Understanding Mental Health in Kenya
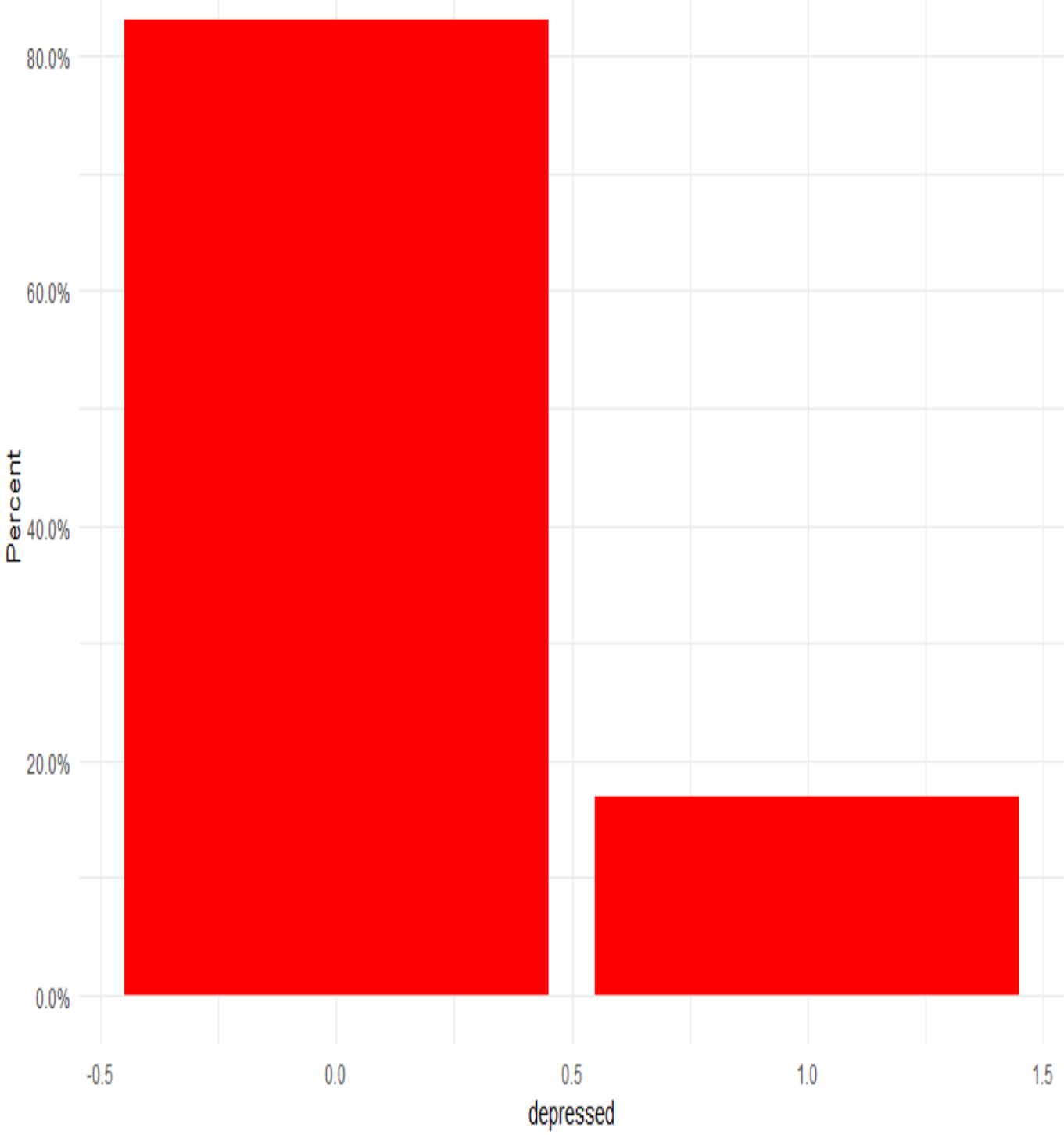
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Objective

To uncover specific causes of mental health issues in Kenya and offer suggestive ideas of how to enhance wellness.

Introduction

The WHO World Health Report 2003 associates the development of mental disorders to biological, psychological and social risk factors.

➢ Biologically, a significant proportion of genetic composition is linked to behavioral and mental patterns that are likely to determine an individual's mental rigor. However powerful these biological facets are, they are mainly manifested among individuals experiencing certain stressors such as malnutrition, isolation or infections (WHO, 2003).

➢ Elements of social and technological order have demonstrated some degree of mental stress among some individuals especially given the increased influence of life stressors. These adverse life occurrences could range from cyber-bullying, pollution, violence or even high cost of living.

➢ Pathological factors are associated to learnt human behaviors formed as a result of environmental pressures. In some instances, it could be as a result of failing to adapt effectively to demanding life stresses. This capability to handle such challenges could be an innate specialty or a learned practice. Some specific elements here include emotions, behaviors and thoughts.
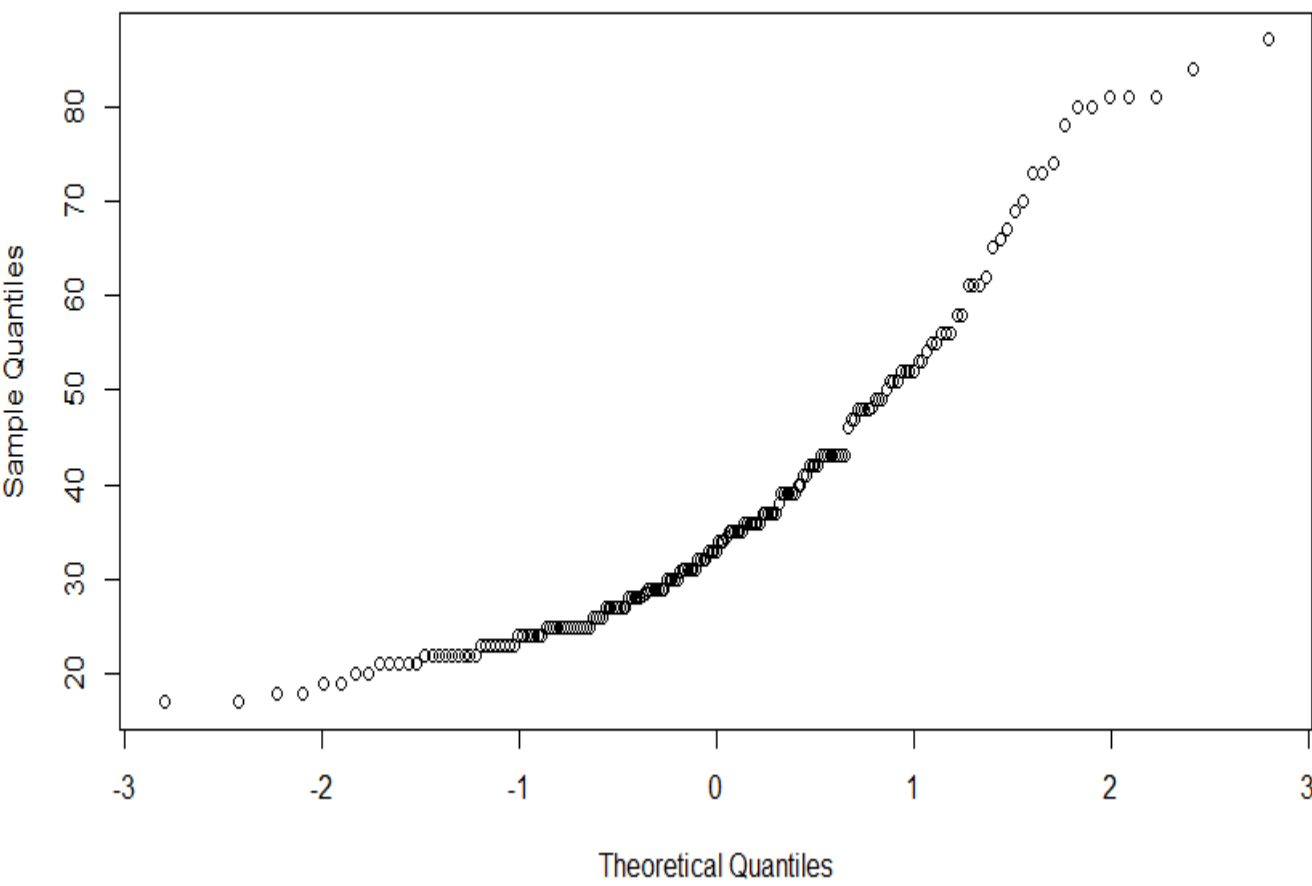
Proportion of depressed

➢ The dataset is composed of 1,143 observations and 73 variables including the response variable, depressed.

➢ Studying this independent variables helps map a prediction model that can be used on a new dataset with similar predictor variables.

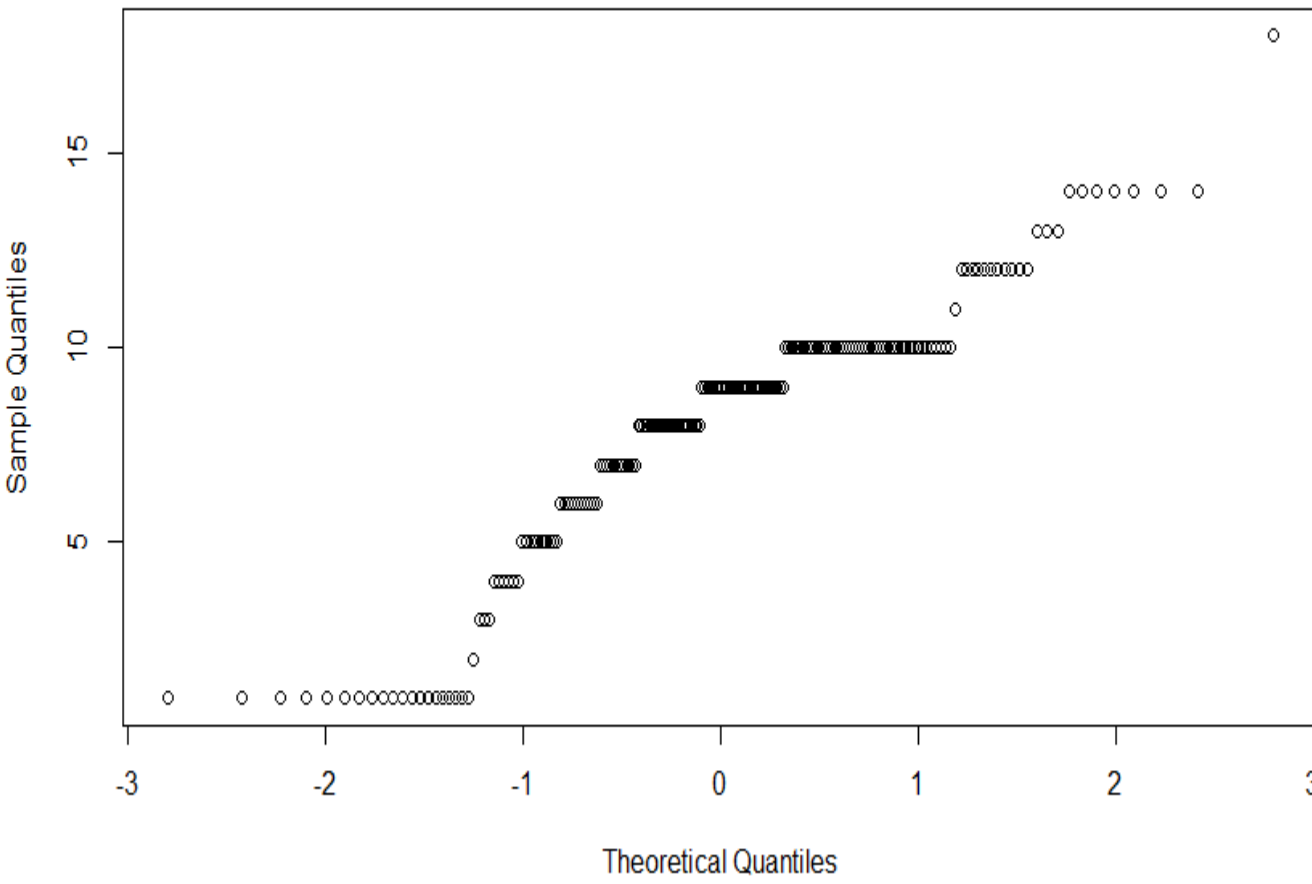## Exploring Variables

QQ Normal plot for Age - Depressed

Method	P.value
Shapiro-Wilk normality test	5.69E-11
Anderson-Darling normality test	3.26E-16
Cramer-von Mises normality test	9.13E-10
Lilliefors (Kolmogorov-Smirnov) normality test	2.20E-09
Shapiro-Francia normality test	1.47E-09

The p-value and normality tests of less than 0.05 demonstrate strong evidence against the null hypothesis, thus data follows a normal distribution.

Years of Education

QQ Normal plot for Years Education - Depressed

Method	P.value
Shapiro-Wilk normality test	1.05E-08
Anderson-Darling normality test	3.57E-15
Cramer-von Mises normality test	9.30E-10
Lilliefors (Kolmogorov-Smirnov) normality test	1.60E-14
Shapiro-Francia normality test	1.08E-07

The p-value and normality tests of less than 0.05 demonstrate strong evidence against the null hypothesis, thus data follows a normal distribution.

Assessing Influence

Null Hypothesis: There is no difference in Age distribution between those who are depressed and those who are not.
Alternate Hypothesis: There is a difference in Age distribution between those who are depressed and those who are not.

Wilcoxon rank sum test with continuity

data: norm_dt0$completeDT.age and norm...
W = 79122, p-value = 0.002667
alternative hypothesis: true location shift is

Given the Wilcoxon rank sum test of less than 0.05 there is strong evidence against the null hypothesis. Hence, age significantly influential among the depressed.

Null Hypothesis: There is no difference in Years of Education distribution between those who are depressed and those who are not.
Alternate Hypothesis: There is a difference in Years of Education distribution between those who are depressed and those who are not.
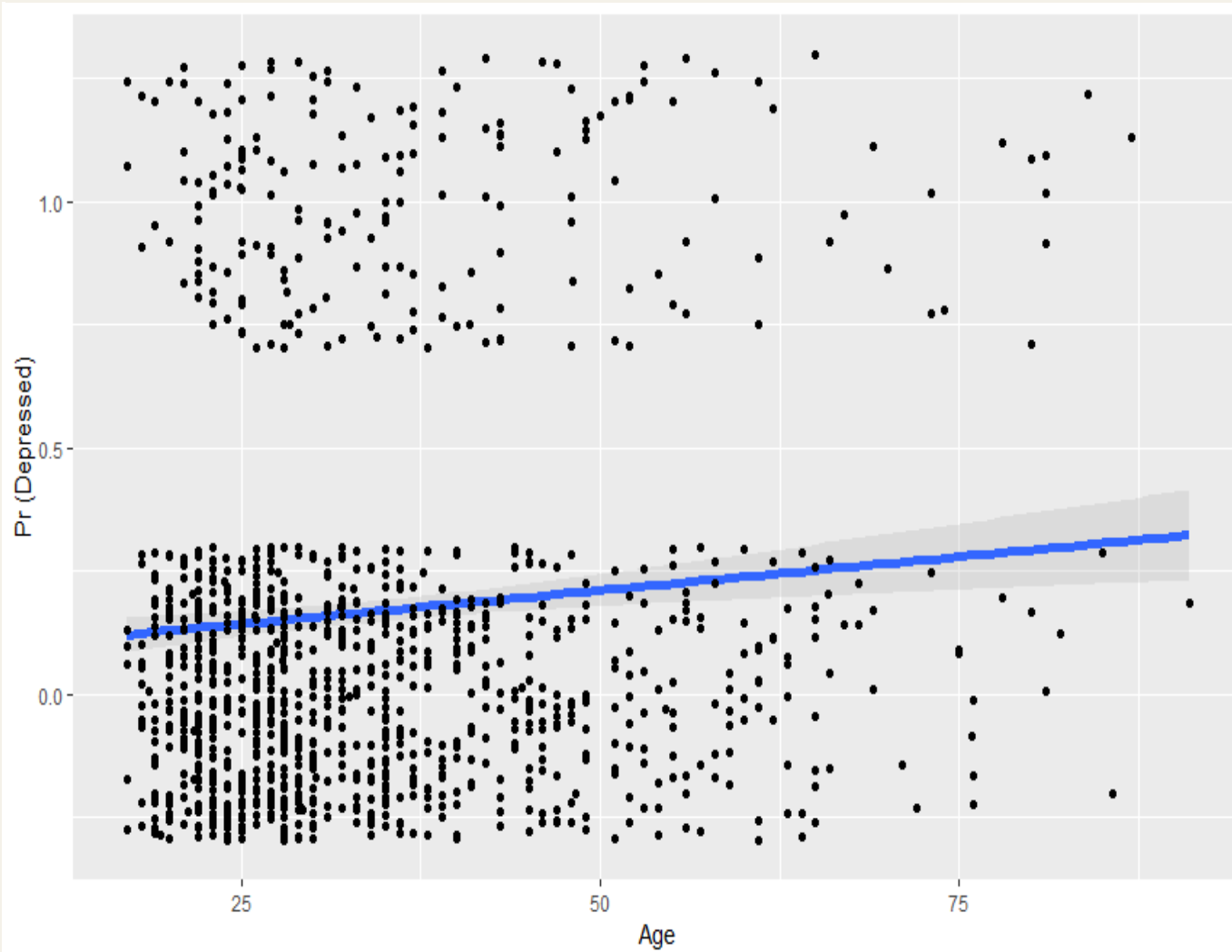
Wilcoxon rank sum test with continuity

data: norm_edu0$completeDT.edu and nor...
W = 106360, p-value = 0.0003387
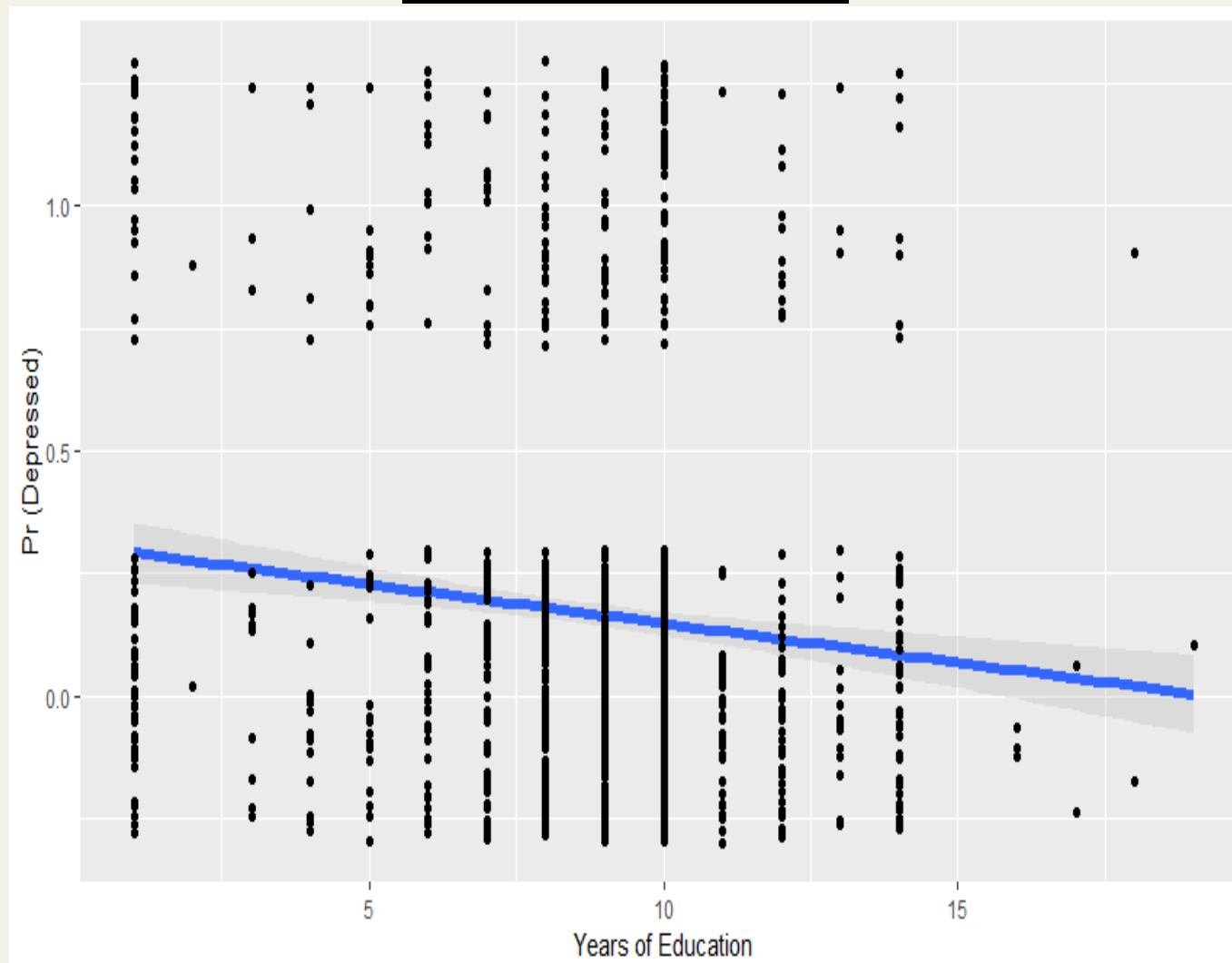alternative hypothesis: true location shift is

Given the Wilcoxon rank sum test of less than 0.05 there is strong evidence against the null hypothesis. Hence, Years of Education significantly influential among the depressed.

Prediction

Age

Years of Education

Age and Marital Status

Burden

➢ Unfortunately, most mental health conditions are only realized after harboring in the host (person) up until it's almost too late. This is mostly due to the neglect and stigmatization that is associated with the conditions. As such, they are expensive to control and in other cases only realized after harm has occurred.

➢ Mental disorders have been linked to reported cases of suicide, domestic violence as well as homicides and other criminal activities. The 2007 post elections violence is one significant source of post-traumatic disorders that is suspect to have had overreaching ramifications in terms of anxiety, desperation and even hopelessness experienced among many (Kenya Mental Health Policy, 2015).

➢ Poverty, homelessness as well as inappropriate incarcerations occur most often amongst people with mental ailments. Furthermore, their harboring of mental health issues exacerbates their vulnerability. Consequently, the phenomenon becomes a cycle that is almost impossible to escape.

➢ The occurrence of mental health problems, stretches the financial wellbeing of the family and society as a whole. Not only are the ill persons unable to contribute to national productivity but also they continuously incur treatment expenditures.

Conclusion and Action

❖ Mental health is a reality amongst the current population posing a serious threat to the livelihood and wellbeing.

❖ Given the potential for serious consequences on the social as well economic sectors of the country, there is a need to acknowledge and address the challenge.

❖ Despite the already formed ministerial policies around the matter, certain habits can be fostered to not only raise awareness but also counter the vice from multiple angles. Some of these ideas are:

✓ Prioritize on early intervention through prediction
✓ Openly talk about mental health to fight stigmatization
✓ Spread education and research about it
✓ Promote regular personal mental wellness assessment
✓ Challenge repugnant cultural beliefs by evidence-based findings
✓ Enhancing social support groups
✓ Having deep family conversations and providing actual support

References

▪ Busara Mental Health Prediction Challenge. (2019). Retrieved from https://zindi.africa/competitions/busara-mental-health-prediction-challenge

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