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Differences in Emotional Intelligence between Rural and Urban Primary School Orphans and Vulnerable Children in Alego-Usonga Sub County, Kenya

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Abstract: This study sought to establish differences in emotional intelligence between rural and urban primary school orphans and vulnerable children in Alego-Usonga Sub County, Kenya. The study used *Ex-post facto* research design, using schools that had good performance academically through school progress records. The study sample comprised of 319 pupils (157 males and 162 females) of between 12 to 17 years, representing 32.48% of the study population. The study used a questionnaire as source of data. The analysis of data involved descriptive statistics and independent sample t-test as reflected in tables and figures that appear in the results section. The study found that OVC's emotional intelligence is influenced by their environment. Compared to rural areas, urban settings tends to provide a better environment for the nurturing of emotional intelligence of primary school children. In addition, flexible, interesting and accommodative school and home environments guarantee a fertile ground for improving the adolescents' emotional Intelligence. Subsequently, appropriate recommendations were provided.

Keywords: Difference; emotional intelligence; orphans; vulnerable Children; rural

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Introduction

With the emergence of emotional intelligence (EI), as an indicator of academic achievement (Gkintoni et al., (2023), there is need to establish how emotional intelligence benefit orphans and vulnerable pupils more so in academic achievement. Emotional intelligence is an individual's capacity to understand and manage emotions. It has five components, which include self-awareness, self-regulation, social skill, empathy and motivation (Kendral, 2023).

Pupils with higher emotional intelligence are better positioned to manage negative emotions, which include anxiety, boredom and disappointment. Pupils may be able to manage the social world around them, forming better relationships with teachers, peers and family, all of which are important for academic success. Non-orphans tend to be emotionally stable than orphans. This is due to psychosocial problems that orphans go through, which tend to work against balanced mental positioning (McCann *et al*., 2019; Bhat 2014).

Basically, people's attitude and behavior to each other depend on their emotional intelligence levels. People with low emotional intelligence are generally very aggressive by nature, facing difficulty to adjust with others. They are poor listeners, easily distracted and have low confidence. People with high emotional intelligence have strong will power. They are soft and polite by nature. They are patient and possess good listening attributes, which aggravates learning (Bhat 2014; MacCann *et al*., 2019; Kabir 2024).

Costa and Faria (2014) affirmed that emotional intelligence predicted academic achievement among Portuguese students. Similar findings were established by Gosh (2014). Other studies have been carried out to determine the differences in the levels of emotional intelligence between rural and urban students. Warnalatha (2015) established that emotional levels of urban students are higher compared to emotional intelligence levels of rural students. Similar results were reported by Saikia et al. (2015) in India.

According to the World Health Organization (2020), the adolescence age falls between ages 10 and 19. This is a time of intense physical, mental, social and emotional growth. The hormonal changes, the shifts and turns on social structures put together with high expectations exacts a lot of pressure on adolescence. Understanding the trajectory of these changes is crucial for comprehending adolescence and developing strategies to navigate the challenges of this stage effectively. For that matter, there is renewed interest in understanding and addressing emotions (Agarwal 2020).

The global tally of Orphans and Vulnerable Children (OVC) was stated to be 13.9 million as at the year 2016 (USAIDS, 2023). About 83.6 percent (13.8 million) of them lived in sub- Saharan Africa. While Kenya accounts for about 3.6 million OVC globally, the majority of OVC in Kenya fall between the age of 10 and 18 years old (Lee *et al*, 2014), hence falling within the adolescence age.

One third (27.4%) of the orphans aged between 10 and 14 years live in western Kenya, especially around lake Victoria basin, comprising of Siaya, ,Kisumu, Migori and Homabay counties. The region is a home to 28.2% of Kenya's single orphans and 42% double orphans (Lee *et al*., 2014). KIHBS (2005-2006) report that Siaya, Kisumu, Homabay and Migori Counties, in comparison to other counties, have a high rate of orphanhood (KDHS, 2014). The phenomenon has contributed immensely to high school dropout rate (11.6%), repetition and absenteeism, which have negative effect on academic achievement (Ochieng, 2016).

Considering that heavy investment has been pumped to the support of education of the OVC to improve school participation (Mugambi & Kiambi, 2017), the place of emotional intelligence in boosting academic achievement is worth investigating. The connection between emotional intelligence and academic achievement has been emphasized by previous studies (Lopamudra & Chirnmay 2021; Herut et al., 2024), both reporting a positive connection. This has put much interest in studying the benefits of emotional intelligence in moderating the psychosocial risks that work against academic achievement of the OVC.

According to Ochieng (2016), previous research conducted in Siaya Sub-County among child-headed households and orphans/vulnerable children indicated a poor psycho-social adjustment amongst the orphans. A study by Magampa (2014) found that orphaned children tend to perform poorly at school when compared to non-orphaned children, a clear indication that orphaned children could be undergoing challenges that are emotional in nature. Ngila and Makewa (2017). Connected emotional intelligence with self-discipline, which is a key factor in assisting OVC to navigate through school and home environmental challenges. It is for this reason that this study sought to establish differences in the levels of EI of orphans and vulnerable pupils in urban and rural public primary schools in Alego-Usonga Sub-County, Kenya.

Methodology

The methodological approach employed in this study is described below, detailing the study design, sampling strategy, data collection instruments as well as the data analysis methods.

Design

The study used *Ex-post facto* research design. Condron (2014) defined the Ex-post facto as predicting a possible effect that has already occurred. This study design was selected because it was useful in getting the relevant data for the study, allowing for exploration of the correlations among the independent and dependent variables.

Population and Sampling

The study was carried out in Alego-Usonga Sub-County within Siaya County in Kenya. The location is suitable for the study because it covers both urban and rural areas with a high number of orphans in primary schools due to HIV/AIDS prevalence (National Aids Control Council, 2014). Latest reports show that Siaya County stands in the second positions after Homabay County in HIV/AIDS prevalence. The area is also a home to majority of Kenyan OVCs and hence experiences the challenges of low progression from class one to eight among OVCs.

According to the Ministry of Education data, most OVC in Alego-Usonga Sub County tend to drop out of school. Apart from truancy, it is reported that 100 girls dropped out of school in the year 2013 while 90 girls dropped out in the year 2014 due to teen pregnancy. To make it worse, out of the girls who dropped out, only 15 resumed learning after delivery (World Vision Kenya, 2016). The trend is further confirmed by Anyango (2024), who states that female learners suffered from high drop-out rate, low transition, lower class attendance and poor academic performance due to high levels of pregnancy. The author further stated that the problem was aggravated by the high rates of HIV/AIDS prevalence of 21% among youths aged 15 years and above. She noticed that the females were carrying a burden of 22.4% and males 19.4% of the HIV/AIDS prevalence.

This study purposefully sampled schools that had good performance academically, using school progress records. All the schools sampled had a mean score of 250 and above in 3 sampled exams done across all the schools in the sub county.

The population of study was 982 Orphans and Vulnerable Primary School pupils between class six to eight of adolescent age. The study sample comprised of 319 pupils (157 males and 162 females) of between 12 to 17 years, representing 32.48% of the study population, which was worked out based on a formula developed by Krejcie and Morgan (1970).

The purposive sampling technique was applied to select respondents considering specific characteristics and objectives of the study. The study area was marked per division and zones with each division and zone getting same number of representation. This method was most appropriate because it ensured that the subgroups are proportionally represented. The simple random sampling was used to choose specific classes to be engaged in the study. The stratified random sampling technique was used to group the samples into smaller groups of common attributes and characteristics. The common attributes and characteristics to be put into consideration were the location of the school (urban and rural) and age of the learners.

Research Instruments

To collect data, a questionnaire was completed by pupils consisting of two parts. In the first part of the questionnaire, participants were asked to give their demographic background (class, age and school). In the second part, the questionnaire, consisting of a modified version of Mohapel's Emotional Intelligence test, was used to test the respondent's emotional intelligence (EI). The EI test was adopted to suit the local set up of the study, considering respondents' linguistic ability.

Validity and Reliability

The study questionnaire was checked for its content, construct and face validities before rolling it out in the study. The researchers, thereafter subjected the tool to piloting, involving two groups of 30 respondents to check variability in response. The split half reliability test was used where Cronbach Alpha of coefficient of 0.811 was attained. Reliability was ascertained by considering the 0.7 recommended value.

Statistical Treatment of Data

The analysis of data involved descriptive statistics and independent sample t-test as reflected in tables and figures that appear in the results section.

Results and Discussion

This section presents the findings of the study.

Demographic Data

A total of 319 pupils were sampled, of which 17 (5.33%) were absent during the day of the study. Therefore, 302 (94.67%) participants received a

study questionnaire. Out of the 302 questionnaire sheets issued, 245 (81.13%) were correctly filled and returned, 30 (9.93%) were returned but not correctly completed, hence could not be used, 10 (3.31%) were returned but were not in a good state while 17 (5.63%) questionnaire sheets were never returned. Therefore, this study attained greater than 80% response rate. According to Mugenda and Mugenda (2012), the minimum response rate is 50%, a response rate of 60% is mentioned as good while response rate above 70% is considered as excellent.

As it appears in Table 1, pupils were asked to state their class. The table shows that 67 (27.3%) of the pupils learnt in class six, 95 (38.8%) were in class seven while 83 (33.9%) were in class eight. The results show that the number of pupils was evenly distributed across the classes.

Pupils were required to state their age, in the last section of social demographic information. The outcome is recorded in Table 2, showing that the majority (180 out of 245, 73.5%) were between 13 and 15 years old while 30 (12.2%) were aged between 10 and 12 years, 34 (13.9%) were between 16 and 18 years and only one pupil (0.4%) was 19 years old.

Table 1. Distribution of Pupils by Class

Class	Frequency	Percent
Six	67	27.3
Seven	95	38.8
Eight	83	33.9
Total	**245**	**100.0**

Table 2. Distribution of Respondents by Age

Age Bracket	Frequency	Percent
10 to 12	30	12.2
13 to 15	180	73.5
16 to 18	34	13.9
19 to 21	1	0.4
Total	**245**	**100.0**

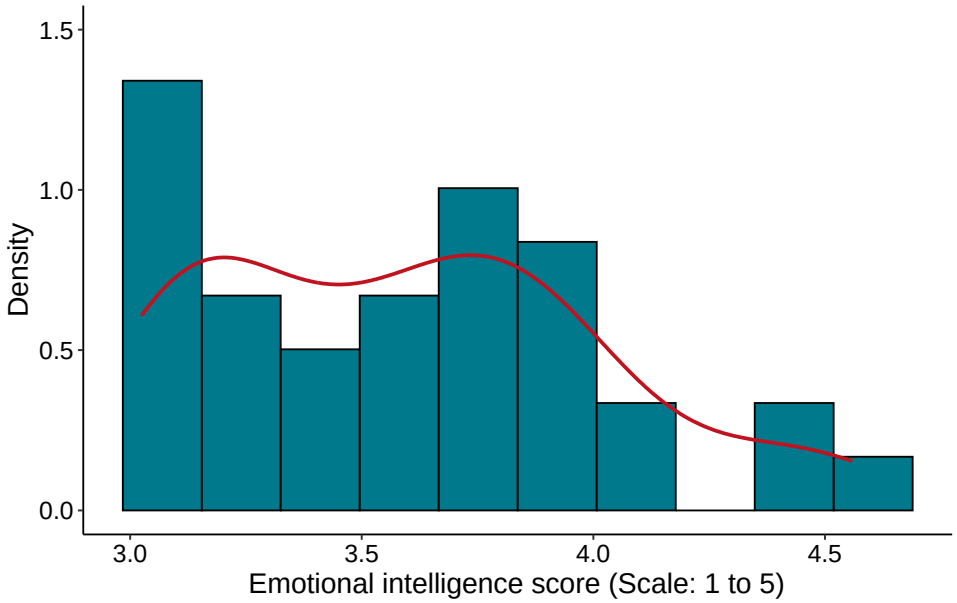

Figure 1. Histogram and density plot showing the distribution of mean scores of all the pupils for the 35 emotional intelligence items.

The age groups is consistent with the common primary school age of the classes included in this study. The sample by age meets the inclusion and exclusion criteria that paid attention to the age of the respondents. The WHO defines adolescence to be the period between 10 years and 19 years.

Adolescence has been categorized into three groups, namely early adolescence (ages 10 to 14), middle adolescence (ages 14 to 17) and late adolescence (ages 18 to 21). Majority of the respondents studied fall within the middle adolescence age.

Research Question 1: What is the emotional intelligence level of orphans and vulnerable pupils in Alego-Usonga sub county?

To answer this question respondents undertook an EI test. The overall EI level was calculated from an average of the summation of the EI scores of each individual participant in the study. The results appear in the Figure 1. A histogram with density plot was used to visualize the distribution of the mean scores of 35 items in the questionnaire. As seen in figure 1, the mean scores for the items spread out widely with double peaks between 3 and 4 scores. The overall mean was estimated as 3.593 (SD = 0.421), indicating a moderate level of EI capability among the pupils. Moderate levels of EI, even though not very bad has bad implications in the child overall ability to tackle very competing issues that require good decision-making ability. Moderate emotional intelligence would jeopardize the learner's ability to manage emotional pressures that surge during the adolescent development stage which in turn may affect overall performance of pupils. According Sabah (2015), moderate intelligence levels are not sufficient for adolescence to face daily challenges. Emotional intelligence has been reported to be linked with self-discipline by (Makewa and Ngila, 2017).

Research Question 2: Is there as a significant difference in levels of emotional intelligence of OVCs in urban primary school compared to those in rural public primary schools?

To answer this question, the study hypothesized that *there is no significant difference in levels of emotional intelligence of OVCs in urban primary school compared to those in rural public primary schools.*

In order to test this hypothesis, summary statistics were computed for the level of emotional intelligence. The average emotional intelligence levels in these groups were then compared through the independent sample t-test and the results appear in Tables 3 and 4.

Table 3. Difference in Emotional Intelligence Levels of Urban and Rural Schools

Group statistics				
School category	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Urban	95	23.7429	1.65063	0.10546
Rural	150	22.9306	2.27947	0.14563

Table 4: Test of Significance in the Difference of Intelligence Levels between pupils in Urban and Rural Schools.

		Levene's Test for Equality of Variances		t-test for Equality of Means							
								Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	T	Df	Significance One-Sided p	Two-Sided p			Lower	Upper
Emotional intelligence	Equal variances assumed	7.734	0.006	2.792	243	0.003	0.006	0.73795	0.26434	0.21726	1.25865
	Equal variances not assumed			2.973	235.901	0.002	0.003	0.73795	0.24825	0.24887	1.22703

As shown in table 3, OVCs in urban primary schools scored a higher mean emotional intelligence of 23.7429 (SD 1.650) compared to their counterparts in rural schools, whose average emotional intelligence score was 22.9306 (SD 2.2794).

Comparison by t-test statistics, with the p-value of 0.003 in Table 4, which is less than the critical value (0.05), indicates a significant difference in emotional intelligence between the two groups, leading to rejection of the null hypothesis.

The findings are in consonance with the report by Warnalatha (2015), who found out that emotional levels of urban students are higher compared to emotional intelligence levels of students in rural settings. The study was however disputed by Makvana's (2014) findings that rural students are more emotional intelligent than urban school students.

Conclusion and Recommendations

From the foregoing discussion, the following conclusions are made. The OVCs emotional intelligence are influenced by their environment. Compared to rural areas, urban settings tend to provide a better environment for the nurturing of emotional intelligence of primary school children. In addition, flexible, interesting and accommodative school and home environments guarantee a fertile ground for improving the adolescents' emotional Intelligence.

It is necessary for schools to redefine their curriculum to incorporate aspects that can support the learners to build EI skills, such as exposure to educational tours, public speaking, debates, community services and self-reflection moments like drama, poetry, meditation and prayer. This shall enable the children to develop in all domains of emotional intelligence. More emphasis on programs that enhance emotional intelligence should be placed on rural schools. There is a need for school administration to be considerate of the learner's location when prescribing solutions to OVCs emotional and social challenges. This will help in reducing truancy and school dropout rates so as to spur academic performance. The need to involve the community in the learning process is of essence. This is because home environment forms integral part of OVCs emotional intelligence development. The positive incorporation of the adolescent orphans in the family, rewards, expression of love and freedom of expression should be inculcated. Homebased education programs, such as taking OVCs alongside other members of the family to exposure visits to parks, community libraries and computer hubs are some of the activities that would nurture robust emotional intelligence development.

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