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Determinants for Utilization of Alcohol Use Screening Tool by Nurses at Mathari Hospital, Nairobi City County, Kenya

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Abstract

The purpose of this study was to evaluate determinants for utilization of alcohol use screening tools by nurses at Mathari Hospital. The study employed analytical cross sectional study design. Participants were practising nurses deployed at Mathari Hospital. 159 respondents formed the sample size. The study utilised simple random sampling. The average age for most nurses was 42 (±10.6) years, had 18 (±10.6) years' experience in nursing profession, had 10 (±8.1) years' experience in mental health and psychiatry nursing. Majority (98.1%, 156) of the nurses had cared for a patient with potentially harmful alcohol use and initiated screening for alcohol use on the patient (56.6%, 90). The findings revealed that majority of the nurses were female (76.1%), Christians (97.5%), diploma holders (47.8%), aged was 42 years, 18 years' experience in nursing profession, and 10 years' experience in mental health and psychiatry nursing. In addition, education level of nurses was positively and significantly (r=0.164, p=0.039) related with utilization of SBIRT screening tool. The respondents highlighted the following as key enabling factors: Management support (52.8%), motivation (51.6%), Champion (44.7%) and training (44.7%). Management support was positively and significantly (r=0.322, p=0.000) related with utilization of SBIRT screening tool. Identified barriers to utilization of the SBIRT screening tool were nurses' own alcohol use (44%), competency gaps (32.7%) and lack of knowledge (49.7%). Nurse's characteristics had a positive and significant influence on the utilization of alcohol use screening tool (β = 0.612, p= 0.000) at 95% confidence interval. Enabling factors had a positive and significant influence on utilization of alcohol use screening tool (β = 0.226, P= 0.061) at 90% confidence interval. Barriers had a negative and significant influence on utilization of alcohol use screening tool (β = -0.261, P= 0.065) at 95% confidence interval. The adjusted R squared (0.243) revealed that jointly, nurses' characteristics, enabling factors and barriers explain 24.3% of variations in the utilization of alcohol use screening tool. Enabling factors were observed to have a positive and significant relationship with utilization of alcohol use screening tool (r=0.359,

P=0.000) at 99% confidence interval. Barriers have a negative and significant relationship with utilization of alcohol use screening tool (r= -0.132, P=0.097) at 95% confidence interval. The three determinants (nurses' characteristics, enabling factors, and barriers) only explained eighteen percent of changes in utilization of SBIRT suggesting the existence of other factors that may account for changes in utilization of the screening tool.

Keywords: *Screening tool, alcohol use, SBIRT, barriers, enabling factors, nurse's characteristics*

1.0 Introduction

Approximately 3.3 million alcohol-related deaths occur every year. This is in excess of deaths related to HIV, Tuberculosis and violence. Moreover, one in every twenty deaths is related to alcohol use (World Health Organization [WHO], 2014). Alcohol and Drug Abuse (ADA) is a global problem that affects all sectors of society (United Nations Office on Drugs & Crime (UNODC), 2016). Alcohol is a harmful, psychoactive substance that may cause dependence; it contributes to over 3 million deaths globally thereby contributing to a global burden of disease in males (7.1%) more than it does in women (2.2%) (WHO, 2018).

Worldwide, alcohol misuse affects approximately 240 million people (Donovan et al., 2012), therefore it is a global health problem which cuts across various age segments in the society (Ndegwa, 2017). Africa, like the rest of the world, is having alcohol related problems emerging as a major public health issue (Takahashi, 2017). In Sub Saharan Africa, Namibia leads on alcohol misuse. The prevalence of alcohol use in Kenya and Uganda is 31.7% and 28.6% respectively (Gitatui, Kimani, Muniu, & Okube, 2019). Moreover, approximately 5.8% of adult males aged between 15-64 years in Kenya have varying levels of alcohol dependency; with 2.4% termed as alcohol abusers (Gitatui et al., 2019).

In Kenya, alcohol use is the highest contributor to the burden of substance use disorders (National Authority for Control of Alcohol & Drugs Abuse (NACADA), 2017). With alarming prevalence levels of alcohol addiction among the young adults' population in Kenya, there is a great risk of losing future productive manpower and generations (Journal & Issn, 2011).

In addressing alcohol use disorder, it is imperative to utilize both primary and secondary preventive interventional strategies. Alcohol screening, brief intervention and referral to treatment (SBIRT) isa preventive measure that can be used in early identification of potentially hazardous alcohol use to offer opportune intervention (Muthoni, 2016a). Alcohol SBIRT is a tool utilized to screen individuals for potential alcohol misuse. It is used to deliver early interventions and offer timely referral to treatment for individuals with alcohol use disorder (Argewala, 2012).

Evidence based research has shown that SBIRT is a tool that has capacity to reduce alcohol use, and is applicable in varying settings, for example, hospitals and educational institutions. Moreover, it can be conducted by nurses (Bridgeman, 2012; Prendergast 2017).

Whereas much has been researched on the effectiveness of the SBIRT tool in regards to alcohol misuse management, little is known about factors that determine its success (Donovan et al., 2012). while recommending further research to study factors that influence use of SBIRT, (Muthoni, 2016b) stated that little has been studied in regard to SBIRT utilization in healthcare settings, adding that there was no documented evidence on the use of SBIRT in Kenya.

Studies have recommended that nurses embrace and advocate for alcohol SBIRT based on their extended interaction with patients, not mentioning that they are the most trusted health professional cadre. This would significantly contribute to the reduction of disease burden attributed to alcohol and substance use (Finnell, Nowzari, Reimann, Fischer, Pace, et al., 2014).

SBIRT practice is in line with the role of nurses; and practice of SBIRT would translate to decreased morbidity, mortality and cost associated with problematic alcohol consumption (Finnell, Nowzari, Reimann, Fischer, Goplerud, et al., 2014). As a matter of fact, (Muthoni, 2016a) argued that the training curricula for various healthcare providers at the Kenya Medical Training Colleges lacked adequate content on Screening, Brief Intervention and referral to treatment. With nurses forming the single largest health professional cadre in Kenya, it is imperative to assess determinants for utilization of SBIRT tool by nurses as an intervention in treating alcohol use disorder; as they are more likely to interact with clients.

Unfortunately, despite more than forty years of research evidence supporting this protocol, SBIRT remains under-implemented in many primary care settings (Fornili, 2019). Studies have reported of existing barriers to utilization of SBIRT (Broyles et al., 2012). This knowledge gap of the barriers necessitates further research to explore these barriers and enablers to routine use of SBIRT tool by nurses to screen clients for hazardous alcohol use.

Analysis of current alcohol use in Kenyans aged between 15-65 years stated the national prevalence at 12.2%. Alcohol misuse contributes highest to the burden of substance use disorder in Kenya (NACADA, 2017). Undeniably, alcohol and drug abuse (ADA) is a major threat to the life of Kenyan citizens and national development (Ministry Of Health, 2017). This necessitates public health interventions to screen and offer timely interventions and referral to treatment for alcohol users.

With nurses forming the single largest health professional cadre in Kenya, they are better positioned to reach a greater number of clients for screening for alcohol use. (Muthoni, 2016a) recommended for further studies to explore factors that influence nurses' performance of alcohol misuse screening. It is on the backdrop of this recommendation and the greater need to evaluate determinants that influence nurses at Mathari Hospital- the premier training and referral hospital for psychiatry services- to carry out routine screening for harmful alcohol use that spurs interest to carry out this study.

2.0 Research Methodology

The study was conducted at Mathari National Teaching and Referral Hospital, which is the largest psychiatric referral hospital in Kenya and East African region, with a bed capacity of 600. It is situated in Nairobi County, which is also the capital city of Kenya. The study employed analytical cross sectional study design. The study focused on all eligible practising nurses currently deployed either on contract or permanent terms of service. The study utilised simple random sampling. A total of 159 questionnaires from selected nurses working at Mathari Hospital were completed. The sample size was 153 implying that the study achieved over 100% response rate. The Independent variables evaluated in this study were: Nurses characteristics that influence utilization of screening tool, enablers and barriers to utilization of the screening tool.

3.0 Results

Nurses Characteristics

The average age for most nurses was 42 (±10.6) years, had 18 (±10.6) years' experience in nursing profession, had 10 (±8.1) years' experience in mental health and psychiatry nursing. Majority (76.1%) of the nurses were female and Christians (97.5%); were diploma (47.8%) and higher national diploma (32.1%) holders. Most of the nurses belonged to KRCHN (34.6%) and KRPN (32.1%) cadres respectively as shown in Table 1.

Table 1: Social Demographic characteristics of the Respondents

Variables	M	S.D
Age	42.59	10.611
Experience in nursing profession	18.02	10.653
Experience in mental health and psychiatry nursing	10.14	8.123
	N	%
Gender		
Male	38	23.9
Female	121	76.1
Religion		
Christian	155	97.5
Islam	4	2.5
Academic qualification		
Master's degree	11	6.9
Bachelor's degree	17	10.7
Higher National Diploma	51	32.1
Diploma	76	47.8
Certificate	4	2.5
Highest professional cadre		
Advanced Nurse practitioner (PhD and Masters)	8	5
BScN	17	10.7
KRCHN	55	34.6
KECHN/KEN	4	2.5
KRPN	51	32.1
KRN/MHP	24	15.1

Table 2 shows that majority (62.9%) of the respondents were nurses trained in mental health and psychiatry and had certification in the field of psychiatry (62.9%). However, they were not trained on SBIRT (77.4%), and did not consume alcohol regularly (91.8%). Majority of the nurses (61%) agreed that they were comfortable asking patients on routine basis about their alcohol use, 57.2% strongly agreed that early detection for hazardous alcohol use can prevent many people from developing alcohol use disorder. 63.5% of the nurses strongly agreed that in clinical practice, they

have cared for patients with alcohol use disorder and 39.6% agreed that they use a validated screening tool to screen patients for unhealthy alcohol use. There was no significant difference between respondents who ascribed to Christianity and Islam religion with respect to utilization of SBIRT tool to screen clients observed to abuse alcohol; with utilization standing at 51.6% and 50% for Christians and Muslims respectively. Further, more female respondents (48.8%) reported to utilize SBIRT tool to screen clients they identified to potentially abuse alcohol in comparison to male respondents (31.5%). Upon examining the data, it was observed that KRPN and KRN/MHP cadres were more likely to routinely carry out screening for alcohol (58.2% and 56.9% respectively); while KRCHN cadre least utilized screening (25%). The nurses disagreed that most of them use SBIRT tool to screen patients for unhealthy alcohol uses (38.4%).

Table 2: Nurses' characteristics

	Yes	No
Mental health and psychiatry training	100(62.9%	(59(37.1%)
Certification in field of psychiatry	100(62.9%	(59(37.1%)
Trained on SBIRT	36(22.6%)	123(77.4%)
Alcohol consumption	13(8.2%)	146(91.8%)
Alcohol limits	4(26.7%)	10(66.7%)

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	M	S.D
Comfortability	54 (34.0%)	97(61%)	7(4.4%)	1(0.6%)	0	1.7	0.6
Early detection	91(57.2%)	65(40.9%)	3(1.9%)	0	0	1.5	0.5
Clinical practice	101(63.5%)	56(35.2%)	2(1.3%)	0	0	1.4	0.5
Use of SBIRT	8(5%)	32(20.1%)	36(22.6%)	61(38.4%)	22(13.8%)	3.4	1.1
Validated screening tool	29(18.2%)	63(39.6%)	28(17.6%)	35(22%)	4(2.5%)	2.5	1.1
Aggregate score						2.1	0.8

Enabling Factors of SBIRT Screening Tool Utilization

Table 3 shows that most of the nurses (52.8%) agreed that the management supports their career progression, they have ample time to use SBIRT (39.6%), and strongly agreed that screening all patients should be a routine practice (46.5%). However, the nurses disagreed that hospital leadership has established standard guidelines for utilizing SBIRT for alcohol use (44.7%), there are plans to remove barriers (37.7%), hospital supports nurses' learning efforts (36.5%), hospital has job aids, tools and guidelines on SBIRT (47.8%), there is designated champion for SBIRT (44.7%), hospital has organized for an SBIRT training (44.7%), nurses are confident to use SBIRT

(32.7%), nurses use SBIRT because others use (51.6%) and CME updates enable nurses to use SBIRT (39.6%).

Table 3: Enablers of SBIRT Screening Tool Utilization

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	M	S.D
Career progression	29(18.2%)	84(52.8%)	23(14.5%)	18(11.3%)	5(3.1%)	2.3	1.0
Standard guidelines	6(3.8%)	25(15.7%)	43(27%)	71(44.7%)	14(8.8%)	3.4	1.0
Plans to remove barriers	7(4.4%)	22(13.8%)	59(37.1%)	60(37.7%)	11(6.9%)	3.3	0.9
Nurses' learning efforts	7(4.4%)	33(20.8%)	54(34%)	58(36.5%)	7(4.4%)	3.2	1.0
Job aids and tools	4(2.5%)	20(12.6%)	47(29.6%)	76(47.8%)	12(7.5%)	3.5	0.9
Designated champion	3(1.9%)	6(3.8%)	53(33.3%)	71(44.7%)	26(16.4%)	3.7	0.9
Training	2(1.3%)	22(13.8%)	39(24.5%)	71(44.7%)	25(15.7%)	3.6	1.0
Ample time	6(3.8%)	63(39.6%)	39(24.5%)	38(23.9%)	13(8.2%)	2.9	1.1
Confidence	13(8.2%)	46(28.9%)	32(20.1%)	52(32.7%)	16(10.1%)	3.1	1.2
Influenced use of the tool	0	8(5%)	24(15.1%)	82(51.6%)	45(28.3%)	4.0	0.8
CME updates	11(6.9%)	31(19.5%)	32(20.1%)	63(39.6%)	22(13.8%)	3.3	1.1
Routine practice	74(46.5%)	69(43.4%)	9(5.7%)	4(2.5%)	3(1.9%)	1.7	0.8
Aggregate score						**3.2**	**1.0**

Barriers to Utilization of SBIRT Screening Tool

Table 4 shows that most of the nurses (44%) agreed that alcohol use by nurses was a barrier to utilization of SBIRT screening tool, 54.1% noted lack of training, 49.7% noted lack of adequate knowledge, and 32.7% noted lack of skills and competence.

Table 4: Barriers to Utilization of SBIRT screening tool

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	M	S. D
Alcohol use by a nurse	60(37.7%)	70(44%)	12(7.5%)	11(6.9%)	6(3.8%)	2.0	1.0
Lack of training	62(39%)	86(54.1%)	5(3.1%)	3(1.9%)	3(1.9%)	1.7	0.8
Job aids	5(3.1%)	25(15.7%)	40(25.2%)	68(42.8%)	21(13.2%)	3.5	1.0
Not in job description	1(0.6%)	15(9.4%)	16(10.1%)	86(54.1%)	41(25.8%)	4.0	0.9
Screening patients	8(5%)	21(13.2%)	12(7.5%)	85(53.5%)	33(20.8%)	3.7	1.1
Too much work	2(1.3%)	9(5.7%)	17(10.7%)	100(62.9%)	31(19.5%)	3.9	0.8
Lack of adequate knowledge	30(18.9%)	79(49.7%)	16(10.1%)	24(15.1%)	10(6.3%)	2.4	1.1
Lack of skills and competence	18(11.3%)	52(32.7%)	28(17.6%)	47(29.6%)	14(8.8%)	2.9	1.2
Screening tool difficult to use	1(0.6%)	12(7.5%)	46(28.9%)	82(51.6%)	18(11.3%)	3.7	0.8
Lack of believe	2(1.3%)	5(3.1%)	30(18.9%)	90(56.6%)	32(20.1%)	3.9	0.8
Aggregate score						3.2	1.0

Knowledge and Utilization of SBIRT Screening Tool

Table 5 shows that majority (98.1%) of the nurses noted that they had cared for a patient with potentially harmful alcohol use, and initiated screening for alcohol use on the patient. Most (56.6%) of the nurses had adequate knowledge and skills to screen patients for alcohol use (44.7%) and had covered a topic on alcohol and substance abuse screening (52.8%). They disagreed that they had been trained on how to screen patients for alcohol use (34%), and their unit had screening tools for alcohol (51.6%). Majority (52.8%) of the nurses noted that they often recognize patients with potentially harmful alcohol use in the clinical setting., they sometimes use alcohol screening tools in nursing practice (44%), they often give health education to patients on alcohol use (41.5%), they sometimes get updates on current management practices (37.7%), sometimes the hospital CME program covers relevant areas (47.8%), and sometimes management supports capacity building of the hospital staff (47.8%).

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Table 5: Knowledge and Utilization of SBIRT Screening Tool

				No	Yes		
Patient care				2(1.3%)	156(98.1%)		
Screening for alcohol use				68(42.8%0	90(56.6%)		
	Strongly agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**M**	**S.D**
Adequate knowledge	25(15.75)	71(44.7%)	22(13.8%)	34(21.4%)	6(3.8%)	2.5	1.1
Topics on alcohol and substance abuse screening	42(26.4%)	84(52.8%)	12(7.5%)	17(10.7%)	4(2.5%)	2.1	1.0
Training on screening	21(13.2%)	47(29.6%)	28(17.6%)	54(34%)	9(5.7%)	2.9	1.2
Screening tool	7(4.4%)	23(14.5%)	21(13.2%)	82(51.6%)	26(16.4%)	3.6	1.1
Aggregate score						2.8	1.1
		Always	**Often**	**Sometimes**	**Never**	**M**	**S.D**
Patient recognition		39(24.5%)	84(52.8%)	36(22.6%)	0	2.0	0.7
Use of alcohol screening tools.		15(9.4%)	21(13.2%)	70(44%)	53(33.3%)	3.0	0.9
Health education.		51(32.1%)	66(41.5%)	41(25.8%)	1(0.6%)	2.0	0.8
Updates on current management.		21(13.2%)	29(18.2%)	60(37.7%)	49(30.8%)	2.9	1.0
Hospital CME program.		25(15.7%)	41(25.8%)	76(47.8%)	17(10.7%)	2.5	0.9
Staff capacity building.		28(17.6%)	39(24.5%)	76(47.8%)	16(10.1%)	2.5	0.9
Aggregate score						2.5	0.9

Relationship between Nurses' Characteristics and utilization of alcohol use screening tool

The education level of nurses had a positive and significant relationship with utilization of SBIRT (r=0.164, p=0.039). The relationship between experience in years in mental health and psychiatry nursing and utilization of SBIRT was found to be negative and statistically significant (r= -0.161, p=0.044) as shown in Table 6.

Table 6: Nurses' characteristics and Utilization of alcohol use screening tool

		Utilization of SBIRT	Gender	Age	Religion	Education	Professional cadre	Experience in nursing profession	Experience in mental health
Utilization of SBIRT	Pearson Correlation	1							
	Sig. (2-tailed)								
Gender	Pearson Correlation	0.082	1						
	Sig. (2-tailed)	0.306							
Age	Pearson Correlation	-0.055	.159*	1					
	Sig. (2-tailed)	0.496	0.046						
Religion	Pearson Correlation	0.116	-0.004	-0.154	1				
	Sig. (2-tailed)	0.145	0.959	0.054					
Education	Pearson Correlation	.164*	0.067	-.307**	0.087	1			
	Sig. (2-tailed)	**0.039**	0.404	0	0.317				
Professional cadre	Pearson Correlation	-0.024	0.107	-0.12	0.037	.325**	1		
	Sig. (2-tailed)	0.764	0.178	0.133	0.642	0			
Experience in nursing profession	Pearson Correlation	-0.059	.168*	.955**	-0.133	.333**	-0.144	1	
	Sig. (2-tailed)	0.458	0.035	0	0.096	0	0.07		

Experience in mental health	Pearson Correlation	-.161*	0.152	.768**	-0.126	-0.117	0.083	.797**	1
	Sig. (2-tailed)	**0.044**	0.056	0	0.114	0.142	0.302	0	

* Correlation is significant at the 0.05 level (2-tailed).

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

Relationship between Enabling factors and utilization of alcohol use screening tool

Table 7 indicates that management support (r=0.322, p=0.000), Motivation (r=0.229, p=0.004), SBIRT champion (r=0.256, p=0.001), and training (r=0.250, p=0.001) had a positive and significant relationship with utilization of SBIRT.

Table 7: Enabling factors and Utilization of alcohol use screening tool

		Utilization of SBIRT	Management support	Motivation	Champion	Training
Utilization of SBIRT	Pearson Correlation	1				
	Sig. (2-tailed)					
Management support	Pearson Correlation	.322**	1			
	Sig. (2-tailed)	0.000				
Motivation	Pearson Correlation	.229**	.761**	1		
	Sig. (2-tailed)	0.004	0.000			
Champion	Pearson Correlation	.256**	.537**	.664**	1	
	Sig. (2-tailed)	0.001	0.000	0.000		
Training	Pearson Correlation	.250**	.508**	.523**	.555**	1
	Sig. (2-tailed)	0.001	0.000	0.000	0.000	

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

Relationship between Barriers and utilization of alcohol use screening tool

Table 8 shows that competency gaps (r= -0.194, p=0.014), and lack of knowledge (r= -0.287, p=0.000) had a negative and significant relationship with utilization of SBIRT.

Table 8: Barriers and Utilization of alcohol use screening tool

		Utilization	Alcohol use	Competency gaps	Job description	Workload	Lack of knowledge
Utilization	Pearson Correlation	1					
	Sig. (2-tailed)						
Alcohol use	Pearson Correlation	-0.041	1				
	Sig. (2-tailed)	0.61					
Competency gaps	Pearson Correlation	-.194*	.194*	1			
	Sig. (2-tailed)	0.014	0.014				
Job description	Pearson Correlation	-0.042	-0.003	-0.022	1		
	Sig. (2-tailed)	0.6	0.975	0.786			
Workload	Pearson Correlation	-0.069	0.095	0.117	.295**	1	
	Sig. (2-tailed)	0.388	0.232	0.141	0		
Lack of knowledge	Pearson Correlation	-.287**	0.086	.523**	0.101	.237**	1
	Sig. (2-tailed)	0.000	0.28	0.000	0.205	0.003	

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Predictors of SBIRT utilization

Following the correlation analysis results in Tables 6, 7 and 8; the variables that were statistically significant (at 95% confidence level) were included in a multiple linear regression model to determine their effect on SBIRT utilization. The findings are displayed in Table 9. Education level of the nurses (β= 0.142, p=0.030), and management support (β= 0.265, p=0.033) had a positive and statistically significant influence on utilization of SBIRT. Lack of knowledge (r= -0.237, p=0.020) had a negative and significant influence on utilization of SBIRT. The adjusted R square (0.177) revealed that jointly, nurses' characteristics, enabling factors and barriers explain 18% of variations in the utilization of SBIRT by nurses at Mathari Hospital, Nairobi City County, Kenya.

Table 9: Multiple Linear Regression Model results

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	2.157	0.571		3.777	0.000
Education level	0.142	0.065	0.162	2.196	**0.030**
Experience in mental health	-0.014	0.008	-0.14	-1.89	0.061
Management support	0.265	0.123	0.251	2.158	**0.033**
Motivation	-0.139	0.148	-0.121	-0.944	0.347
Champion	0.114	0.1	0.118	1.15	0.252
Training	0.069	0.08	0.08	0.868	0.387
Competency gaps	-0.039	0.094	-0.036	-0.415	0.679
Lack of knowledge	-0.237	0.101	-0.207	-2.349	**0.020**
R Square	0.219				
Adjusted R Square	0.177				
F statistics	5.22				
Sig.	0.000				

Statistical model is a shown below:

Utilization of SBIRT = 2.157+ 0.142 Education level +0.265 Management support -0.237 Lack of knowledge

4.0 Discussion

Demographic characteristics

The study findings revealed that the average age for most nurses was forty years. This suggests that most of the nurses were medium aged. Results also indicated most of them had about eighteen years' experience in nursing profession and ten years' experience in mental health and psychiatry nursing. This implies that the nurses had adequate experience in the field of nursing and mental health. Further, the findings indicated that most of the nurses were female. In most cases, nursing profession is associated with women and therefore it is not surprising that majority of the respondents were women. In addition, almost half of the nurses had a diploma followed by higher national diploma. This implies that the nurses had adequate educational qualification.

Relationship between Nurses' Characteristics and utilization of alcohol use screening tool

The study findings revealed that there was no significant difference between respondents who ascribed to Christianity and Islam religion in respect to utilization of SBIRT tool to screen clients observed to abuse alcohol. Further, more female respondents reported to utilize SBIRT tool to screen clients they identified to potentially abuse alcohol in comparison to their male counterparts. Upon examining the data, it was observed that KRPN and KRN/MHP cadres were more likely to routinely carry out screening for alcohol; while KRCHN cadre least utilized screening. Education level of nurses was positively and significantly related with utilization of SBIRT. This suggests that an improvement in education level of nurses is accompanied by an improvement in their

utilization of SBIRT. Therefore, when nurses advance in education, it is likely to be observed that their utilization of SBIRT will increase. According to Hellum, Bjerregaard and Nielsen (2016) nurses are better positioned to enquire about alcohol misuse by clients and patients because they have a basic knowledge of health and diseases.

The findings also indicated that experience in years in mental health and psychiatry nursing was negatively and significantly related with utilization of SBIRT. This means that experience in years in mental health and psychiatry nursing moves in opposite direction with utilization of SBIRT. This has the implication that nurses who have many years of experience in mental health and psychiatry nursing are less likely to utilize SBIRT. This could also imply that nurses with less years of experience in mental health and psychiatry nursing are more likely to utilize SBIRT. This could be attributed to SBIRT being a relatively new tool and therefore, appeals more to young nurses compared to those who have been serving for many years. Mellor et al. (2013) observed that nurses by virtue of their training and job description are more likely to get into contact with clients who have actual or potential for hazardous alcohol use and related alcohol use disorder health problems.

Relationship between Enabling factors and utilization of alcohol use screening tool

The study findings demonstrated that management support was positively and significantly related with utilization of SBIRT. This implies that an increase in the hospital management support is accompanied by an increase in utilization of SBIRT. This brings out the vital role that management support plays in promoting utilization of SBIRT. The findings are similar to those of Babor et al. (2017) who argued that supervision is a managerial function that can greatly contribute to routine use of SBIRT tool to ensure routine utilization and curtail staff drifting away from this role.

The study findings also indicated that motivation was positively and significantly related with utilization of SBIRT. This implies that an increase in motivation is accompanied by an increase in utilization of SBIRT. This points out to the importance of encouraging nurses to embrace the use of SBIRT. The findings concurred with Yu, Harris and Shi (2017) conclusion that for SBIRT to be adopted by health care workers, there was need to motivate them and spur development of favorable attitude towards routinely utilizing this intervention as a preventative measure.

Furthermore, the findings revealed that having a champion for SBIRT was positively and significantly related with utilization of SBIRT. This suggests that having a designated champion for SBIRT is accompanied by increased utilization of SBIRT. Similar studies (Hargraves et al., 2017; Babor et al., 2017) also established that SBIRT practice champion is crucial for its routine utilization to be achieved. With the understanding that champions offer leadership and mentorship, (Keen & Newhouse, n.d.) averred that these two roles of a champion contributed to successful adoption and utilization of SBIRT in health systems.

Finally, the study findings indicated that training was positively and significantly related with utilization of SBIRT. This means that an improvement in training is associated with improvement in utilization of SBIRT. This has the implication that training is fundamental in enhancing utilization of SBIRT. The findings were similar to those of Derges et al., (2017b) who established that SBIRT training helped staff gain confidence and increased their capacity, knowledge and skills to address alcohol use issues of clients. In support of the role of training, (Berglund, Thelander, & Jonsson, 2004) stated that following training on screening, nurses in conjunction

with physicians were able to positively identify several patients who could potentially benefit from brief intervention. In addition, (Hargraves et al., 2017) affirm that training staff on SBIRT contributes to its successful use in patient care and also continuous professional education is necessary.

Relationship between Barriers and utilization of alcohol use screening tool

The study findings demonstrated that competency gaps were negatively and significantly related with utilization of SBIRT. This implies that an increase in competency gaps among the nurses is accompanied by a decrease in utilization of SBIRT. This points out to the importance of equipping nurses with the right skills and competences pertaining to the use of SBIRT. The findings are similar to those of Finnell et al. (2014) and Wilson (2017) who identified competency gaps as a serious hindrance to utilization of SBIRT.

The study findings indicated that lack of knowledge was negatively and significantly related with utilization of SBIRT. This implies that lack of knowledge and utilization of SBIRT move in opposite direction. This has the implication that an increase in lack of knowledge is accompanied by a decline in utilization of SBIRT. The findings concur with Hellum et al. (2016) who identified lack of knowledge as a critical barrier to utilization of the alcohol uses screening tool.

Predictors of SBIRT utilization

The results demonstrated that the education level of the nurses had a positive and significant influence on the utilization of SBIRT. This implies that an increase in education level of nurses will result to an increase in their utilization of SBIRT. Therefore, as nurses advance in education, there is likelihood that their utilization of SBIRT will improve. The findings agree with Hellum, Bjerregaard and Nielsen (2016) observation that nurses are better positioned to enquire about alcohol misuse by clients and patients because they have a basic knowledge of health and diseases.

The results also revealed that management support had a positive and significant influence on utilization of SBIRT. This implies that an increase in management support will result to an increase in utilization of SBIRT. Therefore, as management support increases, there is likelihood that utilization of SBIRT will improve. The findings mirrored those of Babor et al. (2017) who observed that for SBIRT screening to be successful in clinical settings, there is need to have good managerial support to ensure its sustainability.

The results further indicated that lack of knowledge had a negative and significant influence on utilization of SBIRT. This implies that increase in lack of knowledge will result to a decline in utilization of SBIRT. Therefore, as lack of knowledge persists, there is likelihood that utilization of SBIRT will decline. The findings were consistent with Derges et al. (2017) observation that lack of relevant training on alcohol use screening will impede the capacity of nurses and allied health workers to offer such care.

5.0 Conclusion

The results of regression analysis determined that education level of the nurses has a positive and significant influence on utilization of SBIRT. Consequently, the conclusion of the study is that education level has a positive contribution to the utilization of SBIRT by nurses at Mathari Hospital, Nairobi City County, Kenya. The results further determined that management support

has a positive and significant influence on utilization of SBIRT. Consequently, the conclusion of the study is that management support has a positive contribution to the utilization of SBIRT by nurses at Mathari Hospital, Nairobi City County, Kenya. Finally, the results determined that lack of knowledge has a negative and significant influence on utilization of SBIRT. Consequently, the conclusion of the study is that lack of knowledge has a negative contribution to the utilization of SBIRT by nurses at Mathari Hospital, Nairobi City County, Kenya.

6.0 Suggestion for further research

The study evaluated determinants for utilization of alcohol screening tool by nurses at Mathari Hospital, Nairobi City County, Kenya. The three determinants (nurses' characteristics, enabling factors, and barriers) only explained eighteen percent of changes in utilization of SBIRT suggesting the existence of other factors that may account for changes in utilization of the screening tool. Future scholars should consider investigating the influence of other factors on utilization of SBIRT.

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Author's Contribution

Mwangi contributed to literature review, study design, research tools, data collection, analysis, interpretation of findings manuscript development. Dr. Onsongo and Professor Catherine contributed towards development, data collection and analysis.

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