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First Aid Awareness among Patients Seeking Radiological Services at Nakuru Level 5 Hospital

Nicolas Openda

Radiographer/ Neurophysiology Technologist, Kenya Medical Training College/Radiographer IRC. Nairobi, Kenya

Dr. Joash Auka

Lecturer and Consultant Radiologist, KMTC/JKUAT, Kenya

Rose Wainaina

Lecturer, Kenya Medical Training College, Kenya

Abstract:

Background: Appropriate and timely application of First Aid measures is life saving and many clients seeking radiological services are often suffering from physical trauma besides other emergency disorders that would need such a remedy before one's arrival at hospital. Therefore, there is a need to understand the level of awareness about basic First Aid measures among patients seeking radiological services at the Nakuru Level 5 hospital in order to come up with health intervention strategies that would boost the practice of First Aid prior to receiving specific medical assistance.

Objective: The goal of the study was to determine the knowledge, attitude, and practice of First Aid among patients seeking radiological services at Nakuru Level 5 Hospital.

Method: This was a three-month cross-sectional survey involving 100 patients that sought radiological services at Nakuru Level 5 Hospital. Selection of the respondents was by purposive sampling from among patients who attended the facility during the period of study. Self-administered questionnaires aided in data collection.

Results: The majority (78%) of the respondents were males. Seventy per cent (70%) of the respondents were in the age range of 25-34 years. Majority of the respondents (65%) were single in terms of marital status. Majority of the respondents (70%) were students. Majority of the respondents (60%) learnt first aid from books and magazines. Majority of the respondents (60%) learnt first aid from books and magazines. Fifty percent of the respondents (50%) applied pressure using a clean cloth in case of fresh bleeding wounds. Fifty per cent of the respondents (50%) said that in case of a convulsing patient, safety matters first while minority 2% poured cold water on the convulsing patient. Majority of respondents (43.3%) did not practice first aid readily due to fear of taking responsibility.

Conclusion: Although most of the respondents have heard of first aid, they do not have sufficient basic knowledge on how to practice it. Most respondents are willing to learn on how to do first aid given a chance. Religious beliefs may have an influence on practice of First Aid. Most respondents are also reluctant to practice First aid to casualties due to the fear of being held responsible incase anything untoward happened to the patient.

Recommendation: Further theory driven research approach to understand the factors that influence the adoption of first aid among residents in Nakuru County to enable healthcare providers to come up with relevant educative strategies that would enhance the adoption and practice of First Aid is advised.

Keywords: First Aid awareness, Patients seeking radiology services

1. Introduction and Background Information

First Aid is a life saving measure that once applied by a bystander or lay person to a victim of sudden illness or injury can safeguard the injured or sick victim from further injury or even death before such an individual attains specialized medical treatment (Stedman, 2012, Donalds, 2003, Cal, 2012).

Globally, accidents are on the rise and are among the major causes of fractures (Kean, 2012). In Kenya, the main causes of accidents are Road Traffic Accidents (RTA), cuts and falls among others. Most Road Traffic Accident patients end up losing lives or having long-term disability due to lack of First Aid and fast medical intervention (Ngugi Report, 2012).

1.1. Problem Statement

Globally, millions of people get hurt or die from injuries every year because adequate and timely First Aid assistance is unavailable. Effectively, First Aid reduces morbidity and mortality following disasters and daily emergencies. Simple First Aid skills and their appropriate use is life saving.

Many scholars attribute the non-use of First Aid to lack of knowledge, negative attitude, and lack of skills to practice First Aid. Accidental fractures are the leading cause of emergency visits by patients, resulting in disability or delayed healing.

The awareness of the First Aid among patients is seemingly pertinent to the practice of First Aid. This study sought to determine the level of knowledge, attitude, and practice of First Aid by patients to enable various researchers and Health service providers come up with appropriate intervention strategies on improving the knowledge, attitude, and practice of First Aid.

1.2. Objectives

To determine the level of knowledge, attitude, and practice of First Aid among patients seeking Radiography services in Nakuru Level 5 Hospital.

1.3. Specific Objectives

1. To find out the level of knowledge on First Aid among patients attending the Radiography Department
2. To find out the attitude of patients towards First Aid
3. To find out the practice of First Aid by patients

1.4. Research Questions

1. What is the level of knowledge on first aid by patients seeking radiography services?
2. What is the attitude of the patients towards first aid?
3. What is the practice of first aid by patients seeking radiography services?

2. Literature Review

2.1. History of First Aid

Native Americans and Sioux medicine men of the bear society treated battle injuries, fixed fractures, controlled bleeding, removed arrows and used a sharp flint to cut around wounds and inflammation (Stranks and Jeremy, 1993). Some of these measures were later what constitutes First Aid.

Drastic changes to First Aid measures occurred in the late 1800's with the formation of the nascent British Red Cross (1870) and St. John's ambulance 1877. In 1878, the term First Aid appeared in Britain (Robb, 1981). Henry Dunant who witnesses the suffering of the injured soldiers in the battle of Solferino initiated efforts that yielded to the Geneva Convention and the International Red Cross to protect the sick and injured soldiers on the battlefield in 1859. Later an army surgeon first came up with the idea of training civilians in what was termed a pre-medical treatment (Dekker, 1990).

2.2. First Aid to Fractures

Victims with suspected spinal injury need a backboard that serves as an excellent total body splint with optimal stabilization only when properly secured with an acceptable form of lateral protection (Ernest & James, 1993).

Splinting fractures of upper limbs preferably with a simple sling achieves pain relief. Distal humeral fractures need a pillow between the lower arm and the body and then splinting the arm against the body (Grant & Murray, 1994)

Lower extremity and pelvic injuries if unstable, need short transfer times, prolonged careful splinting at scene and appropriately securing the patient to a backboard (Carolyne, 1991)

Most ankle, foot and toe fractures are better supported with pillow splints (Heckmann, 1992).

2.3. First Aid to Convulsing Casualties

Convulsing patients need clearance of the environment around the casualty to prevent more harm by loosening tight clothes and shoes. It is advisable to remove any dentures from the mouth of such a client and allow any saliva to flow freely. After the convulsions are over, place the casualty in recovery position (www.stjohnsambulance.co.ke)

2.4. First Aid to Bleeding Casualties

Handle bleeding wounds with gloves to reduce cross infection. In the case of nose bleeding, tell the casualty to sit and tilt the head forward to allow blood to drain from the nostrils then ask them to breathe using their mouth and to pinch the soft part of the nose for at least 10 minutes. Advise the casualty not to speak, swallow, cough, spit or sniff since this may disturb blood clots that may have formed in the nose (www.irfc.org)

Research conducted in 1970s and 1980s investigated the impact of first aid training and knowledge on prevention of injuries. The research identified an association between first aid training and a low incidence of injuries (McKenna and Hale, 1981)

Cunningham (2002) and Redfearn (1986) suggest that people who do not have the proper qualification need training on how to react in case of emergency. Alarming, another research has highlighted that only 13% of Australian civil patients are compliant with the first aid code requirements, which represent a disturbing situation for the country (Peter Le Cornu, 2012)

Even people who have some level of disability are capable of learning basic first aid procedures (Gart& Winterlig, 1992). A basic knowledge and understanding of first aid may obviate the need to visit a hospital or a clinic, not only providing convenience for the individual but also lessening demand on medical facility (Ngugi, 2012).

There exists contradictory evidence on attitude towards the effect of first aid on safety and accident reduction. First aid-trained respondents are more likely to consider there is no causal link between first aid training and safety (Glendon and McKenna, 1978)

Nearly thirty years of study regarding the effect of first aid training on injury rates in specific populations show that there is evidence that first aid training can change both attitude and safety behavior (Cater et al,1995)

From the British Red Cross’s years of experience of first aid training, a mode of thinking has emerged that simply teaching person the techniques of first aid does not necessarily mean that they will apply those skills if they find themselves in an emergency situation. The organization has been considering ways to increase the likelihood that people will help or their ‘propensity to act’. Propensity to act as currently defined by the British Red Cross comprises first aid ability, confidence in their first aid ability (or self-efficacy) and willingness to act (Outcome evident Report,2012)

Research done in Kenyatta National Hospital concluded that although the knowledge on First Aid of trained patients was found to be better than those untrained, the mean of un-trained was less than 50%, which is not satisfactory. In order to improve the knowledge of first aid, the patient’s knowledge should be reinforced in every visit (Park, 2011)

According to Kinoti Report (2012), first aid programs should be introduced at school and college level in developing countries in order to decrease early morbidity and mortality of accidents and emergency patients.

3. Study Variables

3.1. Dependent Variables

Level of awareness of first aid, First aid knowledge, Level of practice of First Aid

3.2. Independent Variables

Age, Sex, and Education level of the patient

3.3. Ethical Consideration

The Director K.M.T.C gave a letter of introduction to the M.O.H/Medical Superintendent, Nakuru Level 5 Hospital and authority to conduct this study was granted by the National Council for Science and Technology in the Ministry of Education Science and Technology.

4. Results

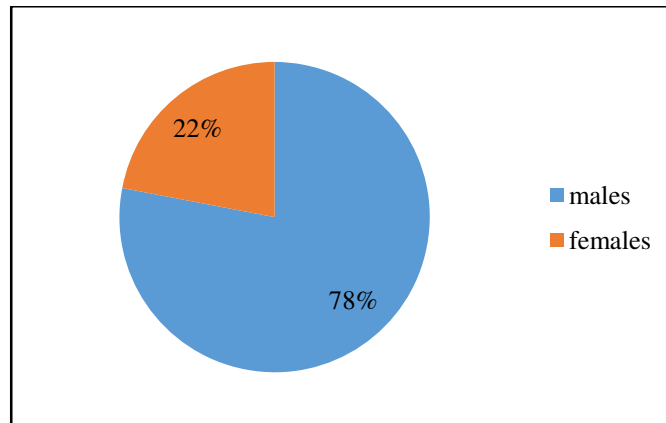


Figure 1: Distribution by gender

Age	Male	%	Female	%	Total	%
15-24	8	80.0	2	20.0	10	100
25-34	52	74.2	18	25.8	70	100
35-44	7	87.5	1	12.5	8	100
Above 45	11	91.6	1	8.4	12	100

Table 1: Respondents age

70% of the respondents were in range of 25-34 years. This range had the largest number of respondents. The range of 35-44 years had the least number of respondents at 8%

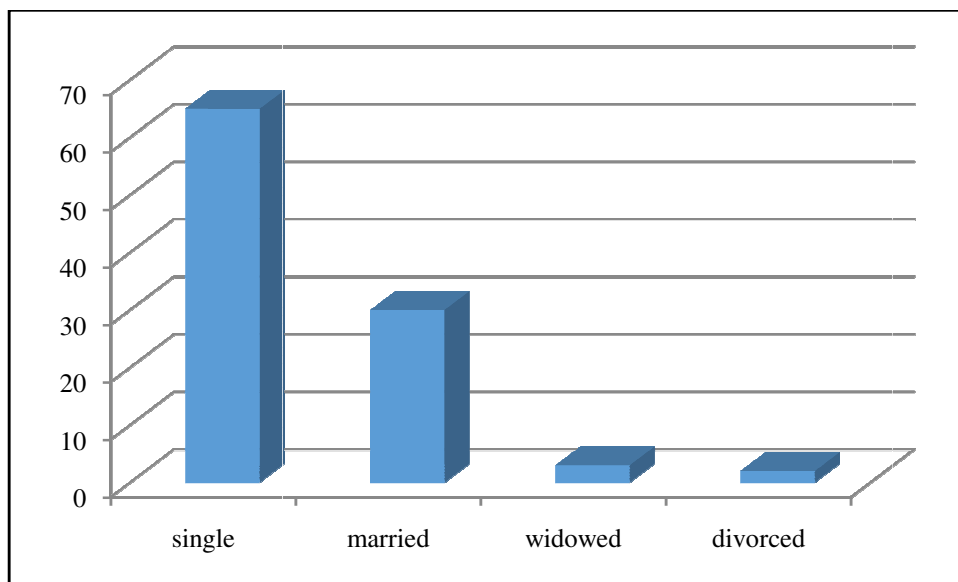


Figure 2: Marital status of the respondents

Majority of the respondents (65%) were single while 2% were divorced.

Level of education	Ever heard/practiced/witnessed First Aid?		NO Number	%	TOTAL	
	YES No.	YES %			No.	%
Non formal	0	0.0	0	0.0	0	0.0
Primary	2	100.0	0	0.0	2	100
Secondary	30	100.0	0	0.0	30	100
Tertiary	68	100.0	0	0.0	68	100

Table 2: Relationship between Education level versus first aid knowledge

From the table above it is clear that all the respondents had heard, practiced or at least witnessed first aid being performed from each level of education.

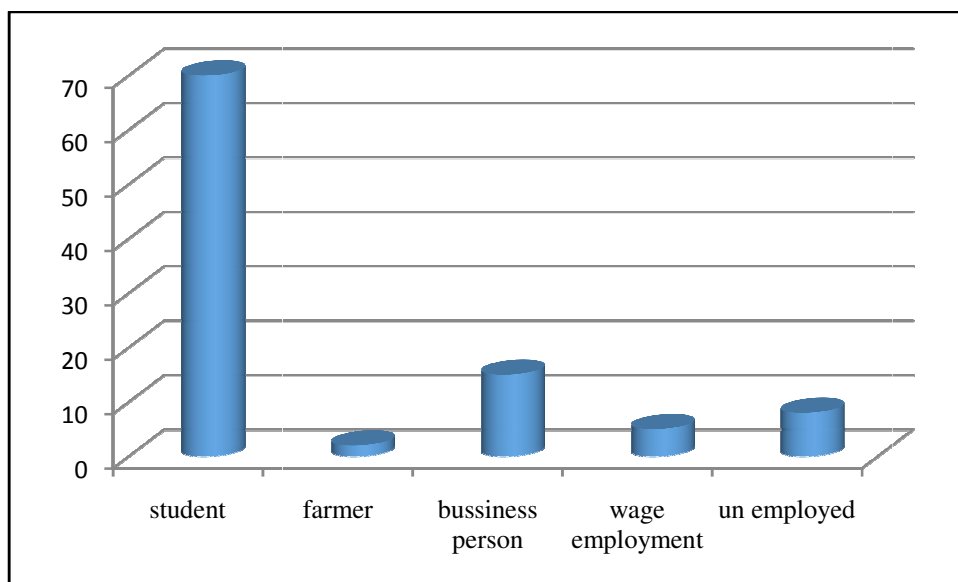


Figure 3: Occupation of respondents

Majority of the respondents (70%) were students while minority (2%) were farmers.

Religion	Do you touch convulsing patients?		NO Number	%	TOTAL	
	YES No.	YES %			No.	%
Catholic	22	100.0	0	0.0	22	100
Protestant	68	100.0	0	0.0	68	100
Muslim	2	25.0	6	75.0	8	100
Pagan	2	100.0	0	0.0	2	100

Table 3: Relationship between Religion and touching of convulsing patients

From the table above 75% of Muslim religion respondents could not touch convulsing patients while 25% could. All catholic, protestant and pagan respondents could touch convulsing patients.

Source	frequency	%
Parents/teachers	10	10
Internet	6	6
Radios/TVs	14	14
Organizations	10	10
Books and magazines	60	60
Total	100	100

Table 4: Source of knowledge on First Aid

Majority of the respondents (60%) learnt first aid from books and magazines while minority (6%) learnt through the Internet.

Measure	frequency	%
Put soil on wound	12	12
Soak wound in clean water	8	8
Let it bleed fully	30	30
Apply pressure using a clean cloth	50	50
Total	100	100

Table 5: First aid measure taken in case of bleeding

Majority of the Respondents (50%) applied pressure using a clean cloth in case of fresh bleeding wounds. Minority 8% soaked the wound in clean water.

Way of disposal	Respondents Gender male		female Number	%	TOTAL	
	No.	%			No.	%
Left at First Aid site	3	75	1	25.0	4	100.
Thrown in pit latrines	38	73.0	14	27.0	52	100
Safely kept for re use	10	83.3	2	16.6	12	100
Burnt or buried	27	84.3	5	15.7	32	100

Table 6: Relationship between disposals of used first aid materials versus age

From Table 6 above it is clear that majority of the respondents of both genders had knowledge on disposal of used first aid material.

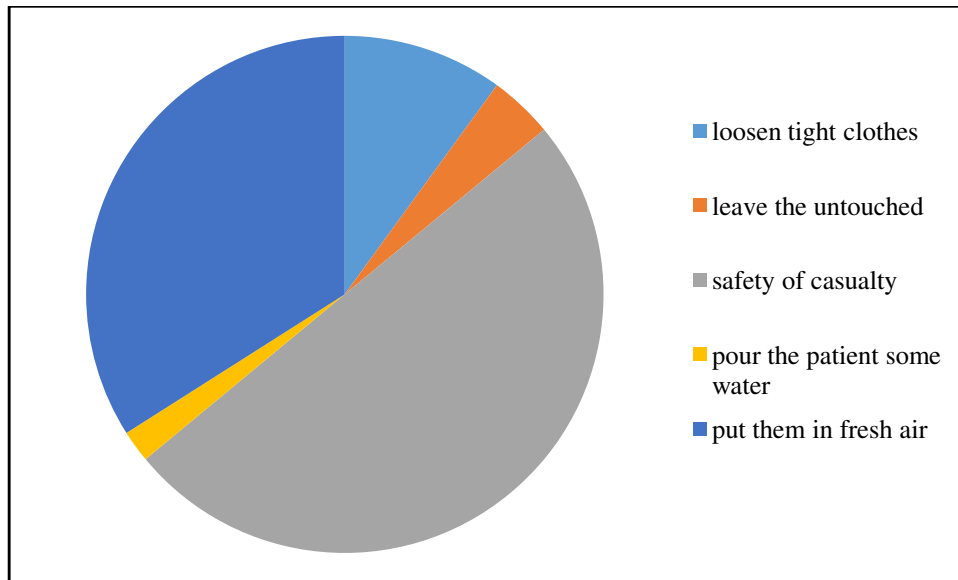


Figure 4: measures taken in case of convulsing patients

Majority of the respondents (50%) said that in case of a convulsing patient, safety matters first while minority (2%) poured cold water on the convulsing patient.

AGE	Readiness to practice FA		NO Number	%	TOTAL	
	YES No.	%			No.	%
15-24	5	50	5	50.0	10	100.
24-34	60	85.7	10	14.3	70	100
35-44	8	100	0	0.0	8	100
>45	2	20	10	80.0	12	100

Table 7: Relationship between age versus Readiness to practice First aid

All respondents who were aged between 35-44 Years were ready to practice first aid while (80%) of those aged above 45 years could not.

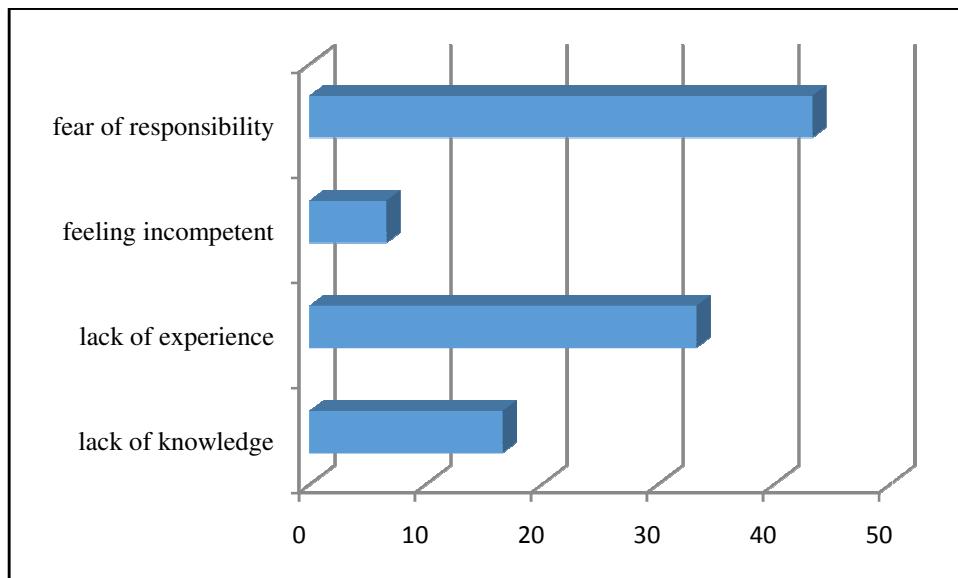


Figure 5: Reasons for not readily practicing First aid

Majority of respondents (43.3%) did not practice first aid readily due to fear of taking responsibility of the casualty while minority (6.6%) was feeling incompetent.

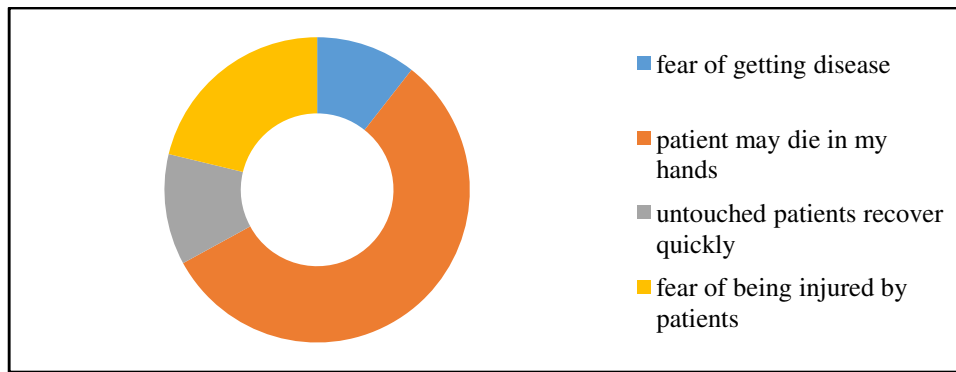


Figure 6: Reasons for not touching convulsing patients

Majority of respondents (56.3%) did not touch convulsing patients because the patients could die on their hands while minority (10.6%) had fear of contacting the disease from touching casualties.

Who should practice First Aid	Gender of Respondents		FEMALE Number	%	TOTAL No.	%
	MALE No.	MALE %				
Relatives	8	66.6	4	33.4	12	100.
Doctors /Nurses	43	89.5	5	10.5	48	100
Teachers	6	85.7	1	14.3	7	100
Anybody with First Aid knowledge	20	66.6	10	33.4	30	100
Trained personnel	1	33.3	2	66.7	3	

Table 8: Relationship between who should practice first aid versus gender

Majority (89.5%) of male respondents believed that first aid should be practiced by Doctors/Nurses centrally to (10.5%) of female Respondents believed so.

5. Discussion

The majority (78%) of respondents were males while 22% were female. This could probably give credence to the fact that men tend to be the ones that engage in risky occupations that are prone to injury. Seventy per cent (70%) of the respondents were in range of 25-34 years. This range had the largest number of respondents and this is the age bracket in which most students in tertiary institutions fall. The range of 35-44 years had the least number of respondents at 8%. Majority of the respondents 65% were single while 2% were divorced.

From the results it emerged that all the respondents had somewhat heard, practiced, or at least witnessed first aid being performed from each level of education. Unfortunately, the data collection tool that we used could not assess the level of competence in First Aid unlike the research done in Kenyatta National Hospital, which concluded that although the knowledge on First Aid of trained patients was found to be better than those untrained, the mean of un-trained was less than 50% which is not satisfactory (Park, 2011).

Majority of the respondents 70% were students while minority 2% were farmers. From the study, above 75% of Muslim religion respondents could not touch convulsing patients while 25% could. All catholic, protestant and pagan respondents could touch convulsing patients.

Majority of the respondents 60% learnt first aid from books and magazines while minority 6% learnt through the Internet. Majority of the Respondents 50% applied pressure using a clean cloth in case of fresh bleeding wounds. Minority 8% soaked the wound in clean water.

From Table 6 above it is clear that majority of the respondents of both genders had knowledge on disposal of used first aid material. All respondents who were aged between 35-44 Years were ready to practice first aid while (80%) of those aged above 45 years could not.

Majority of respondents 43.3% did not practice first aid readily due to fear of taking responsibility of the casualty while minority 6.6% was feeling in-competent. This concurred with (www.st.johnambulancAustralia) that less than one in three people currently feel confident to perform first aid in case of an emergency with reasons ranging from 'lack of training' all through to feeling 'personally responsible' if something went wrong.

Majority 89.5% of male respondents believed that first aid should be practiced by Doctors/Nurses centrally to 10.5% of female Respondents believed so.

6. Conclusion

Although most of the Respondents have heard of first aid, they do not have sufficient basic knowledge on how to practice it. Most respondents are willing to learn on how to do first aid given a chance. Religious beliefs may have an influence on practice of First Aid. Most respondents are also reluctant to practice First aid to casualties due to the fear of being held responsible in case anything untoward happened to the patient.

7. Recommendation

Further theory driven research approach should be undertaken to understand the factors that influence the adoption of first aid among residents in Nakuru County to enable healthcare providers to come up with relevant educative strategies that would enhance the adoption and practice of First Aid.

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