

Demographic Factors and Suicidal Ideation Among In-Patients At Machakos Level Five Hospital, Machakos County, Kenya: Implications For Treatment

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ABSTRACT

The current study sought to assess the extent to which demographic factors predispose suicidal ideation among inpatients at Machakos Level Five Hospital, Machakos County. 154 respondents who comprised of 120 inpatients, 3 doctors, 10 clinical officers, 20 nurses and 1 psychologist/social worker. Results that p (0.387) was greater than α (.05) indicating that collectively in-patients' demographic factors do not determine their suicidal ideation while undergoing treatment. Implications of this finding are discussed.

Keywords: Suicidal ideation, demographic factors, Machakos Level Five Hospital

1. Introduction

After adjustments for age, gender and the Interpersonal Psychological Theory of Suicide (IPT) major consequences, the integration of high levels of frustrated belonging and discerned being a burden considerably led to suicidal ideation in a sample representative of 1,167 respondents aged 32-38 years old (Christensen, Mackinnon, Batterham, Donker & Soubelet, 2014). In their study on 815 youths, Joiner, Van, Witte, Selby, Ribeiro, Lewis, and Rudd, (2009) established that those needy both materially and socially had the highest levels of suicidal ideation, monitoring the effects of history of depression. Conner, Duberstein, Beckman, Heisel, Hirsch, and Gamble (2007) did a study on individuals with major depressive disorder (MDD) who were over 50 years old and established that suicidal ideation was related with loneliness, old age, low scores on self-upkeep and high intellectual functions. Individuals with depression have similar risk factors for suicidal ideation which include young age, marital instability, comorbid physical illness, comorbid personality disorder or comorbid alcohol abuse (Bergman, Barak, Sigler & Aizenberg 2011).

Mythily, et al. (2014) revealed that suicidal ideation in Peru was mostly related with ethnicity. Bimala, et al. (2015), also established that fighting, being female; insulted, attacked, discerned unhappiness, introduction to sexual intercourse and smoking were mostly related with increasing risk of suicidal ideation, while lesbianism, fighting, discerned unhappiness, drug and substance abuse, being insulted or being attacked were associated to suicide attempt. Other studies showed that parents support, family issues and

psychological factors also affect suicide behavior (Randall, Doku, Wilson, & Peltzer, 2014). Mythily, et al. (2014) established that suicidal ideation, planning and attempts were highly linked with ethnic origin, level of education and income.

Marital status has been found to be considerably linked with suicidal ideation; divorced or separated individuals are most likely to experience suicidal ideation than the single individuals. This differs from findings reported by Hawton, Casañas, Comabella, Haw, and Saunders (2013) which never established any link of marital status with suicidal ideations, but is related to a report by Chan, Maniam, and Shamsul (2011) who established that suicidal ideation was greater amongst individuals who had separated with their spouses. Marriage split up, conflict and disputes are key stressors and might be major triggers of suicidal ideation (Manoranjitham, Charles, Saravanan, Jayakaran, Abraham & Jacob 2007).

Hong, Knapp and McGuire (2011) as well as McMillan, Enns, Asmundson and Sareen (2010) found that individuals with high income were at a considerably low risk of suicidal ideations than those with a low income. Further, in comparison to those with tertiary education, individuals with basic education mostly experience suicidal ideation, plans and attempts. Low education and wage levels are “individual-level disadvantages” which shows an individual’s economic status which might cause suicidal ideation (Burrows, Auger, Gamache, St-Laurent & Hamel 2011).

In Uganda, lack of societal support, human immunodeficiency virus (HIV) stigma, assault due to HIV and undesirable life events related with youngsters, were found to be linked with suicidal ideation. Even though more females (10.7%) than males (7.6%) were suicidal, the variance was not statistically important (Rukundo, Mishara, & Kinyanda, 2016). Schlebusch, (2011a) did a study in South Africa which showed that risk factors related with adolescent suicidal ideation comprise of dysfunctional family dynamics, neurobiological and genetic correlates, and familial transmission.

A study by Muiru, et al. (2014) showed that in Kenya, on the role of parental upbringing on suicidal ideation high expectation on performance accounts for 22%, lack of basic necessities 19%, wrangles with parents 11%, miscommunication 11%, unstable marriages 8% and others account for 25% of suicidal ideation. Musyimi, Victoria, Sameera, David, David and Joske, (2017) also revealed that predictors of suicidal ideation (SI) were age, gender, level of education, marital status, and employment status. Despite spending less time at home in comparison to the institutions calendars, the family set up in which a child is adapted to when they are on holiday influences their lives.

Though other researchers have spent considerable amount of time on demographic factors that predispose individuals to suicidal ideation, most if not all of them related demographic factors and suicidal ideation amongst individuals with no ailments. Hence the current study in Machakos Level 5 Hospital will seek to identify how existing demographic factors predispose inpatients to suicidal ideation.

2. Methods and Procedures

The study was a survey research design that used an *ex-post facto* design. The mentioned design proved relevant to this study as suicidal ideation was already manifest in the inpatients and therefore it was studied retrospectively. Information on suicidal ideation was collected using questionnaires. The study was conducted at Machakos Level Five Hospital due to its higher bed capacity in comparison to other hospitals in Machakos County. The preference was also based on the fact that it was the main referral hospital Machakos County. The referral ailments to the hospital in question are complex and because of the complexity of such ailments, the in-patients were thought to be vulnerable to suicidal thoughts while undergoing treatment.

2. Results

The objective of this study was to determine the extent to which demographic factors predispose suicidal ideation among in-patients at Machakos Level Five Hospital, Machakos County, Kenya. Results are presented in Table 1.

Table 1: Age and Suicidal Ideation

		Extent of suicidal ideation		Total	
		Mild	Moderate		
Age	15-20	Count	3	3	6
		% within Total	2.5%	2.5%	5.0%
	21-30	Count	7	15	22
		% within Total	5.8%	12.5%	18.3%
	31-40	Count	11	10	21
		% within Total	9.2%	8.3%	17.5%
	41-50	Count	13	8	21
		% within Total	10.8%	6.7%	17.5%
	51-60	Count	9	11	20
		% within Total	7.5%	9.2%	16.7%
	Above 60	Count	17	13	30
		% within Total	14.2%	10.8%	25.0%
Total	Count	60	60	120	
	% within Total	50.0%	50.0%	100.0%	

Source: Field data (2019)

The findings presented in Table 1 show that out of the total respondents 14.2% (17) of those aged above 60 years had mild suicidal ideation, 12.5% (15) of the total respondents aged 21 to 30 years had moderate suicidal ideation, 10.8% (13) aged 41 to 50 years had mild suicidal ideation, another 10.8% (13) aged above 60 years had moderate suicidal ideation, 9.2% (11) aged 51 to 60 years had moderate suicidal ideation and another 9.2% (11) aged 31 to 40 years had mild suicidal ideation, 8.3% (10) aged 31 to 40 years had mild suicidal ideation, 7.5% (9) aged 51 to 60 years had mild suicidal ideation, 5.8% (7) of aged 21 to 30 years

had mild suicidal ideation, 2.5% (3) of those aged 15 to 20 years had mild suicidal ideation while another 2.5% (3) of those aged 15 to 20 years had moderate suicidal ideation.

Overall, the study findings implied that inpatients aged 21 to 30 years were the ones who suffered most from moderate suicidal ideation followed by those aged above 60 years and then 31 to 40 years at third. This finding supplements Christensen, et al (2014) that people between 32 and 38 years of age as the most affected age group regarding suicidal ideation. Furthermore, youths tend to have highest levels of suicidal ideation due lack of a steady income making them needy materially (Joiner, et al, 2009). Those who were affected most by mild suicidal ideation were aged above 60 years followed by 41 to 50 years and then 31 to 40 years. Data on inpatients gender and suicidal ideation was collected and findings presented in Table 2.

Table 2: Gender and Suicidal Ideation

			Extent of suicidal ideation		Total
			Mild	Moderate	
Gender	Male	Count	28	29	57
		% within Gender	49.1%	50.9%	100.0%
	Female	Count	31	30	61
		% within Gender	50.8%	49.2%	100.0%
Total	Count	59	59	118	
	% within Gender	50.0%	50.0%	100.0%	

Source: Field data (2019)

In Table 2, the study established that 49.1% of male inpatients suffered from mild suicidal ideation and 50.9% suffered moderate suicidal ideation. The study also revealed that 50.8% of female inpatients suffered from mild suicidal ideation while 49.1% suffered from moderate suicidal ideation. The findings implied that equal numbers of inpatients by gender suffered from both mild and moderate suicidal ideations within Machakos level 5 Hospital. Data on association between inpatients marital status and suicidal ideation was collected and the findings are presented in Table 3.

Table 3: Marital Status and Suicidal Ideation

			Extent of suicidal ideation		Total
			Mild	Moderate	
Marital status	Single	Count	11	12	23
		% within Marital status	47.8%	52.2%	100.0%
	Married	Count	36	30	66
		% within Marital status	54.5%	45.5%	100.0%
	Divorced	Count	1	0	1
		% within Marital status	100.0%	0.0%	100.0%
	Separated	Count	5	7	12
		% within Marital status	41.7%	58.3%	100.0%
	Widowed	Count	7	11	18

	% within Marital status	38.9%	61.1%	100.0%
Total	Count	60	60	120
	% within Marital status	50.0%	50.0%	100.0%

Source: Field data (2019)

More results as presented in Table 3 established that 47.8% of single inpatients had mild suicidal ideation and 52.2% suffered from moderate suicidal ideation. 54.5% of married inpatients suffered from mild suicidal ideation while 45.5% suffered from moderate suicidal ideation. However, all divorced inpatients (100%) at Machakos level 5 Hospital suffered from mild suicidal ideation. The study also established that 41.7% of separated inpatients suffered from mild suicidal ideation while 58.3% suffered from moderated suicidal ideation. Lastly, with respect to marital status, the study showed that 38.9% of widowed inpatients suffered from mild suicidal ideation and 61.1% suffered from moderate ideation. These findings implied that irrespective of their marital status, inpatients at Machakos level 5 Hospital suffered from mild and moderate suicidal ideation. However single, separated and windowed inpatients showed a high moderate suicidal ideation at Machakos level 5 Hospital. This finding is in line with Chan, Maniam and Shamsul (2011) who found that suicidal ideation was high among separated spouses as a result as separation disputes as found out by Manoranjitham, et al (2007). Data on inpatients occupation and suicidal ideation was collected and presented in Table 4.

Table 4: Occupation and Suicidal Ideation

			Extent of suicidal ideation		Total
			Mild	Moderate	
Occupation	Medical services	Count	1	0	1
		% within Occupation	100.0%	0.0%	100.0%
	Security forces	Count	1	0	1
		% within Occupation	100.0%	0.0%	100.0%
	Farming	Count	21	23	44
		% within Occupation	47.7%	52.3%	100.0%
	Business	Count	16	13	29
		% within Occupation	55.2%	44.8%	100.0%
	Banking and insurance	Count	1	0	1
		% within Occupation	100.0%	0.0%	100.0%
	Others	Count	20	24	44
		% within Occupation	45.5%	54.5%	100.0%
	Total	Count	60	60	120
		% within Occupation	50.0%	50.0%	100.0%

Source: Field data (2019)

Findings presented in Table 4 showed that all inpatients (100%) who work within the medical service suffered from mild suicidal ideation, further, 100% of inpatients who worked in the security force suffered from mild suicidal ideation. However, the study showed that 47.7% of inpatients who were farmers suffered from mild suicidal ideation while 52.3% suffered from moderate suicidal ideation. 55.2% of inpatients who were businessmen suffered from mild suicidal ideation and 44.8% suffered from moderate suicidal ideation. The results also showed that all (100%) inpatients who worked in the banking and insurance sector suffered from mild suicidal ideation. Lastly, the findings of the study established that 45.5% of inpatients who worked in other sectors suffered from mild suicidal ideation whereas 54.5% suffered from moderated suicidal ideation. These results implied that it did not matter the occupation of inpatients, they suffered equally from moderate and mild suicidal ideation. This finding disputes Hong, Knapp and McGuire (2011) and McMillan, et al (2010) who in their separate studies concluded that income levels dependent on type of occupation influenced suicidal ideation with high income earners successfully experiencing low suicidal ideation risks. Information on inpatients level of education and suicidal ideation was collected and presented in Table 5.

Table 5: Level of Education and Suicidal Ideation

				Extent of suicidal ideation		Total
				Mild	Moderate	
Level of education	No education	Count		7	5	12
		% within Level of education		58.3%	41.7%	100.0%
	Primary school	Count		31	33	64
		% within Level of education		48.4%	51.6%	100.0%
	Secondary school	Count		16	20	36
% within Level of education			44.4%	55.6%	100.0%	
Post-secondary school education	Count		6	2	8	
	% within Level of education		75.0%	25.0%	100.0%	
Total	Count		60	60	120	
	% within Level of education		50.0%	50.0%	100.0%	

Source: Field data (2019)

Lastly, the findings of the study as presented in Table 5 revealed that 58.3% of inpatients with no education suffered from mild suicidal ideation and 41.7% suffered from moderate suicidal ideation. The results also showed that 48.4% of inpatients with primary level of education had mild suicidal ideation and 51.6% had moderate suicidal ideation. 44.4% of inpatients with secondary education had mild suicidal ideation while 55.6% had moderate suicidal ideation. The study also revealed that 75% of inpatients with post-secondary school education had mild suicidal ideation and 25% had moderate suicidal ideation. This implied that irrespective of their education level, inpatients in Machakos level 5 Hospital suffered from mild and moderate suicidal ideation. However, inpatients with secondary and primary education had the high percentage of moderate suicidal ideation while inpatients with post-secondary education had low moderate suicidal ideation. Studies have also associated suicidal ideation with individuals with relatively low levels of educational attainment (Burrows & Laflamme 2008).

A null hypothesis was derived from the objective of this study stating: There is no significant relationship between demographic factors and suicidal ideation among inpatients. A multiple regression analysis was used to test this hypothesis at 0.05 significance level. Results are presented in Table 6.

Table 6: ANOVA on Demographic Factors and Suicidal Ideation

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.332	5	.266	1.059	.387 ^b
1 Residual	28.168	112	.251		
Total	29.500	117			

a. Dependent Variable: Extent of suicidal ideation

b. Predictors: (Constant), Level of education, Occupation, Gender, Marital status, Age

N = 117; df = 5; α = .05; F = 1.059; p = .387; critical F = 2.31

Table 6 indicates that p (0.387) was greater than α (.05) therefore the null hypothesis that there is no significant relationship between demographic factors and suicidal ideation among inpatients in Machakos Level Five Hospital, Machakos County, Kenya is justified. Model Summary of Demographic Factors and Suicidal Ideation are presented in Table 7.

Table 7: Model Summary of Demographic Factors and Suicidal Ideation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.213 ^a	.045	.003	.50150

a. Predictors: (Constant), Level of education, Occupation, Gender, Marital status, Age

b. Dependent Variable: Extent of suicidal ideation

The findings in Table 7 established that demographic characteristics of inpatients slightly predisposed inpatients to suicidal ideation; this is because the R²-value of 0.045 implied that the studied demographic factors of age, gender, marital status, occupation and level of education affected suicidal ideation among inpatients by 4.5%. Therefore, other factors not studied affected suicidal ideation among inpatients by 95.5%. This is in line with findings by Hawton, *et al.*, (2013) which also never established any link of marital status with suicidal ideations. Schlebusch (2011) did a study in South Africa which showed that risk factors related with adolescent suicidal ideation comprise of dysfunctional family dynamics, neurobiological and genetic correlates, and familial transmission. Information on Coefficients on Demographic Factors and Suicidal Ideation is presented in Table 8.

Table 8: Coefficients on Demographic Factors and Suicidal Ideation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.571	.455		1.253	.213
Age	-.066	.037	-.209	-1.806	.074
Gender	-.029	.101	-.029	-.287	.774
Marital status	.076	.042	.201	1.794	.075
Occupation	.015	.038	.041	.392	.696
Level of education	-.020	.071	-.030	-.285	.776

a. Dependent Variable: Extent of suicidal ideation

Table 8 indicates multiple regression analysis used to test if the demographic factors significantly predicted participants' ratings of suicidal ideation. The results of the regression indicated the five predictors explained 0.213 (21.3%) of the variance ($R^2 = .045$, $F(5,112) = 1.059$, $p > .387$). It was found that age did not significantly predict suicidal ideation ($\beta = -.209$, $p < .004$), as did gender ($\beta = -.029$, $p < .774$), marital status ($\beta = .201$, $p < .075$), occupation ($\beta = .041$, $p < .696$) and level of education ($\beta = -.030$, $p < .776$). Therefore, the resultant regression equation was $Y = .571 - .209X_1 - .029X_2 + .201X_3 + .041X_4 - .030X_5$; Where $\beta =$ Constant, $X_1 =$ Age, $X_2 =$ Gender, $X_3 =$ Marital status, $X_4 =$ Occupation, $X_5 =$ Level of education while $Y =$ suicidal ideation (dependent variable). This finding contradicts Bimala, *et al.*, (2015) that demographic factors predisposed individuals to suicidal ideation.

5. Implications

Although demographic factors in general have little influence over patients' suicidal ideation, hospital workers need to pay more attention to single, separated and widowed in-patients as they are more prone to suicide ideation and require psychotherapy intervention to calm their anxieties in order to make their physiological treatment interventions more effective

6. References

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