INFLUENCE OF PERSONAL SPECIFIC LIFE-EVENTS ON ORGANOPHOSPHATE INTENTIONAL SELF-POISONING AMONG PERSONS AGED 15-30 YEARS IN KERICHO COUNTY, KENYA.

ABSTRACT

Aim;Suicide has been among the leading causes of death in 15-29-year-old people worldwide. Over three quarters (79%) of all suicides occur in lower and mid-level economic countries. In Kericho County, 525 patients aged 15-30 were diagnosed with organophosphate self-poisoning in the year 2019. The aim of this study was to assess factors that influence intentional self-poisoning among patients aged 15-30 years in Kericho County. The study's specific goal was to assess factors influencing personal specific life events on intentional self-organophosphate poisoning.

Design;The study adopted cross-sectional study design and purposive sampling technique. **A sample size** of 100 respondents was used which was estimated population of patients who might have been infected with poisoning during study period. Data was collected from respondents who were attended and recovered during the study period of four months.

Data analysis and results. The collected quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) version 21. Correlation and regression analysis were carried out to establish relationship between variables. Chi-square also was used to measure correlations of variables. The analyzed data were presented in tables, charts and the corresponding thematic areas. Statistical significance was set at $p<0.05$. The results indicated that personal specific perspective showed positive influenced on self-poisoning.

Keywords: [Personal traits, specific events, imitation and peer pressure).

1.INTRODUCTION.

Adolescent self-poisoners must be thoroughly evaluated in order to provide information that will be useful to those who are caring for these individuals clinically.
Substance misuse is increasingly linked to psychiatric issues that cause self-harm in teenagers. The most prevalent determinant identified In our investigation of four cases of self-poisoning with a history of substance misuse, we discovered that interpersonal conflict, followed by family conflict and conflict with the mother and father, is a psychosocial component contributing to acute poisoning. Academic and romantic failure were identified as the main causes of school-related problems. Family conflicts are characterized by recurrent outbursts of rage and aggressiveness, poor nurturing, and particularly, unhelpful, and uncaring disagreements. These kinds of families run the risk of subjecting their kids to a wide range of physical and mental abuse. Most frequently, events that have resulted in a suicide attempt are interpersonal conflicts between the adolescent and their classmates and family. These interpersonal issues could play a significant part in the emergence of suicidal ideas. In a research by Kumar et al. in India, 63.5% of teenagers who had tried suicide cited interpersonal issues as the main aggravating factor. It follows that when adolescents experience issues in their close relationships with their family members, they may lose significant sources of social support, which could enhance their risk of developing suicidal thoughts. Poisoning risks increase among school dropouts or after a protracted leave from school. Unsatisfactory academic development can contribute to stress and, in turn, melancholy. Parental education and awareness are necessary to prevent situations like these from occurring because sexual insult is also a preventable risk factor for self-poisoning (1).

The period of development between 12 years and 15 years is vital to directly conduct a research on self-harm since these years consists of the (12-14years), peak(15-24years) and beginning of remittance of the behavior (2).

According to the 2017 World Health Organization (WHO) report, it was found to be the most cause of early deaths among adolescents. Moreover, findings from the USA and the UK in three different studies reiterates that self-poisoning rates among adolescents and children has been on the rise from the commencement of this decade (3,4 and5).
Suicide has been the second most issue causing deaths among people in the age bracket of 15-29 years (WHO, 2018). It is as well the second-ranked cause of death among people in the age bracket of 10-19 years in Europe. However, in Europe the rate of suicide among the youth is relatively decreasing by each year. Furthermore, suicide has been found to be the highest cause of deaths among females between the age of 15 and 19 years; it is approximated that suicide causes death in 6.15 females per 100,000 females. Suicide also accounts for a fifth of all mortality in European youth from age 15 and 29 years translating to approximately 24,000 deaths every year (6).
Since 2008, the trend of people presented in emergency care units in hospitals is increasing. It is estimated that about 200,000 people are presented in hospitals every year as a result of self-poisoning or self-harm (7). Data collected from 49 children in United States of America (USA) indicated that hospitalization suicidal patients or behavior doubled among people between the age of 5-17years from 2008 to 2015 (8).

1.2.Statement of the problem

The vulnerability of adolescents, a group susceptible to self-harm, adds to the urgency of addressing this issue. Despite this, there exists a lack of comprehensive assessment of factors contributing to the rising incidence of intentional self-poisoning cases, particularly among youths aged 15 to 30 years. Notably, the hospitals within Kapkatet sub-county, Londiani sub-county, Kericho county referral, and Sigowet sub-county face a monthly average of 29 self-poisoning cases, with a concerning trend of defaulting follow-up patients. These cases impose a strain on both families and healthcare resources. This study recognizes the need to investigate the factors driving this disturbing trend, potentially including family conflicts, Consequently, it is imperative to conduct a comprehensive community-based study to identify these factors, propose mitigation

strategies, and establish frameworks to effectively address and prevent future occurrences, safeguarding the well-being of these vulnerable individuals and alleviating the burden on healthcare facilities and families.

1.2 Purpose of the study

The study aimed at assessing influencing personal specific events on intentional organophosphate self-poisoning among persons aged between 15-30 years in Kericho County, Kenya and establishing measures to curb the predicament.

1.3 Limitations of study

Some of the difficulties that the researcher encountered included:

- Unwillingness of respondents to give out information because of confidentiality and cultural beliefs. However, the researcher explained and reassured the respondents that high standard of confidentiality would be observed
- Scheduled questionnaires were time-consuming during administration. However, the researcher ensured that at least 2 respondents were interviewed per day
- Sometimes it was a challenge to establish the specific names of the poisons Therefore, the researcher relied on specific signs and symptoms of organophosphate poisoning.
- It was not possible to interview patients in coma and to obtain information from those who had died. In such cases, the researcher excluded them from the study.

2. LITERATURE REVIEW ON PERSONAL SPECIFIC EVENTS.

2.1. Influence by personal specific life-events

The term imitation is used by several researchers to suggest artificial rather than contagion. A type of an infectious disease which precludes the ability of a person to make decisions by themselves is suggested by contagion. Imitation can be defined as a kind of learning which include modeling and acquisition of new behavioral patterns through the use of model observation behavior. Suicidal behavior imitation by young people is mostly as a result of influence from the reports given by the mass media. Additionally, the behavior is also as a result of influence within their environment of living such as peers, family, relatives as well as school environment (9).

Unmarried adolescent experience acute stress as a result of perceived rejection or provocation from their partners, unhealthy reactions they receive from family members, poor academic performance, among other common psychological challenges (*10*). First, the characteristics of the model are important. Generally, in cases of high similarities between the model and the young person (for example, in gender, age, background situation or mood), there are stronger imitating factors. Additionally, when there exists a strong link between them or maybe the model is influenced by the people they look up to, for example celebrities, then the existence of behavioral model are reinforced. If the behavior is condoned and regarded as positive, sometimes even likely to be encouraged by other people, young people tend to imitate such behaviors. Additionally, how the behavioral model is presented as well as its frequency is significant for instance, the total number and volume of headlines, the type of story; is it real or fiction, and how frequent has the behavior repeated. Imitation of behaviors can sometimes as well take on large dimensions, i.e., suicide clusters; these are chain of actual suicides especially among adolescents within a specified period and a particular place (11).

On sudden predisposing factors to self-harm, larger number of patients reported for intentional self-harm have history of depressive period within the global disaster affecting them and reported ease of accessibility to fatal chemicals due to extreme situation of loss of hope and helplessness, academic failures, terminal diseases, bereaved individual, family dispute and carrier associated challenges may face and individual in life.. (12)

Characteristics of this stage of life include transaction, movement as well as altercations from one state into another, within the same period and in several domains. Youth are obliged to decision-making about significant life directions, for instance, in peer group, school, living situation, among others. It is recommended that research should as well come up with ways that can address this issue in relation to developing self-esteem, acquiring increasing independence, building their own identity, and responsibility, among others. At most times

they are subjected on very high expectations from their peers and relatives. In such cases, there is high degree of insecurity, emotional distress, losing self as well as helplessness (13).

Issues of mental health as well as other problems of life for example excessive alcoholism and difficulties in maintaining relationships are increasing in youth who harm themselves (14).In addition, emphasis on the significance of job security as a strategy to reduce substance abuse. This is from an interrelationship between drug addiction and unemployment (15).

2.2 Conceptual framework.

2.2.1 Personal specific life events variables.

-Media reporting/ movie-imitation/peers
-Conflicts in romantic relationship.
-alcoholism/drug abuse

3.Material and methods

3.1 Introduction

This section focuses on the research design, the study area, the target population, the sample and the sample selection, data collection instruments, instrument's validity, instrument's reliability, the data collection procedure, the data analysis technique that the researcher used and ethical consideration.

3.2 Location of the study

This research was conducted in kericho county. Kericho county is one of the 47 counties in kenya. This county borders bomet county to the south, kisumu county to the west, nandi and uasingishu to the north and nakuru county to the east. This county is about 256 kilometers from nairobi. Kericho county is known for its large- and small-scale tea-farming and most of its residents rear livestock as well. It covers an area of 2479 square kilometers and is divided into six sub-counties. As per the 2019 census, the population of this county was 901,777. The study was conducted in kericho county referral hospital and three other selected sub-county hospitals within kericho county, namely, sigowet ,londiani sub-county hospital and kapkatet. The study sites were selected depending on the traffic of patients seeking medical attention in these hospitals, which provide curatives, preventives, promotives and rehabilitative health services, and also based on geographical distribution.

3.3 Research design.

The study employed a cross-sectional survey. It was a study of all cases of intentional organophosphate self- poisoning and relied majorly on the diagnosis made by clinicians at emergency departments. It was based on presenting symptoms and history from the respondents and outcomes of laboratory investigations of respondents of ages between 15-30 years. This was justified by previous studies which showed that this age group was majorly involved in self-poisoning and also encounters teenage and youth life changes with accompanying challenges. This design provided insight into factors that influence youth and teenagers in kericho county, leading to organophosphate self-poisoning. The design was appropriate for the study since the researcher was able to collect information without manipulation of variables. The researcher was interested to know if the respondents were fond of media movies/media reporting, abused drugs and had disputes in romantic relationships (with spouses, girlfriends, and boyfriends).

The researcher used researcher administered questionnaires which were both quantitative and qualitative in nature. The quantitative section of the questionnaire enabled the researcher to link the influencing factors to intentional organophosphate self-poisoning.

The qualitative section of the questionnaires enabled the researcher to collect data in the actual context so that findings and conclusions about the study were made based on the situation on the ground. The study covered all those cases occasioned by self-poisoning during the study period where respondents were interviewed when they had recovered in the study sites and eligible for study.

3.4 Target population

All clients who reported in emergency departments at kericho county referral hospital, kapkatet sub-county hospital, londiani sub-county hospital and sigowet sub-county hospital with a history of poisoning within the study period.

3.5 Sample population

All respondents brought to hospital presenting to emergency department with a history of intentional organophosphate self- poisoning were recruited for the study depending on their eligibility. The aim was to sample 100 participants during the study period. According to study by jkbundotich (2016) the study indicated there is an approximate 96 acute poisoning patients in rift valley provincial general hospital, nakuru, in the first six months. Kericho county referral hospital being a referral hospital the study aimed for 100 patients during the study period which was year 2022.

3.6 Sampling procedure and techniques

The recruitment procedure was purposive sampling for all those respondents who seeked medical help in kericho county referral hospital, kapkatet sub- county hospital, londiani sub-county hospital and sigowet sub- county hospital during the period of study preceded by intentional self- organophosphate poisoning. The sampling study sites were the hospitals in the 6 constituencies in this county where the researcher placed these hospitals in terms of health facilities to the northern, western, southern and eastern part of the county. They were then listed in the order of the highest to lowest number of patients who had attended each facility per month (general monthly workload).

Sampling of all number ones was done, informed by larger number of patients seen in hospital monthly from each of the four parts of the county where 4 facilities were selected by systematic random sampling. These were: to the north, comprising ainamoi constituency and represented by kericho county referral hospital; to the south comprising bureti constituency and represented by kapkatet sub- county hospital; the west comprising belgut and sigowet-soin constituencies and represented by sigowet sub- county hospital; and the east comprising kipkelion east and kipkelion west and represented by londiani sub-county hospital.based on the data reviewed from the registers moh 735 from the previous years'. These respondents were persons between 15-30 years and eligible to participate in the study.

3.7 Eligibility

3.7.1 Inclusion criteria.

All the study participants passed the following inclusion criteria:

1. Must have presented himself/herself to kericho county referral hospital or sub-county hospitals at sigowet, londiani sub-count hospital and kapkatet for medical care occasioned by intentional self-ingestion of organophosphate poisons.
2. Were aged between 15 and 30 years. For, minors, either the guardian (close relative) or parent was interviewed.
3. Must have consented to the study and if a minor, the informant must have consented.

3.7.2 Exclusion criteria:

1. Respondents who met the inclusion criteria but were not mentally stable.
2. Respondents who were disoriented/comatose/dead were excluded despite meeting the criteria.
3. The respondents who had not recovered at the end of the study period.

3.8. Sample size determination

The study employed fischer formula to estimate the sample size (mugenda&mugenda, 1999).

$$n = \frac{Z^2 Pq}{d^2}$$

In this formula, n represented the desired sample size when the study population is over 10 000 and z is the standard normal deviate normally set at 1.96 and corresponds to 95% confidence interval (ci). On the other hand, p was the proportion of target population estimated to have the desired characteristic and was 0.07% (q=1-p=1-0.07=0.93), while d

is the degree of accuracy usually set as 0.05. The prevalence of intentional organophosphate poisoning in rift valley-regional was 0.07 %. Hence the desired sample size (n) was determined as follows;

$$n = \frac{Z^2 Pq}{d^2}$$

$$n = \frac{1.96^2 \times 0.07 \times (1 - 0.07)}{0.05^2} = 100$$

3.9 Data collection methods and procedures

The study was carried out on those respondents who were admitted and recovered during the study period including those who are on follow-up. Interviews were administered through questionnaires (appendix 1) to capture information from all eligible respondents. Both gender, within the age bracket of 15 to 30 years, who had intentionally self- ingested organophosphate poisons and had been admitted to the selected study areas, treated and recovered and on follow-up after signing consent forms themselves or through close relatives had passed the eligibility criteria were sampled.

3.10 Construction of research instruments.

The main research instrument in this study was the interview-administered questionnaire. The main purpose of this instrument was to assess whether family factors influence persons aged 15-30 years to self-poison using organophosphates. The design of the questionnaire was based on the understanding of factors influencing intentional self- poisoning among persons aged 15-30 years.

The questionnaire contained two sections. Section one sought to establish the profile of the samples which were involved in the research while section two assessed the factors which influenced intentional self- poisoning among persons aged 15-30 years in kericho county.

3.11. Pre-testing of the research tool

The pilot study was conducted at longisa county referral hospital (bomet county). The researcher got the same findings after the pre-testing using 25 respondents from longisa county referral hospital who passed eligibility criteria. A pre-test study is a research study conducted before the intended study. It is a significant stage in the assessment of an intervention through providing information in order to come up with a future definitive trial (meanie *et al*., 2018). The researcher intended to administer questionnaire to respondents with same characteristics during the pilot study. A few errors were noted in the questionnaire, which were corrected after supervisors' approval.

In order to confirm the feasibility of the study, a pilot study was conducted that uses genuine study procedures and evaluates the inclusion and exclusion criteria of the participants (junyong, 2017).

3.12 Validity testing

Validity refers to how strongly theory and evidence support the interpretation of test results that is implied by the use of tests. The degree to which an instrument measures what it is intended to is referred to as its validity. Mugenda and mugenda (1999) defined validity as the accuracy and significance of conclusions drawn from research findings. It is the extent to which the data analysis's findings accurately reflect the study's variables.

The legitimacy and content of the research tool have been verified. The content-related technique assessed how closely the questions mirrored the areas of study that were addressed.

3.13 Reliability testing

The data collection procedure in this study was reliable. This generated reliable results and answered the research questions. The results are reproducible; any researcher who follows the same data collection procedure and data analysis is expected to yield similar results to those of the researcher in this study.

3.14 HYPOTHESIS

Ha: Personal specific events influencing intentional self-poisoning among persons age 15-30 years.

H0: Personal specific events do not influence intentional self-poisoning among persons age 15-30 years.

3.15 Data analysis.

The collected data were sorted and coded. Microsoft excel was used. Statistical package for social sciences (spss) version 21.0 was used to carry out data analysis. Descriptive statistics such as frequencies, means and percentages were

obtained for socio-demographic variables; personal specific events of the persons aged 15-30 years.Cross-tabulation was carried out to show the relationship among the dependent and independent variables of study. This was carried out for a set of independent and dependent variables at a time. For example, a cross-tabulation of Chi square test was obtained to establish the association among the dependent and independent variables in the cross-tabulation tables.Correlation analysis was carried out to establish the association between socio-demographic characteristics and the outcome variables of the study. Additionally, regression analysis was carried out to show the correlation of factors that significantly influenced self-organophosphate poisoning among the studied group. The analyzed quantitative data were presented using tables and charts. . Statistical significance for quantitative data was set at $p<0.05$.

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4. RESULTS .

4.1 Descriptive Statistics on Personal Self-Perception

Influence of Drugs

Regarding self-perception, the respondents were asked whether they were under influence of drugs when they had thoughts of suicide. Of these, 54% of the respondents said yes while 46% said no.

Table 1 Influences of Drugs

Statement	Yes		No	
	n	%	n	%
Being under influence of drugs when you had thoughts of suicide	54	54	46	46

Source field Data (2022)

Previous use of alcohol

The researcher sought to know from the respondents whether they had previous use of alcohol. Of these, 75% said yes while 25% said no.

Table 2 Previous use of alcohol

Statement	Yes		No	
	n	%	n	%
Previous use of alcohol	75	75	25	25

Source field Data (2022)

Free time/leisure time

The respondents were asked where they spent their leisure time and the responses were as follows: watching movies/television or other communication media - 61%; in restaurants/clubs with friends -22%; and others - 17%.

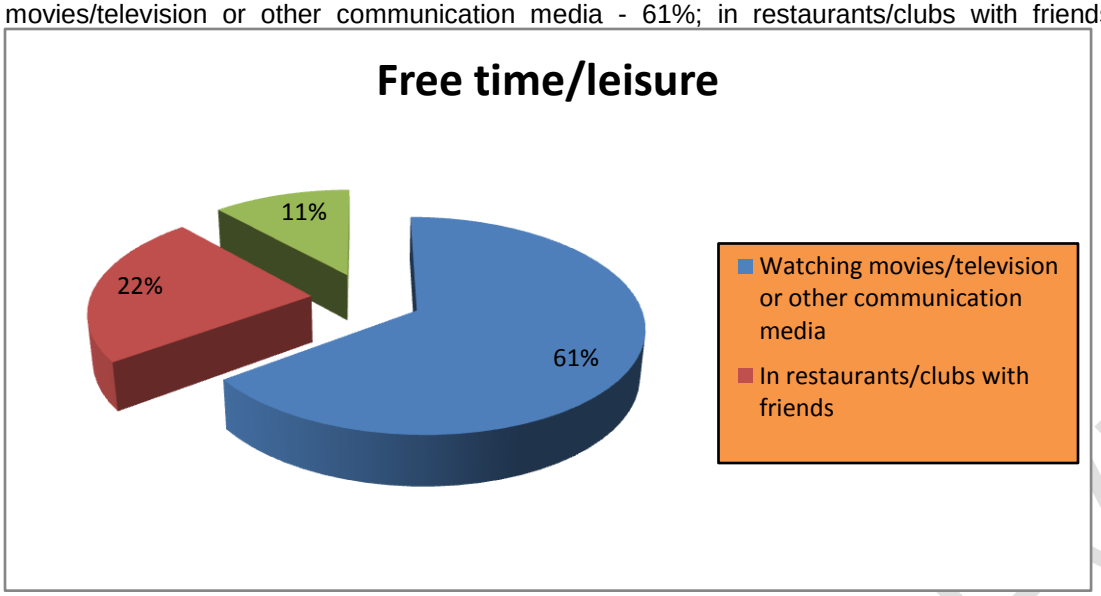

Figure 1: The pie chart indicating where the respondents spent free time/leisure time more often

Table 3 Summary of Responses per variable

Variable		Frequency (n)	Percentage (%)
Personal Specific factors	No	46	46
	Yes	54	54

Source field Data (2022)

The study found that the respondents who replied yes to the question whether they had been affected by the personal specific factors the majority indicated yes with 54 responses while those who indicated no were 46.

4.2 Measure of Association

Table 4 Chi Square measure of association

Variable	Chi-Square Value	Df	*P-Value*
Personal Specific	13.867	1	0.001

Source field Data (2022)

The study found that there was a statistical relationship between the parameters since the chi square value were 0.001 which was less than the standard p value which is 0.05 at 95% confidence interval.

4.3 Non-Parametric Correlation

Bivariate analysis was determined and the results obtained were represented on table below that shows that self-poisoning was correlated to respondents having personal specific events.

Table 5: Non-Parametric Correlation

			Self-Poisoning	Personal Specific factors		
Spearman's rho	Self-Poisoning	Correlation Coefficient	1.000			
		Sig. (2-tailed)	.			
		N	100			
	Personal Specific	Correlation	.372**	.590**	.980**	1.000

	factors	Coefficient Sig. (2-tailed) N	.001 100	.001 100	.001 100	. 100

Table5 Non-Parametric Correlation

**. Correlation is significant at the 0.01 level (2-tailed).

A strong positive correlation was found between self-poisoning and personal specific factors positively influenced one's propensity to self-poisoning as shown by the results ($p<0.05$, $r=0.372$) and ($p<0.05$, $r=0.365$), respectively.
A multivariate analysis indicates that personal specific factors accounted for 60.4% of intentional self-poisoning among persons aged 15-30 years in Kericho County. The model was also significant with a Hosmer and Lemeshow test of $p>0.05$.

4.4 Model Summary
Table 6: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	40.168[a]	.335	.604

Source field Data (2022)
The study indicated that the parameters used to determine the model summary fitted the study since the value of Nagelkerke R Square was more than 50% which was 60.4%.

5.1 DISCUSSION.

Townsend's study (2016) and Walton *et al.,* 2016 concluded and in agreement(61% of the respondents spent their time in clubs/restaurants) with this study pertaining alcohol used may disrupt youth life and therefore, relationship problems engulf ones progression in life leading to self- poisoning ideation.
This study revealed that spending free time in a video-room, club or restaurant could cause imitation of what actually happened in the environment. One can take alcohol and smoke bhang in clubs due to peer-pressure or being influenced by the environment. This is similar to Pirkis's study (2016),Hagan et al (2016) and Thapaliya's results(2018) which reported that most of the young men who were interviewed spent most of their time while involving themselves in drug and substance abuse and being in media watching movies).
This environment influence their behavior by imitations therefore, character 'infection' may trigger self-poisoning if their needs are not met.

5.2 Summary personal self-perception.
This study showed that spending free time in a video-room, club or restaurant may cause imitation of what actually happened in the environment. One could take alcohol or smoke bhang in clubs due to peer-pressure or being influenced by the environment. The study also showed that majority of respondents agreed that they were under the influence of alcohol or had a history of alcohol intake previously by the time they ingested poisoning. The findings suggest that alcohol and drug abuse are likely to influence one to self-poison.

5.3 CONCLUSION

The results indicated that personal specific perspectives/events had a high likelihood of influencing one to self-poison. This is influenced by peer-pressure and imitations of what others are doing, for example, abuse of alcohol and other drugs for leisure and enjoyment.

RECOMMENDATIONS

1. Devolve institutions that deal with drug abuse should be devolved to the counties in order to curb drug and substance abuse at the community level where the youth are left to be attended by parents who are not experts in the field
1. Establishing and intensifying community-based counseling programmes and centers that offer counseling to individuals who have challenges in the society such as strained relationships, family conflicts, psychological issues and drug abuse.

   The health service-providers role is very vital.They should be involved in intensifying counseling sessions for at least a week after patients recover to facilitate their rehabilitation and re-integration back into the community.

ETHICAL APPROVAL

The researcher obtained research authorization letter from Mount Kenya University Ethical Review Committee. A research permit was sought from the National Commission for Science, Technology and Innovation (NACOSTI) before conducting the study. Authorizations were sought from the County government, the County Commissioner, the County Director of Education, the management of: Kericho County Referral Hospital, Kapkatet Sub-county hospital, Sigowet Sub-county hospital and Londiani Sub-county Hospital. In addition, the researcher explained the importance of the research to the respondents to obtain free consent and no one was coerced to take part in the study. The participation was voluntary. The researcher assured the respondents that information obtained from them would be treated with utmost confidentiality and their privacy was guaranteed as anonymity would be assured by the use of numbers/codes to identify respondents.

Additionally, the researcher assured respondents that no one would suffer any form of harm in the event of information utilization since the information was particularly for academic purposes and respondents had the freedom to withdraw with no consequences.

CONSENT .
Introductory Letter
Dear participant,
I am a post-graduate student at Mount Kenya University pursuing a Master Degree in Clinical Medicine (Forensic Option).
My study is based on**: Factors Influencing intentional organophosphate self-poisoning amongteenagers and youths of age between 15 and 30 years in Kericho County.**
I kindly request you to assist in giving me information required to complete my study effectively.
The information provided will be treated with strict confidentiality and it will only be used for the academic purpose.
Your cooperation in this regard will be highly appreciated.
Thanking you in advance.
Yours sincerely,

Langat Kiprotich Sigey :Mcm/2017/73483.
CONSENT TO TAKE PART IN RESEARCH

I ..... voluntarily agree to participate/consent on behalf of a minor (Where applicable) in this research study).
I am aware that even if I agree to participate right away, I can do so at any time and will not face any repercussions for doing so.
I was given written explanations of the study's objectives and methodology, as well as the chance to ask any questions I had.
I am aware that taking part in this study won't directly help me.
I am aware that any information I give will be kept private and confidential for this study.
I am aware that any report on the findings of this study will not reveal who I am. This will be accomplished by assuming a different name and hiding any information from the interview that might disclose my identify or the identities of the people I speak about.
I am aware that my interview may be referenced in secrecy in [*this thesis)*
Contact of researcher……
Contacts of Supervisors: email address (1)…….
(2)……
Signature of research participant/parent/guardian
Signature*:* _____ *Date:* _____
Participant
Signature*:* _____ *Date:* _____
Researcher

REFERENCES

1Paiman, A., Ali, T. S., Asad, N., & Syed, I. A. (2019). Psychosocial factors of deliberate self-harm in Afghanistan: a hospital based, matched case-control study. *Eastern Mediterranean health journal*, *25*(11), 798.

2. Morey, Y., Mellon, D., Dailami, N., Verne, J., & Tapp, A. (2017). Adolescent self-harm in the community: an update on prevalence using a self-report survey of adolescents aged 13–18 in England. Journal of Public Health, 39(1), 58-64.

3. Cutler, G. J., Flood, A., Dreyfus, J., Ortega, H. W., & Kharbanda, A. B. (2015). Emergency department visits for self-inflicted injuries in adolescents. Pediatrics, 136(1), 28-34.

4. Bottei, E. (2016). Increased hospitalizations and ICU admissions in poison center cases involving teenagers. In: CLINICAL TOXICOLOGY (Vol. 54, No. 8, pp. 698-698). 2-4 PARK SQUARE, MILTON PARK, ABINGDON OR14 4RN, OXON, ENGLAND: TAYLOR & FRANCIS LTD

5. Tyrrell, E. G., Orton, E., & Tata, L. J. (2016). Changes in poisonings among adolescents in the UK between 1992 and 2012: a population based cohort study. Injury prevention, 22(6), 400-406.

6. Eurostat. Statistics Explained. Being Young in Europe today. European Union (2017). Available onlineat:http://ec.europa.eu/eurostat/statistics-explained/ index.php/Being_young_in_Europe_today_-_health#Main_tables

7.Geulayov, G., Kapur, N., Turnbull, P., Clements, C., Waters, K., Ness, J., ... & Hawton, K. (2016). Epidemiology and trends in non-fatal self-harm in three centres in England, 2000–2012: findings from the Multicentre Study of Self-harm in England. BMJ open, 6(4).

7. Plemmons, G., Hall, M., Doupnik, S., Gay, J., Brown, C., Browning, W., & Rehm, K. (2018). Hospitalization for suicide ideation or attempt: 2008–2015. Pediatrics, 141(6), e20172426.

8. Thapaliya, S., Gupta, A. K., Tiwari, S., Belbase, M., & Paudyal, S. (2018). Pattern of suicide Attempts in southern nepal: A Multi-centered retrospective study. Med Phoenix, 3(1), 41-47.

9. Hagan, C. R., Ribeiro, J. D., & Joiner, T. E. (2016). Present status and future prospects of the Interpersonal-Psychological Theory of Suicidal Behavior. The International Handbook of Suicide Prevention; O'Conner, RC, Pirkis, J., Eds, 206-240.

10. Abd El Salam, H. F., Badr El Dine, F. M. M., Abd El Kerim, A. M., Hieba, R. R., & Kholeif, W. S. (2022). The applicability of Linehan Risk Assessment Scale: a cross-sectional study from Alexandria Poison Centre, Egypt, during the COVID-19 pandemic. SN Comprehensive Clinical Medicine, 4(1), 1-14.

11. Patton, G.C., Sawyer, S.M., Santelli, J.S., Ross, D.A., Afifi, R., Allen, N.B. (2016). Our future: a Lancet commission on adolescent health and wellbeing. Lancet. 387:2423–78. doi: 10.1016/S0140-6736(16)00579-1

12. Townsend, E., Ness, J., Waters, K., Kapur, N., Turnbull, P., Cooper, J., & Hawton, K. (2016). Self-harm and life problems: findings from the Multicentre Study of Self-harm in England. Social psychiatry and psychiatric epidemiology, 51(2), 183-192.

13. Walton, M. T., & Hall, M. T. (2016). The effects of employment interventions on addiction treatment outcomes: a review of the literature. Journal of Social Work Practice in the Addictions, 16(4), 358-384.