

## Influence of Sense of Belonging to a School on Learners' Loneliness in Single Gender and Co-Educational Institutions in Murang'a County, Kenya

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### Abstract

*The influence of the sense of belonging to school on learners' loneliness in single gender and co-educational schools in the world and Kenya in particular is not clearly known and documented. Available literature indicates that the learners' sense of belonging to school significantly impacts on their loneliness. The purpose of this study was to examine the influence of the sense of belonging to school on learners' loneliness in single gender and co-educational schools in Murang'a County in Kenya. The study was guided by the following specific objectives, which were to; Compare the levels of loneliness among learners in single gender and co-educational schools in Murang'a County and assess power of sense of belonging to school in determining the loneliness levels among learners in single gender and co-educational schools in Murang'a County. The study adopted the cross-sectional survey research design. The Krejcie & Morgan Table was used to select a sample of 435 participants from a target population of 12,400 form two learners from single gender and co-educational secondary schools in the County. Data was collected using two standardized measurement instruments; the Perth aloneness-loneliness scale (PALs) while sense of belonging to school was measured using five statements in a five point Likert scale developed for the study. Administration of the questionnaire was done during normal school days by trained research assistants. Data was analysed using the descriptive and inferential statistics with the aid of the Statistical Package for Social sciences (SPSS) version 20.0. The findings of the study indicated that low sense of belonging to school for girls in co-educational institutions was correlated to high levels of loneliness. From the findings of the study, it is concluded that there is need to strengthen the psychosocial support systems for learners in co-educational schools through mentorship, guidance, coaching and counselling to facilitate appropriate adjustments of the learners in the schools so as to promote their learning outcomes.*

### Keywords

single gender; co-educational school; loneliness; sense of belonging to a school



## I. Introduction

The quality of life of the nation is very much determined by the factor of education. Education has a very decisive role for the development and realization of individual self. Therefore, education reform must always be done to improve the quality of national

education. The progress of a nation can only be achieved through structuring good education. (Nurjanah, 2020)

Sense of belonging to a school has been a concern for educators worldwide due to its strong influence on psychosocial outcomes in learners. Special concern for Kenya is the burning of schools' dormitories by learners in boarding schools and low academic performance especially in Murang'a County. Low sense of school belonging would trigger negative feelings about the school that culminate into learners leaving the school. However, before the physical exit of the student from the school, they might have experienced cognitive dissonance with its attendant negative outcomes. Sense of school belonging has been defined as a sense of fitting in and feeling accepted as part of a group in an educational institution. It's the psychological membership that one experiences as having a stake in a relationship (Uslu&Gizir, 2016). In schools learners can feel as part of the community or experience sense of isolation and estrangement.

Loneliness is believed to greatly impact on the academic outcomes of the learners in schools especially in Murang'a in Kenya. Students in Kenya spend more than 75% of their time in school, making the school environment impact on growth and development of the students longer than other social contexts.

Public schools in Kenya are either mixed gender or single gender. The school can also be boarding or day institutions. Boarding schools are characterized by restriction of movement in and out of school for students except during open days when parents and guardians visit the students. The schools are manned by teachers, and students' time is programmed with little time for self-directed activities. Major chunk of time is taken by academics. The boarding facilities are more likely to be outstretched and congested while diet is usually repeatedly monotonous. Where the school is of mixed gender, facilities like fields, halls, transport, classrooms are shared. Only the sleeping areas are strictly for the designated gender. Wallace, Ye & Chuon (2012) identified learners fitting in with peers as one of the determinants of sense of belonging to a school. It is established that gender composition of a school could influence the fitting in experience described by Wallace et. al. (2012). Researchers have found that girls are more affected by presence of the boys in a co-educational school (Clark, 2004; Boag 2006). However, how the gender difference impacts on loneliness and sense of belonging to school has not been established.

### **1.1 Statement of the problem**

Gender segregation is a common way of defining educational institution as co-educational or single gender. Social psychological implications of this segregation need to be studied to provide a more informed appraisal of gender segregation outcomes learners' levels of loneliness. Learners in secondary schools continue to exhibit loneliness that significantly impacts on their academic engagement and output. Stakeholders in education and policy makers are greatly concerned with the rising cases of school arsonist attacks and indiscipline occasioned by outward expressions of loneliness.

The outward manifestations of loneliness among learners have been witnessed through violence in schools, depression, suicidal tendencies among learners, riots and strikes that have led to loss of life and school property. It is therefore prudent to examine how gender segregation in educational institutions influence other dimensions of learners' development. The learners' sense of belonging to a school has also been demonstrated to be a powerful factor that greatly impacts on their loneliness. Owing to the immense influence of the sense of belonging to a school on a learner's loneliness, this study sought to assess the influence of

the sense of belonging to school on loneliness among learners in single gender and co-educational schools in Murang'a County in Kenya.

### **1.2 Purpose of the study**

The purpose of this study was to examine the influence of the sense of belonging to school on learners' loneliness in single gender and co-educational schools in Murang'a County in Kenya.

### **1.3 Objectives**

The study was guided by the following objectives, which were to;

- i. Compare the levels of loneliness among learners in single gender and co-educational schools in Murang'a County.
- ii. Assess power of sense of belonging to school in determining the loneliness levels among learners in single gender and co-educational schools in Murang'a County in Kenya.

## **II. Methods**

The study adopted the cross-sectional survey research design. The study was conducted in public secondary schools in Murang'a County in Kenya. The Krejcie & Morgan Table was used to select a sample of 435 participants out of 12,400 form two students from single gender and co-educational secondary schools in the County. Form two students were chosen because they had sufficient time to bond with the schools as well as being chronologically within the middle of the adolescence stage which is normally characterised by loneliness among learners. Out of a population of 12400 students in form two of the sampled schools, 435 students from the two types of schools were selected for the study. Participants from single gender boarding schools were 243 comprising of 144 boys and 99 girls. The mixed gender boarding schools had 192 participants where 87 were boys while 105 were girls. Data was analysed using the descriptive and inferential statistics with the aid the Statistical Package for Social sciences (SPSS) version 20.0.

### **2.1 Instrumentation**

The study collected data using a questionnaire that was constructed from two sets of standardized instruments. These were the sense of belonging to school scale and the Loneliness scale. These two scales were combined to make a questionnaire that was used to collect data.

#### **2.1.1 Sense of belonging to school scale**

The scale for sense of belonging to school was adapted and modified from a scale developed by Akar-Vural et. al. (2013). The scale had 6 statements relating to feeling about the school. For example "I am unhappy in this school" and each statement had five levels of responses in a Likert scale. The responses were from strongly agree, agree, not sure, disagree and strongly disagree. The respondents were requested to indicate the word or words that closely described their feeling towards the school at the time of research. The scoring was done in such a way that a high score corresponded to a good relationship (Strongly agree= 5 agree=4 not sure= 3 disagree 2 and strongly disagree=1) for positively worded statement. Negatively worded statements were scored in reverse. Therefore a large score corresponded

to better sense of belonging. An average score was calculated by dividing each respondent's scores for six statements by six.

### **2.1.2 Loneliness scale**

Loneliness was measured using Perth Aloneness-Loneliness scale (PALs) which measures four dimensions of loneliness using 6 statements for each subscale. The subscales were friendship, isolation, positive attitude towards solitude (PATS) and negative attitude towards solitude (NATS). The scale was adapted and modified from the Houghton, Hattie, Wood, Carroll, Martin, and Tan (2014.) Perth Aloneness-loneliness scale developed in Perth, Australia. The scale uses six point descriptors; *-never, rarely, sometimes, often, very often, always*. These items were worded such that there was a balance of negative and positive items. Scoring was done by assigning numerical values to the responses (*never=1, rarely=2, sometimes=3, often=4, very often=5, always=6*). Total for each subscale was divided by six to get a representative score for the participant and the dimension of loneliness. To get total loneliness score, the sub scale totals were added together and resulting score divided by four.

## **2.2 Empirical literature review**

Loneliness is the cognitive awareness of deficits in quality and quantity of social relationships an individual is involved in. The quality of relationship implies the emotional satisfaction derived from the relationship while quantity may point to the number of relationships. However, it is possible to be alone and not lonely or be surrounded by people and be lonely. Each person has an internal standard against which relationships are evaluated and judged as good or wanting. Houghton Hattie, Wood, Carrol, Martin and Tan (2014) described loneliness as undesired painful aloneness. Aloneness becomes painful due to negative attitude towards aloneness and self-appraisal on a person's ability to cope with the situation. Many negative outcomes in life have been significantly linked to loneliness. These include low academic engagement and achievement, poor psychological adjustment and poor acquisition of social skills. The mental and physical health challenges, truancy, low academic performance and dropping out of school are effective outcomes of loneliness ((Murphy, Murphy & Shevlin, 2015; Stickle, Koyanagi, Kuposov, Schwab-Stone, & Ruchkin, 2014; Frostad, Pjil, & Mjavaatan, 2015). The Poor development in multiple domains of functioning including depression and anxiety are other behavioural manifestations of loneliness (Jobe-Shields, Cohen & Parra, 2011). Loneliness has been shown to be the most powerful predictor of mortality in longitudinal studies of older adults (Qualls, 2014). Loneliness is a major source of distress and a developmental risk that can predispose children to immediate and long-term negative consequences, (Sharabi, Levi & Margalit, 2012). Loneliness has increased in social importance as reflected by many clients who are reported for seeking counseling to manage the challenge (Rokach, 2008). Le Roux (2009) claims that loneliness is the epidemic of the modern society and notes that learners at adolescence stage are more prone to this emotional distress than any other stage in life. From the available literature, it is apparent that loneliness is experienced across the spectrum of the developmental lifespan but especially during adolescence. This is because, individuals at this stage are seriously battling with the turbulence and crisis that characterize the adolescence.

Sense of belonging to school has been found to correlate positively to academic performance, willingness to obey school rules, school engagement, (Goodenow, 1993; Eccles & Roser, 2009; Akar-Vural, Yılmaz-Özelçi, Çengel, & Gömleksiz, 2013). School sense of belonging has also been found to negatively and significantly correlate to stress, depression, loneliness, truancy, school violence and gangs (Iatsch 2018; ;Frostad, Pjil, & Mjaavatan,

2015; Yıldız 2016; Akar-Vural et. al. 2013). The implication here is that sense of belonging to school has deleterious effects on how learners interact and adjust with the institutions and with themselves. It has both the interpersonal and intrapersonal ramifications to the learner as indicated by the diverse behavioral patterns discussed by the authorities cited.

Yıldız (2016) observed that low or unsatisfying levels of belongingness in individuals may lead to loneliness, because belongingness is an important component in major relationships. This observation agrees with Frostad et. al. (2015) findings that loneliness is an important predictor of intention to leave school (due to low sense of belonging). Latsch (2018) found that good sense of belonging resulted to lowered level of loneliness and depression. The studies under review did not consider the sense of belonging to a school under varying school-type. It is likely that peer relationships which are influenced by gender composition resulted to a different school climate and sense of belonging to school.

As to which gender is lonelier, the findings continue to differ. İlhan (2012) studying university learners in Turkey found that there were no significant differences between males and females in their level of loneliness while some researchers have found boys to be lonelier than girls. Liu, Li, Purwono, ChenX and French (2010) while studying loneliness among the Chinese adolescents found no difference in loneliness between genders in secondary schools. The findings of this research will contribute to this debate.

A large number of researches has been done on gender and schooling. Raufelder, Bukwoski & Mohr (2013) emphasized that schooling should be assessed as a social process. This is because the power of relationships determined the outcomes of learning and teaching. They also argued that gender composition of a school can bring differing relational dynamics that can change daily experiences of the learners. Jackson (2002) observed that presence of boys in a class made girls feel embarrassed and have low self-esteem. Girls extended their caretaking role (learnt at family level) to boys at school and in response boys' behaviour was moderated. Similar observations were made by Clark (2004). Teachers also spent more time managing boys' behaviour and this denied girls' interaction time with teaches. The girls were negatively affected by boys' presence unlike boys who were less disturbed. The less masculine boys received harassment on behalf of absent girls in boys' only school.

Wong, Shi and ChenZ (2018) pointed out that mixed gender anxiety led to poor cross gender relations and loneliness. Mixed gender anxiety was higher in single gender schools than in coeducation schools. Further Picho and Stephens (2012) found that stereotypes played role in determining relationships and that stereotype stress was higher in single gender than coeducation schools. From these findings, it is evident that there are a variety of psychological experiences in relationships dependent on gender. How these experiences influence sense of belonging to school and precipitate loneliness is unknown.

### **III. Results and discussion**

The results of the study were analysed in accordance with the stated objectives. The first objective sought to compare the scores of loneliness by school type. The sample was described by gender, age, type of school and sense of belonging to school. Correlations between sense of belonging and loneliness and power of determination were also calculated (Table 1).

**Table 1.** Sample's Type of School gender, age, sense of belonging to school, correlations and coefficient of determination.

Gender	School type	Variables	N	Mean		r	R <sup>2</sup>
Boys	Single gender	Loneliness	144	2.81	0.65	-0.338**	0.114
		SB	144	3.67	0.98		
		Age in years	144	17.09	1.19		
	Coeducation	Loneliness	87	2.80	0.63	-0.196	0.038
		SB	87	3.71	0.99		
		Age in years	87	16.71	0.91		
Girls	Single gender	Loneliness	99	2.94	0.83	-0.332**	0.110
		SB	99	3.63	1.03		
		Age in years	99	15.86	1.23		
	Coeducation	Loneliness	105	3.03	0.79	-0.237*	0.047
		SB	105	3.25	0.95		
		Age in years	105	16.59	1.14		

Key=SB= sense of school belonging. \* Significance  $p < 0.05$ , \*\* significance  $p < 0.01$ , R<sup>2</sup>= coefficient of determination. r=Pearson correlations coefficients between sense of belonging to school and loneliness.

The sample comprised of 231 boys (53.1%) and 204 girls (46.9 %.), thus each gender was fairly represented. The average age of the boys were 16.95 years while that of girls was 16.25 years. The students' age bracket indicates that the students were in the middle of the adolescence stage of development. The adolescence stage of development is characterized with a lot of turbulence and crisis in life which may be expressed through loneliness in life.

### 3.1 Results of Comparison levels of loneliness by single gender and co-education boarding schools

The first objectives sought to compare the levels of loneliness among learners in single gender and co-educational schools in Murang'a County. The results are presented in Table 1. The mean score of loneliness in single gender boarding schools for boys was a 2.81 compared to 2.94 for girls in the same category. The boys' loneliness level was lower than that of girls. However, the difference was not significant as  $p > 0.05$ . In co-education boarding schools boys had a mean of 2.80 while girls in the same category had 3.03 out of possible 6. It is observed that girls were lonelier than boys. However, the difference was not significant  $p > 0.05$ . Girls in single gender boarding schools had a lower mean score (2.94) for loneliness than girls in co-education boarding schools of 3.03. Boys in single gender schools had loneliness mean score of 2.81 which was slightly higher than the mean score of loneliness for co-education schools' boys of 2.80. Notably, it was in the co-education boarding school that girls' loneliness was significantly higher than that of boys  $p < 0.05$ . Girls dislike co-education boarding schools and in return get lonelier than the boys. Thus it is concluded that there is no difference in loneliness between genders when the school type is the same.

These findings support Ilhan (2012) and Liu, Li, Purwono, ChenX and French (2010) who found no difference in loneliness between genders in secondary schools. However, it is observed that gender had different level of loneliness depending on school type. Boys' in single gender were not significantly different in loneliness to those in co-education schools. However, girls were more affected than boys in by co-education schools which increased their loneliness levels significantly compared to single gender. It can therefore be concluded that school gender context plays a significant role in determining levels of loneliness. Gender context is a factor to consider when comparing loneliness levels.

### **3.2 Comparing sense of belonging to school in single gender and co-education boarding schools**

The second objective sought to assess power of sense of belonging to school in determining the loneliness levels among learners in single gender and co-educational schools in Murang'a County. The senses of belonging to school scores were such that high score corresponded to good sense of belonging to school. The mean score of sense of belonging to school ranged from 3.25 to 3.71 out of possible 5 reflecting good level of school belongingness. Boys' sense of belonging to school scores had a mean of 3.67 in single gender boarding schools while in co-education boarding schools the boys had sense of belonging to school mean score of 3.71. Girls had a mean score for sense of belonging to school of 3.63 and 3.25 in single gender and co-educational schools respectively. It is observed that boys had higher sense of school belonging than the girls. However, the difference between the senses of belonging to school for boys was not significant. Although boys' scores was higher than girls' in single gender and co-educational schools, the difference was not significant ( $p>0.05$ ). Despite boys having higher scores than girls, it is observed that there was no significant difference between gender in the sense of belonging to school. This is contrary to Chiessi, Cicognani, & Sonn (2010) who found that boys had better levels of sense of belonging than girls.

Girls' sense of belonging to school decreased from 3.63 in single gender boarding school to 3.25 in co-educational boarding schools. This difference was highly significant  $p<0.01$ . Thus change of school context from single gender to co-education reduced significantly the girls' feelings of belonging to school. For the boys' sense of belonging increased from 3.67 in single gender boarding schools to 3.71 in co-education boarding schools. This increase was not significant,  $p>0.05$ . From these results, it is concluded that change from single gender school to co-educational significantly lowers sense of belonging to school for girls but not for boys. Observations by Clark (2004) and Baig (2006) dealing with academic influence concluded that girls were more influenced by presence of boys more than boys are by presence of girls, which is also true for sense of belonging to school.

### **3.2 Influence of sense of belonging to school on loneliness**

This study sought to find out the influence of sense of belonging to school and loneliness. Pearson moments correlations coefficients between sense of belonging to school and loneliness scores in mixed schools were calculated (Table 1). In single gender boarding schools the correlation coefficient between sense of belonging to school and loneliness was  $r=-0.338$ ,  $p<0.01$  for boys and  $r=-0.332$   $p<0.01$  for girls. In the co-education boarding schools, correlations for boys was  $r=-0.196$ ,  $p>0.05$  while that of girls was  $r=-0.237$ ,  $p<0.01$ . The relationship was weak but highly significant except for boys in co-education boarding schools.

Direction of change was negative indicating that decrease in sense of belonging to school led to decrease in loneliness. From the findings, it is concluded that good sense of belonging is a protective factor against loneliness. This finding agrees with Latsch (2018) who observed that sense of belonging to school was negatively related to loneliness. The finding that sense of belongingness influenced loneliness level significantly also agrees with Frostad et. al. (2015). However, it should be noted that the loneliness scales used in the studies were different. Coefficient of determination, R<sup>2</sup> for boys in single gender boarding schools was 0.114 while in coeducation boarding it was 0.038. It is observed that capacity of sense of belonging to school to determine level of loneliness decreased from 11.4% in single gender boarding schools to 3.8% in coeducation boarding schools for boys.

The girls in single gender schools were significantly influenced by sense of school belonging which could explain 11.0% of the cases compared to 4.7% in co-educational boarding schools. Thus the single gender schools were more influenced by sense of school belonging than in coeducational boarding schools. We observe that in single gender schools both girls as well as boys were more focused on school verses them, than in co-educational boarding schools. This focus led to loneliness based on school climate deficits. Alternatively, the restriction of movement to interact with opposite gender could be one of the schools' policies leading to loneliness. When such restrictions are removed, by having both genders in a school, the power of sense of belonging to school to influence loneliness decreases.

#### IV. Conclusion

The study concludes that learners sense of belong to a school has a significant bearing on their levels of loneliness. There is hence a compelling need for school managers to structure institutions in such a way that they facilitate appropriate interactions in order to forestall development of loneliness among learners which negatively impacts on their academic and holistic development. There is need for schools to map-out factors and conditions in schools that promote positive interactions and that elicit appropriate sense of belonging to school among learners in order to promote their holistic personality development.

#### References

- Akar-Vural, R., Yılmaz-Özelçi, S., Çengel, M. & Gömleksiz, M. (2013). The development of the “Sense of Belonging to School” Scale. *Journal of Educational Research*. 53, 215-230.
- Chiessi M., Cicognani E & Sonn C. (2010). Assessing Sense Of Community On Adolescents: Validating The Brief Scale Of Sense Of Community In Adolescents (Soc-A) *Journal Of Community Psychology*,. 38, 3, 276–292. Doi: 10.1002/Jcop.2036.
- Clark, I. (2004, August 11). Co-education and gender: The end of the experiment? *Education Policy Analysis Archives*, 12(41).
- Frostad P., Pjil S.N., & Mjaavatan P.E. (2015). Losing all interest in school: social participation as a predictor of the intention to leave upper secondary school early. *Scandinavian journal of educational research*. 59 (1) 110-122.
- Goodenow, C. (1993). Classroom belonging among early adolescent learners: Relationships to motivation and achievement. *The Journal of Early Adolescence*, 13(1), 21–43. <https://doi.org/10.1177/0272431693013001002>
- Houghton S., Hattie J., Wood L., Carroll A. Martin K. & Tan C. (2014.) Conceptualizing loneliness in adolescents: development and validation of a self-report instrument. *Child Psychiatry Human Development* 45:604–616.

- Ilhan T. (2012). Loneliness among university learners: predictive power of sex roles and attachment styles on loneliness. *Educational sciences: theory and practice*. 12(4)2387-2396.
- Jackson, C. (2002). Can single-sex classes in co-educational schools enhance the learning experiences of girls and/or boys? An exploration of pupils' perceptions. *British Educational Research Journal*, 28 ;1
- Le Roux, A.(2009).[The Relationship between Adolescents' Attitudes toward Their Fathers and Loneliness: A Cross-Cultural Study](#). *Journal of Child and Family Studies*, 18 (2), 219-226.
- Jobe-Shields L., Cohen R., & Parra G. (2011). Patterns of change in children's loneliness trajectories from third through fifth grades. *Merrill-Palmer Quarterly* , 57, (1).
- Latsch A. (2018). The interplay of emotional instability and socioenvironmental aspects of school during adolescence. *European journal of educational research* 7, (2) 281-293.
- Liu J., Li D., Purwono V., Chen X & French D. (2010) . Loneliness of Indonesian and Chinese adolescents as predicted by relationships with friends and parents. *Merrill-Palmer quarterly*. 61
- Murphy S., Murphy J. & Shevlin M. (2015) Negative evaluations of self and others, and peer victimization as mediators of the relationship between childhood adversity and psychotic experiences in adolescence: the moderating role of loneliness. *British journal of clinical psychology* 54, 326-344.
- Nurjanah, S .(2020). The Development of the Assurance Relevance Interest Assessment Satisfaction (Arias) Collaborative Jigsaw Collaborative Learning Model in Writing News Text Class 8 Junior High School State 06 Medan. Budapest International Research in Linguistics and Education Sciences (BirLE).P.583-590.
- Picho K., & Stephens J., (2010). Culture, context and stereotype threat: a comparative analysis of young Ugandan women in coed and single-sex schools. *The Journal of Educational Research*, 105:52–63, .DOI:10.1080/00220671.2010.517576
- Qualls S. N.(2014) Yes, health and social relations are inextricably connected. *Journal of American research on aging*. 34, 1.
- Raufelder D, Bukowski W.M.,& Mohr S. (2013). Thick Description of the Teacher-student Relationship in the Educational Context of School: Results of an Ethnographic Field Study. *Journal of Education and Training Studies*, 1, (2).
- Rokach A. (2008). The relationship between adolescents' attitudes towards fathers and loneliness: a cross cultural study. *Springer science and business media, LLC*
- St-Amand J., Girard S. & Smith J., (2017) Sense of Belonging at School: Defining Attributes, Determinants, and Sustaining Strategies., *IAFOR Journal of Education* 5 (2) 105-119
- Stickley A., Koyanagi A., Kuposov R., Schwab-Stone M., & Ruchkin V.(2014). Loneliness and health risk behaviours among Russian and U.S. adolescents: across-sectional study. *BMC Public Health* . 14:366 doi:10.1186/1471-2458-14-366.
- Wong WI, Shi SY, Chen Z (2018) Learners from single-sex schools are more gender-salient and more anxious in mixed-gender situations: Results from high school and college samples. *PLoS ONE* 13(12): e0208707. <https://doi.org/10.1371/journal.pone.0208707>
- Yildiz M. A. (2016). Serial Multiple Mediation of General Belongingness and Life Satisfaction in the Relationship Between Attachment and Loneliness in Adolescents. *Educational Sciences: Theory & Practice* DOI 10.12738/estp.2016.2.0380 16