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EFFECT OF RESILIENCE STRATEGIES ON MENTAL WELL-BEING OF STUDENTS IN PUBLIC SECONDARY
SCHOOLS OF KANDARA SUB-COUNTY, MURANG'A COUNTY, KENYA

Research article

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Abstract

This research was concerned with revealing how resilience strategies impacted the mental health of public secondary school students in Kandara Sub-County of Murang'a County in Kenya. The study was based on the PERMA model and Positive Psychology theory developed by Seligman, and the quasi-experimental design was employed in the study; the Solomon four-group model was used in identifying the determinant effect of resilience interventions offered in schools. The design was mixed-method, whereby the targeted sample was 848 Form Two students, class secretaries, form masters, and heads of guidance and counseling. SPSS (v26) was used to analyze quantitative data and thematic analysis was done on qualitative data. The result showed that the strategies of resilience had a significant positive effect on the mental well-being of students, and the effect sizes were medium (Cohen $s = 0.55$) and statistically significant ($p < 0.05$). There were also qualitative feedback of the improvement of emotional regulation, optimism, and engagement in studying. The research study proposes resilience programs as a curricular activity in the secondary education system in Kenya.

Keywords: adolescents, mental well-being, positive psychology interventions, resilience.

ВЛИЯНИЕ СТРАТЕГИЙ УСТОЙЧИВОСТИ НА ДУШЕВНОЕ БЛАГОПОЛУЧИЕ УЧАЩИХСЯ
ГОСУДАРСТВЕННЫХ СРЕДНИХ ШКОЛ ГОРОДА КАНДАРА, ОКРУГ МУРАНГА, КЕНИЯ

Научная статья

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Аннотация

Данное исследование было направлено на выявление воздействия стратегий устойчивости на психологическое здоровье учащихся государственных средних школ в городе Кандара округа Муранга в Кении. В основе исследования лежала модель PERMA и теория позитивной психологии, разработанная Селигманом, а также был использован квазиэкспериментальный подход; для определения эффекта мер по укреплению устойчивости, предлагаемых в школах, был использован план Соломона из четырех групп. Схема исследования была смешанной, целевой выборкой были 848 учащихся второй группы, классные секретари, классные руководители и руководители служб профориентации и консультирования. Для анализа количественных данных использовался SPSS (v26), а для качественных данных был проведен систематический обзор. Результаты показали, что стратегии устойчивости оказали значительный положительный эффект на психическое благополучие учащихся среднего объема (Коэн $s = 0,55$), который являлся статистически значимым ($p < 0,05$). Был также получен качественный фидбэк об улучшении эмоциональной регуляции, оптимизме и вовлеченности в учёбу. Исследование предлагает включить программы по развитию устойчивости в учебную деятельность системы среднего образования Кении.

Ключевые слова: подростки, душевное благополучие, позитивные психологические интервенции, устойчивость.

Introduction

Adolescence is a critical stage of human development marked by complex emotional, psychological, and social changes. During this period, adolescents are often confronted with multifaceted stressors, including academic pressures, peer dynamics, family disruptions, and financial constraints. These stressors can impair both psychological development and educational outcomes if left unaddressed. Globally, the burden of mental health issues among young people remains substantial, with the World Health Organization identifying mental illness as a leading cause of disability in adolescents [2].

In the Kenyan context, secondary school students frequently face psychosocial challenges in environments with limited access to mental health support systems. Although some schools have instituted guidance and counseling programs, these interventions are often reactive, underfunded, and stigmatized, thus failing to meet the preventative and developmental needs of students [3]. Consequently, there is an urgent need for evidence-based, proactive, and strength-focused strategies that enhance psychological well-being within the school environment.

Resilience, the capacity to recover from adversity and adapt positively to challenging life experiences has emerged as a vital protective factor in adolescent mental health. Research indicates that resilience-promoting interventions can improve

emotional regulation, enhance academic engagement, and strengthen coping skills among adolescents [3], [4]. Nevertheless, empirical evidence on the effectiveness of such interventions in Kenyan school-based settings remains limited.

This study seeks to evaluate the impact of structured school-based resilience strategies on the mental well-being of students in public secondary schools in Kandara Sub-County, Murang'a County. The intervention is informed by the PERMA model developed by Seligman, which conceptualizes well-being through five domains: Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment [1]. The objective is to determine whether resilience-focused activities integrated into the school routine can significantly improve students' mental health in a low-resource rural setting, thereby offering a scalable model for similar contexts.

Research methods and principles

Design

The research is based on the quasi-experimental design with the Solomon four-group model, which allowed controlling the testing effects and raised the internal validity. It was a design that contained pre-test/post-test and post-test only experimental and control groups.

Participants

The research project aimed at sampling 848 Form Two students in 8 public secondary schools within Kandara Sub-County. Stratified random sampling was used in selecting the participants in order to have representation in regard to gender, type of school and location. Qualitative interviews were carried out with school counselors, class secretaries and form masters.

Intervention

The resilience intervention took place over four weeks and entailed:

- Cognitive reframing exercises to change negative thinking pattern.
- Agency-building goal-setting and problem-solving activities.
- Role-plays and peer discussions to role-play and practice the coping mechanisms.

Trained teacher-counsellors conducted the sessions, with 15 minutes each day, using lesson guides. Control groups did not have any changes in their normal academic lives.

Tools and Data Measurement

Some quantitative instruments were:

- Brief Resilience Scale (BRS)
- PERMA-Profiler

Semi-structured interviews and focus group discussions were utilized to collect qualitative data.

Analysis

SPSS v26 was used to examine quantitative data applying:

Descriptive statistics

- Paired and independent t-test
- ANOVA
- Effect size (Cohen d)

Thematic analysis of qualitative data was conducted to define commonalities in the experience and perceived changes among students.

Main results

Quantitative Findings

- The intervention group students indicated an improvement of 14,2 percent in BRS scores as opposed to controls. The outcome of ANOVA revealed that the mean difference between post-test scores was significant ($p < 0,05$).
- Cohen $d = 0,55$, which indicates a moderate effect.
- Regression analysis showed that involvement in resilience activities positively correlated with the increase in PERMA scores ($\beta = 0,398$).

Qualitative Findings

- Emotional control: teachers noticed that students got calmer and more thoughtful.
- Optimism: Students said they were "more optimistic about their future".
- Peer collaboration: Working in groups promoted a better relationship with peers and interaction in the classroom.

These findings confirm the assumption that resilience strategies have a positive impact on the mental well-being of adolescent learners.

Discussion

The findings of this study provide compelling evidence that resilience strategies significantly enhance the mental well-being of adolescents in public secondary schools. Quantitative analysis revealed a 14,2% improvement in the Brief Resilience Scale (BRS) scores among students in the intervention group, with a statistically significant difference between groups ($p < 0,05$) and a moderate effect size (Cohen's $d = 0,55$). Regression analysis further confirmed a positive correlation between resilience participation and PERMA well-being scores ($\beta = 0,398$). These results align with international research demonstrating the effectiveness of school-based resilience interventions in promoting psychological well-being [4], [5].

In addition to statistical outcomes, qualitative data revealed notable changes in students' emotional and social functioning. Participants reported increased emotional control, optimism about their future, and stronger peer relationships. Teachers and counselors observed heightened engagement in classroom activities and more thoughtful behavior among students. These qualitative outcomes substantiate the quantitative findings and emphasize the practical impact of resilience training on students' day-to-day experiences.

The application of the PERMA model provided a strong theoretical framework for both the design and assessment of the intervention. The focus on positive emotion, engagement, and accomplishment was particularly reflected in cognitive

reframing and goal-setting activities, which encouraged students to reframe challenges as opportunities for growth [1], [6]. The study also underscores the importance of culturally relevant mental health strategies in Sub-Saharan Africa. The structured, teacher-led sessions demonstrated that even in low-resource settings, it is feasible to implement effective psychological interventions using existing school personnel.

Notably, the findings also contribute new data on the cultural applicability of resilience theory in rural Kenyan schools. By integrating resilience-building techniques into existing curricular and co-curricular activities, this research demonstrates a viable, replicable model for strengthening adolescent mental health across comparable low- and middle-income contexts [3], [7]. However, limitations such as the relatively short duration of follow-up and reliance on self-report measures must be acknowledged. Future longitudinal studies are needed to assess the sustainability of these improvements and their potential correlation with academic outcomes.

Conclusion

This study investigated the impact of resilience strategies on the mental well-being of students in public secondary schools within Kandara Sub-County, Murang'a County, Kenya. Guided by the PERMA model of well-being and employing a quasi-experimental Solomon four-group design, the intervention entailed structured activities such as cognitive reframing, goal-setting, and group-based discussions conducted over a four-week period.

The results revealed a statistically significant improvement in students' resilience and overall mental well-being, as evidenced by both quantitative and qualitative data. The intervention group exhibited a moderate effect size (Cohen's $d = 0,55$) and a positive regression coefficient linking resilience practices to enhanced PERMA scores ($\beta = 0,398$). Qualitative feedback highlighted increased emotional stability, optimism, and peer engagement, thereby corroborating the quantitative findings.

The study affirms the efficacy of resilience strategies in enhancing adolescent mental health within the Kenyan education system. It provides empirical justification for the integration of resilience-building programs into school curricula and contributes to the growing body of literature advocating for school-based mental health interventions in Sub-Saharan Africa. For future research, emphasis should be placed on longitudinal impact, academic outcomes, and synergistic effects with other positive psychological constructs such as hope and gratitude.

Конфликт интересов

Не указан.

Рецензия

Все статьи проходят рецензирование. Но рецензент или автор статьи предпочли не публиковать рецензию к этой статье в открытом доступе. Рецензия может быть предоставлена компетентным органам по запросу.

Conflict of Interest

None declared.

Review

All articles are peer-reviewed. But the reviewer or the author of the article chose not to publish a review of this article in the public domain. The review can be provided to the competent authorities upon request.

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