the characteristics that lead to different levels of student resilience and evaluate the association

between resilience and wellbeing in 410 undergraduate students in Melbourne, Australia, using purposive sampling. Out of the six components of resilience, students scored highest on forming networks, remaining safe, cooperating, and living genuinely, and lowest on maintaining perspective. Whereas the reviewed study focused on university students, the current study focused on high school students. In addition, a study done in Australia cannot be generalized to the African setup.

Victor-Aigboidion et al. (2020) examined the predictive power of academic self-efficacy on academic resilience in a group of 1637 males and 683 female junior secondary school students in a Nigerian state. The samples were drawn through multi-stage sampling techniques, from 10 public coeducational secondary schools in the area of study. Data was collected using the Academic Risk and Resilience scale (ARRS) (Martin, 2013) and General Academic Self-efficacy Scale (GASES), and Pearson correlation statistics performed. The findings revealed that self-efficacy has a significant positive predictive power on resilience. This is consistent with Martin and Marsh's (2006) results, which found self-efficacy to be a strong predictor of academic resilience in 402 Australian high school students. While the reviewed study engaged a sample of 1320 students which is huge and may result in researcher fatigue, consequently affecting the validity of the findings, the current study was done on a smaller sample of 378 students. In addition, the reviewed study was purely qualitative in nature while the current study used a mixed-methods approach.

Rajan et al. (2017) investigated the impact of locus of control, academic involvement, and self-efficacy on academic resilience among high school students in Maraba, Kerala, India. There were 155 high school pupils in the sample, with 81 females and 74 males. The study employed a correlation analysis that revealed that there is a significant correlation between academic resilience and self-efficacy. Another quantitative study by Rachmawati et al. (2021) on the relationship between self-efficacy and academic resilience among 315, 7th-

grade students in Indonesia using multiple regression revealed that was a strong relationship between self-efficacy and academic resilience. The reviewed studies were conducted in the Asian context and cannot be generalized to the African context. In addition, both studies were purely quantitative, while the current study used a mixed-methods approach.

Using a quantitative study, Liu and Huang (2021) studied the effects of basic psychological requirements on learners' academic resilience. Autonomy, competence, and relatedness were the constructs studied. This study was conducted among 455 grade 10 students whose average age was 15.34 in Western China using a cluster sampling method. The results of the study revealed that students' autonomy, competence, and relatedness were highly correlated with the academic resilience of learners. The reviewed study was different from the current study as it was purely quantitative and was conducted in China. A mixed-methods approach was used in the current study to provide an in-depth understanding of the factors promoting academic resilience. In addition, the continental differences in the location of the study made this study a necessity for comprehending academic resilience in Africa.

In Victoria, Australia, Kronborg et al. (2017) undertook a multi-layered longitudinal research study that came out of a special relationship between a university and a prestigious secondary school. The goal of this quantitative study was to see how internal and external loci of control influenced academic resilience in high-aptitude and high-attaining teenagers in a high-capability learning environment. At the school, 125 gifted Year 10 students took a survey on several motivational factors, such as locus of control and resilience, at two different times. They were divided into binary groups based on their locus of control focus (internal or external), and their resilience profiles were then associated using a multivariate analysis of variance. Students with a more internally based locus of influence were more robust at two-time points, according to the findings. While the reviewed study was conducted

on a small sample size of  $N=125$  which affects its statistical power, the current study was done among 378 secondary school students. In addition, the above study was carried out in Australia, and therefore the results cannot be generalized to the African context.

Cheung et al. (2021) evaluated traits that fostered academic resilience among 50 young people from China who had successfully transferred from foster care during their first year of college, using a qualitative research technique and purposive sampling to identify the participants. External factors like social reinforcement from others in one's ecosystem, as well as internal factors like self-efficacy and self-awareness, boundary setting, and initiative, were found to contribute to these students' resilience. The reviewed study was qualitative in nature while the present study used a mixed-methods approach to satisfactorily explain the concept of resilience.

He (2014) analyzed the relationship between academic resilience and student success and tested a model for academic resilience in mathematics. The study used a longitudinal strategy with 2398 ninth-graders from Hispanics, Africans, and white Americans from the lowest socioeconomic groups. The data was gathered using the academic resilience questionnaire. The goal of the study was to see if there was a connection between students' efficacy, coping skills, and educational goals. Academic resilience, as expressed by the three attributes, was found to substantially explain variations in 39 students' mathematics success with self-efficacy and coping skills, but not educational expectations, according to structural equation modelling. The reviewed study explored a longitudinal method while the current study used the cross-sectional method. The reviewed study was quantitative in nature while the current study used both qualitative and quantitative techniques.

Ni et al. (2020) conducted a study on primary pupils' perceptions of classroom resilience-promoting variables in China and the United States. A total of 445 third to fifth-grade Chinese pupils and



325 third to fifth-grade American students were included in the study. The findings revealed that the classroom resilience promoting factors in these two groups were teacher-student relationships, peer friendships, and academic self-efficacy. In the reviewed study, the locations of the study differ significantly from Africa, and therefore the findings may not be generalized to the African set-up.

Anagnostaki et al. (2016) investigated whether and how immigrant youth's resources account for individual gaps in academic resilience using a cross-sectional sample. The sample included 300 middle school students, 73 Albanians, and 227 Greeks (all of whom were enrolled in Greek urban middle schools and had an average age of 13.9 years). Two personal academic resilience resources included were the locus of influence and self-efficacy beliefs. For both immigrant and non-immigrant youth, both of these characteristics predicted greater academic resilience. The findings show a strong correlation between a young person's agency and academic resilience. Independent of immigrant or social status, students with higher self-efficacy beliefs and internal locus of control appeared to have higher academic resilience. This study was done in Europe, while the current study was conducted in Africa, the contexts are different hence the results cannot be generalized to Kenya.

Goals provide pupils with a sense of direction and purpose because they teach them to think about what is important and necessary in their endeavours. Werner and Smith (1992) claim that one's sense of purpose is the most significant asset that can aid young people in achieving healthy outcomes despite life's adversities. Setting objectives, achieving them, and achieving educational goals are all tied to assets described as belonging to a feeling of purpose, which is linked to student academic success (Anderman et al., 2002). Findings of the study showed that meaning in life had a weak insignificant relationship with academic resilience ( $r = .09, p > .05$ ). This study was conducted in America a first world continent whose context differs from Kenya, a third world

country hence the need to find out if there would be any notable differences in the Kenyan Context.

Malindi (2018) conducted research in a South African school to investigate adolescent mothers' self-perceived personal and socio-ecological resilience resources that helped them survive early parenting and schooling. Participants were ten young mothers from Gauteng Province in South Africa, ranging in age from 16 to 19, and in grades 10 to 12. Four young mothers were interviewed in semi-structured interviews, while six were interviewed in a focus group. The interviews concentrated on personal and socio-ecological resilience resources that enabled their resilience as early mothers and learners. An optimistic attitude toward life, a sense of humour, persistence, hardiness, commitment, religion, and prayerfulness were identified as personal resilience resources of adolescent mothers through thematic analysis of the results. The teen mothers self-reported social capital from birth parents, partners, peers, tutors, and clerics regarding social-ecological resilience resources. While the above study investigated personal factors promoting resilience in teenage mothers only, the current study explored personal factors promoting academic resilience among secondary school students.

Jowkar et al. (2014) investigated educational resilience and the impact of achievement goal orientations using a sample of 307 girls and 297 boys from Shiraz high schools in Iran. The students completed the Youth Development Module Scale (RYDM) and the Achievement Goals Questionnaire. Pearson product-moment correlation was used to analyse the data. The prediction of academic resilience by accomplishment goal orientations was investigated using a simultaneous multiple regression model. According to the findings, achievement goal orientation plays a critical role in students' academic resilience and achievement. While this study was conducted on high school students in Iran, it would be interesting to find out if the same results may be generalized to secondary school students in Turkana County. Moreover, the current

study used interviews in addition to the questionnaire.

The study theoretical underpinning was the Bronfenbrenner's ecological-transactional model of development (Bronfenbrenner, 1979) renamed Bioecological Systems Theory in 1986 (Bronfenbrenner, 2005). It emphasizes that a child's biology and external factors influenced their development. The first level in the ecosystem, the biosystem is the center of all levels and reflects the characteristics of the child. This system was linked to the personal factors of social competence (empathy, problem-solving, cooperation, and communication) autonomy, sense of self (self-efficacy, self-awareness, locus of control) sense of meaning, and purpose (goals, motivation, and aspiration) and academic resilience. Each child's traits end up influencing how others in the system respond to them. In recent years, an individual-centered approach to understanding resilience has given way to a more dynamic understanding of resilience as the quality of interactions between systems and the resources they require to function well (Ungar et al., 2019). The notable alignment of resilience factors observed in human systems, ranging from individuals to communities, suggested the possibility of networked, multisystem protective factors working in concert (Masten et al., 2021). Therefore, this theory provided a model for comprehending the relationship between personal factors, and student's level of academic resilience.

### **STATEMENT OF THE PROBLEM**

Despite Turkana County being the most marginalized county in Kenya (Commission on Revenue Allocation Working Paper, 2012), there are students who defy the stereotype that students from at-risk environments have negligible chances of succeeding in education. Even though they may not have the wherewithal to succeed, a good number of these children learn to the highest levels, while some attain high performances in non-academic arena and give hope to others in similar circumstances. The obscurity of the factors that determine this kind of academic resilience among students in Turkana County formed the

basis of inquiry of this study. This study investigated the relationship between personal factors and academic resilience. However, despite the place of academic resilience in promoting improved school outcomes, there is a dearth of studies on resilience in the African context (Theron et al., 2013). Efforts to promote the resilience of Turkana County residents have arisen from different fronts. The United Nations Development Programme (UNDP, 2017) has aided in the implementation of initiatives aimed at restoring livelihoods, assisting in the rehabilitation of communities affected by disasters, and empowering girls through education, as well as drought relief for Turkana women. The emphasis here, though, has been on community resilience. It was necessary to look at factors boosting academic resilience.

### **PURPOSE OF THE STUDY**

The purpose of this study was to determine the relationship between the personal factors of:

1. Social competence and academic resilience.
2. Autonomy and sense of self, and academic resilience.
3. Sense of meaning and purpose, and academic resilience.

### **RESEARCH QUESTION**

1. What are the perspectives of personal factors that influence the academic resilience of public secondary school students of Turkana County?

### **HYPOTHESIS**

1. There is no significant relationship between personal factors and academic resilience among public secondary school students of Turkana County.

### **METHODOLOGY**

#### **Research Designs**

The study adopted a pragmatic worldview which is a philosophical foundation for mixed methods studies that focusses on a research method and data collection technique whether numerical or qualitative that seeks to address the research purpose, problems and questions

(Cohen et al., 2018). Pragmatism allows for a variety of worldviews, methods, assumptions, and several other types of data collection and analysis. This approach is suitable because it works to provide a potent understanding of a research problem.

This study took the Mixed-methods approach, while utilizing a concurrent triangulation design where both quantitative and qualitative data were collected concurrently in order to match or combine both results in order to achieve more complete and validated conclusions (Plano Clark & Ivankova, 2016). The researcher in this study prioritized both quantitative and qualitative data, and as such the quantitative and qualitative approaches were combined after the data in both study strands had been analyzed, and the quantitative and qualitative results were compared or synthesized to identify confirming evidence and gain a clear understanding of the research problem, which is an additional benefit of this design.

### **Population and Sample**

The study targeted secondary school students because, unlike young children and pre-teens, adolescents have more likely developed some patterns of behaviour and their repertoires for coping. In addition, they are also considered cognitively able to respond to questionnaires and interview schedules. The study's target population included 52 public secondary schools with 16,444 students and 392 teachers. The accessible population was determined through random sampling to be 16 public secondary schools and 382 students, with 378 students constituting the actual study sample size. Ten students and ten teachers were chosen using purposive sampling. The researcher had a target of interviewing 16 teachers but by the 10th teacher, data saturation was attained as no new information, themes, and codes were generated through the interpretation of the data. There is a link between sample size and data saturation in qualitative studies (Ravitch & Carl, 2016). For students, purposive sampling was used to sample a student president from each school and in case they were absent,

the researcher selected the vice president or school prefect in case the vice president was absent. Due to their interaction with the learners and influence in the school, they were better placed to give their views confidently regarding personal, school, and parental involvement, and academic resilience. The researcher aimed to interview 16 student presidents but saturation was attained at the tenth student president interviewee as no new data emerged from the subsequent interviews.

### **Instruments for Data Collection**

The instruments for data collection consisted of questionnaires for students and interview schedules for students and teachers. Aspects of the statements of the questionnaires were adapted from the California Healthy Kids Survey (CHKS), (Module B) to collect data on personal factors that predict academic resilience. The scale consisted of nine items, three for items on social competence, three for items on autonomy and sense of self, and three for items on a sense of meaning and purpose. To determine the reliability of the questionnaire items, the researcher used the internal consistency test of reliability, which was established through the computation of the Cronbach Alpha Coefficient. This instrument's overall reliability was .845. This study took into account content, construct, and criterion-related validity. Furthermore, the credibility, dependability, conformability, and transferability of the qualitative data were established using four approaches.

### **Procedure for Data Collection**

The researcher conducted a side-by-side comparison of the quantitative and qualitative data, by reporting the quantitative statistical results and then a discussion of the qualitative findings. Summarizing huge amounts of raw data, categorizing, rearranging, and ranking data were all part of the data analysis process. The research assistants were debriefed and advised on the data collection to ensure that they had a good understanding of the objectives and the purpose of the study. Moreover, they were chosen from each gender to cater for issues sensitive to each gender when they

arose in the course of carrying out the research. A pilot data collection was carried out by the researcher and her assistants in Turkana County among thirty (30) secondary school students who were not part of the final data collection, to familiarize themselves with the data collection procedures and the issues that may be anticipated in the course of data collection. In collecting data from the questionnaires, the students were issued with the questionnaire, after which a debrief was done to clarify aspects of the questionnaire to the respondents.

Due to the nature of the design of this research, the researcher conducted a side-by-side comparison of the quantitative and qualitative data, by reporting the quantitative statistical results and then a discussion of the qualitative findings. Summarizing huge amounts of raw data, categorizing, rearranging, and ranking data were all part of the data analysis process. In analysing quantitative data, using a Statistical Package for Social Sciences (SPSS) version 25, for synthesis and analysis, the data collected was coded, entered, and analysed. Inferential and descriptive statistics were used. Descriptive data originated from the primary analysis of the research data that was collected. Using thematic analysis to analyse qualitative data, the raw data was read through and coded, a concurrent triangulation approach where the themes

were established by converging interviews from the participants was used. Identifying, analysing, and reporting themes within data, as well as interpreting various aspects of the research subject, are all part of the thematic analysis (Braun & Clarke, 2006). Further, processes including data reduction, display, conclusion, and verification are all part of qualitative data analysis. The raw data collected from the respondents during the interviews were transcribed and read several times to ensure that there were no gaps, inconsistencies, or extraneous data.

**Method(s) of Data Analysis**

Qualitative data was analysed using thematic analysis with a critical or realist orientation where the raw data was read through and coded, a concurrent triangulation approach where the themes were established by converging interviews from the participants was used. Quantitative data was analysed using the multiple regression analysis, and Pearson Product Moment Correlation Coefficient was used to establish the relationship between personal factors and academic resilience.

**RESULTS AND DISCUSSIONS**

**Research question 1:** What are the perspectives of personal factors that influence the academic resilience of public secondary school students of Turkana County?

**Table 1: Personal factors scale**

Personal factors	Agreed		Moderately Agree		Disagree		Mean	SD
	F	%	F	%	F	%		
1.Social Competence	328	86.8	30	7.9	20	5.3	4.32	0.91
2.Autonomy and sense of self	302	79.9	40	10.6	36	9.5	4.19	0.95
3.Sense of meaning and purpose	365	96.6	4	1.1	9	2.4	4.73	0.64
Mean							4.42	0.83

Note.N=378,F=Frequency

From the analysis of the views of the respondents in table 1, it emerged that although the students held different levels of social competence, autonomy,

and sense of self, sense of meaning, and purpose, generally over half of the respondents were positive on personal factors. For example, sense of meaning and purpose recorded the highest



percentage (96.6%) on the scale of agreed followed by social competence (86.8%) while autonomy and sense of self-recorded the lowest percentage (79.9%) among the three indicators but which was also considered above average (50%) hence a positive response. This was reflected by a mean response rate of 4.42 (standard deviation=0.83), on a scale of 1 to 3.

Qualitative data from students revealed that most learners are socially competent, a quality of resilient students which kept them in school. Some students had this to say about what kept them going in school, 'I have very good friends, some in my class and some in other classes, and we assist each other in academics and also when we have other problems. Most of my classmates are good people (Student, 7).

*You see in form two I almost dropped out of school because my parents were not able to pay my school fees, but I was lucky I sought help from a well-wisher who agreed to pay my school fee and that is why I am in school now (Student, 1).*

From the excerpt by students 7 and 1, the theme of social competence emerges because they exhibit a sense of cooperation, communication, and empathy. Student 1 can find solutions to their problems while student 7 knows whom to go to when they had a problem and these are their peers. Owing to the desire of the student to be in school they had to seek help from a well-wisher. Academically resilient students demonstrate a sense of empathy, problem-solving, cooperation, and communication. This finding conforms to the findings of Fleischmann (2018) that student perception of school climate and school connectedness, assisting in the building of resiliency in a statistically significant and meaningful way and Turner et al. (2017) who established that social competence through cooperative interaction is a component of resilience.

Concerning autonomy and sense of self, regarding the item 'I can solve my problems, 64.8 % of the students strongly agreed with the item, 19.3% were

undecided while 7.9% strongly disagreed with the item which indicated low autonomy and sense of self. Judging by the interviews, some learners showed that they had a strong sense of self-efficacy while some exhibited a low sense of self-efficacy.

Some students had this to say when asked about their ability to solve problems by themselves, *'Most of the time I solve the problems that I have by myself, although not all at least 90% of my problems. For example, when I realized that Chemistry was giving me a challenge I decided to seek help from a student who is the best performer in my class (Student 4), 'Even when I think I have done my best to solve a problem I still doubt my decision. I feel like someone else would have solved it in a better way (Student, 7).*

From student 4, the theme of self-efficacy emerges. The student's belief that they were able to solve most of their problems was an indication of high self-efficacy, while student 7 demonstrated a low self-efficacy. The fact that the student was able to point out their weakness in Chemistry revealed some sense of self-awareness. The finding is in line with He (2014) that found a relationship between self-efficacy and academic resilience. The excerpt of student 2 implied that they believed they had what it took to excel academically. Consequently, the themes of self-efficacy, locus of control emerge. These findings were consistent with the findings of Rukmana and Ismiradewi (2022), Rajan et al. (2017), Victor-Aigboidion et al. (2020), Anagnostaki et al. (2016), and Cheung et al. (2021) that established a significant correlation between academic resilience and self-efficacy. The excerpt of student 4 reflected a low self-efficacy as the student exhibited uncertainty as to whether they would excel in school or not.

A majority of students demonstrated a strong sense of meaning and purpose. For instance, when asked whether they planned to join university or college, 296 (78.3%) strongly agreed with the item which indicated a strong sense of meaning and purpose, 5(1.3%) were undecided while 6(1.6%) disagreed indicating a low sense of meaning and

purpose. In several ways, qualitative data revealed the extent to which some personal factors correlate with academic resilience through the expressions of students and teachers who were interviewed. Interviewees commented:

*I am in school to better my future, I have seen that education can change my future, I have seen some people in our village who have gone to school and changed their backgrounds, I also want to get my family out of poverty and the only way is through education (Student, 9).*

*I really want to study hard so that I can go to a university out of my county so that when I come back I can improve my county through what I will have seen from other counties. I want to change the wrong narrative that people out there have about our county (Student, 8).*

From the excerpt by students 9 and 8, it emerged that when learners have a goal they want to achieve, they are driven to stay in school and to persist through the schooling process. For instance, student 9 had a goal to change their future and to drive their family out of poverty. The respondents' views indicated that their autonomy and sense of self, combined with their sense of meaning and purpose were associated with their academic resilience. The students stayed in school because education meant changing the future of their families and Turkana County.

The findings corroborate with the findings of Mullin (2019) and Liu and Huang (2021) which emphasize autonomy as a personal resource that boosts resilience in children.

When probed whether they believed they will excel in education, while one interviewee replied asserting another expressed some sense of self-doubt in their ability to excel in academics, 'I am not sure if I will make it because sometimes I put in a lot of effort but I still perform poorly, but I will still try my best (Student, 4). Commenting on why the students persist in school, one teacher made this observation, 'You know a majority of these students have goals and dreams in life, and this drives them to keep schooling. The hardship and poverty that most of these learners have experienced motivate them to better. These students treat education as an equalizer (Teacher, 9).

The findings corroborate with the findings of Jowkar et al. (2014) that support the premise that achievement goal orientation correlates with academic resilience. However, they contradict those of Karaman et al. (2020) who explored the connection between the meaning of life and academic resilience and established that meaning in life had a weak insignificant relationship with academic resilience ( $r = .09, p > .05$ ).

#### HYPOTHESIS

1. There is no significant relationship between Personal factors and Academic Resilience among public secondary school students in Turkana County.

**Table 2: Correlation coefficients of Personal factors**

Personal factors	N	r	Sig. (2-tailed)
Social competence	378	0.544	0.000
Autonomy and sense of self	378	0.599	0.000
Sense of meaning and purpose	378	0.638	0.000
<b>Overall</b>	<b>378</b>	<b>0.712</b>	<b>0.000</b>

The study results revealed a statistically significant relationship between sense of purpose and sense of meaning ( $r=0.638, P<0.05$ ). This was followed by autonomy and sense of self ( $r=0.599, P<0.05$ ), and then social competence ( $r=0.544, P<0.05$ ). Interestingly, this finding was in line with that of Mwangi et al. (2015) who established that sense of meaning and purpose and academic resilience had the highest correlation ( $r=0.93, P<0.01$ ) followed by autonomy and sense of self, and finally social competence. This finding also corroborated with the findings of other studies by Rajan et al. (2017), and Kronborg et al. (2017) who reported a significant correlation between academic resilience and self-efficacy, locus of control. However, the statistically significant correlation between sense of

meaning and purpose ( $r=0.638, P<0.05$ ) in this study, was contrary to that of Karaman et al. (2020) who established that meaning in life had a weak insignificant relationship with academic resilience ( $r = 0.09, p > 0.05$ ). The analysis also revealed that there was a strong significant positive correlation between personal factors and academic resilience ( $r=0.712, P<0.05$ ). Given the statistical significance of the relationship, the hypothesis that "there is no statistically significant relationship between personal factors and academic resilience among the secondary school students in Turkana County" was rejected. Further, a Regression Analysis was used to compute the coefficient of determination and the results shown in table 3 below.

**Table 3: Model Summary of Regression of Personal factors**

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error
1	0.717 <sup>a</sup>	0.514	0.510	3.54201

a. Predictors: (Constant), Sense of meaning and purpose, Autonomy and sense of self, Social Competence

Table 3 revealed that indicators of personal factors explain 51.0% of the variation in academic resilience. This implies that the model is good enough to explain the variation in academic resilience (adjusted R<sup>2</sup> = 0.510). The model summary reveals that the personal factors accounted for 51% (adjusted R<sup>2</sup> = 0.510) of the variation in academic resilience among public secondary school students in Turkana County. This finding implies that variation in academic resilience is 51% explained by the variability of the personal factors among secondary school students.

Generally, there was a moderate influence of personal factors on academic resilience among students ( $M=3.82, SD = 1.07$ ) on a scale of 1 to 5. Inferential statistics of Pearsons Product Moment correlation revealed that there was a statistically significant strong positive correlation ( $r= .712, n=378, P> .05$ ) between personal factors and academic resilience, with a sense of meaning and purpose having strong associations to academic resilience and vice versa. This

was followed by autonomy and sense of self ( $r=0.599, P<0.05$ ), and then social competence ( $r=0.544, P<0.05$ ). Given that the relationship was statistically significant, the hypothesis that 'there is no statistically significant relationship between personal factors and academic resilience among public secondary school students in Turkana County, Kenya was rejected. Therefore, it was concluded that "there is a statistically significant relationship between personal factors and academic resilience among public secondary school students in Turkana County, Kenya. Further regression analysis revealed that personal factors accounted for 51.4 % ( $R^2 = .514$ ) of the variation in academic resilience. Similarly, qualitative data from interviews revealed that students with high protective personal factors are more academically resilient while those students with low protective personal factors have low academic resilience.

## CONCLUSION

This study concluded that personal factors has a statistically significant strong positive correlation with academic resilience. It is also a strong predictor of academic resilience. Regarding the sense of meaning and purpose, autonomy and sense of self, and social competence, sense of meaning and purpose had the strongest association with academic resilience followed by autonomy and sense of self, and finally social competence. Therefore, students ought to be empowered to realize the internal assets they possess and can use to their advantage to boost academic resilience and therefore increase their likelihood of positive life outcomes.

## RECOMMENDATIONS

This study recommends that:

1. Both parents and teachers should play an active role to support students to develop and increase social competence, autonomy, and sense of self, meaning, and purpose in their lives, and nurture positive relationships to enhance academic resilience. This can be done through personal or school guidance on self-awareness, self-efficacy as well as availing opportunities where students can practise empathy, problem-solving, cooperation, and communication. Also,
2. The teacher training institutions should consider training teachers on how to build the internal assets of students.
3. Teachers and parents should motivate learners by setting achievable goals and exposing them to role models they could relate with and emulate. All these serve to manifest and boost children's internal assets.
- 4.

**Conflicts of Interest:** The authors declare no conflict of interest.

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## Disclaimer Statement

This work is part of a thesis submitted for the award of Doctor of Philosophy (PhD) of Educational Psychology of Moi University. The title of the thesis is '*Personal and Socio-contextual factors as predictors of Academic Resilience among public secondary school students: A case of Turkana County, Kenya.*' The amount of work from the thesis include: introduction, literature review, methodology, results, recommendations and conclusion. Department of Educational Psychology, Moi University; Names of Supervisors: Dr. Esther Njeri Kiaritha and Dr. Shikuku Mulambula.

## Authorship and Level of Contribution

**Janet Surum:** Abstract, Introduction, purpose of the study, topic, research questions, research hypothesis, results, references, proofreading, collation.

**Dr. Esther Njeri Kiaritha:** Topic, statement of the problem, purpose of the study results, discussion, methodology, proofreading, collation, formulation of questionnaire.



**Dr. Shikuku Mulambula:** Literature review, results, discussion, methodology, data analysis references, formulation of questionnaire, collation.

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