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Editorial Comment

In medicine, cancer is seen as any of the more than one hundred diseases which are characterized by excessive uncontrolled growth of abnormal cells, which invade and destroy other tissues. It can develop in any organ or tissue of the body, with certain types more life threatening than others.

In this edition, Roseline Ukpong of the University of Nigeria, Enugu campus examines Nanotherapy in the control and treatment of cancer.

Other topics copiously researched into and examined include handling of Malaria, Prevention of Pregnancy and STI's, Acute Renal failure, Post Operative Pain Management, Dangers of self medication, literature review on philosophy of Care, Use of Condom, and Prevention of HIV/AIDS, among others.

As it is the tradition of our journal, these articles have been carefully scrutinized before publication, they all make good and exciting reading.

We wish you happy knowledge gathering as you would greatly be informed on modern methods and ways Nurses can rise to occasion when confronted with the disease's situation.

Andy Anso
(Executive Editor)

Table Of Content

KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) OF SANDWICH UNDER GRADUATE STUDENTS OF DELTA STATE UNIVERSITY, ABRAKA, ON CONDOM USE IN THE PREVENTION OF SEXUALLY TRANSMITTED INFECTIONS (STLS) AND UNWANTED PREGNANCY.

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Abstract

The study investigated the knowledge, attitude and practice (KAP) of sandwich under graduate students of Delta State University, Abraka, on condom use for the prevention of sexually transmitted infections (STIs) and unwanted pregnancy. This is with a view to assessing the relevance of knowledge to attitude and practice. Three hypotheses were generated to guide the study. A self designed (KAP) questionnaire with 18 question items were used to generate information. The sample was 610 students. Percentages and chi-square statistics were used to analyze the data. It was found that students had good knowledge of condom use towards the prevention of STIs and unwanted pregnancy. There was also a relationship between knowledge and attitude. Males and females do not differ in their knowledge, attitude and practice of condom use. It was recommended that family and sexuality education be a part of the school curriculum, while the media should continuously be used to campaign for the use of condom in the prevention of STIs and unwanted pregnancy.

Key words: Knowledge, attitude, practice, condom, sexually transmitted infections (STIs), unwanted pregnancy

Introduction

Knowledge means understanding, awareness of a body of idea gained either by learning or experience. Knowledge makes for sensitivity and consciousness. Attitude is a way of behaving towards an issue(s) or circumstance. Hence Drouba (1952) stated that attitude is a mental disposition of an individual to act for or against a definite object and McDonald (1975) stated that "it is a pre-disposition to act in a positive or negative way towards persons or objects, ideas and events". Practice on the other hand is the real act in performance based on knowledge and attitude. Knowledge, attitude and practice (KAP) can be assumed as a chain of action, one influencing the other.

Condom use is generally accepted as a means of preventing sexually transmitted diseases such as gonorrhea, syphilis, HIV / AIDS and so on. It is also a means of preventing unwanted pregnancy; male condom is a sheath of polymer designed to fit the penis when worn while diaphragm is a cap that fits into the vagina. Myer, Mathews and Little (2001) presents male. Condoms as been described as the most affordable barrier method available in most sub-Saharan African countries to prevent the spread of HIV / AIDS and sexually transmitted diseases

But the question is often asked: Does knowledge always influence attitude and practice? Would knowledge of condoms use and knowledge of the spread and prevention of STI influence males and females attitude, and sexual practice? Myer et al (2001) stated in their study that those who procured condoms on their own were more likely to use the condoms than those who received them as gift from health workers. The authors continued that individuals who had formal health education about condom use were also more likely to use their condoms than those who had no such education.

In another study, Lawoyin, Walker, and Osinowo (2000) reported Federal Office of Statistics in Nigeria who stated that only 30% of the adult population believed that there is protection against AIDS while 64% believed that there is none. The implication is that most men are not likely to use condoms since they do not believe it provides protection. Lawoyin et al (2000) reported in their own study that many men in their study were aware of the risks they have taken but still do not use condom which had the dual advantage of protecting against unwanted pregnancy and STIs. Idowu, Adeogun and Dansu (2003), reported in their study that adolescents are aware of condom use but do not use condom for the prevention of HIV/AIDS. In a similar study on knowledge and attitude, Moronkola and Akinterinwa (2003) stated from their study that despite the fact that male students have better knowledge of health consequences of tobacco smoking, female students with poorer knowledge level still record better attitude in disapproving smoking

The focus of this study is to examine the knowledge, attitude and practice of students towards condom use in the prevention and spread of STIs and unwanted pregnancies.

This will help to improve the knowledge of condom use and consequently alter their attitude and practice toward safe sexual act.

Research Questions

- Are sandwich undergraduate students of Delta State University Abraka (DELSU) knowledgeable about the use of condom in the prevention of sexually transmitted infections and unwanted pregnancy?
- Do these students have positive attitude and practice in the use of condom to prevent STIs and unwanted pregnancy?
- Do males and females sandwich undergraduate students differ in their knowledge, attitude and practice toward the prevention of sexually transmitted diseases and unwanted pregnancy?

Research Hypotheses

Ho1: There is no significant relationship between knowledge, attitude and practice of condom use towards the prevention of STIs and unwanted pregnancy among sandwich undergraduate students of Delta State University, Abraka.

Ho 2: Sandwich undergraduate students of Delta State University Abraka do not have positive attitude and practice in the use of condom towards the prevention of STIs and unwanted pregnancy.

Ho 3: There is no significant relationship between males and females in knowledge, attitude and practice of condom use towards the prevention of STIs and unwanted pregnancy

Methodology

The study adopted the ex post facto, descriptive survey design. The research population consisted of 3000 sandwich undergraduate students of Delta State University Abraka, 2006, (October/November contact). Both the quota and availability sampling methods were used to select the sample. The samples were selected equally across the Faculty of Education, Science, Arts and Social Science. 163 were allocated to each faculty. Using the availability sampling method, students on visit (male alternate a female was the mode of selection) to the faculty were given the questionnaire to complete and returned as soon possible. Six hundred and fifty (650) questionnaires were issued. Out of which 610 were correctly completed and returned, this translates to 93.85% returnd rate. A self - designed KAP questionnaire was used to seek information. The first section of the questionnaires dealt with the bio-data of the subjects; the second section was constructed on the four scale likert pattern (i.e. SA = Strongly agreed, A = Agreed, D= Disagreed and SD = Strongly disagreed). The instrument was validated by experts in health education and test/measurement and found usable after little amendment. It was found reliable using test, retest, with a coefficient of .82. The statistical instrument was frequency count, percentages and Chi- square. The frequency count was reduced to manageable size by collapsing the cumulative frequency of the items in each of the variables.

Findings

The sandwich undergraduate students were selected on equal ratio males and females (50% each). Their ages range between 22 years and 46 years with mean age of 29 years. Most of them were married (76%; 37% males and 39% females). There were mostly Christian (97%~ 47% males and 49% females). They were admitted with various qualifications (National Certificate in Education (NCE) 57%, (males 29%, females 28%), National Diploma (ND); - 19 %,(males 10%, females 9%) and West African School Certificate (WASC) 22%, (males 10%, females 12%).

Table 1: Distribution of respondents' knowledge of condom use in the prevention of STIs and unwanted pregnancy

			MALES:N=305				FEMALES: N=305			
S/N	ITEMS		SA	A	D	SD	SA	A	D	SD
1.	STI (Sexual Transm itted infection) are serious disease some of them are capable of lowering the body immune system causing death	F	102	90	61	52	98	89	70	48
		%	33.44	29.50	20.0	17.04	32.13	29.18	22.95	15.73
2	STI cannot be detected on the face especially at the latest stage	F	118	112	52	23	122	108	48	27
		%	38.68	36.72	17.04	7.54	40.0	35.40	15.73	8.85
3	One of the major sources of contacting STI is through sexual intercourse while unwanted pregnancy is a possibility.	F	114	105	44	12.0	136	120	36	13
		%	37.37	34.42	14.42	3.93	44.59	39.34	11.80	4.26
4	STI and unwanted pregnancy can be prevented with the sue of condom	F	160	125	20	0	140	125	40	0
		%	52.45	40.98	6.55	0	45.90	40.98	13.11	0
5	Condom are found in most shops and are very affordable	F	125	104	53	50	130	100	48	27
		%	40.90	34.09	17.37	16.39	42.62	32.7	15.73	8.85
6	Condom or No condom, STI or pregnancy can still occur	F	100	92	63	50	120	108	39	38
		%	32.78	30.16	20.65	16.39	39.34	35.40	12.78	12.45
	Total		749/6	628	293	160	746	650	281	153
	Reduce to sample size		125.0	105	49	27	125	108	47	26

Table 1, explains the respondents' knowledge of condom use towards the prevention of STI and unwanted pregnancy. With 125 and 105, SA and A respectively for males and 125, 'SA' and 108 'A' for females, it goes to prove that sandwich undergraduate students of Delta State University were knowledgeable in the use of condom in the prevention of STIs and unwanted pregnancy.

Table 2 Distribution of respondents' attitude towards condom use in the prevention of STIs and unwanted pregnancy

			MALES:N=305				FEMALES: N=305			
S/N	**ITEMS**		**SA**	**A**	**D**	**SD**	**SA**	**A**	**D**	**SD**
1.	Sexual intercourse is recommended for married persons only	F	44	55	81	125	58	80	70	97
		%	14.42	18.03	26.55	40.98	19.01	26.22	22.95	31.80
2	Causal sex can be completely avoided	F	22	60	102	121	40	80	98	87
		%	7.21	19.67	33.44	39.67	13.11	22.22	32.13	28.52
3	The more the use of condom, the less the likelihood of being infested with STIs	F	142	99	38	26	138	111	32	24
		%	46.55	32.45	12.45	8.5	45.24	36.39	10.49	7.86
4	With the use of condom, premarital sex cannot be completely condemned	F	38	59	82	126	30	41	118	116
		%	12.45	19.34	26.88	41.31	9.83	13.44	38.65	38.03
5	I always keep condom within reach either in my bag or at home in case of "emergency'	F	62	90	81	72	36	50	119	100
		%	20.32	29.50	26.55	23.60	11.80	16.39	39.01	32.78
6	Multiple sex partners create varieties and a source of joy in sexual intercourse.	F	115	118	38	34	95	80	70	60
		%	37.70	38.68	12.45	11.14	31.14	22.22	22.95	19.67
	Cumulative frequency of		423	481	422	504	397	442	507	484
	Frequency count		71	80.00	70.0	84	66	74	84	81

Table 2 depicts the attitude of males and females sandwich undergraduate students of Delta state university, Abraka on the use of condom for the prevention of STIs and unwanted pregnancy. With 71 and 80, SA and A respectively for males and 66, 'SA' and 74 'A' for females, the attitude on the use of condom for the prevention of STIs and unwanted pregnancy could be said to be negative. The distribution of the respondents on the options shows that there is no significant variability in the attitude between males and females.

Table 3: Distribution of respondents practice on the use of condom in the prevention of STIs and unwanted pregnancy.

			MALES:N=305				FEMALES: N=305			
S/N	**ITEMS**		**SA**	**A**	**D**	**SD**	**SA**	**A**	**D**	**SD**
1.	I always use condom in all casual sex in my bid to avoid STIs and unwanted pregnancy	F	30	50	100	125	60	65	87	93
		%	9.83	16.39	32.78	40.55	19.67	21.31	28.52	30.48
2	I apply the condom according to the instruction of the manufacturer or I do encourage my partner to follow instruction.	F	55	75	80	95	50	55	100	117
		%	18.03	24.59	22.22	31.14	16.39	18.03	32.78	38.36
3	When pressed, I do at times forgo condom in casual sex with risk of STIs and unwanted pregnancy	F	70	66	100	75	42	60	70	132
		%	22.95	21.63	32.78	24.59	13.76	19.67	22.95	43.27
4	My use of condom depends on the acceptance of my sexual partner	F	158	62	40	45	95	70	100	40
		%	51.80	20.32	13.11	14.75	31.14	22.95	32.78	12.11
5	I best enjoy sexual intercourse without a condom.	F	103	100	52	50	135	40	64	66
		%	33.77	32.78	17.04	16.39	44.26	13.11	20.98	21.63
6	I have had sexual intercourse within the last one year without a condom	F	177	60	38	30	150	42	60	50
		%	58.03	19.67	12.45	9.83	49.10	13.76	19.67	16.39
	Cumulative frequency		593	413	410	422	532	332	481	498
	Frequency count		98	69.0	68	70.0	88	55	80	82

Table 3, shows the analysis of the practice of condom use among sandwich undergraduate students of Delta State University, Abraka. With 98 and 69, SA and A respectively for males and 88, 'SA' and 55 'A' for females, only 310 students actively support the use of condom in the prevention of STIs and unwanted pregnancy. From the even distribution in scores for both males and females, it can be concluded that these students are neither positive nor negative in their actual use of condom. Thus, do not use condom in the prevention of STIs and unwanted pregnancy.

Hypothesis I

There is no significant relationship between knowledge and attitude/practice of condom use towards the prevention of STIs and avoidance of unwanted pregnancy among sandwich undergraduate students of Delta State University, Abraka

Table 4: Chi-square statistic of the relationship between knowledge, and attitude/practice of condom use among sandwich undergraduates students of Delta State. University, Abraka, on prevention of STI and avoidance of unwanted pregnancy.

N = **60**

		SA	A		**SD**
Knowledge	Ob.	249	213	96	52
		205	176.6	124	104.5
Attitude/ practice	Ob.	161	140	15	157
	Exp	205	176.5	124	104.5

Cal. X^2 = 9.40 + 7.50 + 6.32 + 26.37 + 9.44 + 7.50 + 26.37
= 99
df = 3
Alpha = 0.05
Table value = 7.81
Decision Rejected

Table 4 shows that the calculated X^2 value of knowledge was 99 at df of and alpha of 0.05 while the table value was 7.81. Thus the hypothesis was rejected. There was therefore, significant relationship between knowledge and attitude and practice of condom use in the prevention of STIs and unwanted pregnancy

Hypothesis 2

Sandwich undergraduate students of Delta State University, Abraka do not have significant positive attitude/practice in the use of condom towards the prevention of STIs and unwanted pregnancy.

Table 5: Chi-square statistic of Sandwich undergraduate students of Delta State University, on their positive attitude / practice of condom use in the prevention of STIs and unwanted pregnancy

N=610

Variables		SA	A	D	SD
		162	140.0	151.0	157.0
Knowledge	Exp.	152.85	152.85	152.85	152.85

Cal. X^2 = 0.54 + 0.99 + 0.13 + 0.01
= 1.67
df = 3
alpha = 0.05
Table value = 7.81
Decision Accepted

Table 5: shows that the calculated X^2 value of attitude and practice as of 1.67 at df 3 and alpha 0.05. The critical value was 7.81. Thus, the hypothesis was accepted that, sandwich undergraduate student of Delta State University, Abraka have no significant positive attitude on the use of condom in the prevention of STIs and unwanted pregnancy.

Hypothesis 3:

There is no significant relationship between males and females in their knowledge, attitude and practice of condom use towards the prevention of STIs and unwanted pregnancy.

Table 6: Chi-square statistic on the Relationship between males and females sandwich undergraduate students of Delta State University, Abraka on condom use as prevention of STIs and unwanted pregnancy

M = 305
F = 305
=610

		SA	A	D	SD
	Ob.	94	86	64	61
Males	Exp.	92.38	81.95	66.55	61.09
Females	Ob.	93.0	79.0	71.0	62.0
	Exp	92.61	83.04	67.44	61.90

Cal. X^2 = 0.004 + 0.20 + 0.189 + 0.19 + 0.003 + 0.19+0.18+0.019
0.80
df = 3
Alpha = 0.05
Table value = 7.81
Decision Accepted

Table 6 explains the calculated X^2 value of males against females which stood and 0.80 at df 3 at 0.05 alpha. The critical value stood at 7.81. The hypothesis is therefore accepted. Thus there is no significant relationship between males and females in their knowledge, attitude and practice of condom use in their prevention of STIs and unwanted pregnancy.

Discussions

The rejection of **Hypothesis 1** shows that students were knowledgeable on the use of condom in the prevention of STIs and unwanted pregnancy. The acceptance of **Hypothesis 2** shows that students of Delta state university, Abraka had poor attitude and practice towards condom use in the prevention of STIs and of unwanted pregnancy. This finding correlates and supports the findings of Lawoyin et al (2000) who stated that many men were aware of the risks they have taken but still do not use condom which had duel advantage of protecting against unwanted pregnancy and STIs. Also Idowu & *et al* (2003) reported in their study that adolescents were aware of condom use but do not use condom for the prevention of HIV/AIDs. The acceptance of **Hypothesis 3** shows that males and females do not differ in their knowledge, attitude and practice of condom use.

Although there are no direct study between males and females on the use of condom but similar study on health knowledge and behavior reported various variations. Moronkola and Akintarinwa (2003) reported that despite the fact that males' students have better knowledge of the health consequences of tobacco smoking, females' students with poor knowledge still record better attitude in disapproving smoking. However the findings of this study were at variance with that of Moronkola and Akinterinwa (2003).

Conclusion

This study has shown that knowledge do not influence attitude and practice on condom use in the prevention and unwanted pregnancy. Males and females do not differ in their knowledge, attitude and practice of condom use. The implication for this study is that the use of condom in the prevention and unwanted pregnancy should remain a priority area of interest in health education programme, public health campaign, among health educators, health workers and the government. The print and electronic media should continually use jingo and public enlightenment programme to promote condom-use. Communicable diseases and family planning should be introduced into adult literacy classes and general studies in higher education. In addition, curriculum of primary and secondary schools should be enriched with reproductive health issues such as family health and sexuality to provide the information at earlier age in life.

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CHALLENGES OF MANAGEMENT OF MALARIA AMONG UNDER-FIVE CHILDREN IN NIGERIA: ROLE OF COMMUNITY HEALTH NURSING

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Abstract
Malaria is one of the main causes of health and socio-economic burden in Sub-Sahara Africa countries affecting all age groups but with serious effect on children and pregnant women. This paper focuses on the role of community health nurses in managing challenges of malaria among under-five children. It examines the extent of the burden of the disease on the children and significance of prompt and correct diagnosis on effective management of the disease. It also explains prevention of malaria at primary, secondary and tertiary levels. Various barriers posing challenges to effective management of malaria are highlighted in the paper. In conclusion, the community health nurses are implored to identify and address prevailing local beliefs about causes of fever and the socio-economic barriers to accessing prompt health care for the children.

Key words: Malaria; Challenges; Management; Under-five children; Community Health Nursing

Introduction

Child mortality remains a sensitive indicator of a socioeconomic development and welfare of any nation (UNICEF 2008). Children are the most vulnerable population because of physiological, physical and cognitive demands. They are going through a period of rapid growth and development which is highly demanding in terms of nutrition, care and protection. Their principal activity is playing, as a result of this and aforementioned factors, they are vulnerable to different diseases and dangerous conditions or accidents. Malaria is one of those diseases that children are highly exposed to and causes high morbidity and mortality amongst them.

Malaria is the world's most common parasitic infection, ranking among the major health and developmental challenges for the poor countries of the world, particularly Sub-Saharan African countries and mostly among children less than five years old (WHO 2006). It is highly endemic and remains a significant public health disease in this area. About 74% of the population of the continent is estimated to be residing in highly endemic areas, and 19% are in epidemic prone areas while just 7% live in low risk or malaria-free areas (WHO 2006).

Malaria poses a great challenge to the African region as it hinders human development, indeed it is estimated that 50% of the adult population experience at least one episode of malaria yearly while the under – five children have up to two to four attacks of malaria annually (FMOH 2005). Even though it is difficult to know the exact burden of malaria episodes in Africa, it is observed to be responsible for up to 50% of outpatient cases and 20% of admissions (WHO 2006). It is estimated that malaria could be responsible for an average annual reduction of 1.3% in economic growth in Africa ranging from 0.067% in Uganda to as much as 3.8% in Nigeria with many families spending a significant portion of their income on its treatment (WHO 2006). Children, particularly those who are still under five years and the pregnant women, are mostly affected. Thirty percent resultant deaths occur in children under five years while that of infants is about 28% (WHO 2008). The economic loss from attacks of malaria in Nigeria is approximated to be 132 billion Naira annually; this is accrued from costs of treatment, transport to the source of treatment, loss of man-hours, absenteeism from schools and other indirect costs (FMOH 2005).

Malaria, being one of the greatest causes of child mortality, there are specific strategies that have been developed in Millennium Development Goals (MDG) interventions to ensure reduction of the mortality rate. The fourth goal of the MDG is to reduce child mortality by two thirds by year 2015 (UNICEF 2008).

The Malaria Burden

Malaria is recognized as a highly endemic disease in Nigeria and it remains one of the leading causes of morbidity and mortality in the country with prevalence rate of 919/100,000 (WHO 2008). It accounts for 40% of disease burden reported at the out patients department in the hospitals and 30% of all childhood deaths. It is also associated with 11% of maternal deaths (NDHS 2009). Transmission of malaria is perennial in all parts of Nigeria. In the southern part of the country; transmission is serious and spread throughout the year, while in the northern part of the country transmission is only serious during the short wet season and diminishes during the long dry season (Abebe, Mosanya, Amajoh, Otsemobor, Ezedinachi, Afolabi, Fatumbi, Gemade, Oduwole, Akinpelumi, Sillah, Banda, Smith, Ibe, Yeboah-Antwi and Offei 2004)

Malaria is both a cause and a consequence of underdevelopment and has a highly detrimental effect on economic and social development. Most of the deaths from malaria are from the progression of uncomplicated malaria to severe malaria (WHO 2008).

The burden of malaria is very huge on human beings to the extent that half of the world's population has been estimated to be at risk of malaria, and that about 250 million cases led to nearly one million deaths in 2006 (WHO 2008). Eighty-six percent or 212 million cases were in the African Region. Eighty percent of the cases in Africa were in 13 countries, and over half were in Nigeria, Democratic Republic of the Congo, Ethiopia, United Republic of Tanzania and Kenya (WHO 2008).

The average estimated number of deaths due to malaria in 2006 worldwide ranged from 610 000 to 1 212 000, out of these 91% (between 520 000 and 1126 000) were in Africa and 85% of the deaths occurred among under-five years of age worldwide while 88% of these were among children under-five in Africa (WHO 2008)

According to World Malaria Report 2008, the malaria cases in Nigeria in year 2006 were estimated to be 57,506,000 in all age groups while that of under-five children were 34,096,000. The malaria deaths for the same period were 225000 and 219000 respectively, and the case fatality rates were 0.39% in all age groups and 0.63% in under-five children. In 2010, the probable and confirmed malaria cases in all age groups in Nigeria were 3 873 463 while malaria attributed deaths were 197216 (WHO 2011). Even though there was remarkable decrease in number of cases in 2010 compared to 2006, the figures are still high.

Ecology, Etiology And Transmission Of Malaria

In order to establish effective management of malaria disease, it is necessary to understand its ecology. There are both intrinsic and extrinsic factors that must be considered because it is the interrelationship (host- parasite relationship) of these factors that will determine the occurrence of malaria as well as effective treatment and control (White & Ho 1992 as cited by Amodu et al 2006). The **intrinsic factors** are those that affect the man (human), the vector (mosquito) and the parasite, while the extrinsic ones are the environmental conditions, the social, behavioural, economic and political as well as control and prevention measures. Many studies have confirmed the strong relationship between all these factors and improper management of the illness (Oyewole and Ibidapo 2007, Stephen, Nsimba and Edmund 2008). Better understanding of ecology of malaria is vital for identification of intervention strategies that will result to proper control and eradication of malaria in any community. In furtherance to this understanding, Ferguson, Dornhaus, Beech, Borgemeister, Gottlieb, Mulla Gimnig, Fish and Killeen (2010) mentioned that "applicability of any vector control strategy will depend on the dynamic human component of vector ecology, particularly the political, social and economic factors that determine land and water use within afflicted communities".

Clinical manifestations in uncomplicated and complicated malaria

Most patients with malaria attacks present with fever, chills, headaches, muscle pain, nausea and vomiting. There are usually few cases of abdominal pain, or diarrhea (Orimadegun 2010). According to Orimadegun (2010) the presentation of these signs and symptoms in all malaria cases varies as thus; fever 96%, chills 96%, headache 79%, muscle pain 60%, palpable liver 33%, palpable spleen 28%, nausea or vomiting 23% and abdominal pain or diarrhea 6%.

In acute stage, the symptoms are repetitive in classical cyclic paroxysm; while in cold stage, the patient chills and shakes and in hot stage, the patient is warm, has headache and vomiting. In sweating stage, the patient is weak, temporarily feels well, then the cycle repeats itself.

Acute malaria in children may lead to severe illness when it is not effectively treated. Orimadegun (2010) further stated that this may result into complications like hypoglycaemia, severe anaemia, respiratory distress, hyperparisitemia, prolonged hypothermia, increased vomiting or diarrhea, haemoglobinuria, renal failure, hyponatremia, cerebral malaria and death.

When malaria becomes chronic in children, complications in form of anaemia, neurologic and cognitive impairment as well as malnutrition may occur thus resulting into impaired growth and development which subsequently increase infant/ child mortality rates (Orimadegun 2010, NPC et al 2011).

A good knowledge of signs and symptoms of malaria will equip the mothers with ability to recognize when to start home remedies of bringing temperature down like exposure to fresh air and tepid sponging. This will also enable the mothers to give first aid treatment prior to taking the child to health facility for treatment.

Knowledge of etiology, transmission and clinical manifestations of malaria is paramount in the management of malaria. It is the responsibility of the Community Health Nurses to ensure that such knowledge is well imparted into the people with a view to correcting myths and misconceptions about malaria. The health education programme should be packaged in such a way that will assist the people to know the danger signs, be able to recognize them know when and how to take correct actions when those signs appear.

Management And Control Of Malaria

Consequent upon the high prevalence of malaria globally, the World Health Organization in collaboration with National malaria control programme in all the nations and some development partners are making renewed efforts to control malaria, and even moving towards elimination in some countries, based on the latest generation of effective tools and methods for prevention and cure (WHO 2008) .

The management of the disease includes; reduction or halting in transmission among human population particularly the most vulnerable group; the

young children and pregnant women, through effective preventive measures. Improved recognition of malaria disease and standard case management including home-based management of fever and reduction of anaemia are inclusive. These management strategies are basically in three parts: reduction of "man-mosquito" contact, vector control and chemotherapy (preventive and curative).

Diagnosis of Malaria

Malaria is a common disease, yet it is difficult to identify it where there is no laboratory facility due to the fact that its symptoms vary and may resemble other diseases. Correct diagnosis is critically important because it will lead to rapid and appropriate therapy that will prevent progression of the disease. On the other hand if on investigation, no malaria parasite is found further explanations will be sought for the disease and unnecessary use of antimalarial drugs will be avoided.

For effective management of malaria, WHO recommends that case management should be based on parasite-based diagnosis in all cases except in young children in high transmission areas and where there are no resources or there is need for urgent response (WHO 2009).

In 2011, WHO emphasized that "demonstration of the presence of malaria parasites is advised before treatment with antimalarial medicines, as diagnosis based solely on clinical symptoms is of poor accuracy and leads to over diagnosis of malaria, waste of antimalarial medicines, an increased frequency of adverse side-effects and increased drug pressure on resistant parasites."

Microscopic examination of blood smears is the most widely used laboratory- based diagnostic test for malaria in individual patients and for epidemiologic survey. It has proved to be very useful though labour intensive.

The development of rapid test is a new trend in the process of diagnosing malaria. Massive provision of the test kits to health facilities in rural areas should be a better strategy for management of malaria. Community Health Nurses who are the primary service providers, through facility-based programmes are better positioned to carry out this test with a view to enhancing prompt diagnosis and treatment. Where there is paucity of health facilities and personnel, extension of the provision of the kits to patent medicine sellers has been suggested by researchers ((Ajayi, Falade, Adeniyi and Bolaji 2003).

Chemotherapy

The recommended treatment for malaria attacks is artemisinin-based combination therapy (ACT). Even though procurement of anti-malarial medicines through public health services increased sharply between 2001 and 2006, WHO observed from the National Malaria Control Programme (NMCP) data that access to the recommended therapy was inadequate in all countries surveyed in 2006 (WHO, 2008).

The treatment policy states that the implementation of the national treatment policy is based on the Roll Back Malaria strategy. This include; establishment of a social movement in which the local communities, public and private sectors, all tiers of government and non-governmental development agencies come together in a partnership and network to carry out malaria control interventions. The key elements of the strategies for the intervention are;

- Patients with malaria should have access to appropriate and adequate treatment within 24 hours of the onset of the symptoms.
- Pregnant women particularly in their first and second pregnancies should have access to effective anti-malarial prophylaxis treatment.
- Insecticide treated nets and other materials should be available and accessible to persons at risk of malaria especially pregnant women and children under-five years of age.
- Epidemics of malaria should be recognized and steps initiated for their containment within one week of their onset (FMOH, 2005a p11).

Community Health nurses should anchor community social movement to ensure better intervention through implementation of the strategies.

In Nigeria, the drugs of choice for treatment of uncomplicated malaria as recommended in the treatment policy are artemether – lumefantrine, amodiaquine – artesunate, dihydroartemisinin + piperaqine+ trimethoprim and artesunate mefloquine. For severe malaria, quinine injection, artemether injection, artesunate injection and suppository are recommended. It is the responsibility of the nurses to administer or promote usage of these drugs at correct strength and dosage.

Prevention Of Malaria

Primary Prevention: At community level, individuals, families, and the entire communities need to be mobilized through health education and promotion activities targeted towards understanding the ecology of malaria disease, behavioural changes and better management of resources. The community health nurses must identify and address prevailing local beliefs about causes of fever and the socio-economic barriers to accessing health care.

At government level, there should be management of effectiveness of the health systems, health care should be of good quality, available, accessible, and affordable. There should be regular surveillance of malaria infection and disease. Policies and strategies should be translated to practices, and programmes should be monitored and evaluated.

The preventive measures include staying indoors during the night when the vectors are very active, screen windows and doors, using insect repellent, protect self by wearing socks, gloves, long sleeve dresses, and avoid dark cloths and strong perfumes that can attract mosquitoes (WHO 2006). Other form of self protection is sleeping under permethrin- impregnated nets or insecticide treated nets (WHO 2006). Management of the environment is a strategic preventive measure and this include clearing

the bush especially in the forest area, , clearing the drains; eliminating stagnant water, ensuring proper sanitary and waste disposal and spraying of environment with insecticide with a view to preventing breeding of all species of mosquito.

Secondary Prevention: Secondary prevention involves improved recognition of malaria disease and standard case management including home-based management of fever and reduction of all forms of complications.

The endemic countries like Nigeria are to promote use of artemisinin-based combination therapies and to implement policies that prohibit the production, marketing, distribution and use of counterfeit antimalarial drugs. The community health nurses could assist the government to ensure that these policies are translated into actions and the community members comply through their regular health education activities as well as community mobilization and participation.

The World Health Assembly also discouraged the use of oral artemisinin-based monotherapies in public and private health facilities (WHO 2008).

Tertiary Prevention: Effective management of malaria illness to prevent development of complications is very crucial in control of malaria disease. This is only possible if all previous levels of prevention are adequately taken care of. Where complications have occurred such as cerebral malaria causing brain damages, such children should be adequately rehabilitated.

Community Health Nurses have been found to have positive effect on reduction of child mortality and promotion of wellness in children (Pence, Nyarko, Phillipsand Debpuur 2007, Ebuhei and Adebajo 2010). These nurses have acquired skill in synthesizing clinical nursing with public health nursing which subjected them to better understanding of multifactoral causes of diseases. With this knowledge and skills they utilize multidisciplinary approach in caring for the consumers of their services at primary, secondary and tertiary levels. They occupy a strategic position in developing and integrating child care into community and specialty care settings.

In a study carried out in the Navrongo community in Ghana to assess the effect of four alternative organizational strategies on health service delivery in a rural and impoverished area, it was found out that in areas with village-based community nurse services, under-five child mortality fell by 14% during five years of programme implementation compared with before the intervention (Pence et al 2007). There were also 5% reductions in infant mortality, 18% reduction in early child mortality and 39% in late child mortality in the same study.

The area where community members were trained as health care volunteers for the intervention was associated with a 14% increase in mortality instead of decrease (Pence et al 2007). The researchers were of the opinion that the results suggested that convenient, accessible professional nursing care can reduce child mortality in impoverished African settings.

Challenges Of Malaria Treatment And Prevention

Many studies have documented many factors militating against treatment and prevention of malaria disease (Oyewole and Ibidapo 2007, Ajayi 2005, Anumudu,Adepoju, Adediran, Adeoye, Kassim, Oyewole and Nwuba (2006) Idowu Senbanjo and Opreh 2008, Stephen, Nsimba and Edmund 2008, and Ebuehi and Adebajo. 2010).

The first major barriers are illiteracy status of majority of mothers and other care givers and local beliefs about causes of fever in children, which is always subjecting them to ignorance of actions to take when malaria occurs (Ajayi 2005, Stephen et al 2008, Ebuehi and Adebajo 2010). Many are not well educated about etiology and transmission of the disease; this is usually leading to late and wrong diagnosis, wrong medications and incomplete doses. Report of a recent pilot study in two rural towns in Egbedore LGA of Osun state depicted poor knowledge of malaria, causes and home management. Only 16.6% of the respondents had high knowledge of causes, transmission and signs and symptoms of malaria while 60% of the respondents had low knowledge and 23.4% had average knowledge (Adeyemo 2011). Even though the number of respondents is not large enough for generalization it still shows that ignorance barrier exists in the rural communities, (Adeyemo 2011).

Malaria illness is often accompanied with multiple complicated symptoms particularly convulsion and majority of episodes of the illness are treated at home using wrong, adulterated drugs and under or over dosage.

Poverty plays a major role in actualization of adequate treatment and prevention of the disease. Many of effective drugs most especially the artemisinin- based combination, some of the preventive materials e.g. insecticide treated nets (ITNs) are expensive and not easily available. In malaria endemic areas poor environmental sanitation contributes immensely to mosquito –friendly environmental conditions that support survival and proliferation of the vector and pathogenic parasite causing frequent relapses of the infection. Rapid development of resistance by the mosquitoes to insecticide and the parasites (plasmodia) to antimalarial drugs is another factor militating against effective malaria treatment and prevention hence persistent high prevalence of the disease (Abdisalan et al 2006, Oyewole and Ibidapo 2007).

In addition, Abdisalan et al (2006) found out in their study that a child who lived in a homestead closer to a market centre where ITNs are sold was more likely to use nets purchased from the market than those who lived at longer distances. Other factors that are likely to deter ownership and utilization of ITNs are enlarged family size and single parenthood (Abdisalan et al 2006). However, an increase chance of using nets by children owning immunization cards has been observed (Abdisalan et al 2006). This might be

associated with general health awareness from the immunization clinics.

Other socio-cultural factors are strong belief in traditional healers, and health facility-based characteristics, such as unfriendly attitude of health workers and long distance, are significant factors deterring many caregivers from seeking prompt malaria treatment for children under five in the country.

Conclusion

The burden of malaria disease is still worrisome in Nigeria particularly among the children Therefore, investing in the health of children and their mothers is not only a human right imperative; it is also a strong and quality decision and one of surest ways for a country to set its course towards a better future.

Most of the barriers militating against effective treatment and prevention stem from lack of education and poverty, and because of these; Nigeria could not meet up with the first global target of reducing malaria morbidity and mortality by half by 2010. For the purpose of achieving future successful community mobilization for prompt and effective treatment for childhood fevers, information, education and communication (IEC) campaigns should address local beliefs about fever, malaria and its ecology. It is very important that anti-malarial drugs be made widely available within the community to enhance success of home management of malaria fever. This is especially important in this country, where the majority of fevers are first treated at home. It is also important that malaria control interventions focusing on promotion of prompt access to appropriate and effective treatment should as well recognize and address other perceived and real barriers to malaria health-seeking behaviour, such as the cost of anti-malarial drugs in the community and private sector, accessibility to health facilities, insufficient number of health care providers, and empowerment of mothers as decision-makers at the household level.

The socioeconomic status of the populace must be improved and available resources must be equitably distributed. All the strategies should be translated to effective programmes which should be well coordinated, dynamic and research focussed.

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A REVIEW OF LITERATURE ON THE PHILOSOPHY OF CARE FOR CHILDREN WITH HIV/AIDS IN NIGERIA

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Literature review forms the critical and theoretical context for a study, and the place of literature in the research process cannot be over emphasized (Burns & Grove, 2009). In the review of this literature, an overview of the philosophy/concept of care, care ethics, nursing the vulnerable children living with HIV/AIDS, theories of HIV developed in research/models of care in nursing is presented.

Philosophy of Care:

Philosophy is defined as the study of general and fundamental problems, such as those connected with existence, knowledge, values, reason, mind, and knowledge. Philosophy is distinguished from other ways of addressing such problems by its critical, general systematic approach and its reliance on rational argument, (Teichman and Evans, 1999). Philosophy of care has to do with the general belief system, and values attached to the art of caring; the justification behind caring and the morphology of care, and these are planned in an orderly manner. Philosophy becomes applied when it relates to nursing as an art of caring. Applied philosophy is seen as perceived concepts by a society that has a reflective outcome on what activities the society performs. Applied philosophy yields submissions such as those found in ethics (Anthony, 2003).

Nursing philosophy is viewed as an applied philosophy which is seen as a conceptual model that provides a frame of reference for nurses to guide their thinking, observations, interpretations, and practices. Therefore, varied theories/models of nursing must be sought in a bid to find the best that can offer insight and assistance to the client and this is pertinent to nursing children in health care settings (Neuman and Fawcett, 2001). American Nurses Association [ANA] (2002) posited the philosophy of nursing that will suit individual client needs will vary and it is contingent upon the situation because nurses function under a variety of settings and conditions – From casualty units to general wards; from children's wards to nursing homes and eventually to home care settings, and in each case, the needs vary. The well-being and/or welfare of the patient should be the core of any philosophy of nursing. In nursing the vulnerable population such as children with HIV/AIDS, the philosophy adopted must suit the circumstances surrounding the individual child; hence nursing philosophy hinges on the individual, the health care setting, health and illness and nursing.

Empathic listening by the nurse is essential in nursing children because during ill health, they are always apprehensive, and this will create an understanding and shared trust which is the core of therapeutic relationship between the nurse and the client (Walker & Alligood, 2001:142). The nurse must observe the client in order to create this empathy and this is geared towards addressing the client's real problems. A child will confide more in a nurse who demonstrates empathy and concern. Moreover, empathic listening creates room for the nurse to learn more about the client and therefore, providing individualized care (Coburn & Shane 2008).

Philosophy Of Care In African Context

Sense of Community and Human Relations:

Life in the African community posits the philosophy of togetherness, that is, live-and-let-live, which is a principle based on 'clan vital' and relates to a concrete community. Humane living among an African people is a perception which is seen as 'a way of life empathically placed upon human interests and ideals; a mode of living evidently characterized by empathy, and by consideration and compassion for human beings (Amadi, 1982). Life in the African community emphasises good human relationship based on inter-personal communication. In African community, everyone is accommodated (Amadi, 1982:58). This African sense of accommodation, accounts for why, 'in traditional African culture, the weak and the aged, the vulnerable, the helpless, the sick are warmly taken care of in the comforting family atmosphere.

It is based on the above premise, that when a child is sick in the African context, especially the vulnerable population, such as those infected with HIV,

that the family must provide a comforting atmosphere in giving affectionate care to the child. Green-Hernandez, eta'l, (2004:216) echoing this, asserted that holistic nursing care is appropriate for such children and the nurse must understand and/or have the cultural competency in administering such care.

Promotion of Community Living:

The sense of community and humane living are highly cherished values of traditional African livelihood. Primary communities based on clan or ethnic origin or church affiliation abound in many African societies; Families and members of kin groups live together and form communities, and Africans generally share live intensely in common with their similar interests and values (Mbiti, 1990). This network of relationships among human beings is remarkably profound. The family for the traditional African, usually include one's direct parents, grand and great grandparents, brothers, sisters, uncles, and aunts, cousins, nieces and nephews; therefore, the extended family system is the norm, and the molecular family system is strange and contrary to the traditional African family system, so harmonious living is clearly an essential value in African livelihood (Mbiti, 1990:141). So it is quite un-African to throw a child into the hospice, simply because he is having a chronic and/or terminal illness.

Communitarianism in African Socio-Ethical Thought:

The communal aspects of African socio-ethical thought are reflected in the communitarian features of the social structures of African societies. The sense of community that describes social relationships among individuals is a direct consequence of the communitarian societal arrangements. In the African viewpoint, in contrast to the Western, it is the community which defines the person, and not some secluded worth of rationality (Wiredu, 2005). The human person is seen by communitarianism as an intrinsically communal being, rooted in a milieu of social relationships and not an isolated atomic individual. Therefore, it sees a group of persons linked by relational ties, biological and/or non-biological, who see themselves predominantly as members of the group with common interests, aims and ideals (Gyeke, 1995). With this premise, it is important to look at ethics of care suitable in health/home care settings.

Care Ethics:

The ethics of care seen as a moral theory indicates that, there is moral implication in the basic features of connections and dependencies in human life. Care ethics seeks to sustain relationships by endorsing and supporting the well-being of caregivers and care receivers in a system of social relations. It is often seen as a virtue or practice rather than a theory. Care comprises sustaining the sphere of, and meeting the needs of, oneself and another person. One is therefore inspired to care for those who are either helpless or weak, and it is motivated by both retentions of being cared for and the idealisms of self (Held, 2006). In dealing with caring relationships, one must understand the ethics of care in order to administer appropriate care. Noddings (2002) understood caring relationships to be basic to human existence and perception. She identified two parties in the caring relationship – 'one caring' and the 'cared for' – and affirmed that both parties have some form of obligation to care mutually and meet the needs of one another morally, but not at the same level. Having looked at care ethics, it is pertinent to look at various aspects of care definitions in human applicability.

Definitions of Care:

Care is especially difficult to define, because it is dependent upon circumstantial concerns. However, in care ethical literature, 'care' is often defined as a practice, value, disposition, or feature, and is normally seen as an intersecting set of conceptions. Held (2006) posited care as a form of effort, but also an ideal that guides normative conclusion and action, and she describes care as 'clusters' of practices and values.

One of the most popular definitions of care, offered by Tronto (2006) sees care as 'a kind of activity that includes everything we do to preserve, hold, and mend our 'world' so that we can adjust to life as much as possible. Our bodies and our environment connote the world. This definition posits care basically as a practice. Tronto further identifies four sub-elements of care, which are – thoughtfulness and tendency to become aware of need; obligation/disposition to react and take care of need; capability/proficiency of providing decent and effective care; and sensitivity and respect of the position of others (Tronto, 1994; Tronto, 2006:101).

Narrowing down the scope of care to personal dealings and reliance, care is viewed as a passionate state, action, or both, that is efficient, and precisely involves 'the meeting of needs of one person by another where face-to-face communication between care-giver and the care recipient is an important aspect of care. Therefore, 'care' encompasses meeting the needs for others who will not meet their needs themselves; whereas, 'service' comprises meeting the needs of persons who are capable to meet up with some of their self-care. Hamington (2004) focused on personification, stating that, care denotes an attitude to peculiar and social ethics that moves from moral reflexion to context, interactions and real knowledge in a way that can only be wholly understood if care's personified element is acknowledged.

Engster (2006) developed a 'basic needs' approach to care, defining care as a practice that includes 'everything we do to assist persons to meet their essential biological needs, preserve their basic capabilities and circumvent unnecessary or undesirable discomfort and pain, so that they can live, and function in the society.

Care is also understood as a feature or drive. Several authors have contended for classifying care ethics as a kind of feature ethics, with care as a vital feature (Rachel, 1999; MCLaren, 2001; Halwani, 2003). Slote (2007) posits care as a virtues motive or an expansive ability which is equated with a kind of

motivational approach of responsiveness. Sevenhuijsen (1998) sees care as 'styles of situated moral reasoning' that encompasses attending and responding to others on their own positions. Considering the fundamental aspects of care or care ethics is very important to the development of theories of care in nursing in a bid to administer appropriate care to the vulnerable populations in the society such as children.

Care of the Vulnerable Populations:

The concerns of vulnerable populations are often challenging for the clients and their family members and for nurses and other health care specialists. Vulnerable populations' have serious health care needs that are often incapacitating which necessitate extensive medical and caring services (Purdy, 2004). The incidence of chronic illness has grown considerably among the vulnerable populations and this places burdens on families and health care systems, which are often not met through existing resources, and nurses and other health care professionals are faced with the challenges of treating this serious chronic or terminal illnesses (Skinner, Tsheko & Mtero-Myunyati, 2006).

Vulnerability: Definition

A vulnerable population has been defined as individuals who are usually disadvantaged of full capacity or ability to safeguard their own wellbeing and they include – persons with terminal illness, persons with psychological or emotional disability, and children in particular. The person who belongs to a vulnerable population has reduced capacity to make individual life choices, including independent decisions concerning health care (Gonzalez-Rivera & Bauermeister, 2007) Children with the chronic illness of HIV/Aids may carry extra burden of stigma and denial, further reducing child or family capability to make individual life choices or sustain independence

Chronicity of the Illness:

Chronic illness is referred to a disease condition that persists for a long period which may gradually get worse eventually. It may recourse to long-lasting alterations to the person or affects the individual's quality of life and may eventually lead to death. But because of modern treatment and supportive care, persons with chronic illnesses are living longer. Though the burden on the family and child with chronic illness is cumbersome - Judson (2004) asserted that the child with a chronic illness will experience one or more of the ensuing conditions – restriction of a function suitable for age and development, deformity, reliance on treatment, need for more medical care or associated services than that which is appropriate for the child's age, and exceptional constant managements at school or home-based setting.

HIV/AIDS is an unpredictable illness and with its acute exacerbations, it makes it an exceptional chronic illness for anyone affected. Because of reliance on the health care and uncertainty of the illness and treatment, the child and the caregivers may have feelings of helplessness about the condition. Children with HIV often receives continued care and management and these may deprive them of a normal childhood, although such care and management now benefits them to live long, useful lives; but the uncertainty about the disease condition can cause anxiety for the family and concern about the child's condition and his future. To this end, Mark & Wolfe (2006:10) posited that children with HIV/AIDS are among the most helpless and tender of the vulnerable populations; hence, care providers must understand the challenges in dealing with this longstanding illness. Nurses must be able to support family members of the child and other caregivers in this critical phase of their lives. Because many children with HIV/AIDS now advance into adulthood, their treatment needs/supportive care must be planned early and continue throughout the course of the illness, and this will assist families to benefit from efficient planning approaches which will improve the lives of the children and optimize outcomes; thus, the transition from paediatric management to adult care must be made as easily as possible for the child and family (Allen & Marshall, 2008).

HIV/AIDS and Children: A Global Perspective

It is a well-known fact that HIV is a continuum of immunodeficiency, and AIDS is an indicator of the disease. When HIV enters the body, it speedily infects a large number of CD+4 T Cells, decreasing healthy immune reactions, and then continues to reproduce by quickly seeding various organs. The immune system fights back, producing CD+8 T Lymphocytes (called Killer T Cells). As the disease advances, the immune system becomes overwhelmed and viral load increase. When CD+4 Cell count falls, opportunistic infections appeared and overwhelmed the body, and the client is diagnosed with AIDS. Once the diagnosis is present, advancement is frequently rapid; though treatment can slow the progression of the disease.

The most disastrous and dramatic occurrence of HIV/AIDS is among women and children. The joint UNAIDS and UNICEF Report (2011) estimated 34.0 million people were living with HIV as at 2010, and out of this, 3.4 million were children under the age of 15 years. The report asserted that out of the 34.0 million global infections, 22.9 million hails from Sub-Saharan Africa. The adults and children's new infection puts the figure at 2.7 million globally and out of this, 1.9 million people hails from Sub-Saharan Africa. Adults and child deaths in 2010 due to AIDS related illness was 1.8 million people and out of this, 250,000 were children, and out of 1.8 million deaths globally, 1.2 million persons are from Sub-Saharan Africa. Roughly, 17.1 million children under the age of 18 years have lost one or both parents to acquired immunodeficiency syndrome (AIDS) and out of this, 14.8 million are from Sub-Saharan Africa.

It is also reported that millions more have been affected with immensely increased threat of poverty, destitution, school failure, discrimination and loss of life prospects. The extended family members give care to a vast majority of orphans and helpless children. In some countries in Sub-Saharan Africa, 40-60% of

orphans live in grandmother-headed families. It was also reported that 390,000 children under 15 years were newly infected; and more than 90% of these children live in Sub-Saharan Africa.

This is the third decade of the epidemic of the disease, and we have learnt that AIDS is a long-lasting, improvable illness as a result of antiretroviral therapy and children are living longer with HIV and progression to AIDS is reduced, but HIV/AIDS is still highly inconstant, unpredictable, and demoralizing (Lewis, 2001). Therefore looking at the philosophy of care for these children and significant others have become imperative.

HIV/AIDS Vulnerability: Considering the Extent of the Problem

Having HIV/Aids is particularly distressing among children of developing countries and understanding the certainty of the helplessness of children affected by this condition, nurses and family members must understand the global extent of the problem. In developing countries, children with HIV/AIDS continue to be under-represented among beneficiaries of antiretroviral therapy and compassionate care, including reassuring care (DeBaets eta'l, 2007:163). A substantial number of children infected with HIV are also orphans of parents who died of HIV. They suffer from impediments including extreme malnutrition, and children who receive professional care are often admitted for several months at the end of life (Kline, 2006:1388; O'hare eta'l, 2005:443; Angami eta'l, 2004:45; Hendricks, Eley & Bourne 2007:322)

Stjernsward (2007) asserted that currently, there is an international initiative supported by WHO to integrate palliative care for children with HIV/AIDS in low income nations and the policy includes – efforts to device suitable strategies, offer acceptable medications, teach the public and the program managers, and generate proper models for palliative care; therefore, looking at this philosophy of caring for these children living with HIV/AIDS is a step in the right direction.

Children and Palliative Care

World Health Organization (WHO) defined palliative care for children as the '*active total care of the child's body, mind and spirit, and also involves giving support to the family'. It begins when the illness is diagnosed and continues regardless of whether or not a child receives treatment directed at the disease*' (WHO, 2008). It is further defined by the Joint United Nations Program on HIV/AIDS as getting the best quality of life for clients and their families who are suffering from severe and eventually incurable diseases and it indicated that the care should be given to all persons living with HIV/AIDS. The care includes – health education, providing access to basic treatments and identifying exceptional needs of children, which are - aiding pain relief, bodily, emotional, spiritual and social needs (Joint United Nations…2008).

The care should commence before the child is grossly incapacitated. It should be incorporated with other managements at the initial stage and in the course of the illness. This is suitable for both children who are born with the disease and those who develop the disease at later phases of childhood and teenage years. Patients receiving palliative care and their families have been characterized as particularly vulnerable because of associated intense physical and emotional suffering (Casarret, eta'l, 2001). Nurses giving palliative care must be thoughtful to sensitive issues about chronic illnesses and bereavement when caring for a child with HIV/AIDS, because it is not normal progression for children to be ill or die before their parents; hence, parents find it challenging to deal with the illness or death of their children (Stephenson, 2002).

Family Concerns and Specific Care Needs of Children with HIV/AIDS:

Having an unpredictable and severe illness in a child is particularly challenging for a family; hence parents may be confused and anxious about what might happen to the child in the near future, and family members may experience hopelessness (Mendoza, eta'l, 2007) Children themselves may display signs of anxiety, including interactive reactions (Allen & Marshall, 2008:359). The diagnosis of a severe illness such as HIV/AIDS is dramatic for the family and nurses giving care can be predominantly supportive to such families. Disclosing the diagnosis to children who have been infected has been a trying state among health care providers and family members since the illness was discovered (Weiner, eta'l, 2007). Parents may repel full disclosure to their children, although it is clinically indicated that children benefit from open dialogues about their illness and management and that non-disclosure does not really decrease emotional suffering (Weiner & Battles, 2006). Disclosure and other facets of health care information and treatment should be given to the child in line with his age, knowledge and psychological maturity and in the best interest of the child from a progressive standpoint (Lesch, Swatz & Kagee, 2007)

Virtually, all aspects of any family having a child with HIV/AIDS is affected and these ranges from - physical, emotional, spiritual, and financial. Parents may be hesitant to label the care of their ill child as a problem, but caregiver burden is seen as an open concern in the care of children with HIV/AIDS because of deficient resources and persistent stigma among this defenceless group; but nurses can assist parents to recognize their care burden, ascertain potential resources for relief, and be supporters for practice and program that assists parents in such matters (Van Rie, eta'l, 2007)

Children with HIV have different physical needs, and some problems are exclusive to children, such as the likelihood of neuro-developmental defects; therefore, nurses can be of assistance to families by giving early education, reassuring care, and symptomatic treatment (Bowley, eta'l, 2007). With effective treatment and palliative support, children may lead normal lives (Leelanukron & Pancharoen, 2007). Evidence has shown that physical pain in

children with HIV/AIDS has generally been under-estimated and undertreated, and the occurrence of pain in these children remains high and is related to low quality of life and increased mortality. It is of importance to identify the need and manage pain in children as well as other physical needs (Gaughan, Hughes & Seage, 2002).

On treatment and medication adherence, children rely on adults for treatment and care, and because of mental and developmental challenges, most children do not have the maturity to take complex treatment regimens. Medication adherence may persist to be a difficult scenario as the children matures; also, several medications, side effects and forgetfulness about the medication dosage can be a problem (Dolezal, eta'l, 2003; Van Dyke, Lee & Johnson, 2002). Other reasons associated with adherence include – caregiver features, age of the child, and the child's perception of the diagnosis. With the nature of the illness and its management, poor adherence to treatment regimens can worsen the condition (Reddington, Cohen & Baldillo, 2000; Nabukeera-Baurngi, eta'l, 2007).

Burghen, eta'l, (2004) commenting on care in transition from childhood to adulthood, asserted that children who have endured severe or chronic illness usually procure an exceptional maturity and thoughtfulness associated with health care practises that vary from those of children who have not been extremely ill. With the maturity of the children, they can accept further responsibility concerning their treatment regimens, shifting the role of the adult caregiver. At this stage, parents must recognize the child's role in some decisions and adherence, and there must be an open communication and a progressive rapport between the parents, the nurse and other health professionals for this smooth transition (Lwin, 2001).

Disease conditions that are long-standing and progressing to terminal illness require the family to have unique spiritual needs for complex care. Families giving terminal care must have been exhausted from years of pressure linked with health care needs and struggle to withstand normal family undertakings (Feudtner, Haney & Dimmers, 2003). Although, there have been consideration on the spiritual needs of children at the end-of-life stage, but there is little study on the spiritual needs of the families of a child with HIV/AIDS. Globally, families caring for a dying child need assurance of efficient pain relief, control of symptoms, freedom from humiliation, and spiritual peace (Heilferty, 2004).

Psychosocial Support for HIV Individuals, Partners, Families and Care givers

HIV infection affects all aspects of human life which are – physical, psychological, social and spiritual; therefore, counselling and social support can help people and their carers to cope more efficiently with each phase of the infection and improves quality of life; and People living with HIV/AIDS (PLWHA) needs suitable support in a bid to respond to the stress of being infected which will help to decrease the possibility of their developing severe mental health problems (UNAIDS, 2000). Stigma and fear are very predominant for PLWHA as well as the care givers and the entire family. The effects can lead to loss of employment, socio-economic status, income, housing, health care and mobility. So individuals, their partners and other family members need psychosocial support to assist people in making informed choices, coping better with the illness and handling the issue of misconception. These can improve the quality of their lives (Ankrah, 1993)

Health professionals can provide simple psychosocial support in hospitals/clinics and/or home care settings. The care provided by these personnel can be supported by other persons who are trained to support HIV infected persons and their families in the community setting; and this is very vital for nurses and other health care workers (Lippman, James, & Frierson, 1993). Home care services in addition to palliative care can be incorporated into the care provided in hospitals/clinics, and suitable policies should be established and these should include the provision of basic psychosocial care by community volunteers and other family care givers. The education for community volunteers can be structured and provided by health care personnel and this should focus on counselling, and PLWHA, their families and other care givers/volunteers should be able to access these services (Baggalley, eta'l, 1998).

Care Challenges

Paediatric HIV will continue to be a significant severe disease, and children will remain part of the helpless populations requiring care. Health professionals should therefore incorporate preventive care, curative care and palliative care from the time the diagnosis is made. Treatment regimens and adherence issues will need to be constantly assessed and efficient policies will need to be effected. In addition, psychological and spiritual needs will require sustenance (Allen & Marshall, 2008:364). To this end, looking at the philosophy of care in nursing these children with HIV/AIDS is timely.

HIV Theories In Research

Introduction

There are HIV theories developed in research as per the theories of causation, disclosure theories, theory of planned behaviour as in decision making process and middle range theory of communities of practice to mention a few, but no clear theory of care has been developed in research, especially theory of care for children living with HIV/AIDS. Therefore this research aims at looking into the care of children living with HIV/AIDS, thereby prescribing the appropriate philosophy of care for these children.

Initial Theories of HIV Causation

The causation theory of HIV stems from the assertion of researchers on infectivity of the virus – 'Simian Immunodeficiency Virus' (SIV) from Chimpanzee which most likely metamorphosed to 'Human Immunodeficiency Virus' (HIV) to cause AIDS. Though a bit contentious, it is now generally accepted

that HIV is a descendant of a simian immunodeficiency virus because certain strains of SIVs bear a resemblance to HIV. It is also known that certain viruses can pass between species. The United States of America reported the first cases of AIDS in the early 1980s and since then, the cause of AIDS has seriously baffled scientists (Moore, 2004). A number of the common theories include – The Hunter Theory, Oral Polio Vaccine Theories, Contaminated Needle Theory, Colonialism Theory; and The Conspiracy Theory.

The hunter theory is the most commonly accepted theory, and in this sense, SIV was seen to have been transferred to humans as a result of chimps being killed and eaten or their blood getting into guts or wounds of the hunter; usually, the hunter's immunity would have resisted SIV, but on few instances, it will reform itself within the human host and became HIV. HIV-1 is the most common form which supports this theory (Wolfe, 2004). It is speculated that retroviral transmission from primates to hunters is still happening today as a result of infections with a similarity of SIV which were thought to have been acquired through the slaughtering and eating of monkey and ape meat.

One of other controversial theories is the oral polio vaccine theory and this was posited that HIV was iatrogenically transmitted (that is, via medical interventions). Hooper (1999) in his work 'The River' suggests that HIV can be traced to the analysis of oral polio vaccine called 'chart' given to about a million people in the Belgian Congo, Ruanda and Burundi, and this was reported in the late 1950s. To be replicated, live polio vaccine needs to be refined in living tissue and Hooper's assertion was that 'chart' was grown in kidney cells taken from local chimps infected with SIVcmz and he postulated that, this would have caused the infection of the vaccine with chimp SIV, and a good number of persons consequently became infected with HIV (Cohen, 2000).

Researchers came up to contend with Hooper's theory that local chimps were not infected with a strain of SIVcmz that is strictly connected with HIV; and that the oral administration of the vaccine would look inadequate to be the factor of causation in most people. They asserted that SIV/HIV needs to get directly into the blood stream to cause the infection, in this case, the lining of the mouth and throat usually act as good barriers to the virus (Blancou, 2001; Berry, 2001)

Zhu, (1998) purports that; the practice of using disposable plastic syringes became prominent around the globe as an economical, antiseptic way of administering medications parenterally; thus, Healthcare Personnel in the African continent working on immunization and other medical programmes looked at the enormous amounts of syringes required would have been costly, and this made them to be using one single syringe for many patients without sterilizing the syringes in between. This would have quickly transmitted any viral elements across persons which led to proposing the 'contaminated needle theory'.

Chitnis, (2000) posited his colonialism theory as one of the theories of causation in the current debate. This theory is relatively founded basically on the idea of hunter's theory. Moore, (2000) was the first person to propose this theory – an American Expert in Primate Activities. In the 19th Century and early 20th Century, when the colonial rule was the order of the day - areas such as Equatorial Africa and the Belgian Congo, saw a harsh rule for many Africans as they were forced into labour camps where hygiene was poor with inadequate foods and the physical stress were extreme. Anyone under this condition would have gotten weakened immune system as a result of poor health; so SIV could have permeated the labour force and taken advantage of their weakened immune system to become HIV.

Moore (2000) also purported that most of the workers would have been immunized with unsterilized needles against communicable diseases such as smallpox to keep them alive and working; also many of the camps employed some prostitutes to keep the labourers happy, and these would have created opportunities for onward transmission. Finally, he asserted that, a notable factor that supported this theory is the fact that, the labour camps were organized at the time that HIV was first believed to have passed into human beings – and this was around early part of the 20th Century (Chitnis, 2000:1; Moore, 2004).

The conspiracy theory supports the view that HIV is a 'conspiracy' or that it is 'man made. In the United States (US) a study was carried out and the results showed that a significant number of African Americans considered that HIV was synthesized as part of biological warfare agenda intended to eliminate a good number of blacks and homosexuals. They asserted that, this was done under the auspices of the US Federal 'Special Cancer Virus Programme'. Related to this theory is the belief that, the virus was spread carelessly to thousands of people around the globe through the 'Smallpox Immunization Programme' or to Gay men through Hepatitis B Vaccine Trials (Fears, 2005). The contention against this theory is the fact that, no substantiation is given to support them up and that it is merely based upon assumption and speculation that rebates an association between SIV and HIV or the fact that the virus has been identified in person's dates back to 1950s.

HIV Disclosure Theories

Disclosure of an HIV diagnosis to partners, friends, and family members is an important issue in the promotion of health of HIV infected individuals. First and foremost, disclosure to at-risk partners assists them to play a better role in either consenting or not consenting to unsafe sexual partner or drug-sharing actions to occur. Therefore, disclosure play a crucial role in decreasing the activities that favours the spread of HIV (Marks, Richardson and Maldonado, 1991); secondly, disclosure is very important in acquiring social support, thus, revealing one's sero-status is seen as an important component of the mental health of patients. Researchers in the stress-related field have postulated that, those going through stress and who disclose their sero-status live healthier and do better psychologically than those who do not disclose (Derlega, etal' 1993).

To this end, Serovich (2001) proposed a test of two HIV disclosure theories – which are – Disease Progression Theory, and The Theory of Competing Consequences. She proposed that because of modifications in HIV treatments, human beings do not present a normal pattern of deteriorating health; thus, disease progression may not be a part of the disclosure process. Another theory suggests that disclosure occurs after a cautious consideration of the positive and the negative concerns related with the incident.

Disease progression theory suggests that patients who are sero-positive will usually disclose their HIV status as they become ill and as the disease process progresses to AIDS, which often leads to admission in the hospital/clinics with resultant bodily ailment (Kalichman, 1995). Admission to hospitals requires explanation and with the fear of impending death, people will always need support in order to manage their illnesses; thus disclosure helps in accessing extra desired resources (Babcock, 1998; Holt, etal' 1998).

Researchers have documented that there exists associations between disease progression and disclosure using several guides of disease advancement. For instance, Marks, etal' (1992) asserted that as the general sign of the disease increased, disclosure to others increased. Mansergh, Marks & Simoni (1995) also carried out a survey among Hispanic men and found that, there was a significant difference in studying the association between disease progression and disclosure using the indices of time and the symptoms of the diagnosis since the disease started. They asserted that, degrees of disclosure were found to be greater among those with the symptoms of the disease than those without the symptoms and that, disclosure grew higher with time since the diagnosis of the disease. There was a significant difference among mothers, fathers, sisters, brothers, and friends and this has given a convincing indication for the disease progression theory.

There was an association between disease progression and disclosure in the consequence theory of HIV and this is weakened by the consequences one expects ensuing from the disclosure. Individuals with HIV will possibly like to disclose to their spouses once the reward for disclosing are more than the related risks. Consequences of disclosure are significant; and revealing an HIV positive diagnosis can aggravate the emotional state of the person and pose fears to his personal health. As Bolund (1990) posited that AIDS is the only illness that has similar threats to malignancy or cancer. Damaging emotional concerns of disclosure that have been recognized include denial, rejection, and seclusion. The consequences of disclosure that are positive are significant. When the diagnosis of HIV is disclosed to others, it can lead to attainment of psychological, physical, and societal resources which includes – health and care for the child, accommodation, information and medical treatment. Social care and reception are among other psychological benefits (LoveJoy, 1990)

Prominent disclosure and HIV theorists have begun to gain support on their consequence theory; to this end, Derlega, LoveJoy & Winstead (1998) posited that, the practise of decreasing threats and increasing assistance will affect the choice of disclosure which submits that, persons that are HIV positive will disclose to people who pose little threat while they will avoid disclosing to those persons who will hurt them.

Theory of Planned Behaviour (TPB)

The theory of planned behaviour (TPB) is suitable in conceptualizing the features that stand on fostering and adoption of children orphaned by HIV/AIDS. Townsend and Dawes (2007) analyzing this theory posited that, though it had intents to care for these children but accessing the care givers of these children who are willing to care will present some distinctive challenges.

Wild (2001) pointed out a number of stressors that could face these children which include – lack of finances, school drop outs, multiple losses, insecurity, lack of acceptable care and management, stigma, seclusion, just to mention a few. In these conditions, increased level of dejection, apprehension and alteration difficulties have been documented, and these poor mental health consequences will present in any circumstances they find themselves which may adversely influence prospective care givers who are willing to care for these children (Freeman, 2004). The theory is the core of the concept and it offers the impetus required for participating in a specific activity, and it is seen as the major predictor of that behaviour. Providing an opportunity to inform interventions and possible ways from behaviour modification are also offered by theory of planned behaviour; hence, a consideration of factors that affects the resolutions to care for these children orphaned due to HIV/AIDS would be crucial in guiding practice and the engagement of the care of individual child placement (Townsend and Dawes, 2004).

Three practically independent factors of intention to carry out a particular behaviour are offered by TPB. The first one is the attitudes one has in performing a particular behaviour. The assessment of the favourable or unfavourable intentions about that particular behaviour is given by the attitudes of the person performing the behaviour. The second factor is subjective norm, which denotes to perceived social force to either carry out or not to carry out the particular behaviour; while the third factor is perceived social control which denotes perceived ease or difficulty in carrying out the behaviour (Townsend and Dawes, 2007:825). The structures that are fundamental to each of the factors in carrying out a behaviour are projected as aggregates of belief and value – for instance, the care givers attitude in caring for a child orphaned by HIV/AIDS is anticipated to be a function of the believe that caring for such a child will afford him/her with a loving care setting (expectancy) this is increased by the believe that it is a very good thing to do (value) (Townsend and Dawes, 2007:826).

A prospective employing ground for care givers of children orphaned by HIV/AIDS are existing foster and adoptive parents; and those who have the care of children at heart and wish to offer destitute children with a loving home or suitable care setting, a

sense of belonging and offer the child the opportunity to live a normal life are likely to be prepared to take on the task of caring for these children orphaned by HIV/AIDS (Townsend & Dawes, 2007:839).

Nursing Care Models:

Introduction

As nursing remains to be a unique profession, it is very important that the practice of nursing and research are directed by the concepts applicable to the knowledge of nursing. When practice is being directed by theory, the nurse will be able to express the effect that nursing care can create in improving patients care management, and the health care system; because the theory becomes the lens through which the nurse sees herself in the professional practice as the theory offers explanations and details for individuals and health in a manner that is significant to the nurse (Mullen & Asher, 2007).

Care Models For Children And Families

Patient Family-Centred Care:

Patient family centred care is a cooperative partnership between patients, families, and the health care team, and this places importance on the desires of the patient and family to achieve the best type of health care. The nurse develops collaboration with the patient and family, along with other health care professionals and these features are integrated in the family centeredness in every phase of care provision. The families and the patients are treated with esteem and respect by the team members and ensure information is disseminated to every family member who is involved in the child's management (Children's Hospital Med…2011). Exceptional and skilled practice is being embarked upon by the nurse and other health care workers and this is centred on the respect they have for one another's clinical proficiency. This partnership will result in providing advanced care which will put the needs of the children first. Jasovky (2011) - in Loyola Medicine Research – Writing on new nursing care model which benefits patients and families, asserted that, the new model permits patients and families to ensure the best possible outcomes. The family members are able to consult with nurses and other health care providers about their management and the choices of the patients are taken into consideration in line with their religions and cultural beliefs.

Patient's family centred care that offers collaborative partnership between patients, families, and the health care system also favours the children situation, because when there is collaboration between the health care providers and the family members, there tend to be efficient health care outcomes. The family provides a comforting atmosphere in giving affectionate care to children during illnesses (Green-Hernandez, 2004:215).

Cultural Competent Nursing Care for Families:

In providing culturally competent nursing care to families – attending to Mexican-American Women, Eggenberger, Grassley, & Restrepo (2006) posited that, a culturally competent health care system is one that is not only available, but also respects the beliefs and culture of the families and the individual patients. The therapeutic cooperation needed to improve health outcomes will be created when the nurse respects the health care beliefs of the patients and their families. This is achieved by appreciating the healthy lifestyle practices of the patients and understanding therapeutic interventions. Understanding the cultural lifestyle and environmental control of the women and their families assists the nurse in giving flexible, suitable culturally competent care that meets the needs of the Mexican-American families.

A nurse who is assigned to take care of patients and their families must identify the importance of giving care that is appropriate and culturally acceptable (Giger & Davidhizar, 2004). Although unique differences may be noted within a particular culture, but when the nurse has some basic knowledge about the culture, it will assist her in providing nursing care that is culturally competent. When the nurse begins to administer efficient care within the cultural setting of an individual and the family with some level of awareness and knowledge of that particular culture, then, the nurse is described to be culturally competent (Campinha-Bacote, 2003; Punell & Paulanka, 2005).

Understanding the awareness of implications of health and illness in line with cultural context is very important in developing culturally competent care (Punell & Paulanka, 2005). Giger and Davidhizar presented the transcultural valuation model in 1991 as a valuation instrument for assessing cultural variables and their effects on health and illness behaviours to deliver care that is culturally competent.

Providing a suitable nursing care that is culturally appropriate is enhanced by evaluating the phenomena of that culture and respecting the belief system of an individual and his health care practices within the setting of that particular culture (Punell, 2002). Cultural identification and advancement is greatly influenced by the social groupings and the environment of that unique culture. The family, which is a vital component of the social groupings, impacts cultural behaviour intensely, and this is done through socialization process of children and/or group members. In providing nursing care to individual patients, it becomes very relevant to understand the family from a cultural perspective (Giger & Davidhizar, 2004)

The cultural nursing care for families is also applicable in the nursing of children with HIV/AIDS in the children situation; though the model addresses the Mexican-American Women, but it is essential to understand the cultural differences of the children before administering the appropriate care needed for these vulnerable children. By asking for information regarding the perceptions and cultural practices of the client, the nurse expresses sincere appreciation of the client's priorities; thus opening a door in the nurse-patient relationship that enables the nurse to establish rapport. Demonstrating respect is crucial to getting

positive health outcomes when administering appropriate care to the vulnerable children (de'chesnay, Wharton, & Pamp 2005). The nurse demonstrates cultural competency by showing respect for the natural dignity of every human culture in administering individualized care (Green-Hernandez, 2004:216)

Casey's Model of Nursing for Children:

Casey developed her model of nursing in 1988 when she was working on the paediatric oncology unit at the Great Ormond Street Hospital, London; and tagged it 'Casey Model of Nursing Care'. The model emphasized working in collaboration with children and families; and that was one of the earliest efforts to develop a model of practice specially designed for child health nursing. The model has been developed in other areas to focus upon local aspects of practice. It comprises the five concepts of child, family, health, environment and the nurse (Casey, 1993). The best person to care for the child is the family with assistance from professional health care staff, and that is the philosophy behind this model. A similar paediatric nursing model termed the – Nottingham Model emphasizes the family as client; but Casey's Model sees the child as the client (Smith, 1995).

Casey's model of nursing supports the care to be given to children with HIV/AIDS in that, it addresses the partnering of care between the nurse, the children and the family members. This takes into consideration, the collaborative care needed for children to live with this life-long condition. Watson (2005) posited that, when care is supportive and protective in this manner, a trusting-caring relationship will exist between the parties and this creates a healing environment for the patient.

Nursing Care Model for Children of Victims of Violence:

Institutionalized children victims of violence are children who need definite care, with consideration, and sympathy, because these may be deficient in their home care settings. In proposing a model of nursing care for children victims of violence, therapeutic playing was used to facilitate collaboration between the nurse and the child to define his care deficits. The therapeutic toy and playing takes the nurse into the imaginary world of the child, and the more the nurse is able to comprehend the views and feelings of the child, the more she is able to provide appropriate care (Rocha, do Prado, & Carraro, 2008). This care model contributes to nursing practice immensely. It is active, exposed and constant, and it provides children the opportunity to have a better institutional understanding, which will invariably help to reduce traumatic experiences. This model is very crucial for nurses in providing care, and in the assessment of the child's health and the violence they have experienced, as well as design future actions for the promotion of health for children victims of violence (Rocha, do Prado, & Carraro, 2008:85).

The child has the autonomy to express himself verbally or non-verbally under the atmosphere of therapeutic play which will provide him the means by which he can share his worries and concerns; this will assist the nurse to recognize the needs and the feelings of the child. The development of this model is timely because contemporary society has developed a different set of family values with reverence to children (Dong eta'l, 2003).

The Practitioner Nurse Paediatric Care Coordinator (PNPCC) Model for Hospitalized Children, Adolescents, and Young Adults with Cystic Fibrosis (CF):

The admission of a child into the hospital setting with the diagnosis of cystic fibrosis (CF) can be fearsome for the child, devastating for the family as well as for the health workers. The in flock of numerous providers of care and unaccustomed environment can displace the child's routine care. The necessity of effective and excellent care for this group of hospitalized children has led to considering this model of care (Kathy, 2007). This model used a unit-based Paediatric Nurse Practitioner Care Coordinator (PNPCC) for delivery of care, and the development of this model was to enhance the coordination of care administered to individual patients on paediatric unit.

Stille & Antonelli, (2004) posited that, United States Maternal and Child health Bureau define children with special health care needs (CSHCN) as those children *'who have or at increased risk for a chronic physical, developmental, behavioural or emotional condition and who also require health and related services of a type or amount beyond that required by children generally'*. Children with CF are termed children with special health care needs and the health care services administered to them needs coordination, especially when it requires hospitalization. Care coordination connotes partnership between nurses, physicians and other health care workers, and these personnel must be accountable when it comes to problem solving, and making plans to articulate patient's care (Lindeke, eta'l, 2002). Assessment, planning, implementation, evaluation, monitoring, support, education and advocacy are important components of care coordination.

Bender (2003) submitted that the aim of care coordination is to forestall essential and suitable care as evaluated by care providers, patients and families, who collaborate to accomplish the same task. Effective communication and adequate rapport among care providers, patients, and families were ascertained as basis for care coordination.

Kathy (2007) concluded that the PNP-CC had an established rapport with the health care workers and most of the CF patients. The PNP-CC had a significant knowledge on the bearing of chronic illness on children, adolescents and their families; especially with the management of in-patients with CF. Daily assessment of patient's progress was enhanced by PNP-CC model and this provided the stability of care needed for the children, adolescents and young adults admitted on the wards with chronic illnesses. The PNP-CC ascertained the role was substantial as it facilitated

direct involvement with the patients as she could use her nurse practitioner skills daily; therefore, children with HIV/AIDS are children with special health care needs, whose care must be planned and coordinated in order to ensure quality care outcomes.

The PNP-CC can be applicable in the coordination of the care of these children; thus, the HIV/AIDS Nurse Practitioners are especially trained in a bid to coordinate the activities of the health care personnel and other family members involved in the care. Naidoo (2011) posited that the HIV/AIDS Nurse Practitioner should use her critical reflections in establishing communities of practice and in coordinating the care given to the individual patients especially at the community level.

Other Care Models In Health Care Settings In Specialty Areas

It is pertinent to discuss the care models developed in research for health care settings in specialized areas so as to ascertain the type of care that will be administered to patients in specialized care settings.

The Synergy Model for Patient Care:

The synergy model for patient care provides the context for nursing practice and assists nurses to develop the proficiency they need in caring for patients and families. According to this model, when nurses are driven by this proficiency which tallies with patient features and desires, there will be improved health outcomes for the patient and family, the clinical setting, and the health care system. When people work with communal effort, synergy results; the goal of nursing then is not just to give routinized care, but to give individualized care that meets the needs of patients and families (Mullen & Asher, 2007). Synergy model for patient care identifies collective efforts of the patient, the family and the nurse. The patient and the patient's family are active members in the collaboration between the nurse and the patient, and therefore, direct nursing care.

Synergy Model for Spiritual Nursing Care in Critical Care Settings:

It is documented in research that spirituality and religion are variables that can affect the health or well-being of a person. Scientific investigation on spirituality and religion as it affects the health of an individual has become prominent since the 1980s (Cox, 1995 & Taylor, 2004). There is a growing accord between religion and spirituality as related components affecting the physical and psychological health, and that the study of spirituality and health has become imperative in nursing research. The relevance of spirituality and religion as it concerns the value and techniques used in nursing research cannot be over-emphasized. (Berry, 2005; Boero eta'l, 2005; Flannelly, L. Flanelly, K. & Weaver, 2002)

Smith (2006) identified challenges of providing spiritual care in critical care units and clarifies how the features of the American Association of Critical Care Nurses (AACN) synergy model for patient care, discuss spirituality, and endorse nursing actions based on the synergy model that are directed to critically ill patient's spiritual needs. Researchers basically agree that the perception about spirituality is extensive than the perception about religion, but they consented that spirituality is seen as a means by which people find meaning in their lives and ascertained that they are connected to that which is beyond the self; whereas, religion is seen as a means by which persons are devoted to formalized system of beliefs and practices (Chiu eta'l, 2004; Koenig, Judge, & Titus, 2004). Spirituality is viewed as a universal phenomenon, and people tent to exhibit the need for seeking meaning and recognition in their lives (Dobratz, 2005).

The AACN synergy model has become prominent in acute and critical care nursing, and it sees the patient as a complete person comprising the body, mind, and the spirit. This assumption posits that the patient has other needs apart from the physiological needs that necessitated his admission to the hospital. When synergy model directs nursing care of the whole person, it takes care of the psychosocial and spiritual domains of the person and not only the physiological care (Hardin & Kaplow, 2005) This synergy model gives direction in nursing patients when providing spiritual care in intensive care units (ICUs).

Smith (2006:44) submitted that, when observing the frequency and the feature of spiritual assessments, synergy model is used as the basis for research on spiritual care in the critical care setting. Synergy can be evaluated by inspecting patients as they are assigned to nurses in order to see patient's outcomes. Creating a caring and healing atmosphere in the ICU is a challenge in the hospital setting; therefore, spiritual care is very vital in creating a healing atmosphere for the patient within the context of the synergy model. This submission is very important in nursing the vulnerable populations especially those with chronic and/or long term illnesses such as children living with HIV/AIDS.

The synergy model for spiritual nursing care in critical care settings partially addresses the sick children situation, because it focuses on the soul component of the holistic being. In nursing care of the children, which is nursing the minor, the spiritual component must be addressed and stressed to the family members; older children would benefit from spiritual care of this model. Mbiti (1990:15) asserted that the religious aspect which is a symbol of togetherness and care should be taken into consideration when administering care to the community members.

Nursing Model for the Implementation of Spiritual Care in Adult Primary Health Care Setting:

Carron (2006) advocated the emergent of a related model for the intervention of spiritual care in adult primary health care setting. She posited that the pressing need for Advanced Practical Nurses (APNs) to address the spiritual component of adult patients has become crucial in nursing. In her opinion, spirituality can assist a person in coping with challenges of ill-health. Her work revealed that, as the inter-personal relationship between the nurse and the patient

increases, the opportunity for APNs to discover the patient's spiritual belief system becomes imminent. The APNs have significant roles to play in administering spiritual care to patients in adult primary health care settings; and holistic foundation is the basis for addressing the physical, mental and spiritual health care needs of the patients (Carron, 2006:3).

The spiritual care model in adult primary care settings is not very consistent with the children scenario of caring, hence it focuses on the adult in the primary care settings; though it offers the Advanced Practical Nurses the opportunity to develop reliable, trans-personal healing nurse-patient relationship in the provision of care to the patients.

In identifying new models that effectively leverage nurses, Joynt and Kimball (2008) submitted in their innovative care delivery models, that based on dialogue with leaders in the health care industry, health work force solutions established the prerequisite to label innovative care delivery models in the sense that nursing care delivery model, inter-disciplinary care delivery models with a nursing component and an acute care interface, including provisional care to home setting be emphasized. Also innovative models will be considered innovative if the efficiency of care giver is improved, as well as the quality of the performance of nurses and other care professionals. The designation of the setting, inventory and other support systems are also very important.

The primary health care delivery models can be beneficial in the children situation in that, it addresses the home care needs of the patients. African children with long-term diseases such as those living with HIV/AIDS lives within the community and at times accessing appropriate care for these children may not be feasible; especially if health care is farther from the community outfit. Eaton (2000) echoing this, asserted that, it is not every sick child that can access the children's community nursing services, should the need arise particularly if health care is not located within the community setting.

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ACCIDENT AND EMERGENCY NURSING (SPECIALTY AREA) CONTEMPORARY ISSUES [EDUCATION]

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Introduction

Emergency nursing as a discipline refers to the content and process of all the different roles nurses have in the care of a traumatized patient. Basically, nursing knowledge normally employed is derived from theory, clinical observations, as well as empirical studies. Others are knowledge derived from disciplines like ethics, esthetics and personal knowing. However, its practice especially as relate to Chemical Burns (CB) in Rivers State calls for concern for practitioners and patients.

The Belief Statement Of An Emergency Nurse

After analyzing the impact of trauma internationally and the potential for positive contributions by professional nurses in the care of the trauma patients, the Emergency Nurses Association (ENA, 2009) formulated the following belief statements:

i. The optimal care of the trauma patient is best accomplished within a framework in which all members of the trauma team use a systematic, standardized approach to the care of the injured patient.

ii. Emergency nurses are essential members of the trauma team. Morbidity and mortality of trauma patients can be significantly reduced by educating nurses to provide competent trauma care.

iii. The ENA and its constitutions have the responsibility to facilitate trauma-related, continuing education opportunities for nurses who provide care to trauma patients.

iv. The ENA supports injury prevention and control that is collaborative, specific problem within specific populations, utilizes databases, and addresses the three approaches to prevention (technology, enforcement/and education/behavioural).

Emergency Nursing Roles And Responsibilities

A collaborative nursing model utilizes the nursing process for interaction and recognizes the role trauma nurses have within the organization where they practices. (Joann Zerwekh & J.O. Carol Claborn; 2009)

Recognize and take appropriate actions in life-threatening situations, including notifying the primary care provider of the client's emergency situation.

- Evaluate client's response to emergency interventions and complete the proper documentation.
- Suggest changes in emergency treatment based upon evaluation of the client's response to interventions.
- Nurses must have the ability to identify emergent situations.
- Nurses must be able to rapidly assess and intervene when life-threatening conditions exist.
- Emergency care is guided by the principle of ABCDE.
  a. Airway/Cervical Spine
  b. Breathing
  c. Circulation
  d. Disability
  e. Exposure

- Emergent conditions are common to all nursing environments.

The roles and responsibilities the trauma nurse assumes include, but are not limited to, the following:

i. **Designs, manages, and coordinates care**

In the emergency are setting, the professional nurse is responsible for the clinical leadership and direction of nursing activities with respect to the trauma patient. The professional nurse may also be responsible for communicating with health care members outside the emergency setting (e.g., the intensive care unit, operating room, labour and delivery), and/or nursing staff located in other facilities where a trauma patient may be transferred. The emergency nurse is often the team coordinator responsible for organizing, through effective use of communication skills, the care of the trauma victim.

ii. **Engages in and promotes a nurse-patient relationship to provide care.**

A nurse-patient relationship not only results in direct patient care, but also promotes patient care, promotes patient advocacy and patient education.

The nurse-patient relationship suggests that the "professional power" the relationship generates for the nurse is actually being given by the patient in exchange for knowledgeable and safe care. Within a holistic view, the emergency nurse engages in relationships with individual patients, families, and often communities.

iii. **Documents the care of the traumatize Patient**

The nurse's documentation of care provides

an important source of data to evaluate the extent, appropriateness, quality, and timeliness of care. Analysis of the emergency team's performance serves as an important resource for identifying educational needs of the staff and may contribute to a database such as a trauma registry, which is used to monitor and evaluate trauma care.

iv. **Evaluates research and incorporates appropriate findings into practice.**

Nursing Process To Emergency Nursing

The standards of emergency nursing practice developed by the ENA are the standards that describe the implementation of the nursing process. The ENA had itemized the nursing process into six phases: assessment, nursing diagnosis, expected outcomes, planning, implementation, and evaluation. This nursing process forms the basis for clinical decision-making (Kozier and Erb's; 2008).

i. Performs an organized, initial assessment of the trauma patient to identify the extent and severity of injuries

In some settings, the nurse is the first health professional to interact with the patient and may be solely responsible for patient assessment. In other settings, the nurse may function as a member of a trauma team with predefined responsibilities, one of which may be patient evaluation.

ii. **Determines appropriate nursing diagnoses based on assessment findings**

Nursing diagnoses are the basis of a classification system that conceptualizes the patient's current health status and identifies problems that develop. To arrive at a nursing diagnosis, the nurse must make judgements based on the patient's condition and assessment findings. The North American Nursing Diagnosis Association (NANDA) currently has 150 labels that can be used to summarize a patient's health status. In critical and/or life-threatening circumstances, assessment and determination of nursing diagnoses may occur simultaneously and spontaneously. Actual nursing diagnoses are differentiated from risk diagnoses. The formulation of actual nursing diagnoses are based on the patient's signs and symptoms. The formulation of risk diagnoses are based on whether the patient is vulnerable to certain problems because of risk factors or other contributing factors.

iii. **Identifies specific outcomes as patient-centered goals based on nursing diagnoses.**

Specific patient outcomes are often determined simultaneously when nursing diagnoses are being formulated. For example, the nurse caring for a patient who is having difficulty breathing may simultaneously identify the nursing diagnosis as being an altered breathing pattern and one outcome of intervention as being the return of the patient's respiratory rate to normal. In the emergency care, nursing diagnoses and expected outcomes are listed together.

iv. **Develop a plan for achieving identified patient outcomes**

In the settings associated with care of critical trauma patients, the planning phase of the nursing process may occur simultaneously with the intervention phase. Ideally, the plan of care should be written to document the nursing diagnoses, expected outcomes, and interventions. The plan of care, developed in consultation with the patient and his or her family, should address discharge plans, if indicated. Standardized care plans for specific types of trauma patients may serve as a basis for developing an individual plan. In the emergency care, the planning and implementation phases are presented together.

v. **Implements interventions according to priorities based on threats to airway patency, breathing circulation, and/ or any compromises to the function of body system**

Interventions are conducted according to a sequence whereby airway/cervical spine stabilization, breathing, and circulatory problems are addressed first. The degree of independent or interdependent nursing interventions is a function of state nurse practice acts, institutional policies, and educational nursing interventions is a function of state nurse practice acts, institutional policies, and educational background. In some settings, the development of trauma protocols has enabled the professional nurse to function with a greater degree of autonomy in providing care to the trauma patient.

vi. **Evaluates and monitors the patient's responses to interventions.**

An analysis of the trends in the patient's responses to the injury event and interventions will assist all the members of the trauma team to adjust their care in order to achieve optimal patient outcomes. The evaluation phase is, therefore, not always last, but is integrated into the entire process as an ongoing activity.

Emergency Nursing: The Triage Management Approach

Triage is derived from a French word meaning "to sort." The most knowledgeable Emergency Nurse becomes the Triage Officer (TRO). The TRO calls for additional help if needed, assigns available personnel and equipment to patients, and remains at the scene to assign and coordinate personnel, supplies, and vehicles. (Daniel L. M. F. & O'Keefe; 2005)

Primary Triage

When faced with more than one patient, your goal must be to afford the greatest number of people the greatest chance of survival. To accomplish this goal, you must provide care to patients according to the seriousness of illness or injury while keeping in mind that spending a lot of time trying to save one life may prevent a number of other patients from receiving the

treatment they need.

To properly triage a group of patients, you should quickly classify each patient into one of four groups:

- **Priority 1: Treatable Life-Threatening Illness or Injuries.** Airway and breathing difficulties; uncontrolled or severe bleeding; decreases mental status; patients with severe medical problems; shock (hypoperfusion); severe burns.
- **Priority 2: Serious But Not Life-threatening Illness or Injuries.** Burns without airway problems; major or multiple bone or joint injuries; back injuries with or without spinal cord damage.
- **Priority 3: "Walking Wounded."** Minor musculoskeletal injuries; minor soft-tissue injuries.
- **Priority 4: (sometimes called priority 0):** Dead or fatally Injured. Examples include exposed brain matter, cardiac arrest (no pulse for over 20 minutes except with cold-water drowning or severe hypothermia), decapitation. Severed trunk, and incineration.

Patients in arrest are considered priority 4 (or 0) when resources are limited. The time that must be devoted to rescue breathing or CPR for one person is not justified when there are many patients needing attention. Once ample resources are available, patients in arrest become Priority 1.

How triage is performed depends on the number of injuries, the immediate hazards to personnel and patients, and the location of the backup resources, local operating procedures will give you more guidance on the exact method of triage for a given situation. Basic principles of triage are presented here.

The first triage cut can be done rapidly by using a bullhorn. PA system, or loud voice to direct all patents capable of walking (Priority 3) to move to a particular area. This has a two-fold purpose. It quickly identifies the individuals who have an airway and circulation, and it physically separates them from patients who will generally need more care.

You must rapidly assess each remaining patient, stopping only to secure an airway or stop profuse bleeding. It is important that you not develop "tunnel vision" – spending time rendering additional care to any one patient and thus failing to identify and correct life-threatening conditions of the remaining patients. If Priority 3 patients are nearby and well enough to help, they may be employed to assist you by maintaining an airway or direct pressure on bleeding wounds of other patients. Priority 3 patients who have been reluctant to leave ill or injured friends or relatives may be permitted to stay near them where they can be of possible help later.

Once all patients have been assessed and treated for airway and breathing problems and severe bleeding, more thorough treatment can be initiated. You will need to render care to the patients who are most seriously injured or ill but who stand the best chance of survival with proper treatment. This requires treating all the Priority 1 patients first, Priority 2 patients next, and Priority 3 patients last. Priority 4 patients do not receive treatment unless no other patients are believed to be at risk of dying or suffering long-term disability if their conditions go unattended.

Usually patients will be immobilized on backboards if necessary and carried by "runners" to the appropriate secondary sector (as described below). Extensive treatment does not occur at the incident site since it is in a hazard zone and since it could impede rescue and initial treatment of other patients.

Nursing Assessment, Monitor And Intervention

- Head – to – toe assessment
- Airway patency (especially burns of the face that occur in closed spaces)
- Month, nose, and pharynx for singed hairs (evidence of inhalation injury)
- Oxygenation status.
- Vital signs, heart rhythm (especially with electrical burns)
- Fluid status
- Circulation status (hypovolemia, decreased cardiac output, edema, third spacing).
- Size and depth of burns – body surface area (BSA), rule of nines, Lund-Browder and Berkow methods.
- Renal function (urine output decreased first 24 hr)
- Bowel sounds (commonly reduced/absent)
- Stool and emesis for evidence of bleeding (ulcer risk).

Nursing Interventions

- Ensure airway patency (intubation, tracheostomy) and provide oxygen as needed (for example, mechanical ventilation).
- Maintain the client's thermodynamics (warm room, cover with blankets)
- Monitor vital signs, pulses, capillary refill (particularly for evidence of shock and adequate tissue perfusion).
- Administer fluids, inotropic agents, and osmotic diuretics as needed to maintain adequate cardiac output and tissue perfusion.
- Begin IV fluid and electrolyte replacement.
- Keep the client NPO (reduced gastrointestinal blood flow, risk of ileus, Curling's stress ulcer). Administer H_2-antagonists.
- Elevated the client's extremities (increase venous return).
- Encourage the client to cough and deep breathe and to utilize incentive spirometry.
- Administer tetanus prophylaxis per hospital protocol.
- Prevent infection and implement infection control measures.
- Wound care and dressing changes should be done with surgical aseptic technique as ordered; use pressure dressing to prevent scarring and edema.
- Monitor and assess for pain.
- Encourage range of motion exercises to prevent immobility and the use of splints to maintain

correct positioning.

➢ Collaborative care is vital for these clients. Physical therapy, occupational therapy, dietary, pharmacy, social services, and other disciplines should be involved in the plan of care.

➢ Initiate referrals as appropriate (counselling, support groups).

With above management prepared for a burns patient's by the emergency nurse, most of the patient where seen in the hospital with sepsis in a late hour. Management of this patient depends on the golden hour and the prompt arrival to the hospital.

Recent Challenges To Triage Management Approach On Fuel Explosion (Burns) Dated On The 11/07/2012. In Rivers State

In this triage management two categories of barriers exist and they include:

- Provider barrier
- System barrier

Documentation is very poor due to lack of statistical data.

- Causes of chemical exposure.
- Morbidity rate from chemical exposure

Lack of continuity of care

- Poor collaborative management
- Efficiency of care

Lack of Public Awareness of Chemical Burn

- Keep people separated from excessive heat
- Separate with a barrier
- Separate by time
- Use of fire extinguisher

Experiences in recent past suggest that exposure of fuel tank was due to bad road and proliferation illegal refineries with poor quality of products, should be co-curtailed.

Lack of Emergency Medical Services

- Establishment of emergency centres across the three senatorial districts.
- Lack of adequate manpower. More personnel (A&E nurses and burns nurses) should be trained in the places of burns.
- Inadequate facilities

(i) Provision of working materials

(ii) There should be no out of stock syndrome.

- There should be promptness to service e.g in cases of fire outbreak

Poor Policy Implementation: Finance, drugs, bedspace and 24hrs emergency medical services. www.chancellorsonline.com

Models of Service

- The group envisages a service with main A&E departments based at the major acute hospitals, with multi professional specialist teams led by Consultants in Accident & Emergency Medicine. As an integral part of this team, nurse led departments, such as minor injuries units could be established. These nurse led departments would be based either within the core A&E department or at a remote distance from it.
- Key to these Minor Injuries Units will be the development of a clinical network and the rotation of staff between the core and peripheral units. As part of the continuing professional development and maintaining professional standards of practice, staff in minor injuries units should work a minimum of one week and ideally one month a year in an A&E environment. This period should be tailored and extended to meet individual needs as required.

Education

1. The Group recommends that education programmes should:

Be competency based; Be flexible providing a pathway to higher level qualifications if so desired by the practitioner;

Equip nurses with the skills to practice within all A&E environments;

Be developed in partnership with clinical practitioners;

Where appropriate must make the best use of opportunities for multi professional learning;

Be delivered in innovative ways, through for example work based and on line learning.

Quality

1. The development of clinical guidelines needs to take into account their acceptability to patients, professionals, commissioners and the public and reflect the needs of the new equality legislation.

2. Protocols for care and treatment cannot be developed by any one professional group, but should be developed by the clinical team. It is vitally important that all professionals involved in the care and treatment of patients are involved in and agree with their content and application.

Aggression and Violence

1. Nursing staff need to be trained adequately to anticipate and deal with violent patients. This training should be regularly updated and involve all staff who work in the A&E and minor injuries environments.

2. Risk assessments should form part of a regular review of services and should involve alongside relevant members of the A&E team, including appropriate security staff.

3. A system, which records violent incidents or acts of aggression, verbal or physical, should be in place.

4. A key and integral part of the management process is the support and care of patients and staff following violent and aggressive incidents.

(Sujata Sarabahi; 2010).

Conclusion

A&E services are valued by local communities, patients and their families must have

confidence in the clinical standards of care delivered. Many A&E units do not have specialist multi professional teams providing care, nor do they provide the full range of services required to support the management of patients with major trauma or major illnesses.

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THE EFFECTIVENESS OF THE IMPLEMENTATION OF EDUCATIONAL REHABILITATION PROGRAMMES FOR INMATES OF THE PORT HARCOURT PRISONS IN RIVERS STATE, NIGERIA.

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Abstract

The purpose of this study was to ascertain the effectiveness of the educational programmes for the rehabilitation of prisoners in Port Harcourt, Rivers State. Three research questions were formulated and two hypotheses tested. The research adopted a survey method where simple random sampling techniques were used to select instructors, ex-convicts and inmates who responded to two sets of inventories. A five (5) point likert scale was used to sample responses. The raw data obtained were analyzed using the Analysis of Variance (ANOVA). It was discovered that the content and educational package in Port Harcourt Prisons cannot enhance adequate skills acquisition. The workshops, equipment and infrastructure in Port Harcourt Prisons are grossly inadequate coupled with poor maintenance culture. The problems undermining the vocational training programmes include: poor basic training and low academic qualification of instructors, no motivation, poor updating of knowledge of instructors through seminars, workshops, conferences etc. There are no support services to discharged prison inmates; and; the effectiveness of the overall educational programme is grossly inadequate. The recommendations were that More befitting workshops should be built; social education and not just vocational education should be introduced as part of the rehabilitation programmes for prisoners; needs of learners (inmates) should be identified and special curriculum developed to fill these needs. More qualified instructors should be employed; quality career counselors should be engaged into the prisons services.

Background to the Study

Imprisonment was seen by the society as the end of life, in that the lives of ex-convicts were marked with frustrations, social degradations and stigma. Later the Nigerian government realized that prisoners are still citizens of the country. They could live meaningful life after the jail sentence and could contribute immensely to the progress of the nation. Based on this, the government designed some vocational training programmes aimed at making the prison inmates self-reliant and useful to themselves and the country at the end of the jail term.

Vocational training programming is one of the programmes implemented in all the Nigerian prisons to reform and rehabilitate the inmates. Ukoha (2003) affirms that the training schemes aim at assisting the prison inmates to acquire occupational skills in various approved trades. He also states that the acquired skill complements other programmes such as religious and moral instruction, discipline, basic education and counseling to reform and resettle the discharged prison inmates.

Vocational training scheme was introduced in Nigerian prisons in 1946. Since its inception, it has been a viable tool in converting inmates to more useful members of the society. The vigour in which the training programmes are implemented indicated that Nigeria has adopted the universal penal philosophy which aims at making inmates of the prison better at the time of discharge from the prison than at the entry into the prison yard. Participation in a particular trade is compulsory for all convicted inmates serving a jail sentence of more than two years (Nigerian Prisons Service (NPS), 1998). Involvement in these training programmes is however determined by the nature of the offence convicted for and security risk involved. Nigerian Prisons Service (1992) confirms that non-participation of the training programmes by any qualified prisoner for whatever reason is a punishable offence.

Vocational education can be rightly seen as education that prepares youths and adults for employment in a specific occupation or family of occupations by providing experiences which enable them to develop competencies needed for such employment (Wordu, 1999). Vocational education according to UNESCO (1978) is education designed to prepare skill personnel at lower levels of qualification for one or a cluster of occupations, trades or jobs. The aim of vocational education is training for gainful employment and retraining for progress within the occupation, as believed by Uwameiye (1992).

All these ideas point to the fact that vocational trainings as practiced in the Nigerian prisons are aimed

at achieving career, skill and job orientations. Vocational training as a field has no limits as to the types of occupations. It is for those who are going to be employed in commerce and industry or any type of self-employed enterprise, where tools and machines are used for the operation, processing, production, preservation and distribution of goods and services.

The Nigerian government appreciates the fact that the major ways of solving unemployment problems is by making the citizens self-reliant, thus vocational training is seen as an indispensable option. Most especially, the introduction of vocational training pogrammes in Nigerian Prisons to reform and rehabilitate the prison inmates. The government's effort to boost vocational education does not end with mounting variety of vocational education programmes, efforts must be made to evaluate and continuously monitor the programme; to ensure the realization of the objectives. Based on this Wordu (1999), states

After the programmes have been mounted, more developmental strategies such as regular assessment of the facilities, regular monitoring of the operation and validation of the entire organization must be made a continual process. Such concerted efforts must be aimed at optimizing the instructional outcomes. If on such realization of the above condition that the assessment of how learners interact with their instructional facilities becomes highly imperatives. This is achieved by reducing functional barriers between the leaner and his instructional environment, facilities, tools and operations. This is to say that all hands must be on deck to ensure that these laudable vocational training programmes are implemented effectively and efficiently by ensuring that the principles of vocational education are observed to the letter. In view of the fact that by law ex-convicts are banned from working in the civil service, and the private organizations also discriminate against them in employment, it thus becomes evident that the utilization of the acquired job skill is the only means of livelihood open to inmates after completing their jail term.

More so, imprisonment isolates the inmates from their loved ones and other social interactions. This social apathy and imposed isolation, in addition, resulting from imprisonment, create unimaginable social and psychological problems for the discharged inmates. The resulting frustrating condition is capable of causing anxiety and depression, which could graduate to further crime involvement. The unbearable handicaps encountered by the inmates upon discharge from prisons, informed Nigerian government to adopt the philosophy of reformation and rehabilitation, which is aimed at reorienting the inmates thereby making them useful and productive to the society. The reformative and rehabilitative training programmes are based on the premise that joblessness could result to crime, which leads to imprisonment, then work through skill acquisition, in the prisons could also be used to reform and rehabilitate prisoners. As a result, crime wave in the society will be reduced.

An overview of the above stated predicaments of the prison inmates has necessitated this research.

Theoretical Framework

Not much has been done in the area of correctional programmes as it relates to the educational programmes in the rehabilitation of prisoners. Studies which have been carried out tend to focus on organization rather than educational programmes for rehabilitation

Glaser (1967) discussed the post release prospects of inmates who participated in educational programmes. Musa (1978) provided an analysis of educational programmes in selected Nigerian prisons. These researchers intend to look at the organizational barriers to the effectiveness of the educational programmes being provided in the Port Harcourt prisons.

Statement of the Problem

The close nature of our penal system prohibits external bodies from contributing resources, which could have enriched the available educational programmes. This has led to the inability of prisons to determine the effectiveness of the educational programmes in the prisons after post release of inmates. Some group of officials see the provision of educational programmes as the hallmark of prisons. Even where educational programmes are provided there is evidence of a high rate of recidivism, Glaser (1964). What this translates to is that the educational programmes have failed. This has led the researchers to investigate the effectiveness of educational programmes in Port Harcourt Prisons in rehabilitating prisoners.

Significance of the Study

Overtime there has been this preponderant attitude that men serving jail sentences cannot be reformed but this need not be so. It is as a result of an erroneous attitude and wrangling between the containment and confinement school of thought *vis-a-vis* the school of thought regarding rehabilitation that has created ineptitude in our penal system.

Another significance of this study is that it will provide a basis for finding solutions to problems, real or imagined. Hopefully, this research will help in proffering solutions and serve as an outlet for further research. One would not begin by saying that on an observatory note, the need to fashion out more enriching educational programmes in our prison setup is over due.

It becomes paramount that the designers of the educational programmes existing within Port Harcourt prisons need to be creative and democratically oriented if their educational programmes are to succeed and continue to be sustained. Essentially, this research work is intended to bring about a reduction of crime rate so that our society could be free of the ills associated with crime.

A paralled significance of this study is that our penal system needs not to operate in isolation since society is made up of a variety of systems namely, the

Judiciary, the Executives and even the Legislature. All need to make their honest input in order to make Nigeria in general and Rivers State in particular a crime free zone.

Purpose of the Study

As indicated by the research, we can enumerate the following as falling under the purpose of the study.

(a) To determine the different types of educational programmes existing in Port Harcourt Prisons and their relevance in the rehabilitation of prisoners.

(b) To evaluate the attitude of inmates toward these educational programmes and their instructors.

(c) To determine the educational qualification of instructors and their effectiveness in teaching.

Research Questions

(a) What are the different types of educational programmes existing in Port Harcourt prisons and what is their relevance to the rehabilitation of prisoners?

(b) What is the attitude of the inmates towards these educational programmes and their instructors?

(c) Are the instructors of these programmes adequately qualified and effective in teaching?

Research Hypotheses

(a) There is no significant relationship between the educational programmes carried in the prisons and their relevance to the rehabilitation of prisoners.

(b) There is no significant relationship between instructors' qualification and their effectiveness in teaching.

Scope of the Study

The scope of this research has to do with effectiveness and implementation into the various educational programmes that are made available to prisoners with an intent to rehabilitating them.

Limitation of the study

It is instructive to note that the Port Harcourt prison shelters four categories of inmates. These are those awaiting trial, the asylum inmates (i.e. neuro-psychiatric patients), the condemned criminals and those serving a jail sentence. The result of the research is limited to the inmates that are serving a jail term. It cannot be generalized to embrace other categories of inmates.

Definition of Terms

1. **Effectiveness:** How often a programme or an activity is carried out thereby capable of causing a desired or decisive result.

2. **Education:** This refers to an instruction or training by which people learn to develop and use their mental, moral and physical powers.

3. **Programmes:** A list of items planned in a printed list. The performance itself is to be executed.

4. **Educational Programmes:** Concerned with training and teaching. A plan or sequence of things to be done or executed with respect to timing.

5. **Rehabilitation:** This according to Elias (ed.) (1968:153) "involves encouraging the prisoner to abstain from criminal behaviour by providing him with social, educational or vocational facilities to such an extent as to enable him conform to the social pattern of life outside the prison world".

6. **Recidivism:** The narrowest definition of recidivism is in terms of whether or not the same individual comes back into the same institution after having been released from that institution or system at some point in time. The broadest definition is in terms of whether or not he commits another crime anywhere, whether or not he is apprehended and convicted.

7. **Prison:** As defined in the Columbia Encyclopedia (1724) is a "place of confinement for the punishment and reform of criminals".

Literature Review

Deviant behaviour which in most cases lead to a confrontation with the agencies of law has been an ever present phenomenon in the history of mankind. No matter the steps taken to curb its persistence, it shall continue to manifest itself in the form of crime and other such related vices. As such, we cannot stop dealing with crime because society cannot afford such a luxury.

For recidivism to be reduced (for it would amount to an utopia to eliminate recidivism), there can be no better starting place than the prison itself. One should however be cautious in making such an assertion because as stated by former United States of American President, Mr. Richard Nixon in his address to the National Conference on corrections at Williams Burg, Va., in December 1971:

> *Our prisons are still colleges of crime, and not what they should be; the beginning of a way back to a productive life within the law… Locking up a convict is not enough. We must offer him the keys of education, of rehabilitation, useful training, of hope – the keys he must have to open the gates to a life of freedom and dignity. (Carter, and Wilkins, 1976).*

This statement reflects the widespread and growing disenchantment with the ability of closed, security-oriented institutions to "change" offenders, a disenchantment which is shared by the public, corrections officials, and prisoners.

In order to put this point into clearer perspective, it is the intention of these researchers to divide it into sub-sections namely:

(a) Organizational structure of Nigerian Prisons and their respective functions.

(b) Crime and deviance in Nigeria.

(c) The philosophy behind imprisonment.

(d) Educational programmes in prisons in selected countries.

(e) Recidivism or return to crime; its causes.

(f) The objectives and approaches to rehabilitation.

Functions of the Nigerian Prisons

The Nigerian Prisons Service was established in 1916 under the auspices of the native authority ordinance. The government of the day deemed it proper that for individuals who exhibited some anti social behaviour which is not in conformity with the norms and mores of the society that have been reprimanded and possibly sentenced should have a place where they are to serve their prison sentence. The anthological view therefore is that the prison should essentially be a holding place for such identified recalcitrant individuals. The point that is being made here is that the prison, contrary to public expectation is not a place for administering punishment. Rather it is a place where those committed to them who are convicts are transformed from their evil ways to be coming better citizens of the country.

Following from the above remark therefore, it behooves at this point to delineate and possibly explain the functions for which the prisons were set up. Haleck and Whyte (1977) inform us that the four basic functions of the prisons are:

a) To rehabilitate prisoners.
b) To deter them and others.
c) To incapacitate them.
d) To make them pay for their crime.

i) On the issue of rehabilitation an identification of the psychological disposition of individual convicts have to be drawn up. The reason for this is not far fetched. Everybody have their own individual differences and as such reasons leading to the commitment of a wrong doing may be different from other individuals. Sequel to this discourse is the fact that while some prisoners may be in need of some modicum of skills acquisition such as carpentry, tailoring, hairdressing and purely educational programmes, others may be in need of some therapeutic arrangement or another such as fighting, alcoholism, drug abuse etc. which may have brought about an exhibition of excessive anger or frustration.

It is in this light therefore that we find that approaches to rehabilitation could vary and this again is dependent on the caliber of the head of the prison organization and the course he so desires to chat. There are those who believe that all criminals are evil and as such you fight fire with fire. Put differently, punishment should be the hallmark of the prisons organization. However, if we take a cursory look at due process we would find that it is the law court that punish by serving the convicted a prison term. On the other hand, the prison primarily functions as a holding house or custodian of prisoners and only discharges such prisoners when they have been duly informed by the law court.

Still on the question of rehabilitation, in the Nigerian context because of the very nature of our penal system being one that is closed security-oriented, the general public more often than not is not taken into consideration in the overall scheme of things, hence the high rate of recidivism. The present trend of penal systems in most advanced countries is a forge towards community-based-corrections where by resources both human and capital are generated and derived from community itself. This approach has a tendency of carrying everybody along; the courts of law, the prison officials, the prisoners, employers of labour, educational institutions, families of incarcerated felons and the society at large. This approach primarily has a tendency of reducing stigmatization.

ii) Another identified function of the prison is that of deterrence of prisoners and others. The word prison evokes different reactions from different people. Over time prisons have come to be called different names. For instance in an article Prison-Wikipedia, the free encyclopedia (2007) identified terms for prisons such as big house, the pen, the hole, beau town, stir, The Yard, can, clink, joint, jaw, cooler, hoosegow, lockup, graybar, hotel, concrete Hilton, lockdown, nick, poker, slammer, up the river – a similar range of terms for imprisonment, including doing time, bird, doing a bid, being a guest of Her Majesty, porridge, walking for Copper John etc.

Identification of these various horrid terms stems from two facets namely from society at large, and from the prison officials in particular. Nobody in their senses would want to be referred to by such names. Such names have a way of segregating individuals from others. The issues of deterrence serve two purposes which are:

(a) Avoidance of stigmatization from peer groups and elders alike.

(b) Arising from the jail term imposed which more often than not is accompanied with hard labour.

There is therefore the inherent fear in people to avoid committing acts that may eventually land them in prison. This deterrence factor is symbolic in the sense that even when an individual feels that he may not be caught in the course of perpetrating an evil act, there is still that caution stemming from "What if am caught?" People place value on their name, their family name and how society see them. Nobody would want to loose all that with a puff of smoke.

iii) The incapacitating factor which the prisons serve is of equal value like the rest of other identified function. When an individual has been apprehended therefore leading to the process of incapacitating him, it follows that the environment under which he has been operating would automatically change. In effect instead of him being the master of his environment as he formerly was, he now becomes incapable of controlling his present environment which is the prison. Unlike before where he could order, orders are now issued to him. This can be very traumatic and therefore the need to avoid such further experiences.

However, there is a tendency for a vicious circle to arise in the sense that once a criminal is removed from his place of operation another

automatically takes his place. Unless very severe punishment is meted out to the former occupant can we witness a decrease in crime in such related crime.

iv) The last function of the prison as identified has to do with making prisoners pay for the crime committed. First and foremost a prison sentence removes you from the society at large. The prisons also entertain to a minimal level periodic family visits under strict supervision. Those aspects of life that have been taken for granted are now curtailed. Man in a state of nature wishes for freedom and when human rights are being denied it gives food for thought. Such denial of human rights does not end only with incarnation; even after incarnation the possibility of being employed in a governmental parastatal or even a private organization is very remote if not impossible. As such the inherent need for rational beings to avoid imprisonment at any point in their lives.

Organizational Structure of Nigerian Prisons

For a proper discharge of the functions and responsibilities of any organization, it must have an organogram showing the different offices, the hierarchy of offices and their various responsibilities. Same can be said of the Nigerian Prison which is headed by the Controller General of Prisons.

Head of Prisons

As earlier mentioned, the Controller General is the head of all prisons located in Nigeria. He is responsible to the Federal Minister of Interior through his Permanent Secretary in matters relating to the Nigerian Prison Service. The Controller General is assisted by other members of staff in carrying out his job description which includes:

(a) The administration of the prison service under his command, the Federal government policies and guidelines on the safe custody, reformation and rehabilitation of inmates.

(b) Initiate policies relating to prisons administration in Nigeria.

(c) Advice government on matters relating to modern method and approaches on penal system.

(d) Co-ordinates the work of all directorates.

(e) Maintains regular consultations with international bodies on penology and criminology.

(f) Examines complains from members of staff and the public with a view to solving them.

(g) Initiates policy guidelines on rehabilitation of prisoners.

Prisons Headquarters Command

The Nigerian prisons like most modern day organizations are hierarchical in composition. The organization starts with the prison headquarters command made up of staff officers who are directly under the auspices of the Controller of Prisons. They assist the Controller General to:

a) Provide him with relevant information and data.

b) To implement his plans by issuing detailed orders.

c) To offer advice in the overall administration of the organization.

Divisions of the Prisons Headquarters

Primarily the prisons headquarters is divided into five divisions headed by grade fifteen officers. The divisions are namely:

(a) **Inspectorate Division**: The division is headed by an Assistant Director of Prisons (ADP.INSP.). This division has as its objectives:

i) To ensure that escapes and prison disturbances are reduced to the barest minimum and that prisoners serve their sentences as prescribed by law.

ii) To ensure that all prisons run smoothly according to laid down rules and erring staff are punished and deserving staff duly rewarded.

iii) To achieve governmental reformative treatment in special prison establishment, i.e. Borstal Institution and Borstal Remand Centres open prisons and detention centres – preparatory to eventual release.

iv) To ensure that the right calibers of persons are recruited into the service, properly trained and deployed.

The Head of the Inspectorate Division: Is responsible to the Director of Prisons for the implementation of all programmes affecting the entire inmate staff population in all prisons establishment in matters relating to his division. Other job responsibilities include:

Planning, developing and directing policies, progammes and procedures related to a number of reformative policies as it affects the division in the entire prisons establishment in the federation;

Identifying special training needs for staff and arranging for specific programmes accordingly; ensuring true planning and budgeting, effective and economical utilization of men, machines, money and materials for achieving the set objectives of the Nigerian Prisons Service.

The inspectorate division of the Nigerian Prisons consists of six main units:

1. Security and intelligence unit.
2. Inspection and discipline unit.
3. Research and publication unit.
4. Special prison services unit.
5. Planning and statistics unit.
6. Staff development and training unit.

Each of these units is headed by a Controller who is a grade level fourteen officer. Each Controller reports to the Assistant Director of Prison and in the absence of an Assistant Director of Prisons, the most Senior Controller takes charge of the division.

1. **Security and Intelligence Unit (S and I)**

This unit ensures that escape ad prison disturbances are reduced to the barest minimum and also that prisoners serve their sentences as prescribed by law. Other responsibilities include:

- Advises Assistant Director of Prisons on matter bordering on security and intelligence.

- Ensures the preparation of budget for the unit.
- Responsible for training, development of arm squad when established.

Comments

While admitting that the responsibilities of this unit can not be over looked, we need to state whether the unit over time have been achieving its set objectives? Cases abound wherein there have been security lapses and prisoners have been reported to have made a quick get-away. Equally prison disturbances are not new the world over. Agodi Prisons in Ibadan some time in 2007, some prisoners and warders lost their lives.

If the security and intelligence unit is alive to its responsibilities, such reported cases of escapes and prison disturbances could have been adverted without lose of lives and property.

2. Inspections and Discipline Unit (I and D)

The unit co-ordinates and direct the staff and ensures that all the prisons are operating according to law, and that when flaws are detected they are normalized and erring staff punished and deserving staff rewarded.

Some of the major activities of this unit include:

- Ensuring that all State Controllers carry out quarterly inspection.
- Defining areas of priority needs of the various prisons to the Assistant Director of Prisons.
- Ensures the recommendations from Divisional Disciplinary Committee (DDC) are, sent to appropriate quarters for ratification and verified cases are properly conducted.
- Advises Assistant Director of Prisons (ADP) on the necessary controls needed for effective implementation of all prison activities.

Comments

Granted periodic inspection of prisons installation needs to be carried out. If this is so done before prisons start experience congestion problems, appropriate measures would have been taken. Unfortunately, the reverse is the case and from experience fire brigade approach tends to be the order of the day which is a Nigerian mentality.

For one to discipline another, one needs to be disciplined. There have been reported cases of warders collecting money from prisoners. So as the saying goes, he who pays the piper dictates the tune. In order words, we find a situation where warders forget their job description arising from greed; therefore they are at the beck and call of the inmates. Significantly also, mention should be made regarding necessary in service training in order to update the knowledge of members of staff. In this wise, members of staff are required to present their certificate for periodic inspection.

3. Man Power Development and Training Unit (MDT)

This unit is responsible for ensuring that the right calibre of persons are recruited into the service, trained and properly deployed in order to improve departmental standard, enhance efficiency and productivity.

Other related activities of this unit include:

- Recommendation to the Assistant Director of Prisons the number of staff each state should recruit based on available vacancies.
- Suggests proposals for staff training.
- Studies staff records for purpose of identifying staff with special skills for effective development and training.

Comments

The issue of god-fatherism permeates all aspects of Nigerian life. The Nigerian Prisons Service is not left out in this scheme of things; it is only those members of staff that are loyal and obedient to their superiors that are sent on courses abroad such as to India, Britain and more recently United States of America. One would want to believe that this procedure is a negation of management practices. Equally disheartening is the fact that some prisoners are made to teach other prisoners especially in the purely educational programmes. One wonders what kind of learning take place. This situation has led to the public regarding our prisons as colleges of crime.

4. Special Prisons Service Unit (SPS)

The role of this unit is to achieve governmental reformative treatment in prisons special centres i.e. Borstal Institutions, Borstal Remand Centres, Open Prisons and Detention Centres – Preparatory to Eventual Release.

The job activities include:

- Makes recommendations, in respect of types of treatment ideal for inmate of detention centres, Borstal Institution, Borstal Remand Centres and Open Prisons.
- Ensure that all types of offenders brought into the centres are properly classified.
- Recommends appropriate actions from time to time on how to satisfy the training needs of inmates in the special prison centres.

Comments

On paper, all these seem reliable but in actual sense the implementation is usually with a default. When we talk about special prison service in the Nigerian context, we discover that it is just all lip service. On the 9th of October, 2007 on NTA Tuesday live hosted by Aliyu Baba Barau, the Controller General of Prisons, Mr. Olushola Ogundipe mentioned some existing model prisons in Nigeria namely: the Kakuri Prisons which is an open prison and the Ilesha Prisons which is an industrial prison.

The questions are how industrial is the Ilesha Prison and how open is the Kakuri Prison and if our match is towards erecting model prisons, what countries have we borrowed these models from?

5. Planning and Statistics Unit

This unit collects statistical data for planning towards further needs of the Nigerian Prison Service. The activities of this unit include:

- Concept development (e.g. preparing prisons to be self sufficient).
- Project monitoring (e.g. review of terms and conditions of service of staff) and suggesting proposals for smooth implementation of improved plans.
- Advises on building of new prisons and possible sites and closure of existing prisons giving reasons.

Comments

Planning is an essential ingredient for the realization of stated objectives; a man without a plan is like a ship without a compass. It has become a rule for most people to lay failure of achieving objectives at the door step of funding.

When prisons talk about self sufficiency, given the available manpower and planning we believe that such an ideal is possible. However, in the Nigerian context a big question mark usually looms overhead. To the best of ones knowledge, no existing prison in Nigeria has been shut down unlike what we have in United State of America such as the closure of Alcatraz. On the other hand the trend has been tilting towards erection of new prisons from the time of John Shagaya as Minister of Internal Affairs to present time Interior Minister Godwin Abbe.

6. Research and Publication Unit (RP)

Research and Publication Unit is responsible for updating rules and regulations with the view that the prisons organization is dynamic in nature.

- The unit gathers necessary data from the various types of departmental returns, analyses the data for recommendation to the Assistant Director of Prisons.
- Carries out research.
- Co-orporates with government printer or any other approved printer with the intent of printing approved pamphlets such as annual reports, departmental orders, nominal role and ensures the distribution of mentioned items.

Comments

Granted in any well established organization that is not static in nature, a research and publication unit would be deemed necessary. It is interesting to note however that such is not the case with the Nigeria Prisons – there are no available records, no pamphlets, no publications. In fact the entire exercise of the Nigeria Prisons is shrouded in complete secrecy and these do not help matters at all. When the public and interested parties are kept in isolation regarding the activities of the Nigeria Prisons then not much assistance can be rendered which ultimately enhances the high rate of recidivism.

B. Technical Division

This division is headed by an Assistant Director of Prisons who reports to the Director of Prisons. His responsibility include: planning and carrying out the transportation of men (Prisons and Staff) and maintenance of machines, money and materials.

His duties involve overall control and direction of all technical and engineering for construction and maintenance of prison buildings.

Comments

It is an irony especially as it applies to the Nigerian context. We are used to giving names but these names do not allude to job description. One can categorically say that even when prison buildings and staff quarters are to undergo maintenance, contracts are awarded instead of using the men on ground like the prisoners, which has the capacity of enriching their knowledge in the construction department.

C. Medical/Welfare Division

This division is also headed by an Assistant Director of Prisons. The division ensures proper establishment and management of all prisons, hospital, clinics, infirmness and sick bays and all welfare matters relating to staff and inmates. The job description includes:

- Providing professional advise on such matters like hospital, prisons, sanitation, equipments, drugs, staffing and decongestion of prisons with a view to establishing a healthy atmosphere for staff and prisoner alike.
- Planning, directing, developing programmes and procedures related to a number of rehabilitative and socializing programmes for the inmates.
- Ensuring that retired staff all over the federation are paid their benefits as at when due and also serving staff and their families are properly catered for.

Comments

Nigeria is not a welfarist state and hardly is any attention given to the generality of the citizenry. It is no surprise therefore that the welfare of prisoners would not be taken into account. Even the members of staff are hardly considered in the entire scheme of things. There are reported cases of members of staff asking visiting relatives of prisoners handout like money. This development needs to be frowned out and stopped forthwith.

D. Commerce Division

Like all other divisions, this is also headed by an Assistant Director of Prisons. This division is expected to commercialize the service in other to reduce the exorbitant cost involved in running the prison service. It achieves this through aggressive agricultural and industrial networking. It also ensures the technical supervision and maintenance of various sophisticated agricultural and industrial equipment deployed in various farm centres and prison workshops.

Comments

If the prison service is committed to rehabilitating and reforming inmates in their custody, they definitely have to go commercial. The products and produce from workshops and farm lands need to be sold. Therefore participating in trade fairs is a must for all prisons located in Nigeria.

E. Administrative Division

This division is headed by a Grade Level 15 civilian personnel who ensures that personnel, policy matters such as appointment, promotions and discipline are properly handled towards achieving the overall objective of the service. Job activities among others include ensuring that vacancies are filled and promotions and disciplinary matters are properly handled through board meetings and report writing.

Comments

Without a vibrant administrative setup no organization can hope to survive. It is the administrative ineptitude that has created the major bottleneck in the Nigeria Prison Service.

Educational Programmes in Prisons In Selected Countries

Nearly sixty years ago, Austin McCormick (1974) revealed that education of prisoners is fundamentally a problem of adult education and that the penal institution should make use of all that is known about education of adults. He postulated on six "facts" which in abbreviated form were:

1) We must not assume that programmes and routine in and of themselves are accomplishment.
2) We must not expect too much in the way of equality or quantity production.
3) Education for prisoners must be individualized.
4) Education for prisoners must be "adultized", they are adults, with adult interests, concepts, and experiences.
5) Education for prisoners must be broadly inclusive in its offering.
6) Compulsion should be applied sparingly.

According to McCormick (1974), the aim of education for adult prisoners should be one that is able to provide every type of educational opportunity that experience or sound reasoning that may be of interest or benefit to the prisoners. Pertinent therefore it is that an identification of educational programmes existing in Port Harcourt prisons in particular and Nigeria prisons in general would be worthy of mention. Thereafter the distinctions found to be existing between educational programmes in Port Harcourt prisons and some prisons in other countries would be examined.

Adult education/vocational programmes in Port Harcourt prisons: The educational programmes are of two categories:

(a) **Adult education or continuing education**: There are two classes housed under a make-shift structure. One of the classes is tagged Junior Class where the tutor-educator (an inmate himself) imparts the basic literacy skills in reading and writing to the participants.

The other class, which is the Senior Class, prepares participants who are inmates, for the GCE Ordinary Level and Advanced Level. However no examinations (external) have been sat for by the inmates. The Prisons Department Standing Orders (1961) states that:

> *Where other arrangements for teachers cannot conveniently be made, the superintendent may in proper cases use the services of prisoners of superior education who may be willing to instruct other prisoners.*

The second category is vocational programmes namely:

(i) Engineering/Electrical workshop.
(ii) Carpentry workshop
(iii) Tailoring/Fibre workshop.
(iv) Shoe-making workshop.
(v) Barber workshop.

Participation in education programmes by inmates is based on self-interest and not on coercion by the prison authorities. The same pattern of educational programmes are as identified by Musa (1978), maybe with a little variation in some selected Nigerian prisons like Enugu prisons, Kaduna prisons, Lagos maximum security prison, and Maiduguri prison.

They operate in complete isolation to particular public and the general public. Though the curriculum followed is the W.A.S.C and G.C.E. O/Levels syllabus there exists no official cooperation between the Port Harcourt prison authorities and the Federal Ministry of Education.

Educational Programmes Existing in other Selected Countries

Social education is an area of continuing concern. According to Glaser "Special courses frequently are conducted in prison to deal exclusively with questions of values and with adjustment in interpersonal relationship, marriage, alcoholism and other personal behaviour matters not bearing directly on any vocation (1964:281).

He reports that "late in 1961, the U.S. Bureau of Prisons initiated an experimental intensive social-education programme in the Federal Reformatory at Englewood, Colorado". Until recently, programme of education in correctional institutions with few exceptions, have not been highly innovative although there is an increasing number of modifications in already existing programmes. While most educational programmes are not on a full-time basis, the case is the reverse with vocational programmes which are more likely to be on a full-time basis. An educational bridging programmes is the Newgate model, in which mini-universities are established within prison walls to serve higher educational needs of inmates. Students from Augsburg College, Minneapolis, as part of their regular curriculum attend classes held in the penal institution with inmates and prison officers as fellow students. Neil, P.M. (1980) intimates us with the operations of the Garden State School district which was established within the Department of Institution and Agencies. In

spite of the good intentions of the programme, it was faced with a lot of difficulties; power conflicts between the correctional institution and the school district; budget; staff; and educational programme operations. This is in New Jersey, United States of America.

Anderson (1981) makes reference to the Windham School District, Texas, Department of Corrections where educational programmes based on the APL curriculum, developed by the APL Project, University of Texas, Austin. The programme is designed for learning minimal survival and life coping skills. Participants who show proficiency earn a competency-based high school diploma upon completion of the APL programme.

In the appointment of its personnel, if punishment is the keystone of the correctional system, then little expertise is needed. However if reintegration of the offender into the community is the system's goal, then certain professional qualifications become important.

The Advisory Commission on Inter-Governmental Relation, State – Local Relations in the Criminal Justice System (1971:15) in their summary of findings indicates that in the area of organizational and jurisdictional problems, the following major issues have been identified:

All but four states have highly fragmented correctional systems, vesting various correctional responsibilities in either independent boards or non-correctional agencies.

Problems which emerge from this analysis of correctional organization in the United States and in fact some other countries like Nigeria are:

a) The problem of unifying and coordinating a highly fragmented array of services and programmes.

b) The problem of changing correctional organizations from closed, hierarchical systems oriented and retribution and restraint into open and flexible systems capable of rehabilitation and re-socializing the offenders committed to them.

Recidivism or Return to Crime: Its Causes

The criminal is seen as one who commits an act of deviation from accepted norms of the society in which he inhabits. This is the person who can be blamed. We have as it were not taken pains to establish the other concomitants of the crime: the victim particularly, the situation and often many more factors.

To delay the first criminal act brings about a shorter period in criminal acts because even the professional started as an amateur. The kind of job a person holds determines, to a large extent, the kind of life he leads. This is true not merely because work and income are directly related, but also because employment is a major factor in an individuals position in the eyes of others and indeed himself. Work is therefore directly related to the goals of education. Glaser (1964:329) in his extensive study concluded that:

Unemployment maybe among the principal caused factors in recidivism of adult male offenders.

Among other disabilities such as poverty, uneducated, behaviour disorders, mental retardation, they have in any case the stigma of a criminal record to overcome. The phenomenon of stigmation is understood by sociologists as the tendency for human beings in social interaction to brand or label others within the context of a role that they have played or are playing.

At any given occasion, it implies three component parts namely, an individual, who commits an act or acts and is therefore the actor, and a reaction to him and his role by a second person or society at large. That reaction is usually demonstrated in the giving of a label or a new name which is derogatory or negatively conceived because the reaction behind it is one of condemnation or rejection.

According to Howard Becker (1963)

A principal proponent of the "labeling theory".

To be labeled as a criminal, one need only to commit a single crime and this is all the term formally refers to. Yet the word carries a number of connotations specifying auxiliary traits characteristic of anyone bearing this label. A man who has been convicted of house-breaking and therefore labeled criminal is presumed to be a person likely to break in other houses; … furthermore, he is considered likely to commit other crimes as well because he has shown himself to be a person without "respect for the law".

The effectiveness of the prison as a school of crime is often exaggerated, for the criminal can learn the technology of crime fAr better on the streets. The damage the prison does is more subtle; attitudes are brutalized, and self-confidence is lost. The prison is a place of coercion where compliance is carried out by force. The typical response to coercion is alienation which may take the form of active hostility to all social controls or later a passive withdrawal into alcoholism, drug addiction, or dependency.

Public identification thus sets in motion a "self fulfilling prophecy" that transforms the one-time or occasional transgressor into a confirmed deviant. Most personal deficits characterizing an offender are also commonly found in non-offenders. The social malfunctions of unemployment, discrimination, economic inequity, and congested urban living affect citizens. The offender like other citizens must find a way to live with his deficits and the disorder around him. If corrections are to mitigate alienation, it must mobilize the community services that can make such an outcome possible.

The Objectives and Approaches to Rehabilitation

The emphasis upon the essential good raises the value laden question – "Who's good"? A lot of literature exists on this issue, however the temptation arises to concur with Trist who defines the value of the future as" "Self-actualization, self-expression, inter-dependence and a capacity for joy".

Perhaps the greatest significance of the move

toward community corrections is the implicit consequence that communities must assume responsibility for the problems they generate. The failure of prisons to rehabilitate was blamed unfairly on correctional personnel.

Offenders typically lack information about the local labour market as a whole, especially if they have not had very much work experience. Most are severely handicapped educationally. Many have dropped out of school. They tend to have unstable work records and a lack of vocational skills. In fact, he has been described as a double failure by some authors for he has not been successful even in his criminal activities.

There has been implicit in correctional function of the prison, a soaring cost as per feeding, provision of materials for instruction and erection of prison accommodation. A sentence of imprisonment is not to be imposed unless it is for the general good of the society as there are some offenders who are persistent recidivists.

In so far as crime is defined as socially undesirable behaviour subject to legal sanctions, the primary and constant of criminal policy is the elimination or reduction of crime. The use or avoidance of specific methods, however has varied very widely in both time and space, and these variations have tended to correspond with variations in social and political structure, in levels of knowledge, and in cultural values.

The term "community-based corrections" includes all correctional activities that takes place in the community. This method should serve as an alternative to confinement of an offender at any point in the correctional process. Probation serves as the bed-rock on which to build a wide range of community-based services. Such a programme may be under official or private auspices. The projection for such a programme finds basis on the grounds that the institution model for corrections has not been successful in curbing potential crime.

The popularity of the "community correctional center" concept in recent times has led to a bandwagon effect with rapid growth of a wide variety of programmes. The term is used to mean a relatively open institution located in the neighbourhood and using community resources to provide most or all of the services required by offenders. The degree of openness varies with offender types and the use of services varies with availability and offender needs.

Work-release: The practice permits selected inmates to work for pay outside the institution, returning each night-prisoner employment is not new. What is new however is in allowing regular civilian employment, under specific circumstances, for selected low-risk inmates.

Family visits: Prisons are attempting in a variety of ways to assist the reintegration of offenders into family circles; as well as the work world. Prison visiting always, have been allowed, frequently under less than favourable circumstances, with minimum opportunities for privacy and personal communication.

Conjugal visits long have been the practice in Mississippi institutions. In the Swedish penal system, where family visitations is taken for granted, some institutions even permit husband and wife to live together if both are institutionalized.

Pre-release programmes: In the United States, the Federal prison system pioneered in the development of pre-release programmes in the early 1960's. In several cities, small living units were organized, usually in leased quarters, to which individuals could be transferred for the final months of a sentence as part of preparation for release special orientation programmes and employment assistance were provided, with gradually increasing opportunities to exercise decision making.

Short-term return of parolees: This is closely related to the pre-release programme permitting the short-term return of parolees who have made a misstep that is potential cause for parole revocation and return to prison.

Research indicates that short-term returnees in California do well on second release as those released after a long period of re-imprisonment (California Department of Corrections, short-term return unit programme, Sacramento, 1968).

Summary of Literature Review

Policy statements have to be matched with action. This is lacking in all segments of the Nigerian Life not excluding our penal system. Management by objectives (MBO) has to be pursued vigorously by officers of the panel system. Community based corrections should be applied to the letter.

There is without a shadow of a doubt that most convicts on eventual release from prison immediately commit another crime, are apprehended and finally wind up back in jail. This is indicative of the fact that whatever rehabilitative efforts that are being carried out behind the wall do not have a promissory note. This is reflective of problems that face our penal system – poor government funding and in-fighting amongst prisons officials regarding the better approach to rehabilitation.

Based on what we have on ground and observations, we identified the following social problems namely:

- Over-population of prison cells in Port Harcourt Prisons.
- Housing first-time offenders with recidivists.
- Poor feeding of inmates.
- Poor health and hygiene conditions amongst inmates and within the prison environs.
- Use of inmates as tutor-educators.
- Non-availability of adequate facilities.
- Inadequate caliber of experienced prison officers
- Low morale among staff.

It was these facts that aroused the interest of

this student-researcher in the first place to investigate the effectiveness of the prison department in the rehabilitation of prisoners vis-à-vis educational/vocational programmes in Port Harcourt Prisons.

Research Methodology

Research Design

The descriptive survey research design was used for the study. In this kind of research, only part of the population is examined to determine the effectiveness of educational programmes in the rehabilitation of prisoners, with particular focus on Port Harcourt Prisons.

Population

The population for this research includes all instructors and convicts in Port Harcourt Prison. At present there are 410 convicts in Port Harcourt Prison.

Sample and Sampling Techniques

The sample size for this work is 200 respondents who are randomly selected form the population.

Instrumentation

Three questionnaires were used to obtain data. The three questionnaires were designed by the researchers. One Inmates Attitudes Scale was directed to inmates, the Instructors Qualification and Effectiveness questionnaire was meant for instructors, who were largely inmates. The third questionnaire Relevance of Educational Programmes was directed to ex-convicts to determine if they have been able to use the skills acquired from these educational programmes to help themselves.

Procedure for Data Collection

The researchers approached the prison officers for permission to administer the questionnaire to inmates. But for security reasons, the prison officers actually administered the questionnaire themselves and after a week, the completed questionnaires were returned. The … questionnaire for the ex-convicts was administered by the researchers themselves.

Validity

These researchers tried to ensure that this work measured what it purports to measure by obtaining the face validity of the instrument through a meticulous examination of the instrument by professionals in the field of educational technology and curriculum studies.

Reliability

The researchers ascertained the reliability of the instruments with the use of test-retest method. The questionnaire and interview schedules were administered to the same set of respondents on two different occasions spanning a two week interval. Two set of scores were obtained, which were correlated using Karl Pearson's Product Moments Correlation Co-efficient and the correlation co-efficient of the two variables is established at 0.78.

Method of Data Analysis

Research Questions: The research questions were answered using percentages as tools.

Hypotheses: All hypotheses were tested using the Analysis of Variance (ANOVA).

PRESENTATION OF DATA

Research Question 1: What are the different types of educational programmes existing in Port Harcourt Prisons and their relevance to the rehabilitation of prisoners?

Hypothesis 1: There is no significant relationship between the educational programmes existing in Port Harcourt Prisons and their relevance in the rehabilitation of prisoners.

Table 4.1: Relationship between educational programmes in Port Harcourt Prisons and their relevance to prisoners

Source of variation	Sum of squares	Degrees of freedom	Variance estimate	F-ratio
Between	0.24	3	0.08	1.65
Within	94,985.26	196	484.61	
Total	94,985.5	199		

Table 4.1 shows an F-value of 1.65. The result is that there is no significant relationship between the educational programmes carried out in the prisons and their relevance to the rehabilitation of prisoners. Since the calculated f-value of 1.65 is lesser than the table value of 2.65 at 3df for the numerator mean square and 196.4 for the denominator mean square and 0.05 level of significance, the null hypothesis is accepted. Therefore, there is no significant relationship between the educational programmes in prisons and their relevance to the rehabilitation of prisoners.

Research Question 2: Are the instructors of these programmes adequately qualified and effective in teaching?

Hypothesis 2: There is no significant relationship between instructors qualification and their effectiveness in teaching.

Table 4.2: Relationship between instructors qualification and their effectiveness in teaching

Source of variation	Sum of squares	Degrees of freedom	Variance estimate	F-ratio
Between	198.69	3	66.23	0.10
Within	124,307.31	194	640.75	
Total	124,506	197		

Table 4.2 shows an f-value of 0.10. Since this calculated f-value is lesser than the table value of 2.65 at 3df for the numerator mean square and 194 for the denominator mean square and 0.05 level of significance, the null hypothesis is accepted. Therefore, there is no significant relationship between instructors qualification and their effectiveness in teaching.

Research Question 3: What is the attitude of inmates toward these educational programmes and their instructors?

Table 4.3: Percentage of inmates responding to attitude of inmates towards educational programmes and their instructors

S/No.	Items	SA		A		D		SD		Total
		n	%	n	%	n	%	n	%	
1.	I attend the educational programmes that have been provided for the rehabilitation of prisoners	38	19	40	20	50	25	72	36	200
2.	These educational programmes will be useful to me when I leave prison	50	25	20	10	70	35	60	30	200
3.	I participate actively in these educational programmes	41	20.5	35	17.5	53	25.5	71	35.5	200
4.	These educational programmes have presently given me a different orientation in life	34	17	37	18.5	74	37	65	27.5	200
5.	I encourage other inmates to attend and participate in these educational programmes	28	14	40	20	60	30	72	36	200
6.	I respect and cooperate with my instructors	28	14	40	20	60	30	72	36	200
7.	I understand the courses my instructors teach	39	19.5	37	18.5	57	28.5	67	33.5	200
8.	I do all assignments/home work given to me by my instructors to evaluate my understanding of the courses taught	38	19	39	19.5	65	32.5	58	29	200
9.	I am now in a position to teach new inmates as an instructor	24	12	41	20.5	62	31	73	36.5	200
10.	I look forward to practicing what I have learned from these educational programmes on discharge	33	16.5	29	14.5	71	35.5	67	33.5	200

The table above shows that for item No. 1, whereas 39% of the respondents (19% for SA and 20% for A) agreed that they attend the educational programmes provided for the rehabilitation of prisoners, 61% totally disagreed. This high percentage that responded negatively shows most inmates do not attend these educational programmes. For item No. 2, 35% (25% for SA and 10% for A) agreed that these educational programmes will be useful to them when they leave prison but 65% disagreed. In response to item No. 3, 38% actively participate in these educational programmes but 62% do not participate or are passive participants. For item No. 4, while 35.5% now have a new orientation in life as a result of being involved in these educational programmes, 64.5% still remain where they are, they have not changed their orientation to life.

The result from item No. 5 shows that 30.5% of the prison inmates encourage other inmates to attend and participate in these educational programmes, while 67.5% do not encourage others to be part of these programmes.

Concerning inmates attitude toward instructors Item No. 6, 34% of them respect and cooperate with their instructors while 66% have no respect for their instructors and do not cooperate with them. In response to item No. 7, 38% of inmates claim to understand the courses being taught while 62% do not agree that they understand the courses.

Another 38.5% responded positively to item No. 8. They agreed that they do all assignments/homework given by their instructors to evaluate their understanding of the courses taught. This number is far lower than the 61.5% who disagreed. For item No. 9, 32.5%, (12% for SA and 20.5% for A) agreed that they are now in a position to teach new inmates as instructors. Thus they can now gain the instructors' group rather than students group. But 67.5% (31% for D and 36.5% for SD) totally disagreed.

In response to the last item on the questionnaire, item No. 10, 31% of inmates look forward to practicing what they have learned from these educational programmes on discharge form prisons but 69% do not anticipate practicing what they have

learnt.

Summary of Results

The findings of the study are summarized below:

1. There is no relationship between the educational programmes taught in the prisons and their relevance to the rehabilitation of prisoners. The relationship was statistically insignificant at .05 level of probability.
2. There is no significant relationship between instructors qualification and their effectiveness in teaching. This relationship was statistically tested at .05 level of significance.
3. In answering research question 3, 39%, 35%, 38% and 35.5% responded positively to items No. 1, 2, 3 and 4 respectively, while 61%, 65%, 62% and 64.5% responded negatively to these same items. In other words they do not agree to these items.

For items No. 5-7, 30.5%, 34% and 38% respectively agreed/strongly agreed to the items, while 67.5%, 66% and 62% respectively disagreed/strongly disagreed. In response to items No. 8-10, 38.5%, 32.5% and 31% respectively were positive while 61.5%, 67.5% and 69% were negative.

Discussion Of Results

Research question 1: What are the different types of educational programmes existing in Port Harcourt prisons and their relevance to the rehabilitation of prisoners?

Hypothesis 1: There is no significant relationship between the educational programmes existing in Port Harcourt prisons and their relevance to the rehabilitation of prisoners.

The result indicates that there is no relationship between the educational programmes existing in Port Harcourt prisons and their relevance to the rehabilitation of prisoners. When Analysis of Variance (ANOVA) was applied, the f-value of 1.65 was lower than the table value of 2.65. Thus it was statistically insignificant at .05 level of probability (Table 4.1). The null hypothesis was accepted.

This negative relationship between types of educational programmes and their relevance to prisoners shows that those educational programmes (weaving, carpentry, hairdressing, agriculture, tailoring and home management etc.) existing in Port Harcourt prisons do not actually rehabilitate the prisoners. This result is actually not surprising because these programmes may not be what the prisoners actually need for rehabilitation. They may individually not have personal interest in any of these programmes. This study is in line with what MacCormick, A. (1974), revealed. He postulated six facts that must be taken into consideration when arranging educational programmes for prisoners:

1. Never assume that programmes are in themselves an accomplishment.
2. We must not expect too much in the way of equality or quantity production.
3. Education for prisoners must be individualized.
4. Education for prisoners must be "adultized". They are adults, with adult interest, concepts and experiences.
5. Education for prisoners must be broadly inclusive.
6. Compulsion should be applied sparingly.

He further stated that the aim of education for adult prisoners should be one that is able to provide every type of educational opportunity, experience or sound reasoning that may be of interest or benefit to the prisoners.

Research Question 2: Are the instructors of these programmes adequately qualified and effective in teaching?

Hypothesis 2: There is no significant relationship between instructors' qualification and their effectiveness in teaching.

The result shows that there is no significant relationship between instructors' qualification and effectiveness in teaching. This is not a surprise, since most of the instructors are also inmates who possess only a senior secondary school certificate (SSCE) or an Ordinary National Diploma (OND). Most do not have teaching qualifications. Some though got vocational training in one or more of the programmes that exist in the prison. Most of the inmates who are also instructors know nothing about types of instructional methods to use that will best fit their students.

Most do not have access to instructional materials except the very few equipments that are provided. In fact recently after the prison break that occurred in Port Harcourt prison, most of these equipments were stolen, thus leaving instructors with little or no instructional materials for teaching. This explains why there exists no relationship between instructors' qualification and their effectiveness in teaching. It is just like the Prisons Department Standing Orders (1961) states: "where other arrangements for teachers cannot conveniently be male, the superintendent may in proper cases use the services of prisoners of superior education who may be willing to instruct other prisoners". Unfortunately, very few of these prisoners are willing since they are still bitter over their sentence which may or may not be justified.

Research Question 3: What is the attitude of inmates toward these educational programmes and their instructors?

The answer to this research question is that very low percentage of inmates (39%) attend educational programmes provided for their rehabilitation as against 61% who do not attend. In fact 65% believe that these programmes will not be useful to them when they leave prison. Out of 39% who attend these programmes only 38% actively participate in them; while only 35.5% believe these programmes have given them a new orientation to life. 30.5% of inmates encourage others to attend these programmes. Concerning inmates attitudes toward instructors, 34% respect and cooperate with their instructors, 38.5% do their home work/assignments and only a low 31% look forward to

practicing what they have learnt.

Reasons that may have given rise to this negative attitude of inmates toward the educational programmes and their instructors could be that these programmes do not meet the needs of inmates, and most instructors are equally inmates. If most of the inmates are hardened criminals guilty of very serious offenses, then what they would need is not just vocational education but primarily social education. Social education would readjust their thinking and instill in inmates good values that will help them make mental adjustment. This social education does exist in prisons in other countries. Glaser, (1964:281), said that: "special courses frequently are conducted in prison to deal exclusively with questions of values and with adjustment in interpersonal relationship, marriage, alcoholism and other personal behaviour not bearing directly on any vocation. He reports that 'late in 1961, the U.S. Bureau of Prisons initiated an experimental intensive social-education programme in the federal Reformatory at Englewood, Colorado". This though, is not the case with Port Harcourt prisons which insists on vocational education.

Implications of the Results

One of the results of the study is that no relationship exists between the educational programmes existing in Port Harcourt prison and their relevance to the rehabilitation of prisoners. There is the implication that most of these programmes, since they are mainly vocational do not fill inmates needs and are not learner-centered. There is alsot he implication that most prisoners would prefer not to get involved in these programmes since they do not see the relevance to their rehabilitation. The result further suggests that a few prisoners, perhaps the more malleable ones, are still prepared to participate in these programmes.

Another result shows that there is no significant relationship between instructors qualification and their effectiveness in teaching. There is the implication that since most instructors possess only SSCE and OND they may not be effective in teaching. They are not trained teachers and thus possess no knowledge of what instructional methods to use that will best suit their learners, or what instructional materials to use that will clarify their teaching. Also, they do not possess knowledge of the type of evaluation method to use to evaluate their students. Another implication is that since most instructors are also inmates, and there is no remuneration attached to teaching, the instructors might not take their jobs seriously.

The third result of the study shows that most inmates have negative attitude toward these educational programmes and their instructors. The implication here is that recidivism is very likely to occur on discharge since most do not find the programmes useful or beneficial and thus do not attend nor participate in these programmes. Thus they do not get a new orientation to life even while they are still in prison. There is also the implication that since instructors are also inmates, then their fellow inmates, who may have been in prison longer than their instructors, will not respect them.

Recommendations

1. Social education and not just vocational education should be introduced as part of the rehabilitation programmes for prisoners. This social education should include courses in psychology and sociology for the readjustment of the think of prison inmates.
2. Needs of learners (inmates) should be identified and special curriculum developed to fill those needs, thus making educational programmes relevant to learners.
3. More qualified instructors should be employed. These should not be inmates but people who have a background in education (well-trained teachers) in the various fields. The instructors could include ex-convicts who have now become responsible citizens in the society and have been trained in teaching.

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ACUTE RENAL FAILURE: CAUSES, EFFECTS AND MANAGEMENT

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Introduction

Acute Renal Failure: Causes, Effects And Management

This paper cover's the most recent information on definition, epidemiology/ incidence, clinical causes, a brief anatomy and physiology of the kidney and management of acute renal failure.

Acute Renal Failure (ARF): The sudden cessation of renal function that occurs when blood flow to the kidneys is significantly compromised.

ARF is a leading cause of mortality among hospitalized clients, 50% of which is due to an iatrogenic cause, ARF is comprised of three phases:

Oliguria: Begins with the renal insult and continues for 3 weeks.

Diuresis: Begins when the kidneys begin to recover and continues for 7 to 14 days.

Recovery: Continues until renal function is fully restored and requires 3 to 12 months.

Prerenal failure from volume depletion or prolonged reduction of blood pressure is the most common cause of acute renal deterioration and is usually reversible with prompt intervention, (Platt D and Moss M. (2007).

Acute renal failure (ARF) is a sudden loss of renal function, which may or may not be accompanied by oliguria. Although the alteration in renal function usually is reversible, ARF may be associated with a mortality of 40% - 80%. Mortality varies greatly with the cause of ARF, the patient's age, and comorbid conditions, Swearingen (2004).

Renal failure results when the kidneys cannot remove the body's metabolic waste or perform their regulatory functions. The substances normally eliminated in the urine accumulate in the body fluids as a result of impaired renal secretion, leading to destruction in endocrine and metabolic functions as well as fluid, electrolyte and acid-base substances. Renal failure is a systemic disease and is a final common part way of many different kidney and urinary tract diseases.

There are two types of renal failure: Acute renal failure and chronic renal failure. Brunner and Suddarth's, (2008).

Objectives

(1) Perform and document appropriate assessments based upon the client's problem.

(2) Apply knowledge of pathophysiology to planning care for clients with specific alterations in body systems, including recognizing associated signs and symptoms.

(3) Interpret data that need to be reported immediately.

(4) Explore resources, make referrals, collaborate with interdisciplinary team, and ensure continuity of client care.

(5) Evaluate plans of care for multiple clients and revise plan as needed based on priorities of care and promotion of recovery.

(6) Provide client teaching regarding management of the client's health problem.

(7) Recognize/respond to emergency situations, and evaluate/document the client's response to emergency interventions.

(8) Adapt the plan of care to meet the age-related needs of clients 65years of age or older, including recognizing expected physiological changes.

(9) To use as a research for further studies.

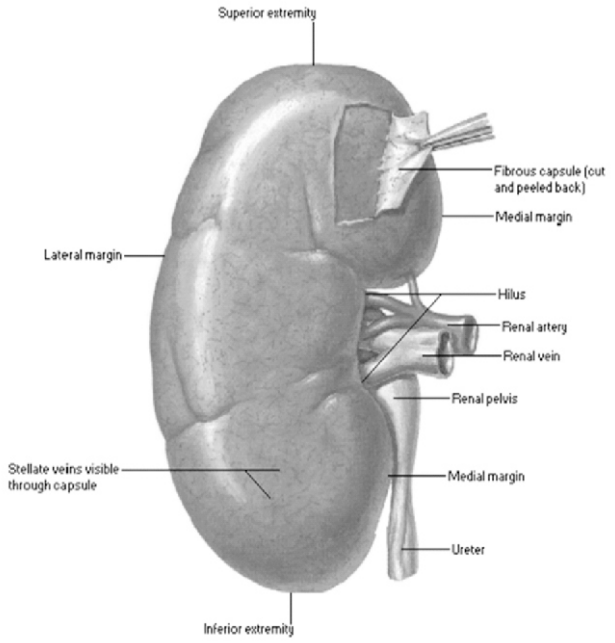


Figure 1

The kidney is a pair of excretory organ situated on the posterior abdominal wall, one on each side of the vertebral column, behind the peritoneum. They remove waste products of metabolism and excess of water and salts from the blood and maintain its pH (Chaurasia 2004).

External Features

Each kidney is bean-shaped it has upper and lower poles, medial and lateral border, and anterior and posterior surfaces.

Two poles of the kidney

The upper pole is broad and is in close contact with the corresponding suprarenal gland, while the lower pole is pointed.

Two surfaces

The anterior surface is said to be irregular and the posterior surface flat, but it is often difficult to recognize the anterior and posterior aspects of the kidney by looking at the surface.

Two borders

The lateral border is convex. The medial borders are concave. It is middle part shows a depressing the hilus or hilum.

Hilum

The following structures are seen in the hilum from anterior to posterior side:

- The renal vein
- The renal artery

The renal pelvis, which is the expanded upper end of the ureter examination of these structures, enables the anterior and posterior aspects of the kidney to be distinguished from each other.

The renal pelvis is the funnel shaped structure that acts as a receptacle for the urine formed by the kidney. It has a number of distal branches called calyces each of which surrounds the apex of a renal pyramid. (Waugh & Grant, 2010).

A branches renal artery enters the hilus behind the renal pelvis and a tributary of the renal vein may be found in the same plane.

Location

The kidneys occupy the epigastriac, hypochondriac lumber and umbilical region. Vertically they extend from the upper border of 12th thorax vertebra to the center of the body of 3rd lumber vertebra. The left kidney is a little nearer to the media plane than the right and right kidney is slightly lower than the left kidney probably because of the considerable space occupied by the liver.

Shape, size weight and orientation

Each kidney is about 11cm long, 6cm broad and 3cm thick. The left kidney is a little long and narrow then the right kidney. An average kidney weights 150g in males and 135g in females. The kidney is reddish brown in colour.

The long axis of the kidney is directed downwards and laterally so that the upper poles are near to the media plan than the lower poles.

In the foetus the kidney is lobulated and is made up of about 12 lobules. After birth the lobules gradually fuse, so that in an adult the kidney is uniformly smooth. (Chaurasia 2004).

Anatomical Relationship Of The Kidney

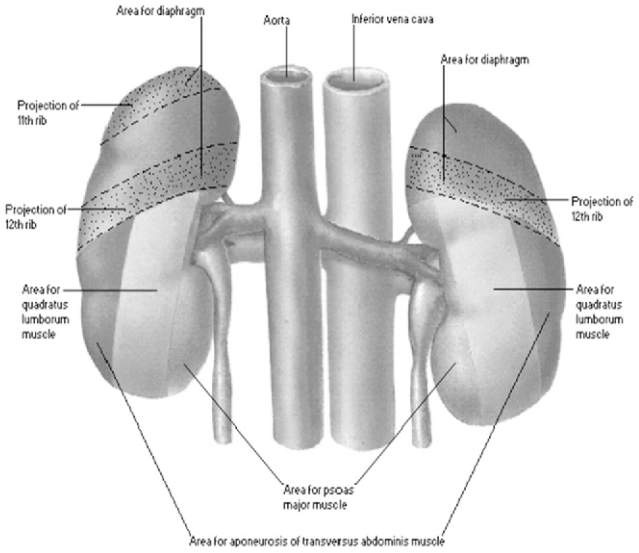


Figure 2:

The kidneys are retroperitoneal organs and are only partly covered by peritoneum interiorly.

Relations Common to the two kidneys

1. The upper pole of each kidney is related to the corresponding suprarenal gland. The lower poles lie about 2.5cm above the iliac crest.

2. The medial border of each kidney is related to (i) the suprarenal gland above the hilus, and (ii) to the ureter below the hilus.

3. Posterior relations: the posterior surfaces of both kidneys are related to the following:

a. The diaphragm
b. The medial and lateral arcuate ligaments
c. The psoas major
d. The quadrates lumborum
e. The transuisus abdominis
f. The sub-coastal vessels
g. The sub-coastal, iliohypogastric and iliolingual nerves

In addition, the right kidney is related to 12th rib, and the left kidney to eleventh and 12th rib.

Other relations of the right kidney anterior relations

1. Right suprarenal gland
2. Liver
3. Second part of duodenum
4. Hepatic flexure of colon
5. Small intestine. Out of these the hepatic and intestinal surface are covered by peritoneum.

The lateral border of the right kidney is related to right lobe of the lower and to the hepatic flexure of the colon.

Other relations of the left kidney anterior relations

- Left suprarenal gland.
- Spleen
- Stomach
- Pancreas
- Splenic vessel
- Splenic flexure and descending colon
- Jejunum, out of these the gastric, splenic and jejunum surface are covered by peritoneum.

The lateral border of the left kidney is related to the spleen and to the descending colon.

Capsules or covering of kidneys

- **The fibrous capsule**

This is a thin membrane which closely invests the kidney and lines for renal sinus. Normally it can be easily stripped off from the kidney but in certain disease it becomes adherent and cannot be stripped.

- **Perirenal or Perinephric fat**

This is a larger of adipose tissue lying outside the fibrous capsule. It is thickest of the borders of the kidney and falls up the extra space in the renal sinus.

- **Renal fascia**

This is a fibroreola sheath which surrounds the kidney and the perirenal fat called as the fascia of gerota. (Chaurasia, 2004).

Numerous trabeculae, strongest near the lower pole connect the renal fascia to the fibrous capsule across the perirenal fat.

Superiorly, the two layers of the renal fascia first enclose the suprarenal gland in a separate compartment, and then fuse with each other. They finally become continuous with the fascia cover the under surface of the diaphragm.

Inferiorly, the two layers merge with the extra perturbed connective tissue of the iliac fossa, while the posterior layer blends with the fascia illac.

Laterally, the two layers get fused and become continuous with the fascia transversal.

Structure Of The Kidney

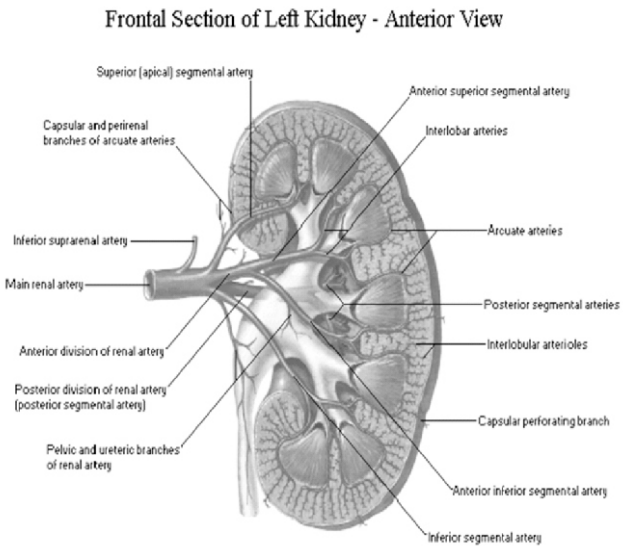


Figure 3:

Medially, the anterior layer passes in front of the renal vessels and merges with the connective tissue around the aorta and the inferior vena cava. The posterior layer gets fused to the fascia cover the quadrates lumborum, the psoas major the vertebrae and inter vertebral discs.

At the medial border of the kidney, the fascia forms a septum which is pierced by the renal vessels because of the septum, perirenal effusions cannot cross to the opposite side.

Gross examination of the kidney shows

a. An outer, reddish brown cortex
b. An inner, pale medulla

A space, the renal sinus

The renal medulla is made up of about 10 conical masses, called the renal pyramids. Their apices form the renal papillae which indent the minor calices.

The renal cortex is divisible into two pars.

a. Cortical arches or cortical lobules, which form caps over the bases of the pyramids and
b. Renal columns which dip in between the pyramids.

Each pyramid along with overlying cortical arch forms a lobe of the kidney.

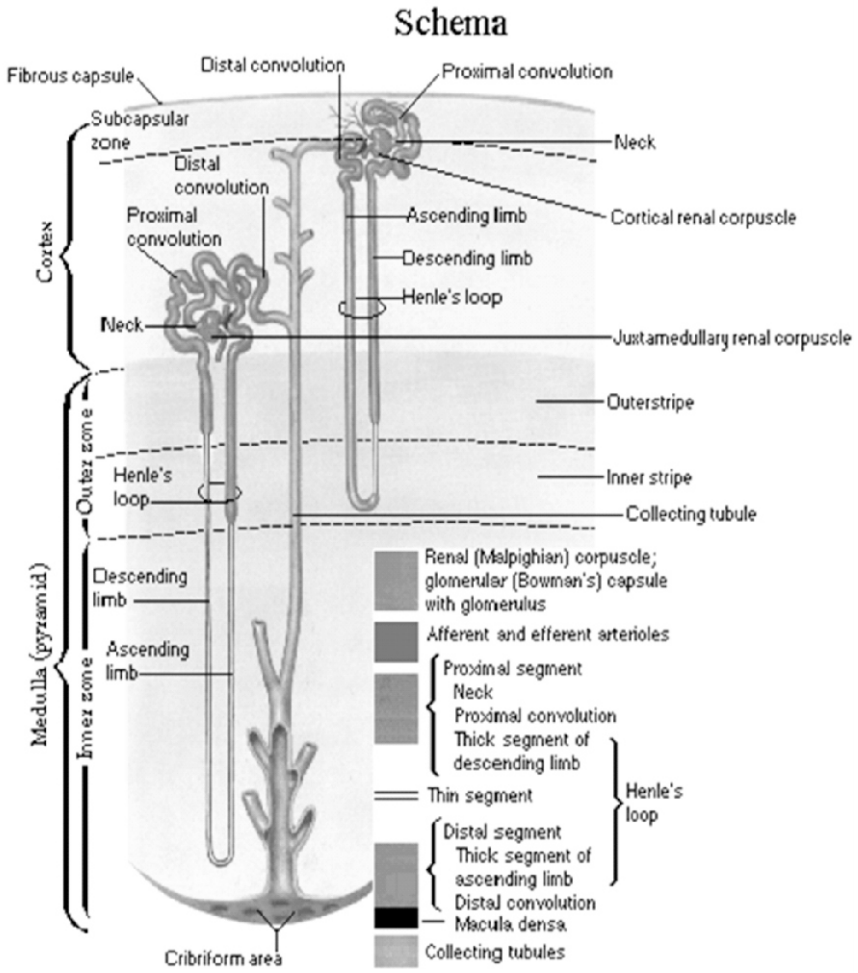
The renal sinus is a space that extends enters the kidney from the hilum. It contains.

a. Branches of the renal artery
b. Tributaries of the renal vein and
c. The renal pelvis

The pelvis divides into 2 to 3 major calices and these in their turn divide into 7 to 13 minor calices. Each

minor calyx ends in an expansion which is indicated by one to three renal papillae.

The Nephron



igure 4:

Histologically, each kidney is composed of about one million urineferous tubules each tubule consists of two parts which are embryological distinct from each other they are:

The secretory part

Nephron is the functional unit of the kidney and comprises

a. The renal corpuscle or malpighian corpuscle (for filtration of substance from the plasma) made up of glomerulus (a) capillaries and Bowman's capsule (b) the renal tubule for selective desorption of substance from the glomerular filtrate) made up of the proximal convoluted tubule, loop of Henle with its descending and ascending limbs, and the distal convoluted tubule.

b. The collecting tubule begins as a functional tubule from the distal convulated tubule. Many tubules unite together to form the ducts of Bellini which open into the minor calices through the renal papillary.

Juxtaglomerular apparatus is formed at the vascular pole of glomerulus which is intimately related to its own ascending limb of the Henle's loop near the distal convoluted tubule. The apparatus consist. (a) macular densa, formed by attered cells of the tubule (b) juxtaglomerular cells, formed by the epithelial cells in the media of the afferent arteries and (c) some granular cells between macula densa and the glomerulus proper.

Arterial Blood Supply

There is one renal artery on each side arising form the abdominal aorta. Accessory renal arteries are present in 30% of individual they arise commonly from the aorta, run parallel to the renal artery and enter the kidney either at the hilus or at one of its poles.

Near the hilum the renal artery divides into anterior and posterior division. Further branding of these divisions gives rise to segmental arteries each of which supplies on vascular segment. Five segments are described. These are (1) apical (2) upper (3) middle (4) lower and (5) posterior. The segmental arteries are end arteries, so that the vascular segments are independent units.

Afferent glomeruli arteriole are derived mostly as side brandy from interlobular arteries but some may arise directly from interlobular arteries the efferent glomeruli arteriole, from most of the glomeruli, divides soon to form the peritubular capillary plexus around the proximal and distal convoluted tubules.

Arterial supply to the medulla is derived mostly from the efferent arterioles of the juxtamedillary glomeruli, and partly from a number of glomeruli arterioles.

Venous Drainage

The venous end of the peritubular capillary plexus gives rise to interlobular veins which runs along the corresponding arteries. The interlobular veins drain into the arcuate veins, which in the turn open into the interlobular veins. These energy at the renal sinus and join to form the renal vein which drains into the inferior vena cava.

Lymphatic Drainage

The lymphatic of the kidney drain into the lateral aortic nodes located at the level of origin of the renal arteries.

Nerve Supply

The kidney is supplied by the renal plexus an offshoot of the celiac plexus. It contains (T10-L1) sympathetic fibres which are chiefly vasomotor. The afferent nerves of the kidney belong to segments T10 to T12.

Functions Of The Kidneys

1. The kidneys serve as excretory organs in the formation and excretion of urine.
2. The kidney serves as osmo-regulator helping to maintain fluid and electrolyte balance.
3. The kidneys help to maintain the acid-base balance of the blood at 7.4 by secreting either hydrogen ions or hydroxyl ions. They also help to maintain the normal pH of urine between 4.5 to 8.5.
4. The kidneys help influence the blood pressure through the production of the enzyme Renin by the juxtaglomerular apparatus
5. The kidneys produce erythropoietin which stimulates the bone marrow during red blood cell formation.
6. The kidneys help to covert vitamin D (i.e. 25-hydroxycalciferol) into the active metabolite called 1:25-dihydrocholecalciful which help to regulate the absorption of calcium from the intestine to maintain the plasma calcium level.
7. The kidneys help to excrete hydrogen ion to overcome metabolic acidosis
8. The kidneys help to produce the enzyme angiotensinogen which inactivates angiotensin.
9. The kidneys help to manufacture ammonia from glutamine of the plasma and other circulating amino-acid which helps to excrete large amount of acid in the urine (Mustapha 2010).

Definition Of Acute Renal Failure

Acute renal failure is the sudden reduction or cessation of renal function to the point where the body fluid homeostasis is compromised, leading to accumulation of nitrogenous waste products, with or without reduced urine output. Tasker R. C, McClure R.J, & Acerini C. L. (2010).

Epidemiology/Incidence

Due to deficient statistics in Nigeria, it was difficult to get accurate data, but in United Kingdom, acute renal failure is common. In a community-based study in the UK, there were 172 cases per million adults per year of severe acute renal failure (serum creatinine concentration >500µmol/L), with 22 per million receiving acute dialysis.

Two more recent UK population studies defined acute renal failure as a temporary rise in serum creatinine to at least 300µmol/L or clinical features indicating acute deterioration of previously normal renal function. Advanced acute renal failure was defined as a first measured serum creatinine concentration of at least 500µmol/L. the annual incidence of acute renal failure ranged from 486 to 620 per million; advanced acute renal failure was observed in 102 per million per year.

A prospective hospital-based study, again in the UK, found that the incidence of renal replacement therapy for acute renal failure was 131 per million per year, with a further 72 per million per year receiving this treatment for acute on chronic renal failure.

An estimated 5-20% of critically ill patients experience an episode of acute renal failure during the course of their illness, in many cases accompanied by multi-organ dysfunction syndrome. Metnitz and colleagues found that acute renal failure requiring renal replacement therapy complicated 4.9% of admissions to intensive-care units. Acute renal failure occurs in about 19% of patients with moderate sepsis, 23% of those with severe sepsis, and 51% of those with septic shock when blood cultures are positive.

A recent analysis from the **PICARD** Study Group observed a changing range of acute renal failure in critically ill patients, characterized by a large burden of **co morbidity,** such as pre-existing chronic kidney disease, and extensive extrarenal complications, necessitating dialysis in most of the patients. There was also a wide variation across US institutions in characteristics of patients and practice patterns.

Categories of Acute Renal Failure

The major categories of acute renal failure are;

- Prerenal (hypoperfusion of kidney)
- Intrarenal (Acute damage to kidney tissue)
- Postrenal (obstruction of urine flow) Brunner & Suddarth's, (2008).

Pathophysiology

The interaction of tubular and vascular events result in Acute Renal Failure (ARF). The primary cause of ATN is ischemia. Ischemia for more than 2hrs results in severe and irreversible damage of the kidney tubules. Significant reduction in glomeruli filtration rate (GFR) is a result of (1) Ischemia (2) activation of the kenin angiotensin system and (3) tubular obstruction by cellular debris. As nephrotoxins damage the tubular cells and these cells are lost through necrosis, the tubules become more permeable. This results in filtrate absorption and a reduction in the nephrones ability to eliminate waste.

Causes Of Acute Renal Failure

When reductions in renal blood flow interrupt glomerular pressure; the result is the development of acute renal failure. The following categories better explain how acute renal failure develops.

Prerenal ARF: This results from any type of condition "outside" the kidney that impedes blood flow to the renal vasculature (and subsequently causes a decrease in perfusion pressure to the glomerulus and oliguria). Although there is decreased perfusion to the glomerulus and other nephrons; they continue to function normally. With prompt correction of the underlying problem; the kidneys can return to full normal function at this stage.

Postrenal ARF: This is caused by a mechanical back up of urine into the renal pelvis. As with prerenal failure, prompt removal of the obstruction will allow the kidneys to return to normal function.

Intrarenal ARF: This results from anything that causes a direct insult to the kidneys (such as infection, glomerulonephritis, hypertension, diabetes). Acute Tubular Necrosis (ATN) is the most common intrarenal condition and accounts for approximately 75% to 90%

of all intrarenal ARF. With ATN the epithelial layers of the nephrons (at the tubular portion of the kidneys) become damaged leading to changes in urine concentration, waste filtration, electrolyes and acid base balance. ATN most common occurs due to one of the following mechanisms:

- Nephrotoxic incident (chemicals can crystallize)
- Ischemic incident (decreased renal blood flow)
- Parenchymal damage
- Obstruction (due to the release of haemolyzed hemoglobin/myoglobin).

Other contributing factors for developing acute renal failure

Prerenal causes

- Hypotension
- Hypovolemia
- Decreased cardiac output
- Dehydration
- Hepatorenal syndrome
- Liver failure
- Atheroembolic disease
- Renal vein thrombosis
- Nephrotic syndrome
- Obstetrical Complications
- Diabetes type I and type II

Intrarenal Causes

- Nephrotoxic episodes
- Infection
- Systemic inflammation
- Injured red blood cells
- Hemolytic blood transfusion reactions
- Rhabdomyloysis
- Pancreatitis
- Hypercalcemia

Postrenal Causes

- Medication that interferes with normal bladder emptying
- Benign prostatic hypertrophy (BPH)
- Prostate cancer
- Ovarian cancer
- Obstruction of a urinary catheter
- Renal calculi
- Bladder/pelvic neoplasms
- Urethral strictures
- Spinal disease

Medications that can cause/Aggravate Acute Renal Failure (ARF)

- Contrast media
- Diuretics (Furosemide)
- Heavy metals (mercury, gold lead)
- Ibuprofen
- Organic chemicals or solvents
- Nephrotoxic antibiotics (Gentamycin/Piperacilin)
- ACE Inhibitors

Signs and Symptoms of Acute Renal Failure

The sign and symptom that may be experienced with acute renal failure depend on the phase, the degree of azotemia (abnormal levels of urea and creatinine) and the degree of metabolic acidosis. The following signs and symptoms are consistent with acute renal failure.

- Decreased urine output (urine may be pink or reddish in color)
- Edema (face, arms, legs, feet eyes)
- Flank pain/Pelvic pain
- Poor appetite (nausea, vomiting)
- Bitter or metallic taste in mouth
- Dry itchy skin
- Easy bruising
- Fatigue
- Seizures/Level of consciousness (LOC)
- Shortness of breath
- Arrhythmias
- Sudden weight gain

Confirmatory Lab Values for Acute Renal Failure Lab TestPrerenal Value Intrarenal Value Urine Specific GravityGreater than 1.0201.010 to 1.020BUN/Creatinine ratio
Blood Urea NitrogenGreater than 20:110 – 20:1Urine Osmolality Greater than 500mOsm/kg300-500mOsmkgUrine Sodium 10mEq/L or less20mEq/L or more Urine Sediment (Urinalysis)Hyaline castsGranular casts Fractional excretion of sodium percent (FENa)Less than 1%Greater than 1%

Renal Ultrasound: Provides information about renal anatomy and pelvic structures, evaluates renal masses, and detects obstruction and hydronephrosis.

Renal Scan: Provides information about the perfusion and function of the kidneys

Computed tomography (CT) Scan: Identifies dilation of renal calices in obstructive processes.

Retrograde urography: Assesses for postrenal causes, that is, obstruction.

Diagnostic Procedures And Nursing Interventions

Urinalysis

- Hematuria, proteinuria, and alterations in specific gravity
- Serum creatinine
- Gradual increase of 1 to 2mg/dL per every 24 to 48hr for acute renal failure (ARF)

Blood urea nitrogen (BUN)

- 80 to 100mg/dL within 1 week for ARF.
- Gradual increase in concert with elevated serum creatinine over months to years for CRF.

Serum electrolytes

- Decreased sodium (dilutional), calcium
- Increased potassium, phosphorus, and magnesium

- Complete blood count (CBC)
- Decreased hemoglobin and hematocrit from anemia secondary to loss of erythropoietin in CRF.

Radiology

- Renal ultrasound
- Kidneys-ureter-bladder (KUB)
- Computerized tomography (CT)
- Aortorenal angiography
- Cystoscopy
- Retrograde pyelography
- Renal biopsy
- Demonstrates disease processes, obstruction, and arterial defects.

Complications And Nursing Implications

Potential complications of renal failure include: electrolyte imbalance, dysrhythmias, fluid overload, metabolic acidosis, and secondary infection.

Monitor for and plan interventions for life-threatening complications, including:

- **Hyperkalemia;** Administer kayexalate or insulin as prescribed.
- **Hypertension:** Administer antihypertensives and diuretics as prescribed.
- **Seizures:** Implement seizure precautions.
- **Cardiac dysrhythmias:** Provide life support interventions for life-threatening dysrhythmias. Monitor the client for and report non-lethal dysrhythmias.
- **Pulmonary edema:** Prepare the client for hemodialysis.
- **Infection:** Maintain the client's surgical asepsis of invasive lines, monitor breath sounds, and turn the client every 2 hr. Monitor the client for signs of localized and systemic infections and report.
- **Metabolic acidosis:** Prepare the client for hemodialysis.
- **Uremia:** Prepare the client for hemodialysis

Management

1. **Medical Management of Acute Renal Failure**

Medical Management of acute renal failure must focus on first identifying and treating the cause. Maintaining volume homeostasis and correcting biochemical abnormalities remain the primary goals of treatment.

- Gathering a detailed patient history (pre-hospital and current)
- Maintaining adequate intravascular volume
- Maintaining mean arterial pressure
- Discontinuing all nephrotoxic medications (NSAIDS, Gentamycin)
- Eliminating exposure to any other nehphrotoxins
- Correcting acidosis (sodium bicarbonate for severe acidosis)
- Correcting hemolytic abnormalities (blood transfusion may be required)
- Correcting all electrolyte abnormalities (Hyperkalemia) is very common)
- Strict monitoring on intake and output/daily weight (Hydration for prerenal failure)
- Serial monitoring of labs (BUN/Creatinine/Osmolaity [urine/blood], etc)
- Diet and fluid restrictions/replacement (in a state of oliguria or polyuria).

Dialysis: (a short term intervention when fluids and electrolytes cannot be managed by other means).

This may involve the use of any of the following three methods:

Peritoneal Dialysis- Peritoneal dialysis is not commonly used as a treatment with acute renal failure. Although efficient, it is slow process that involves the transfer of fluid and solutes between the peritoneal cavity and the peritoneal capillaries. The clearance that occurs with peritoneal dialysis is thought to be less effective than other types of dialysis.

Hemodialysis – hemodialysis remains the primary method of renal replacement therapy in patients with acute renal failure. It provides ultrafiltration for rapid water removal and diffusion for solute removal. It is indicated for uremia, electrolyte imbalances, fluid overload and severe metabolic acidosis. Hemodialysis is recommended when there is a need for quick removal of water and toxins. One concern with using hemodialysis for critically ill patients with acute renal failure is that the process requires moving large amounts of fluid out of the intravascular system which can lead to acute and severe hypotension (secondary to hypovolemia).

Continuous Renal Replacement Therapy (CRRT)

CRRT therapy works similarly to hemodialysis except it is a continuous ongoing process that is less likely to cause acute hypotension. Other benefits to using CRRT as a method of dialysis include:

- Hemodynamic stability
- Correction of metabolic acidosis
- Quicker kidney recovery time
- Correction of malnutrition
- Solute removal

Pharmaceutical Interventions

Furosemide (Lasix)- a loop diuretic that can be used to increase urinary flow with the intent of flushing out cellular debris that may be causing an obstruction.

Mannitol- an osmotic diuretic that can be used to dilate renal arteries by increasing the synthesis of prostaglandins (resulting in restored renal flow).

Dopamine- at low doses (1-5mcg/kg/min), dopamine dilates renal arterioles and increases renal blood flow and glomerular filtration. Because

dopamine (even at low doses) can cause tachycardia, myocardial ischemia and arrhythmias it use should be considered carefully.

N-acetylcysteine (Mucomyst)- this medication can help reverse acute renal failure when the cause is thought to be from a nephrotoxic source.

2. **Nursing Management**

(A) Nursing Assessment and Diagnoses

A complete history and physical examination are necessary to identify progression of symptoms and possible causes for renal failure.

- **Physiologic Assessment**

Assessment of vital signs, level of consciousness, and other neurologic indicators helps to identify clinical signs of electrolyte imbalance. Measurement of the patient's weight on admission provides a baseline for evaluating changes in fluid status. Monitor urinalysis, urine culture, and blood chemistry studies. Inspect urine for color. Cloudy urine may indicate infection; tea-colored urine suggests hematuria. Assess urine specific gravity and intake and output.

- **Psychosocial Assessment**

The unexpected and acute nature of the patient's hospitalization creates anxiety for patient and relations. Assess for feelings of anger, guilt, or fear associated with the hospitalization. Such feelings are likely if ARF developed as a result of dehydration, a preventable injury, or poisoning. Assess coping mechanisms, family support systems, and level of stress.

- **Identified Nursing Diagnosis**

(1) Excess fluid volume related to decreased glomerular filtration and increased sodium retention. (Oedema++)

(2) Imbalanced Nutrition: Less than body requirements related to nausea, Vomiting anorexia and dietary restrictions.

(3) Risk for infection related to presence of uremia

(4) Impaired tissue perfusion related to low Haemoglobins level.

(5) Activity intolerance related to fluid and electrolyte imbalance and infectious process.

(6) Anxiety related to outcome of diseases.

(7) Risk for impaired skin integrity related to tissue edema

(8) Knowledge deficit related to therapeutic procedures.

- **Planning and Implementation**

Nursing care focuses on preventing complications, maintaining fluid balance, administering medications, meeting nutritional needs, preventing infection, and providing emotional support to the patient and relations.

⇒ **Prevent Complications**

Complications are best prevented by ensuring compliance with the treatment plan. Careful monitoring of vital signs, intake and output, serum electrolytes, and level of consciousness can alert the nurse to changes that indicate potential complications.

⇒ **Maintain Fluid Balance**

Estimate the patient's fluid status by monitoring weight (on the same scale), intake and output, and blood pressure two or three times a day. Also monitor serum chemistry values, especially for sodium. The aim of maintaining fluid balance is to achieve a stable serum sodium concentration and a decrease in body weight by 0.5% to 1.0% a day.

If the patient has oliguria, fluid intake, including parenteral nutrition, is limited to replacement of insensible fluid loss from the lungs, skin, and gastrointerestinal tract (about one-third the daily maintenance requirements in afebrile children). If the patient is febrile, fluid administration is increased by 12% for each centigrade degree of temperature elevation.

⇒ **Administer Medications**

Because the kidney's ability to excrete drugs is impaired in ARF, dosages of all medications should be adjusted. The actual dosage of the drug can be reduced or the time interval between doses can be increased. Check drug levels to monitor for drug toxicity. Be aware of signs of drug toxicity for each medication the patient is receiving.

⇒ **Meet Nutritional Needs**

Patients are at risk of malnutrition because of their high metabolic rate. Parenteral or enteral feeding may be used initially to minimize protein catabolism. The diet is tailored to the individual patient's need for calories, carbohydrates, fats, and amino acids or protein hydrolysates. Depending on the degree of renal failure, sodium, potassium, and phosphorus may be restricted. Oral feeding is initiated as soon as the patient can tolerate it.

⇒ **Prevent Infection**

The patient with ARF is extremely susceptible to nosocomial infections as a result of altered nutritional status, compromised immunity, and numerous invasive procedures. Thorough hand washing and standard precautions are imperative to decrease the risk of infection. Sterile technique should be used for all invasive procedures and when caring for lines. Drainage from catheter sites should be cultured to check for the presence of infectious organisms. Assess vital signs and lung sounds frequently.

⇒ **Provide Emotional Support**

The sudden onset of ARF presents parents with an unexpected threat to their patient's life. Both the patient and the relations experience anxiety because of the unexpected hospitalization and the uncertainty of the prognosis. Parents often feel guilty, regardless of the cause of renal failure. This guilt is intensified when renal failure is a result of dehydration or poisoning. Encourage parents to verbalize their fears and assist them in working through feelings of guilt. Explain procedures and treatment measures to decrease anxiety. Encouraging parents and older siblings to participate in the patient's care can increase their sense of control.

⇒ **Discharge Planning and Home Care Teaching**

- Encourage parental involvement early in the patient's hospitalization. Be sure that parents

understand the importance of administering medications correctly. Instruct family members in the proper technique for measuring blood pressure so they can monitor the patient's hypertension, if ordered. Have them demonstrate how to take the blood pressure.

- Diet counseling is a key component of discharge planning and is usually performed by a renal dietitian. Depending on the degree of renal failure, the patient's diet may include restrictions on protein, water, sodium, potassium, and phosphorus. The parents should be given written guidelines listing appropriate food choices to assist in menu planning. Ethnic and cultural preferences should be considered in listing menu options.
- Continued monitoring of renal function during follow-up examinations is critical as deterioration may occur over time. Referral to support groups can be helpful for parents and relations alike. The National Kidney Foundation is a source of numerous publications.

Evaluation

- Expected outcomes of nursing care include the following:
- The patient's fluid status is balanced with edema-associated with loss.
- Nutritional needs are met.
- The patient acquires no secondary infections.

Preventions

- Report early symptoms of stress in micturation
- Nephrotoxic drugs should be taken on prescription
- Prevention of urinary tract infections
- Encourage copious fluid intake to avoid dehydration
- Discourage pregnant women and nonpregnant women from eating clay soil (Nzu).
- Avoid direct injury to abdominal organs.

Summary

In summary acute renal failure is the sudden reduction or cessation of renal function to the point where the body fluid homeostasis is compromised, leading to accumulation of nitrogenous waste products, with or without reduced urine output. The causes, clinical manifestation, investigations, management, effects (complication) and prevention were highlighted.

Conclusion

In conclusion, early detection and prompt management of acute renal failure can result to good prognosis but if not well managed can result to chronic renal failure and death.

Recommendation

Government should open Nephrology centers in all hospital and dialysis unit duly equipped for prompt management.

Training of adequate nephrologist and nephrology nurses for expert management.

Patients with systemic diseases such as hypertension and diabetes should be managed effectively.

Adequate Public Health Education campaign should be carried out in all tiers of government.

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ATTITUDE OF FEMALE UNDERGRADUATE STUDENTS OF UNIVERSITY OF IBADAN TOWARDS LEGALIZATION OF ABORTION: A PILOT STUDY.

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Abstract

This study was conducted to find out the attitude of female undergraduate students of the University of Ibadan towards legalization of abortion in Nigeria as a pilot study. Eighty female undergraduates (55 married and 25 single) from the three selected halls of residence of the University of Ibadan participated in the study . They were selected through systematic random sampling technique. Descriptive method of data analysis was utilized. Findings revealed that 23 (28.8%) of the respondents considered abortion necessary. Of this number, 7 (30.4%) said it was to eliminate future obstacle among teenagers, 4 (17.4%) considered it necessary as a method of population control, 10 (43.5%) said it was a substitute for contraceptive device. However, 57 (71.2%) of the respondents did not consider abortion necessary because it is an act of killing a fellow human being. To another 17 (29.7%) abortion is against the will of God. The findings also revealed that out of the eighty respondents, 28(35%) said they had procured abortion in the past and their reactions were that of guilt, depression and shame while 52 (65%) said they have never had abortion.

It was concluded from the findings that there was a negative attitude among female undergraduate students of the University of Ibadan toward legalization of abortion. The need to educate adolescents and young people especially females about the mechanism of action of contraceptive agents and about their side effects in relation to unsafe abortion is paramount.

Key words: Attitude, Female undergraduates, Legalization and Abortion.

Background

The abortion debate asks whether it can be morally right to terminate a pregnancy before normal childbirth. Some people think that abortion is always wrong. Some think that abortion is right when the mother's life is at risk. Others think that there is a range of circumstances in which abortion is morally acceptable. There are diverse perspectives such as legal position, philosophical and ethical concerns, medical issues, religious views and so on. This study focuses on attitude of female undergraduate students of University of Ibadan towards legalization of abortion.

Abortion is a highly charged issue and people both for and against legalized abortion are known for their heated confrontations. Even the terms used to refer to those with differing philosophical opinions about abortion are cause for argument. "PROLIFE" and "PROCHOICE". There are many different opinions and many issues associated with abortion, one study on abortion (Luker, 1984) identified four major arguments that are the basis of differing feelings about the rightness or wrongness of abortion: the moral status of the embryo, the moment life begins, the personhood or the embryo and the woman's role in the society. Abortion issue is thus clearly a complex one involving many philosophical points, values and opinions. The implications of abortion for maternal – newborn nurses are therefore also complex.

The figures included in this paper are primarily based on the data provided by the Alan Guttmacher Institute (AGI). AGI data are based on national surveys of health institutions and private physicians providing abortion services. About 40% of the 1.1 million pregnancies of females under the age of twenty annually are terminated by induced abortions. Nearly one-third of all abortions are done on women under the age of twenty. (Melton, 1986:41). A substantial number and proportion of abortions are obtained by teenagers. In 1981 more than 1 in 4 of the estimated 1,577,340 abortions performed were to teenagers; 6 out of 10 to 15-19 year olds were to teenagers 18-19 years of age. The rising rates of abortion in 1973 reflect a substantial rise in teenage sexual activity. By 1979 premarital sexual intercourse was not uncommon, with one out of two woman aged 15-19 reporting they had ever had sexual intercourse.

The breakdown in traditional culture had undoubtedly led to the persistent indiscriminate sexual behaviour among the populace with the subsequent effect of unwanted pregnancy and with subsequent search for termination. Hence 'abortionists' will have to come to the rescue of such unfortunate individuals where female adolescents formed the higher percentage. However, it remains a volatile issue in

many quarters. Those in favour argue that it will reduce human suffering, especially for the poorest and most vulnerable. One managing director of a private hospital explains his views. "As a good Christian, 'No' to legalization of abortion, but as an experienced doctor, 'Yes'. Apart from the medical grounds for legalizing abortion, he also feels it is in line with women's human right. "Denying a woman access to safe abortion is a violation of women's human rights" says an undergraduate student. To protect their health and rights women must get access to safe abortion services. She points out that prohibition does not lead to fewer abortions. "A large number of women in this country die due to unsafe abortion and many others suffer physical injury to the reproductive system and, worse still, some contract HIV – from contaminated equipment used by back-street abortionists. However, she adds that much need to be done to improve our public hospital equipment and services before abortion is legalized.

The researcher has been nursing the idea of this topic, since she participated in a debate on abortion in University of Ibadan. Since then, she has been interested in abortion issue. More so, she is often burdened in the heart with various sad experiences brought about by unsafe abortion complications treated in hospitals of which teens account for 80% (Bankole, 2007). Against this background, this study among female undergraduate students of University of Ibadan provides information on their attitude towards legalization of Abortion in Nigeria.

Purpose of Study

It is pertinent to determine the attitude of those mostly concerned about abortion of which the female undergraduates are a unique part. Hence, the purpose of this study
is to determine the attitude of female undergraduate students of University of Ibadan to legalization of abortion in Nigeria.

Statement of Problem

A study conducted by the Guttmacher Institute of USA and The Campaign Against Unwanted Pregnancy of Nigeria (CAUP) has estimated that about 760,000 pregnancy terminations occur in Nigeria yearly. Besides, two-thirds of abortion seekers are young people aged 15-24years. In addition, 40% of maternal deaths are due to abortion and over 80% of patients presenting in Nigerian hospitals with abortion related complications are adolescent girls. Hence, in Nigeria, illegally induced abortion has been described as a schoolgirl's problem. There is therefore a special relationship between abortion and young persons and this study is poised to contribute to this quest.

Research Questions

The study was poised to find out from female undergraduates of University of Ibadan what had been their attitude toward legalization of abortion with regard to the following:

1. How do female undergraduates of University of Ibadan perceive abortion?
2. What is their attitude towards abortion?
3. In what situation(s) should abortion be considered as the best solution to an unwanted pregnancy?
4. Should abortion be legalized?

Theoretical Considerations

Crisis theory and the concept of attitude provide theoretical background for this study.
The functioning of every part of the human body is molded by the culture within which the individual has been reared – not only in terms of diet, sunlight, exposure to contagious and infectious diseases, but also by the way an individual, born into society with a definite culture, has been fed and disciplined, fondled and put to sleep, punished and rewarded. Culture is seen as a principal element in the development of the individual; which will result in his having a structure, a type of functioning, and a pattern of irritability different in kind from that of individuals who have been socialized within another culture. (Margaret Mead, 1963).

On the basis of his experiences in his particular environment, the growing individual gradually develops a coherent frame of reference and the key elements in a person's frame of reference are her basic assumptions about herself and her world. And on the basis of the assumptions about herself in relation to her work, the individual adopts certain attitudes – positions or postures toward various objects, events and situations.

The direction of the female undergraduate in this study towards abortion and its legalization could therefore either be positive or negative and any inconsistency between stated attitudes to abortion and observed behaviour in this study should be viewed from theoretical position proposed to explain attitudes within the context of culture.

Study Method

Design

This was a descriptive study designed to determine the attitude of female undergraduates of University of Ibadan towards legalization of abortion.

Study Area

The study took place at University of Ibadan, Ibadan, the capital of Oyo State which is about 150km from Murtala Muhammed Airport, Lagos, Nigeria. The University of Ibadan, founded in 1948 as a University of London at first occupied the old site previously used by the 56th Military General Hospital about eight kilometers away from the new permanent site. The University Campus with a population of over 17,000 is the largest single campus in Nigeria and the University is the foremost post graduate training centre in the country. The student population include various ethnic groups and foreign nationals especially from the ECOWAS countries.

Participants

Participants in this study were made up of 80

female undergraduate students of University of Ibadan. They were selected from the three halls of residence for females using systematic random sampling technique.

Each of the three halls was visited by the researcher and the research assistants following permission from appropriate quarters. Among the selected halls, the first rooms followed by every 25th room and the first bed by the right have their willing occupants as respondents. One hundred questionnaires were distributed to them and they were assured of the confidentiality of their responses. The researcher went round after three days to collect the completed questionnaires while the rest were collected by the research assistant according to the time given by the respondents few days later. Eighty-nine were retrieved out of which only eighty were suitable for analysis. Therefore, the findings of this study were based on 80 well complete questionnaires.

Instrument

A questionnaire consisting of 2 parts was used for data collection. Section A contains 7 items that provide personal information about the participants. Section B comprise 8 items that elicits information on opinions and attitude of the students toward legalization of abortion. Respondents were asked to choose from the alternatives. Psychometric properties of the instrument were ascertained via face and content validity and test-retest reliability which yielded a reliability coefficient of .92.

Method of Data Analysis

Descriptive method of data analysis was utilized using Statistical Package for Social Sciences, version 17.

Results

Eighty female undergraduate students living in the three selected halls of residence of the University of Ibadan supplied information for this study. The findings are presented below:

TABLE 1: Summary Table Showing the Frequency and Percentage of Demographic Information

Variables	Group (in years)	Frequency	Percentage (%)
Age	18-21	33	41.2
	22-25	27	33.8
	26-29	7	8.8
	30 & above	13	16.2
	Total	**80**	**100.0**
Marital Status	Single	55	68.7
	Married	25	31.3
	Total	**80**	**100.0**
Level	100 level	25	31.2
	200 level	9	11.3
	300 Level	12	15
	400 Level	30	37.5
	500 Level	4	5
	Total	**80**	**100.0**
Religion	Christianity	68	85
	Islam	10	12.5
	Others	2	2.5
	Total	**80**	**100.0**
Faculty	Science	39	48.8
	Arts	24	30.
	Social Science	17	21.2
	Total	**80**	**100.0**
Halls	Queens	28	35
	Idia	27	33.8
	Awo	25	31.2
	Total	**80**	**100.0**

Majority (68.7%) of the respondents were single, majority of them (35%) lived in Queen's hall, and their age ranged between 18 and 30 years.

Table 2: Respondent Views on Acceptance of Abortion

Acceptable	N	%
Yes	23	28.8
No	57	71.2
Total	80	100.0

Abortion was acceptable to most of the respondents (71.2%).

Table 3: Respondents' Reasons for accepting Abortion

Reasons for Acceptance	Yes	%
Eliminate obstacle to future Ambitions	7	30.4
Population Control	4	17.4
Measure	10	43.5
Substitution to Contraceptive Device	2	8.7
Others		

To most (43.5%) of the respondents, abortion was acceptable because they saw it as a substitute to contraceptive device. Acceptance by 30.4% of the respondents was because it helps to eliminate obstacle to future ambition among young people.

Table 4: Respondents' Reasons for not Accepting Abortion

Reasons for Non-Acceptance	No	%
Act of killing fellow human being	11	19.3
Against the will of God	27	29.7
Both	23	40.4
Others	6	19.5
Total	**57**	**100.0**

According to the table above, 29.4% of the respondents saw abortion as been against the will of God while 19.3% would not consider abortion because it is an act of killing fellow human being.

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TABLE 5: Views on Legalization of Abortion

Acceptability	N	%
Yes	14	17.5
No	66	82.5
Total	**80**	**100.0**

More of the respondents (82.5%) which is far above average did not support legalization of abortion while 17.5% of them supported its legalization.

Table 6: Respondents' Reasons for Supporting Legalization of Abortion

Reasons	N	%
(i) It would reduce the rate at which dangerous and illegal abortions are being carried out.	7	50
(ii) Less women would die from complications resulting from abortion	4	28.6
(iii) The social stigma associated with abortion would be removed.	-	-
(iv) The abortion patients would be under the close supervision of qualified personnel and such patient can be counseled.	3	21.4
Total	14	100.0

From the above table, nobody supported abortion on the basis of removal of social stigma, while (21.4%) supported because the abortion patients will be under the close supervision of qualified personnel.

TABLE 7: Respondents' Reasons for Opposing Legalization of Abortion

Reasons	N	%
(I) More women would take it as liberty to engage in indiscriminate sex..	22	33.3
(ii) It has a damaging effect on women's health, physically and mentally.	12	18.2
(iii) My religion is totally against it.	32	48.5
(iv) Others	-	-
Total	66	100.0

As shown in Table 7, most of the respondents (48.5%) did not support legalization of abortion on the basis of their religion. while (33.3%) are on the opposing side because many women would take it as a liberty to engage in indiscriminate sex.

Table 8: Respondents' Perception of What Abortion is

Variable	N	%
Social Problem	51	63.8
Individual Problem	20	25
Need	9	11.2
Total	80	100.0

As revealed in Table 8, abortion is majorly (63.8%) seen as a social problem.

TABLE 9: Respondents' Who Have or Have Not Procured Abortion in the Past.

Variable	Yes/No	N	%
Have you had abortion done before	Yes No	28 63	35 65
Total		80	100.0

From table 9, 35% of the respondents had procured abortion in the past while 65% of them had not .

Many focus-group participants perceived the adverse effects of modern contraceptives on fertility to be continuous and prolonged, while they saw abortion as an immediate solution to an unplanned pregnancy—and, therefore, one that would have a limited negative impact on future fertility. This appears to be the major reason why adolescents prefer to seek induced abortion rather than practice effective contraception.

Discussion

There have been papers examining the impact of abortion legalization on crime and other socioeconomic outcomes for other countries (Pop-Eleches; 2003, Sen, 2002) as well as on substance use (Charles and Stephens, 2002).This study was designed to determine the attitude of female undergraduate students of University of Ibadan toward legalization of abortion.

Abortion issue is a complex and divergent one, the acceptability among the study participants of which is still relatively low as evidenced by 28.8% acceptability as compared with non-acceptability of 71.2%. This is line with the statement of Flora (1989) that a mother whose life is threatened by the pregnancy may choose to continue the pregnancy. Out of those who accepted abortion, 4 (17.4%) did so on the basis of its acting as a population control measure. The argument is that, to the extent that it prevented unwanted births, legalized abortion could have reduced the likelihood of the teenage out-of-wedlock childbearing for the cohorts born after the legalization. This is analogous to the argument of Donahue and Levitt (2001) in which abortion was described as the oldest population control measure. Similarly, the low level of acceptability which the findings revealed does not support the assumption that female undergraduates will support legalization of abortion (17.5%).

Majority , 57(71.2%) of the respondents did not accept abortion as revealed by the findings. 19.3% of the respondents did not accept because they saw abortion as an act of killing fellow human being which is in line with the belief that life begins from conception. This view is supported by John Grady who said that the Bible teaches that the baby who has been conceived and lives in its mother's womb is a living human being, a separate and distinct person from its parents. Therefore, it has just as much right to live as any other human being. To deliberately kill it would be just as wrong as killing any other innocent human being. He explained further that abortion is wrong because it is a

failure to love, appreciate, and care for a human baby. It is also wrong because it constitutes the deliberate killing of an innocent human being.

The argument here is that abortion is a destruction of an innocent life and is therefore categorized as murder. A close analysis of these arguments indicates they reflect religious dogma that are not universally shared by all religions. For example, in Jewish philosophy, for a life to be human, it must have a soul. And according to this philosophy, "*The soul does not enter the body until the first breath of air at birth.*" Before then, a fetus is merely a potential human, not an actual human. Thus, abortion involves neither murder nor the destruction of a baby. (29.8%). (17) did not accept on the ground that it is against the will of God. This is supported by Orthodox Jew's view as discussed by David and Aroskar (1953). However, it contradicts the Jew's philosophy that a woman who has established a personal relationship with God is superior to a fetus that does not yet have a soul and thus cannot have a relationship with God.

It is estimated that of the 500,000 maternal deaths that occur each year throughout the world, as many as one-quarter to one third may be a consequence of complications of unsafe abortion procedures, (W.H.O. 1991). This view is shared by 28.6% of the respondents who supported legalization of abortion on the ground that less women will die from complications resulting from abortions. This is also in line with the belief of Konje and Obisesan (1991) that "…abortion has continued to constitute the major causes of human suffering including maiming and death in Nigeria. When a woman has a husband and already has a living, breathing child, the needs of her family make her life far more important than the life of any potential child. The right of a existing child already born to have a healthy mother has a far higher priority than the right of a fetus to be born.

Besides, Nigerian adolescents generally have low levels of contraceptive use, but their reliance on unsafe abortion is high, and results in many abortion-related complications as found in a study by Otoide et al. 2001. One of the potential explanations for this finding is that fear of future infertility was an overriding factor in adolescents' decisions to rely on induced abortion rather than contraception. In the same vein, Luda di (2003) observed that Nigerian girls use abortion as a contraceptive method.

Both Muslim and Christian leaders strongly urge people to abide by religious rules concerning sex and sexuality. "Abortion is condemned in the Catholic Church (Archbishop Policarp Pengo, 1980). In favour of this it could be inferred from the study that out of the 66 who did not support legalization, the highest number of respondents 32(48.5%) did so because it was totally against their religion. With this, the assumption that religion constitute a great hindrance in the acceptance of legalization of abortion is supported.

It is glaring from the findings that the number of respondents who did not support legalization of abortion is greater than those who supported it. (66, 14%). 33.3% believed that with legalization of abortion, more women would take it as liberty to engage in indiscriminate sex. This means that fear of unwanted pregnancy will be removed as women will be free to seek abortion anytime and anywhere, a view mirrored in official circles (1995).

Nevertheless, legalization of abortion in many countries does not necessarily mean that people have access to it as reported by Cohen (1990) where despite liberalization of abortion in Italy access remains a problem. Unless, health care systems can match liberal abortion laws with administrative and structural support, women may still be denied safe termination (Zanzubar, 1992).

Finally, from the study it could be inferred that the assumption which states that most of the female undergraduates of University of Ibadan would have procured abortion is not supported as 65% of the respondents have not procured abortion in the past. Nonetheless, 28 (35%) did and this percentage when extrapolated into the larger society has great consequences as they all confessed to having it done by quacks who were recommended by their friends. This is consistent with the findings of a study by Bailey, Bruno, Bezera et al. (2003) in which 3 groups of adolescents were compared with regard to their own considerations of abortion and when they believe abortion is justified. One group of adolescents terminated their pregnancies, a second group became pregnant and carried their pregnancies to term while the third also carried their pregnancies to term but did not consider abortion. Friends recommended abortion to at least half of the teenagers in each group. Besides, this is typified in a study by Worakamin and Boonthai (2001) which reported that 61.3% of those terminating pregnancies are 24 years old or younger, and 29.9% are younger than 20 years old. Among these, 24.7% of the cases are students as found in present study.

In sum, abortion is a serious problem especially among adolescents and it is frequently followed by both physical and psychological complications as there is no woman who intends to become pregnant to have her pregnancy terminated. After having undergone an abortion, there is some psychological damage resulting from feelings of guilt and loss. This is buttressed by Barnett *et al.* (1986), they reported the findings of their study which revealed that one year after an abortion, 14% of women were still in a state of emotional imbalance and 7% were clearly impaired emotionally in their everyday functioning. Sexual behavior and satisfaction are also adversely affected; 18% of women reported a decrease in sexual desire and 17% reported orgasmic disorders (Bianchi-Demichelli 2001).

There have been many discussions on both the advantages and disadvantages of legalizing abortions. (Otoides, (2001) Charles (2002), and Pop Eleches 2003). This is partly due to fact that people have been westernized by the rapid changes brought about by globalization, including changes in information technology and attitude to sex is one of the changes. Sexual experience begins sooner for teenagers who did not prepare well for the changes so many problems have occurred. Teenagers have sex

without correct information on things such as contraceptive methods, which make them use abortion as a contraceptive. The findings are consistent with Levine et al. (1999), who find that the early legalization had a much stronger effect on the immediate fertility of study participants. A better understanding of adolescent attitudes towards abortion and their decision-making process should help adults and professionals meet the needs of adolescents for support in the process and in the reduction of the number of unintended pregnancies in the future

Conclusion

The findings of this study implied that there have been concerns on the issue of abortion among female undergraduates while some supported legalization of abortion, majority did not.

There is no doubt that the rate of abortion for any indication is today on the increase, while the government's objectives of health care delivery system is social justice and development, the consequences of abortion in form of maternal mortality, crude death and reduction in the socio-economic indicators are not indications to quality health care.

Individuals, groups and families must be informed of the dangers associated with abortion and nurses stand the greatest chance to unify efforts of health care workers in this endeavour. The findings of this study provides additional literature to the question of whether abortion should be legalized and abortion liberalized or not.

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KNOWLEDGE AND PRACTICE OF SELF MEDICATION AMONG UNDERGRADUATE STUDENTS OF KOGI STATE UNIVERSITY, ANYIGBA – NIGERIA

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Abstract

The study was carried out to ascertain the knowledge and practice of self-medication among undergraduate students of Kogi State University, Anyigba, in a bid to create awareness on the dangers associated with self-medication and encourage them seek the help of a physician during illness. A descriptive research design was adopted as the methodology and questionnaire was used as an instrument to collect data from one hundred and forty respondents. The findings from the study showed that majority of the students (92%) have a good knowledge about self-medication; and a high percentage (85%) practice self-medication; and a good number of them, (about 41%) practice self-medication because the ailment was not too serious. The study concluded that Kogi State University students have a good knowledge of serf-medication and practice same, though, they are very much aware of the dangers of self-medication. Therefore, the University Clinic should be made more accessible to the students by creating a special unit meant for students' health counseling and guidance.

Key Words: Knowledge, Practice, Self-medication, Drugs, Undergraduate Students

Introduction

Self-medication has become a common practice among all age groups. It is estimated that almost 50% of the population practice it (McElnay, 2002). Self- medication is becoming an increasingly important area within healthcare. It moves patients towards greater independence in making decisions about management of minor illness, thereby promoting empowerment (Weiss, 2000).

To use drugs correctly, a basic knowledge about drug is required. Lack of knowledge forms a dual-edged sword for consumer autonomy. Consumers in general, do not have the type of information they need in order to make sound decision about a wide range of pharmaceutical products and their therapeutic effects (Stoelben, et al 2001). There is still an increasing trend towards self-medication despite various studies done on it. Current information to prevent self-medication is unsatisfactory and recommends continued study on the problems and reasonable proposals to discourage and prevent self-medication (Al-Motassem, 2007).

Internationally, there has been a shift towards self-medication through over- the-counter release of many prescription category drugs and wider acceptance and use of herbal preparations. The general community perception that these preparations are safe, may lead to inappropriate use (Mckenna, 2000). The classification of medicine as prescription-only-medicine (POM) and over-the-counter (OTC) drugs in Nigeria is present, so the public has access to a wider range of medications as per OTC drugs, though it has some implications on safety and effectiveness of the pharmacotherapy (Ademowo, 2005). Self-medication has advantages for health care systems, as it increases access to medication and may contribute to reducing prescribed drug costs associated with publicly funded health programmes. However, self-medication is associated with risks such as misdiagnosis, use of excessive drug dosage, prolonged duration of use, drug interactions and polypharmacy (Nordeng, 2000). The extent of self-medication in any educational society is determined by many factors such as the degree of development, the availability of medical manpower and the existence and enforcement of the laws relating to the type of drugs a patient can purchase on the chemist's counter without a doctor's prescription (Brieger, 2003).

Materials And Methods

The study was conducted in Kogi State University halls of residence (village hostel) which are: Slazards, Masira, Vip, Victory, Parliamentary and Success camp — all located within the vicinity of Kogi

State University Campus. The population of Kogi State University students was about two thousand, eight hundred as at the time of this survey and the study targeted students living in the aforementioned village halls of residence — numbering two hundred and eighty (280) students. Permission to conduct the study was given by the institution and individual students gave their informed consent. The study adopted a descriptive survey approach and a stratified random sampling technique was used to select one hundred and forty (140) students out of two hundred and eighty residing in the aforementioned halls of residence. Questionnaire was used as instrument for data collection — which comprises of sections A and B: section A describes socio-demographic variable while section B describes other variables related to the study. Data collection lasted for about one month (3rd to 31st March, 2010) and data collected were analyzed with the use of descriptive statistical procedure presenting frequencies and percentages, which were used to present summary tables for relevant variables.

Results

Table 1: Socio-Demographic Characteristics of Respondents

Age of Respondents	Frequency	Percentage
15-23	40	29%
24-32	65	46%
33-41	22	16%
42-50	10	7%
51 and above	3	2%
Total	**140**	**100%**

Marital Status	Frequency	Percentage
Single	62	44%
Married	54	39%
Divorced	9	6%
Widowed	5	3%
Separated	10	7%
Total	**140**	**100%**

Table 1 shows that majority of respondents (46%) were between the ages of 24-32 years. Twenty nine percent were between 15-23 years and 2% were 51 years and above. The marital status shows a greater percentage (44%) as single and 39% as married.

Table 2: Showing Respondents Knowledge about Self medication

Variable	Frequency	Percentage
Yes	129	92%
No	11	8%
Total	**140**	**100%**

The Table above revealed that majority of the students (92%) has adequate knowledge about self-medication whi1e 8% have no knowledge about self-medication.

Table 3: Showing Respondents Source of Information about Self-medication

Variable	Frequency	Percentage
Friends/neighbors	23	16.5%
Family members	23	16.5%
Health workers	38	27.1%
Radio/television	28	20%
Newspapers and books	17	12.1%
No Response	11	7.8%
Total	**140**	**100%**

Table 3 shows their sources of information which revealed that a greater number (27.1%) heard it from health workers and 20% from radio/television while 16.5% respectively got their information from friends/neighbors and family members and 12.1% heard it from newspapers and books.

Table 4: Showing if Respondents Practice Self-medication (Taking Drugs not Prescribed by a Medical Personnel)

Variable	Frequency	Percentage
Yes	119	85%
No	21	15%
Total	**140**	**100%**

On the practice of self-medication among the students, Table 4 showed that, majority of them (85%) practice self-medication, that is, they take drugs not prescribed by qualified medical personnel; while 15% did not practice self- medication.

Table 5: Showing Reasons why Respondents Practice Self- Medication

Variable	Frequency	Percentage
The illness was not very serious	57	40.7%
The waiting period in the hospital is too long	9	6.4%
I know the right drug for the illness because i have seen a doctor prescribe it for somebody	23	16.5%
The distance from my home to the hospital is too far.	6	4.3%
Seeking medical care in the hospital is too expensive	14	10%
There was no qualified medical doctor available.	11	7.8%
No Response	20	14.3%
Total	**140**	**100%**

A good number of them (40.7%) gave reasons as in the illness not very serious, others (16.5%) asserted that, they have seen a doctor prescribe such a drug for somebody; 10% said they practice self-medication because seeking Medicare in the hospital was too expensive, still others (7.8%) asserted, there was no qualified medical doctor available, and 6.4% of the respondents said, the waiting period in the hospital was too long, 4.3% of the respondents said, the distance from their houses to the hospital was too far, though there is a university Clinic (Tables 5)

Table 6: Showing Drugs commonly used by Respondents for Self-medication

Variable	Frequency	Percentage
Paracetamol	88	50.9%
Ampiclox	17	9.8%
Artesunate	26	15.0%
Actifed	9	11%
Total	**140**	**100%**

The study also revealed that, majority of the students (50.9%) commonly use paracetamol when engaging in self-medication; 15% self-medicate with Artesunate, 11% with Actifed and 9.8% with Ampiclox- (Table 6)

Table 7: Showing how Respondents arrive at the Dose they take

Variable	Frequency	Percentage
Previous prescriptions	36	25.7%
Manufacturer's prescription in the Packet	44	31.4%
Instructions from a patent medicine Dealer	19	13.6%
I asked my friends/neighbors	14	10%
I consulted drug guide for the dose	20	14.3%
No Response	7	5%
Total	**140**	**100%**

Table 7 shows how respondents arrive at the dose they take. Majority of the students (31.4%) asserted, they got the information from the manufacturer's leaflet while 25.7% said they got the dosage information from previous prescription, 14.3% said they consulted a drug guide for the dosage and 13.6% got their information from a patent medicine dealer while the last 10% got their dosage information from friends/neighbors.

Table 8: Showing the Rate of Effectiveness of Drugs taken

Variable	Frequency	Percentage
Temporary relief	52	37.1%
No effect	3	2.2%
It cured me completely	65	46.4%
It worsened the illness	3	2.2%
No Response	17	12.1%
Total	**140**	**100%**

The effectiveness of the drugs as revealed in the study shows that a greater number of the students (46.4%) were 'completely cured' after self medicating while 37.1% said it gave them a temporary relief and 2.2% respectively said it has no effect but that, it worsened the illness (Table 8).

Table 9: Showing if Respondents are aware of the Dangers of Self-medication

Variable	Frequency	Percentage
Yes	130	93%
No	10	7%
Total	**140**	**100%**

On the dangers of self-medication, Table 9, revealed that majority of the respondents (93%) said they are aware of the danger, self medication poses while 7% said they are not aware. The dangers are associated with under dosage; over dosage and drug interaction which can eventually lead to complications and possibly death.

Table 10: Showing if Respondents would encourage other Students to Self-medicate

Variable	Frequency	Percentage
Yes	6	4.3%
No	11	280%
No Response	22	15.7%
Total	**140**	**100%**

A greater percentage (80%) asserted they will not encourage other students to practice self-medication and 4.3% said, they will advice others to practice self-medication (Table 10).

Discussion

In assessing students' knowledge about self-medication, it was discovered from the findings that, majority of the students (92%) have a good knowledge about self-medication. This corroborates the study of Mubyazi et al (2004) which showed that knowledge of self-medication among the undergraduate students was high (87%). Thus further agrees with the survey conducted by Hughes (1999) which posited that, there was increase knowledge and practice of self-medication as regarding the dose and duration of drug therapy as well as adverse drug reaction.

Analysis also revealed that majority of the students (85%) practice self- medication and 40.7% of the respondents gave reasons why they practice self medication that, the illness was not very serious and others because of the waiting time in the hospital. This supports the work of AL-Bakri (2007) on the practice of self- medication among undergraduate students; he posited that, the practice of self- medication was high among the students and that the common reason for self- medication was that, the ailment was too minor to see a doctor (46%), other reasons were-long waiting time to see a doctor and/or avoidance of the costs of doctor's visit. This further supports Brieger (2003) who posited that, in rural areas, seeking orthodox care was often an expensive undertaking requiring not only money for medications but also for transport.

Among other findings, it was realized that the drugs that are commonly used by the students are — paracetamol (50.9%), Artesunate (15%), Actifed (11%) and Ampiclox (9.8%). This reveals that paracetamol which is an analgesic drug was most commonly used as a pain reliever. The reason is most likely associated with the treatment of fever by the students hence we are living in malaria endemic area. This agrees with Shankar, et al (2006), they asserted that paracetamol and Antimicrobial drugs were the drugs most commonly used by the University students. Again it supports the study of Eder, et al (2000) on the practice of self-medication among medical students, the study posited that majority of the students (58.7%) use analgesic drugs most often. The finding also partly supports Olayemi et al (2010) on the evaluation of antibiotic self medication pattern among undergraduate students, they asserted that self medication with antibiotics was most prevalent among students of health related faculties — Pharmaceutical Sciences (80.40%) and Medicine (80.40%) and the most reported antibiotic class (43.10%) was the $- lactams (as ampicillin and ampiclox)).

Conclusion

The study concluded that most of the students in Kogi State University have a good knowledge of self-medication and majority of them practice self-medication, though they are aware of the dangers accrued to practicing self-medication which are

associated with under dosage, over dosage and drug interactions which can lead to complications and possibly death.

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NANOTHERAPY

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Introduction

The application of nanotechnology to biomedicine, particularly in cancer diagnosis and treatment, promises to have a profound impact on healthcare. The exploitation of the unique properties of nano-sized particles for cancer therapeutics is most popularly known as nano medicine. Current cancer detection methods rely on the patient contacting their provider when they feel ill or relying on non-specific screening methods which unfortunately often results in cancers being detected only after it is too late for effective treatment.(Global cancer facts and figures; the American cancer society 2007).

Cancer treatment paradigms mainly rely on whole body treatment with chemotherapy agents, exposing the patient to medications that non-specifically kill rapidly dividing cells, leading to debilitating side effects. The biggest challenge in cancer treatment is the issue of selectivity, how to kill cancer cells while leaving healthy cells unharmed. But many commonly used chemotherapy drugs are not especially selective as a result patient can experience unpleasant and distressing side effects, including hair loss, sickness, tiredness and susceptibility to infections (Chisholm E. etal, 2009).

In addition, the use of toxic organic solvents can hamper the further effectiveness of the anti-cancer drug. Nano medicine has the potential to increase the specificity of treatment of cancer cells while leaving healthy cells intact through the use of novel nanoparticles.

Objectives Of This Paper

This Paper seeks to discuss the following:

- What is Nanotechnology/Nanotherapy
- Nanotechnology, its application in cancer detection.
- Types of Nanoparticles/carriers and their advantages.
- Nanotechnology and cancer treatment

What Is Nanotechnology/Therapy?

Nanotechnology is a broad word that comprises an assortment of sub- disciplines in biology, biotechnology engineering, chemistry and physics. Categorically, nanotechnology includes all particles that are on the order of one billionth of a metre. The National Nanotechnology Initiative (NNI) defines Nanotechnology at dimensions of roughly one to hundred nano metres (nm), but many in the scientific community advocate that in terms of size, nano particles extend up to 1000nm. More importantly because of their nano size, nano particles have unique physical and chemical properties that give them advantages as drug delivery carriers, or "Nano carriers" and diagnosis probes.

Additionally, at the size range, nano particles have a maximum surface volume ratio, which is ideal for surface functionalization as well as incorporation of a therapeutic load. Furthermore, due to their nano size and tunable surface properties (enabling the synthesis of aqueous, incurable solutions and the development of passive or active targeted systems); nano particles potentially have better access to tumour sites as compared to conventional drug delivery carriers. Nano is the Greek word for dwarf and means 10-9 metres or one nano-metre (nm). (http.//www.nano.gov/nano tech 2011) and (Global Cancer Facts and Figures; The American Cancer Society: 2007)

Nano Technology And Application In Cancer Detection

The application of nano therapy/technology is rapidly progressing, and has tremendous potential to make a revolutionary impact in health care, with profound effects on current treatment paradigms for various disease states. Although scientists have made a relentless effort over the past few decades to contain cancer, current cancer treatment regimen consist of doses of compounds that are non specific and highly toxic. Also, the inability of conventional diagnosis tools to detect cancer in an early and potentially curable stage further hinders effective treatment options and thus, by the time cancer is detected, it may be too late to prevent metastasis to other organs in the body. Due to their unique physical and chemical properties, different nano-carriers have come forward as feasible solutions for many of the draw backs associated with existing cancer treatments. One of the most important factors in effective cancer treatment is the detection of cancerous tumour cells in an early and perhaps curable stage. Thus, the detection time frame has an enormous effect on a patient's prognosis.

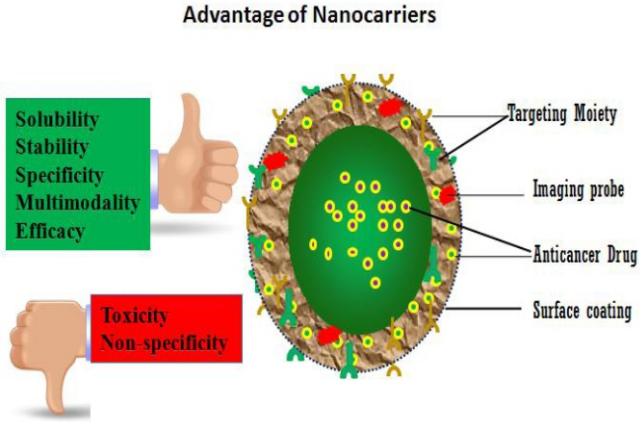
Nanotechnology brings new hope to the arena of, cancer detection research, owing to nano particles unique physical and chemical properties, giving them the potential to be used as synthetic scaffold for imaging probes in the detection and monitoring of cancer. Nano particles surface properties are tunable, meaning that their inject able solutions of can be made without using toxic organic solvents to attach water-insoluble anti cancer agents. These, along with nano particles ability to do passive or active tumour targeting, makes them an excellent

platform to use for diagnostic imaging and treatment. Thus, nanotechnology based imaging modalities have made a significant entry into cancer research with their potential of highly sensitive probes for cancer detection.

Types Of Nano Particles Or Carriers Used In Cancer Treatment

Nano particles include the following:

- Quantum Dots
- Nano Shells
- Nano Crystals
- Nano Cells
- Dendrimers



Nano particles as nano carriers have the following advantages:

- They increase solubility
- They increase stability
- They increase specificity
- They increase multimodality
- They increase efficacy
- They reduce toxic side effects and
- Improves upon the non specificity of conventionally delivered cancer treatment.

Nanotechnology And Cancer Treatment

The cure for cancer remains an elusive goal. Though there have been countless drugs coming to the market with the promise of eliminating this lethal disease, most of these drugs have proved to be toxic or simply not as effective at extending life expectancy as originally projected. Most of these drugs have serious side effects, even resulting in death to the patient, mainly because of their non specificity and thereby seriously affecting normal cells along with the tumour cells, one of the major strengths of a nano medicine approach is the ability to alter the pharmacokinetics and bio distribution of the drug. The idea behind targeted delivery that is now being elucidated is that chemotherapy drugs can be directed to cancer cells by exploiting the same properties of cancer cells that made their detection and targeting possible. The use of most chemotherapeutic agents is limited by their inherent problems such as poor solubility and low availability, and the toxic solvents used to formulate them.

Nanotechnology might have a deep impact in solving many of the problems associated with conventional anticancer drugs because nano-formulated drugs can be made as relatively safe, inject able formulations. Doxil and Abraxane are the two major nano-formulated drugs currently available in the market and already they have made an impact in cancer treatment worldwide. Doxil which is doxorubicin formulated in nano-liposome has shown significant improvements over its counterpart, free doxorubicin. AbraxaneR (Abraxis), with a size around 100nm, is an albumin bound nano particle formulation of paclitaxel and is widely used for the treatment of metastatic breast cancer. Abraxane clearly demonstrates the ability to convert insoluble or poorly soluble drugs, avoiding the need for toxic organic solvents. (NIH.Clinical Trials.gov.http)

List of the nano formulations currently available in the market is in the table that follows;

Product	Company	Drug	Formulation/ROA	Application	Status
Abraxane	Abrasix Bioscience, AstraZeneca	Paclitaxel	Albumin-bound nanoparticles/iv	Metastatic breast cancer	Marketed
Caelyx	Schering-Plough	Doxorubicin	Pegylated liposome/im	Metastatic breast and ovarian cancer; Kaposi sarcoma	Marketed
Myocet	Zeneus Pharma Ltd	Doxorubicin	Liposome/iv	Metastatic breast cancer	Marketed
Doxil	Sequus Pharmaceutical	Doxorubicin	Liposome/iv	Kaposi sarcoma	Marketed
L-Annamycin	Callisto Pharmaceuticals	Annamycin	Liposome/iv	Children and young adults with refractory or relapsed ALL or AML	Phase I/II
Genexol-PM	Samyang Pharmaceuticals	Paclitaxel	Methoxy PEG-PLA/iv	Breast and lung cancer	Phase II
CALAA-01	Calando Pharmaceuticals	Anti-R2 SiRNA	Cyclodextrin-containing polymer (CAL 101) and targeting agent (AD-PEG-Tf)/iv	Solid tumors that are refractory to standard-of-care	Phase I
Rexin-G	Epeius Biotechnologies	Dominant negative cyclin G1 construct	Pathotropic nanoparticles/iv	Recurrent or metastatic breast cancer	Phase I/II
BikDD Nanoparticle	MD Anderson Cancer Center/NCI	Pro-apoptotic Bik gene (*BikDD*)	Liposome/iv	Pancreatic Cancer	Phase I
Docetaxel-PNP	Samyang	Docetaxel	Polymeric nanoparticles/iv	Advanced solid malignancies	Phase I

ROA, route of administration; iv, intravenous; im, intramuscular; ALL, acute lymphocytic leukemia; AML, acute myelogenous leukemia; PEG-PLA, poly (ethylene glycol)-poly (lactide); Tf, human transferring protein; HCC, hepatocellular carcinoma

N/B: Nanotechnology not only has the potential to conjugate the required targeting moiety, but also has the ability to carry the moiety for site specific delivery without compromising its activity. But the Holy Grail of Cancer Research –a treatment that exclusively attacks cancer cells spread through the body, whilst leaving the rest of our cells unharmed still tantalizingly out of our grasp.

Nano Particles For Cancer Therapy

Andreas Schatzlein and his team at the London School of Pharmacy have been investigating various chain-like molecules called dendrimers for several years. When dendrimers are mixed with DNA molecules or cancer drugs, they form microscopic balls called 'nano particles'-you could fit tens to hundreds of these on the head of a pin. For reasons that no one yet understands, these nano particles are highly attracted to tumours possibly due to the unusual nature of the blood vessels that fuel cancers. They also have a tendency to build up in tumours, making them ideal candidates for smuggling substances into cancer cells. Similar nano particles containing cancer drugs such as Paclitaxel (Taxol) are already being tested in clinical trials, but Schatzlein and his colleagues are particularly interested in using them for gene therapy- transporting specific genes into cancer cells, causing them to make toxic proteins that can kill the cells whilst leaving the surrounding tissue unharmed. (Cancer Research UK Press Release http: // info. Cancer research UK. org/new/archive/press releases/2009/march/nanotreatments-target-cancer.)

Dendrimers

These are unique group of nanoparticles that are highly suitable for effective delivery of drugs, particularly for cancer treatment. Dendrimers can be synthesized by controlled, repeated polymerization reactions to engineer a desired shape and size; chemotherapy drugs, when incorporated into the core of the dendrimer, do not affect healthy cells. The dendrimer can be engineered so that when it gets into the target tumour cell, it can change its conformation, allowing the incorporated moiety to be released to the tumour site, efficiently suppressing tumour growth. The size, tenability and multifunctional capability to enhance multiple drug reactions to deliver a chemotherapeutic agent to the specific tumour site make dendrimers an excellent nano-carrier for tumour targeting and therapy.

Quantum Dots (QDS)

Over the past few decades quantum dots (QDS) have been an area of intense research due to their unique physical properties that can be exploited for cancerous tumour detection. QDS usually consist of an inorganic transition metal core/shell system and the majorities are made up of cadmium selenide, cadmium Telluride and the indium arsenide as core elements inside a shell, usually zinc sulphide (zns). The major reasons that these inorganic –organic composite nano particles are extremely efficient agents for cancer detection in vivo are their small size, which gives them unhindered access to the systematic circulation and at the same time their ability to conjugate targeting molecules that direct specific accumulation in neoplastic sites.

Additionally, similar to other nanoparticles, QDS have sufficient surface area to attach therapeutic agents and tumour specific moietics for stimulationeous drug delivery and in vivo imaging and tissue engineering. Depending on the size and the core/shell system, QDS have the ability to emit light across the visible and infrared wavelength spectrum and thus one can choose a suitable color of light emission. The main advantage of the QDS is that with a single light source the variously sized QDS can be excited while preserving the narrow emission of each individual particle/wavelength. Additionally, QDS have the ability to incorporate different markers simultaneously (multiplexing) enabling numerous targets to be imaged in a single experiment. (Smith etal, 2006). A recent advancement in QDS technology is the use of QDS for near infrared (NIR) imaging as an imaging probe. The main advantage of NIR QDS over its counterpart, visible QDS is that it increases the depth of tissue penetration, allowing for more accurate and sensitive detection of photon in vivo. (Gao, Chen and Cheng, 2010).

In summary, owing to their unique properties, such as photo stability size and composition –tunable emission properties (from visible to infrared wavelength) and their ability to deliver multiple diagnostic or targeting agents. QDS have emerged as a promising nanotechnology for cancer detection (Gambhir S.S etal 2005)

3. **PLGA Nanoparticles/Nano Cells**

One of the most extensively used nanoparticles for cancer treatment is the poly.(lactide-co-glycolide) PLGA – based nanoparticle proven biodegradability and a safe history have made PLGA nanoparticles, a first choice for many researchers. Synthesis of an oral formulation of paclitaxel using PLGA/Montmorillonite(PLGA) (MMT) nanoparticles has been reported.

4. **Iron Oxide Nano Crystals**

Though there have been tremendous efforts to determine a suitable imaging tool for cancer detection, until now only magnetic resonance imaging (MRI) has been used. It is one of the most frequently used, non invasive imaging tools for disease diagnosis and monitoring, including cancer. However, a major problem associated with MRI is its low sensitivity. Utilization of nano-technology to improve the sensitivity and efficacy of MRI for cancer detection and imaging is an area that researchers have focused on in the last

several decades.

Magnetic nanoparticles used in biomedical applications mainly have an inorganic nanoparticle core and in most cases are coated by a suitable coating material. Suitable coating not only increases the stability and solubility of the nano formulation but also can be used to incorporate a targeting moiety to increase the imaging sensitivity and to do real time monitoring.

Enhanced proton relaxation is one of the most added value properties that make magnetic nanoparticles one of the best contrast agents for biomedical applications of MRI. The most widely used nanoparticles of this kind are the super magnetic iron oxide (SPIO) nanopaarticles, which have been used under various trade names. SPION has been used as a bowel contrast agent (Lumerin, Gastromark) and for spleen /liver imaging (Endorem, Feridex) Combidex R an ultra small super magnetic iron oxide (USPIO), represents one of the major successes in this class of nanoparticles. Imaging liver tumours is a specialty use of SPIO nanoparticles. It is well documented that with the help of this technique, liver tumours or metastases as small as 2-3 mm can be detected. Preliminary toxicity studies of these magnetic nanoparticles have proven that these nanoparticles are relatively safe for clinical use.

A list of magnetic nanoparticles in clinical trials and already on the market is presented in the table below.

Product	Company/Developer	Coating Agent	Application	Targeting Moiety	Use
Feridex/ Endorem	AMAG Pharma, Inc.	Dextran	Liver tumors	None	Imaging
Ferumoxytol	AMAG Pharma, Inc.	Polysorbito carboxy methyl ether	CNS tumors	None	Imaging
	Bayer Schering Pharma AG	Carboxydextran	Liver metastasis; colon cancer	None	Imaging
SPION	Sun , Ranganathan, Feng 2008	PEG/Dextran	Breast cancer	Folic Acid	Imaging
SPION	Kohler et al., 2005	3-(aminopropyl) trimethoxysilane	Brain tumors	Methotrexate	Imaging and treatment
SPION	Sun, Lee, Zhang, 2008	PEG	Brain tumors	Chlorotoxin	Imaging and treatment
SPION	Wang et al., 2008	PEG	Prostate cancer	A10 RNA aptamer	Imaging and treatment
SPION	Leuschner et al., 2006	Chorionic gonadotropin	Breast cancer	LHRH	Imaging
SPION	Kikumori et al., 2009	Liposome	Breast cancer	Anti-HER2 antibody	Imaging
SPION	Chen et al., 2009	Dextran	Breast cancer	Herceptin	Imaging
USPION	Jiang et al., 2009	3-(aminopropyl) trimethoxysilane	Lung cancer	RGD	Imaging

CNS, central nervous system; PEG, poly(ethylene glycol); LHRH, luteinizing hormone releasing hormone; RGD, arginine-glycine-aspartic acid.

5. Gold Nano Shells

They are useful in detecting tumours and metastasis in many solid tumours. The main advantage of the gold is its potential for cancer detection and treatment of cancers using near- infrared light. In a study where silica/gold nano-shells were used to treat breast cancer in vivo, the nano shells were injected into tumour site and irradiated with 820 nm, 4w/cm_2 light pulses. The tumour site increased in temperature when irradiated with light, and thus this system had the ability to destroy the tumour cells without causing any harm to the surrounding normal cells. In another step forward, gold nanoshells were conjugated with ligands for specific accumulation in oral squamous carcinoma cell lines. Furthermore, these kinds of nanoshells have been used for targeted delivery and therapy of many cancers, including breast and prostate cancers.

Conclusion

Nanotechnology is considered one of the greatest man made engineering marvels in minuscule scale. The technology has grown exponentially in recent years and it arguably has had the most impact on contemporary science and society since technology of the industrial revolution. Demand for this cutting edge technology in biomedical fields is growing by more than 70% annually. One of the prospective report predicted that in the near future half of pharmaceutical industry products will have some connection with nanotechnology. Nanotechnology has already made an impact on cancer detection and therapy. The rapid intrusion of this cutting edge technology in the current pharmaceutical industry is manifested by Abraxane, a nano-medicine approach to treat metastasis breast cancer. These aluminium bound paclitaxel nanoparticles also have treatment potential for other

cancers with or without the co-presence of anti cancer drugs.

Thus, nano technology has multifunctional proficiency and enormous potential to detect, treat and monitor in real time, Nano technology applications in cancer detection and treatment have the potential to replace highly invasive conventional cancer detection and treatment which often include biopsies, irradiation and painful therapies; they can become part of a painful past.(Cuena etal, 2006).

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KNOWLEDGE OF NURSES ON CONCEPTS OF, AND ASSESSMENT OF ADULT POST-OPERATIVE PAIN MANAGEMENT IN SELECTED TEACHING HOSPITALS

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Abstract

This study evaluated the knowledge of nurses on concepts of, and assessment of post-operative pain in two teaching hospitals with a view to determining its contributions in the post-operative management of pain in adults.

A descriptive design was used. The University College of Hospitals (UCH) and Obafemi Awolowo University Teaching Hospital (OAUTHC), Ile- Ife, were purposively selected for the study. A self-developed questionnaire was administered on 71 randomly selected nurses working in the general surgical units from UCH and 46 nurses working at the surgical units of OAUTHC, Ile-Ife. In addition, the researcher collected qualitative data with the use of checklist through a participant observation. Data were analyzed with both descriptive and inferential statistics.

The result showed that there was a significant difference in the area of knowledge on concept of post-operative pain management in adults between the two hospitals. Those nurses working at UCH demonstrated adequate knowledge while those at OAUTHC had average knowledge ($t=11.928$; $p<0.05$). Furthermore, it was also revealed that there was a significant difference in skill performance and the educational preparation. Those with higher level of educational preparation demonstrated good skill than those with a lower educational level ($t=18.234$; $P<0.05$).

The study concluded that improved education had positive impacts on nurses' knowledge and skills in the assessment and management of post-operative pain in adults.

Keywords: Knowledge of Nurses, Concept of Assessment, Post-Operative, Pain, Management

Introduction

Pain following surgery is a universal problem. Major surgery as a form of acute injury provokes pain and other physiological responses in the post-operative period (Blank, 2001). Pain relief is desirable on humanitarian grounds to minimize or eliminate discomfort. But despite advances in knowledge of pain pathophysiology and the development of more effective techniques for post-operative pain control, a high proportion of patient still experience moderate to severe pain post-operatively. In response to this finding, the working party of the royal college of surgeons and anesthetists' (1970) published strategies in reducing patient's post-operative pain. This resulted in organizational improvements in the provision of pain relief after surgery. To achieve the report's recommendations, many hospitals have established pain teams which can achieve significant reductions in pain scores, while other report have highlighted the lack of improvement in some hospital staffs' attitudes to pain in developing countries (Clark, 2002).

Pain is an unpleasant subjective experience familiar to all of us (IASP, 1999). Most of the time it signals that something is wrong or some tissue has been injured or has become inflamed (IASP, 1999). When an injured or inflamed part is touched, the patient withdraws from the stimulus.

Pain has also been defined by the international Association for the study of Pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage (Merskey and Bogduk, 2001). Thus, emotion is fundamental to the experience and not a reaction after sensation of pain.

The nurse practitioner bases the initial assessment of pain on observable behavior and a physical examination of the patient. The patient's subjective report is useful, because different pain qualities are associated with specific disorders. Variations in intensity and persistence are also important. Pain is one of the commonest symptoms resulting from any deviation from health and has been described as an unpleasant subjective experience familiar to all of us. We can infer its presence in others by their vocalizations and behavior.

However, considering the fact that pain is a very subjective experience, the only authority on a

patient's pain remains the patient himself (Marcus, 2003). Therefore, the nurses' verification of pain is based simply upon the patient's indication that the pain exists (McCaffrey, 2003). This definition embraces all communications or signals from the patients about his/her pain both verbal and non-verbal behavior i.e. what he says and does. Acute pain in general is associated with a distinct disease or injury (Young, 1999). However, some acute pain states may progress to become chronic and may result from progression of the disease process or from a disturbance in neurophysiology following repair of the original injury.

The acute pain experienced by post-operative patients in hospitals is one of the most common clinical situations encountered by nurses and can cause great distress if not properly managed (McGrath,2001). Such pain and suffering experiences provoke emotional disturbances including an anxiety, fear and depression which activate the autonomic nervous system and the hypothalamic - pituitary - adrenal (HPA) axis. Adequate pain management depends on complete and consistent documentation of the patient's pain (Feser, 1999). This is because documentation is essential in post-operative management and recovery of surgical patients (McCaffery, 2003). Pain management is based on three components: behavioral indicators, physiological parameters and verbal report of pain. When considered together they give a complete picture of pain than when each of the components is examined separately. According to Coulthard et al (2000), behavioral measures alone were not valid measures of acute post-operative pain management. Useful behavioral indicators include the patient's vocalization, facial expressions and body movements (Abu-saad, 2001). Physiologic pain measurement parameters include, pulse, respiration and blood pressure. But the behavioral and physiologic cues may be affected by the non-pain related emotional states. Therefore, the third and the most often used components and most reliable indicators of how much pain a person is experiencing is the cognitive report of location, intensity and characteristics of pain (Jacox, 2000). The purpose of this study was to determine nurses' knowledge of assessment in the post-operative management of pain in adults.

Statement Of The Problem

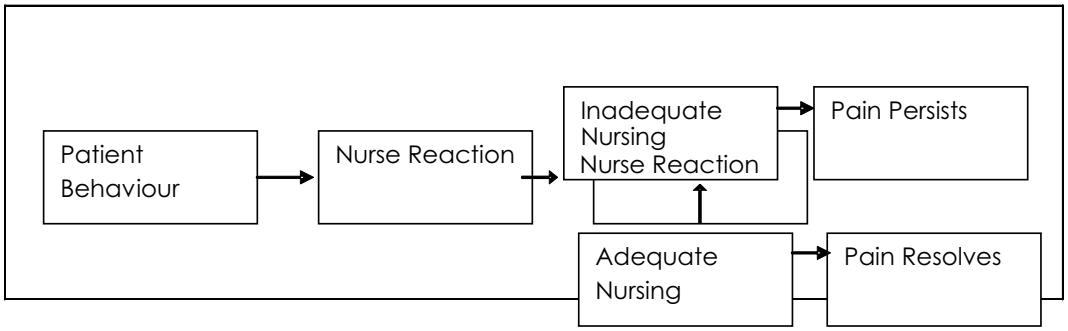
Post operative pain in hospital setting is a common clinical situations encountered by nurses and it requires nurses' intervention. This is because distress caused as a result of post operative pain is a common concern that nurses must appreciate and address as it can cause physical limitation if left unattended to. Therefore there is need for effective post operative pain management in order to diminish distress in patients, increase adequacy and enhance well-being. For this reason, this study therefore addressed the following questions:

1. What is the nurses' knowledge of assessment in the nursing management of post-operative pain?
2. Will nurses' education and years of experience influence skills in post-operative pain management?

Conceptual Framework

The theoretical framework for this study is the Orlando's Nursing Process theory by Peggy and Maeona (1995). The theory proposes that a patient is an individual with a need that, if supplied, diminishes distress, increases adequacy and enhances well-being. Post operative pain in patient is a need which requires actions of nurses. In order to meet this need and thus, alleviate distress which is in form of physical limitations, then nurses have to improve patient's behavioral change as the outcome of care which is also an indicator of patient's progress. There are three components of this theory; Patient behavior, nurse reactions, and nurse actions. Patient behavior and nurse reactions relate to the phase of nursing process and involve ongoing interactions with the patient. Once the need is clearly ascertained, the nurse acts deliberately, and this action yields solutions to problems. The overall goal is to meet needs and through this, alleviate distress (Peggy and Maeona, 1995).

Figure 1: Nurse-Patient Relationship Model



Adapted from Theory and Nursing, A Systematic Approach. (Peggy and Maeona, 1995).

This theory further stresses that when nurses' action is adequate, it brings about reduction in pain level and thus alleviate distress in patients. However, when action of nurses becomes inadequate, there is no pain reduction or pain resolution in patients.

Relevance of the theory to this study

The Orlando's nursing process theory provides a useful model for the care of patients generally. Hence, a good understanding of the nursing process approach by the nurse aid in provision of adequate nursing care to patients during post-operative recovery. Patient's behavior and nurse's reactions relate to the assessment phase of nursing process, and this has implication for pain management using a combination of physical and physiological approaches.

The nursing process theories believe that pain management is based on three components:-

1. Behavioral indicators
2. Physiological parameters; and
3. Verbal report of pain.

In essence, the management of post operative pain by nurses should encompass the physiological, behavioral and verbal indicators of pain, since pain is what the patients says it is. This view has also been expressed by McCaffrey (2003) who submitted that, "verification of pain is based simply upon the patient's indication that the pain exists".

Therefore, nurses' skill in building up relationship in their care of patient post-operative pain is greatly dependent upon adequate knowledge of assessment and proper experience of the use of therapies in resolving post-surgical pain. (See table 2).

Setting of the study

This study was conducted in two teaching hospitals selected because of their proximity. These are the University College Hospital (UCH) Ibadan, and Obafemi Awolowo University Teaching Hospital Complex (OAUTHC), Ile-ife. UCH was established in 1957. As the pioneer teaching hospital in the nation, it serves as a referral centre for all other hospitals throughout Nigeria. As a training centre for nurses, dentists, medical doctors, physiotherapists and other health care providers, it is well equipped with many trained personnel and specialists in all spheres of health and is patronized by people with diverse kinds of ailments from all over Nigeria. The OAUTHC is located in the ancient city of Ile-ife in Osun state. The institution was established in September 1975 and was then known as the Ife University Teaching Hospitals Complex. It is the only federal hospitals in the state. It has five adult surgical wards and a total of 90 surgical beds. It provides primary, secondary and tertiary health care for the people in the state as well as serving as a good teaching, research and clinical practice centre.

Target Population

The target populations of this study were nurses working in the adult male and female surgical wards of the two teaching hospitals.

Sample Selection

A multistage sampling technique was used in this study. From each of the hospitals, all surgical wards were included in the study. These wards were adult male and female surgical wards, intensive care units (ICU), neurosurgery, hepatobiliary and endocrine, as well as oral and maxillofacial wards. From each ward, a systematic sampling was used in selecting the nurses who participated in the study. Those on annual, sick or maternity leave were not included. A total of 117 respondents participated in the study with 46 nurses from OAUTHC and 71 nurses from UCH but only 113 copies of the distributed questionnaires were retrieved with 45 from OAUTHC, and 68 from UCH respectively.

Instruments for data collection

Two instruments were used in this study. They were a self administered questionnaire and an observational checklist. The questionnaire was a 'Physiotherapy Theory and Practice Scale of Pain Assessment in Adult Patients' which was modified in structure to suit the purpose of pain management in post operative patients. It is a 50-item questionnaire divided into five sections.

Section A contains questions on respondents' demographic variables, section B contains 8 items of questions on respondents' knowledge on post operative pain which include,

i. Definition of pain,
ii. How to identify when patient is in pain,
iii. Characteristics of post operative pain and
iv. Types of pain.

Section C contains 5 items of questions on respondents' knowledge of assessment of post operative pain. Section D and E contain 27 items of questions on respondents' knowledge of both pharmacologic as well as non-pharmacologic methods of management of patient post operative pain and how they manage pain in post operative patients.

The observational checklist was used to record observations made on the method of post operative pain management employed by nurses. This was used to corroborate the information supplied by the nurses in the questionnaire. It contains items to examine level of knowledge and skills of respondents in the assessment and in providing relief to post-surgical patients in pain.

Pilot Study

The pilot study was carried out at Ladoke Akintola University of Technology Teaching Hospitals (LAUTECH), Oshogbo, osun state, in April 2007. An informed consent was taken from the hospitals ethical committee. Using a systematic sampling method, 20 nurses were selected from the adult surgical wards in the hospital. The self administered questionnaires were given to these while the researcher used the observational checklist to assess the knowledge and

skills of the nurses. Test retest method was used during the pilot study in assessing the reliability of the instruments and the result from the correlation coefficient was 0.79 revealing a significantly positive correlation between the results.

Data Collection Procedure

All the selected registered nurses working in the surgical wards were given the questionnaire to complete while on duty. The completed copies were then collected on the spot. Such nurses were followed up by the investigator for observation during whichever shift they ran, using the observational checklists in the two selected hospitals. For the second instrument of study (observational checklist), all respondents were observed when they were on duty as they cared for patients within three days after surgery. Four copies of the questionnaire were eliminated due to errors in completing them, 113 nurses were observed.

Method of Data Analysis

Data were coded, entered into a computer and analyzed using SPSS (Special Package for Social Sciences). Descriptive statistical methods like frequency counts, and percentages as well as inferential statistical method, that is, chi-square, and student t-test were used.

Results

Socio Demographic Characteristics of Respondent

The respondents' age ranged from 20-59 years with a mean of 36.5 years and SD = 5.8 years for respondent from OAUTHC, Ile-Ife, and a mean of 36.7 years and SD of 6.1 years for the UCH group. The years of experience of the two groups ranged from 1-27 years with mean of 13.5 years. At the OAUTHC, 16% were males and 84% were females while at UCH, all the respondents were females (100%). The nurses in these two hospitals held a variety of positions including nursing officers (NO) to the rank of Acting Chief Nursing Officers (ACNO). The highest qualification received by the respondents was post-graduate degree certificate in nursing, OAUTHC (4%) and UCH (4.1%). However, UCH had 8.3% with first degree certificate in nursing while OAUTHC had none in this category as at study time,(see table I). The table also revealed that majority of the respondents were in the rank of Nursing Officer, 60% at the OAUTHC, Ile-Ife, and 50% at UCH, Ibadan respectively. In terms of years of experience in UCH, 43% of the nurses have worked within 6-10 years, and 16% between 11-15 years. Others were as follows, 16-20 years (10%) 1-5 years (18%). Those that have worked for 21 years and above were 7% and only 6% have worked for 26-30 years. While at OAUTHC Ile-Ife, 31% of the nurses have worked within 6-10 years, 11% between 11-15 years, and 22% of the respondents had between 16-20 years of duration of practice. Those with 21 years and above were 9%, and another 9% have worked within 21-25 years and 26-30 years. Majority of the respondents had registered nurse certificate plus midwifery as post basic experience (78% OAUTHC), and (61.1% at UCH). Others were Post- Basic Public Health Nursing (7%) psychiatry post-basic (11%) for OAUTHC and (26.3%) had Public Health certificate as post-basic in UCH, Ibadan.

Table 1: respondents` demographic profile of study population

Demography	Institution		Health	
	OAUTHC, IFE %		UCH, IBADAN % N=72	
Age in years				
20-29	9	20.0	24	33.0
30-39	21	46.7	9	13.0
40-49	12	26.6	23	32.0
50-59	3	6.7	16	22.0
Total	45	100.0	72	100.0
Gender				
Female	38	84.0	72	100.0
Male	7	16.0	–	–
Total	45	100.0	72	100.0
Professional Status				
ACNO	14	31.0	16	22.0
PO	4	9	20	28.0
NO-SNO	27	60	36	50.0
Total	45	100.0	72	100.0
Year of Experience				
1-5	8	18.0	13	21.3
6-10	14	31.0	31	41.3
11-15	5	11.0	12	16.0
16-20	10	22.0	7	9.3
21-25	4	9.0	5	6.8
26-30	4	9.0	4	5.3
Total	45	100.0	72	100.0
Educational status				
RN+RM	35	78.0	44	61.1
RN+PHN	3	7.0	19	26.3
RN+PSYCHIATRY	5	11.0	--	--
B.SC	--	--	6	8.3
Post-Graduate	2	4.0	3	4.1
Total	45	100.0	72	100.0

Management strategies used in post operative pain management by respondents

Table 2 shows the pharmacological management used by the respondents. Thirty percent (31%) of the respondents at the OAUTHC, 60% of the respondents at UHC, used intravenous drugs in the management of patients` post-operative pain. It was also observed that 62% at OAUTHC, and 59.4% in UCH gave intramuscular drug of opioids, while oral administration of analgesics was used only by 6.6% of the respondents at the OAUTHC and none from UCH.

Table 2: pharmacological strategies used by nurses in management of post-operative pain in selected hospital

Therapy	OAUTHC N=45 (%)		UHC N=68 (%)	
Intravenous (IV)	14	31	27	60.0
Intramuscular (IM)	28	62	41	59.4
Oral	3	6.6	---	----
Total	45	100.0	68	100.0

Knowledge of respondents on concept and assessment of post-operative pain

Shows the respondents` level of knowledge on (i) concept of post-operative pain and (ii) assessment of post-operative pain in patients at the OAUTHC, and UCH. This was based on items 11 to 23 on the questionnaire, and scores were awarded for the ratings. Total score that can be obtained was ten. Respondents who scored (0-2) had no knowledge, (3-5) marks had an average knowledge , while those between (6-10) marks had adequate knowledge. Thus, responses from respondents on these items were appropriately analyzed fro scoring. On knowledge of respondents on concepts of post-operative pain, that is, the definition of pain, concept of types of pain and criteria for management of post-operative pain by respondents were included in section B under knowledge. But on nurses` knowledge of assessing patient post-operative pain, responses were obtained on how frequently the respondents assess patient for post-operative pain, and what and how they do this as well as instrument of patient pain. All this is contained in Section C of the questionnaire. The results showed that 84.5% of respondents at the OAUTHC had average knowledge while 15.5% had adequate knowledge on assessing post-operative patient pain, 60.0% and 40.0% of the respondents had average and adequate knowledge respectively. At UCH wards, 33.8% of respondents had average knowledge on concepts of post-operative patient pin while 66.0% had adequate knowledge. On the knowledge for assessment of pain, it was 36.7% that had average knowledge and 63% that had adequate knowledge. (See table 2x3) as revealed on table 4 & 5, with P<the student t test showed that more nurses at UCH had adequate knowledge on the concept of post-operative pain when compared with nurses at OAUTHC (t-test=11.982) and in the area of assessment of post-operative pain (t-test=18.234).

Table 4: knowledge of nurses on concept of, and assessment of post-operative pain

Institutons	Nurse knowledge on concept Of post-op pain				Nurses` knowledge on assessment of post-op pain			
	Average	%	Adequate	%	Average	%	Adequate	%
OAUTHC N=45	35	84.5	7	15.5	27	60	18	40
UCH N=68	23	33.8	45	66.0	25	36.7	43	63

Table 5: difference in the knowledge of nurses on concepts and assessment of post operative pain using the student t-test analysis

Institution	Concept of post-operative pain		Assessment of post-operative pain	
	average	adequate	average	adequate
OAUTHC	38	7	27	18
UCH	23	45	25	43
t-test	3.743	11.982	0.488	18.234
p-value	0.799	0.001x	1.281	0.021xx

Key: at P<0.05, x is significant
At P<0.05, xx is significant

Discussion

On the knowledge of respondents on concepts of post-operative pain, that is, definition of pain and criteria for management but nurses, 84.5% of the respondents at OAUTHC had average knowledge and 15.5% had adequate knowledge. On knowledge of assessment of post-operative pain, 60.0% had average scores and 40.0% had adequate scores. In UCH, on knowledge of post-operative pin, 33.8% of the respondents had average scores, while 66.0% had adequate scores. But for assessment of post-operative pain, 36.7% had average scores, and 63.0% had adequate scores. Total score that can be obtained was ten. Average scores (3-5), and adequate scores (6-10).

On the knowledge of respondents on concepts of post-operative pain, that is, definition of pain, type s of pain and criteria for management by nurses, 84.5% of the respondents at OAUTHC had average knowledge and 15.5% had adequate knowledge. On knowledge of assessment of post-operative pain, 60.0% had average scores and 40.0% had adequate scores. In UCH, on knowledge of post-operative pain, 33.8% of the respondents had average scores, while 66.0% had adequate scores. But for assessment of post-operative pain, 36.7% had average scores, and 63.0% had adequate scores. Total score that can be obtained was ten. Average scores (3-5), and adequate scores (6-10).

These findings provide an insight into the nurse` knowledge of assessment in the nursing management of post operative pain. The method that was mostly used in this study was drug therapy, that is, the intramuscular and intravenous injections of opioids.

This finding supports Soyannwo's (2002) work who concluded that the post operative prescription

and the route of administration that the nurses usually choose are the intramuscular opioids. The results of this study indicate that opioids administration via the intramuscular route is still the most popular strategy nurses employ in the management of patients' post operative pain; once prescribed. This was also emphasized by Tuck (2002). In his study, 72% of the nurses gave intravenous drug of analgesia while 28% gave intramuscular drug. Marian (1992) and David and Jeffrey (2000) had similar findings in their studies. Patients with post operative pain were managed with the use of intravenous drug of opioid. Administrations of intramuscular and intravenous injections were better and more skillfully provided by respondents in this study. Nurse with 10 years and above post qualification experience demonstrated good level of skill in the administration of intramuscular and intravenous injections of opioids in relieving patient post surgical pain (Ayoola et al, 2002;, Soyannwo, 2002).

The observed high level or adequate concept of knowledge on assessment of post operative pain in this study could be linked with years of experience. This finding supports the American Nurses Association code of ethics for nurses (2001) stating that the importance of nursing in self determination and decision making in helping patients is in improvement in advances in knowledge and experience. These findings therefore throw a lot of challenges to nurses working in surgical wards.

Summary

This study evaluates the nurses' knowledge of assessment in the nursing management of post operative pain in adult patients. It was conducted at the UCH Ibadan and at OAUTHC Ile-Ife. The population studied was the registered nurses in the surgical units of the selected teaching hospitals. A total of 117 respondents with 45 nurses from OAUTHC, Ile-Ife, and 72 nurses from UCH, formed the study subjects. Two instruments used for data collection were self administered questionnaire and observational checklists that were pilot tested at LAUTECH teaching hospital, Oshogbo. Major finding from the study were;

1. Majority of the respondents used drug therapy in pain relief.
2. The respondents' demonstrated high skill in giving of intramuscular and intravenous injections could be linked with years of experience and the frequent use of drug therapy.
3. The study also revealed that as the years of experience of the respondents increased, so also is their level of skill in patients' post operative pain management. There was also a significant influence of the education of the respondent on their management skill.

Implications for nursing

Post operative pain is one of the major obstacles in the prevention of complications during patient's recovery. Also, lack of or inadequate management of pain as well as deficiencies in knowledge of nurses' assessment about pain management can greatly affect the effectiveness of care.

The nurse spends more time with the patient with pain than any other member of the health team and therefore has the opportunity to make a significant contribution towards increasing the patient's comfort and relieving pain. Hence, to help the patient in pain, a thorough assessment and management is quite important in order to reduce the occurrence of under treatment and unrelieved pain in patients. However, to raise nurses' awareness of their responsibilities in this crucial area of care, continuing education programmes on pain assessment and management should be actively and vigorously encouraged and pursued. Pain should also become the fifth vital sign in all clinical areas with standardized pain assessment charts and tools in all the surgical wards for proper assessment and appropriate management of post operative pain. There should also be regular practical workshops and seminars.

A ward-based file providing easy access to current research findings and appropriate information which nurses can have access to whenever they wish would encourage the use of good pain assessment and management techniques.

Recommendations for further research

Further studies could be conducted in more teaching hospitals all over the country to know the general trend of post operative pain assessment and management among nurses. Comparisons could be made among such teaching hospitals. In addition, management of post-operative pain was studied from the perspective of the nurse. Another research could be conducted on assessment of post-operative pain and management from the patient`s perspectives so as to have a broader picture of post-operative pain management. This study could also be replicated using larger population of nurses working in the surgical units of teaching hospitals.

The effects of some other factors like sex, ethnic background and religion on patient's pain behavior can also be looked into. The effects of other factors from the practitioners' perspective like nurses' previous experience of pain (e.g. surgery), the tribe, sex, and level of education of the nurses could also be studied. Besides, a study could be done on the differences in pain assessment and management method of nurses in the adult and pediatric surgical wards.

Conclusion

Post operative pain is one of the daily challenges that nurses handle all over the world. Therefore, nurses must embark on adequate and effective measures both on assessing and management strategies to reduce patients' discomfort and enhance their well-being during and after post operative recovery. For nurses to achieve this crucial role of professionalism, continuing educational programs on pain management strategies through

adequate knowledge of assessment must be vigorously pursued by nurses.

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WELFARE AND CO-CURRICULAR ACTIVITIES IN NURSING PROGRAMMES

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Abstract

Social welfare services are packages of services usually provided by government and non-governmental organizations to alleviate the sufferings of the less privileged.

Social welfare programmes aim at promoting social functions of individuals, groups or communities for effective performance in life activities. Welfare services in schools are necessary to take care of the problems that could hinder academic performance among students. This could be enhanced by co-curricular activities which facilitate learning and improve skills. Co-curricular activities are those activities outside academics that are incorporated in the general curriculum of the school programme. This paper outlines the various aspects of co-curricular and social welfare activities which include approaches and categories of social welfare and co-curricular activities in schools. It also reviewed the importance of welfare and co-curricular activities in nursing programmes. There is therefore need for nursing administrators, educators, counsellors and programme planners to integrate co-curricular and social welfare programmes in nursing institutions as this will help to improve nursing education, research and practice.

Introduction

Welfare is synonymous with well-being. It can be said to mean the general health, happiness and safety of a person, an animal or a group; practical or financial help that is provided often by the government for the people or animals that need it.

Social welfare is conceptualized as socially organized process by bodies, institutions agencies for the provision of services and programmes to the society. These programmes aim at improving and sustaining the socio economic, health and personality competence of members of a given society. Welfare involves the provision of personalized and professional care and services with the objective of reforming the said section of the population from their social deviation back to the accepted standard of their every day normal life.[1] Welfare services can be provided for matters concerning employees, which are not directly connected with their job, although they may be connected generally with their place of work. This can be a private help given to individuals in the form of counseling when they have personal problem, assistance with problems of health or sickness, special services for retired employees etc. The importance of social welfare to institutions/establishments can never be over emphasized. There is no institution be it federal, state or private that does not need social welfare for its staff and students to function maximally.

Co-curricular activities are otherwise known as extracurricular activities or experimental learning programmes which could be integrated into the general curriculum of the school programme for it to help realize the educational objectives. Such activities include association membership like Nigerian Universities Nursing Students Association (NUNSA), clubs like keggites, field trips, choir, tennis instrumental music, students senate, and student newspaper and literacy magazine association, excursion, sports activities, visit to important personalities, students forum etc. Co-curriculum activities may be of a wider breadth in an institution, depending on its value to the educational administrator and the available materials and fund.

Co-curriculum aims to help students develop independence of mind and spirit, gives them opportunity to discover their creativity/abilities and strength through a range of sporting, social and cultural activities which run parallel to their academic development. Sometimes co-curriculum is an extension of the academic programme as students gain experience through interactions while competing with others outside their educational institution.

Different institutions have different welfare services. Some welfare services are established on the personal initiative of the school Education Welfare Officer (EWO) and as a response to perceived need.

Ideally every institution is supposed to have an educational welfare officer. The EWO has the right to cross the "organizations boundaries of care" which exists to help protect the school as an institution from the outside world.[2]

Commonly available welfare services identified by Collins[3] include: protective services, correctives services, preventive and restorative services.

Approaches to Social Welfare

There are two main approaches to social welfare and these include residual and institutional approach.

Residual Approach: Akinsola[4] defined residual welfare services as welfare activities organized by government to alleviate the suffering of the socially underprivileged such as the handicapped, unemployed, victims of disaster. By this approach social services are considered as a collection of

emergency measures to be provided when normal mechanism and institutions have failed in order to bring society back to normal functioning. Residual approach sees the social welfare as temporary measures which occur periodically to resolve a given problem and retire thereafter. The approach focuses on temporary and emergency resolution of welfare issues and fails to pay attention to preventive and permanent services and care for those who are permanently dysfunctional in the society.

Institutional approach; This is regarded as a holistic approach to social welfare. It came up as the residual approach failed to take a permanent look at issues requiring social welfare. As mankind is faced with the need for provision of both preventive and curative solutions to social problems, there is need to seek for this holistic approach. Institutional welfare services are those services which the government, christian organizations and philanthropists provide for all the members of the society by subsidizing the cost of social amenities. This approach sees social welfare as a necessary function of any society not just for the provision of unmet needs and resolution of social dysfunction. Such services include schools, hospitals, postal services, water supply, electricity and roads. By this approach it is believed that social welfare involves those services needed by individuals and groups that can create a positive impact which helps them to achieve their goals.

The school administrator uses the two approaches in performing her duty. For instance the residual approach is when a student or staff presents a personal problem that needs to be attended to, like borrowing money to completed house rents. There are institutional welfare services in a school and these include sick off permission and free medical treatment in some cases, conducive working environment for staff, good accommodation for students (nurses' home), free education to students, water supply, security, electricity etc.

Categories of Welfare Services in Educational Institutions

According to Armstrong[5] welfare services fall into two categories which include:-

1. Individual or personal services
2. Group services.

Individual Services: Individual services are those relating to employees such as private help, e.g. counseling or helps that are connected directly to her job or studies. In educational institutions it involves the help and services offered to the students/ learners and the staff of the school individually depending on their personal needs. For instance the educational administrator ensures that guidance –counseling services are rendered to the students so as to solve their problems during the period of study. The counseling could be in area of health, choice of careers etc.

Educational and health counselors are usually employed to the school for this purpose. Counseling services are an example of individual services and all individual services require personal casework. Counseling on psychological and social service can prevent and address problems, enhance students learning, encourage health behaviour, and promote a positive school climate. These services are especially needed because of the emotional challenges many students face due to parental divorce or death, family or peer conflicts, alcoholism and drug abuse. School counseling and psychological services are capable of intervening in areas of assertiveness training, life skills training, peer interactions self esteem, problem solving and conflict resolution.

Group Services: These are welfare services offered to a group of employees or students which could be in form of sporting activities, social activities like periodic field trips to important areas in the nation, club service for retired staff etc. Some of the welfare services include moral instruction, guidance and counseling, etc.

Co-curricular activities in Schools

Co-curricular activities exist in primary, secondary and tertiary institutions. In the past, co-curricular activities were being neglected in nursing schools. This was probably because in nursing schools, the academic programme seemed so compacted that the nursing administrators found it difficult to include co-curricular activities. These days the case is not the same as various schools of nursing and nursing departments in the universities have many co-curricular activities. West African University game (WUGA) which was hosted by University OF Ibadan in 1965 and Nigeria University games Association (NUGA) which started in 1966 at the same University are few examples. For NUGA, 36 Universities are members with 15 approved sporting events such as tracking and field games, badminton, chess, basketball, cricket handball, hockey, judo, soccer, squash, swimming, lawn and table tennis, trackwondo and volleyball. NUGA was hosted by University of Nigeria Nsukka, between February 9th to 23rd March 2009. Nigeria school of Nursing and midwives games (NISONMG) also provides a variety of activities that promote co-curriculum in Nursing and midwifery schools. Co-curricular activities can be on weekends, in the evenings after school or at a certain period in the academic programme. Nursing educational administrators should endeavour to include various co-curricular activities and empower their students to embrace them. Co-curricular activities are all entirely voluntary but there is high levels of participation since it involves many activities. The school administrator believes that every student matters and there must be one of the activities an individual will be interested in.

In recent years many potentially promising careers and employment opportunities have developed in settings other than schools and colleges where the need of co-curricular activities has been stressed. Just as participation in youth high school and college sports has grown, so also has interest in public and private sector physical education.[6] Meek further

started that many large and small corporations and business mangers have begun to offer their employees health fitness and wellness programmes, because they found that improved fitness among their staff leads to improved health, decreased absenteeism and high level of employee productivity and job satisfaction. The question is; do staff of nursing departments of Nigerian Universities and schools of nursing involve themselves in co-curricular activities? A survey by the United State department of Health and Human Services (1987) revealed that more than half the United State companies with 750 or more employees and almost 35% of the companies with 250 have workplace health and fitness programmes or benefits. The U.S Department of Health and Human Services has set a goal for the decade of 2010 to have 75% of large companies provide fitness and wellness programmes for its employees USDHHS.[7] The educational administrators and staff of nursing departments/nursing schools should not be left out because they are also involved in academics and need programme distractions in the name of co-curricular activities so as to bring out their best.

The role of the educational administrator in welfare and co-curricular activities. Educational administrators of any form of institution have myriads of roles to play to enhance welfare and co-curricular activities in their instutions. They include;

1. **Identification of staff and students problems:** According to Marquis and Huston[8], a leader in "doing phase" should create motivating climate, establish organizational communication, manage conflict, facilitate collaboration, negotiate and comply with union and legal constraints affecting management. They also noted that all human beings have needs that motivate them. This implies that when a staff or student is in need of one thing or the other, the school administrator uses leadership and management skill to address the problem in order to accomplish the goal of the school. Hence, for a school to provide effective welfare and co-curricular services, the administrator should be able to identify and solve staff and students' problems.

2. **Create motivational climate:** Motivation according to Mills[9] is the force within the individual that influences strength or direction of behaviour. Motivation is the willingness to put effort into achieving a goal to decrease the tension caused by unmet need. It can be intrinsic (i.e. caused by things within the person) or extrinsic (caused by things in the person's outside environment). These unmet needs constitute welfare problems which the administrator tries to meet. The school administrator cannot identify a staff that needs motivation by looking at the face but by creating a good working environment so that the individual and departmental goal will be met. She should apply techniques, skills and knowledge of motivational theory to help students and staff achieve what they want bearing the institutional goal in mind. The administrator understands students/ employees values and devises a reward system that is consistent with the value system, (usually a positive reinforcement is preferred). For instance, a staff or student can receive an award at the end of the session as the best behaved or the most punctual worker, the best in academic performance etc. A good interpersonal relationship among the workers allows the free expression of innovation and creativity which stimulates individual motivation.[10] In a nutshell, the environment of the organization may cause welfare problem to the staff and students which needs to be addressed by the school administrator.

3. **Establishing communication:** The school administrator should maintain effective communication among the students and staff to enable them increase learning and productivity. She should run an open door policy, making herself available and approachable. The more she interacts with the students and staff, the more she attends to their problems. An administrator who frequently projects unhappiness to subordinate contributes greatly to low unit morale.

4. **Facilitating collaboration:** The school administrator cannot achieve the institutional goal alone therefore she needs to work with the staff and students for effective production. In the process of working together the individual and group welfare problems will be solved.

5. **Negotiates and Complies with union:** The school administrator should be conversant with the welfare services of both government or professional body and voluntary agencies in order to negotiate on behalf of the staff and students. There may be opportunities for winning Nobel prices or scholarship which the staff or student does not know. It is her duty to permit the people involved, notify, encourage and some times raise funds in an effort to support them.

6. **Managing legal constraints:** The school administrator may not directly stand in for the staff, institution or student on legal matters but will give the necessary advice, provide necessary documents and involve competent legal adviser as the case may be. She should have a heart of compassion and empathy. A school administrator, who is usually experienced, must have wealth of knowledge that will help her solve the problems confronting her in the school.

7. **Conflict resolution:** Conflict is bound to occur as people relate to one another but the problem lies in its resolution. The school administrator has to make sure that the institutions law on conflict and its resolution is enforced in her department. Some times an individual may have conflict within her self or with her family. Careful application of skill can resolve the situation and the staff or student will continue with normal activities.

8. **Designing modalities for work:** The administrator works out modalities in the area of

welfare which the school can cope with. The school has the rule guiding a particular welfare issue. For instance, if a staff put to bed, the colleagues will give a purse of stated amount which should be realistic so that the school can afford it.

9. **Advocacy:** The administrator advocates for an educational welfare officer **(EWO)** for her school or welfare committee for the benefit of students. It should be emphasized that there must be a balance between delegation of welfare services and supervision of the activities so that the right things will be done.

10. **Co-ordination:** The administrator co-ordinates the activities of the staff and students with their families and the immediate environment.

11. **Encouraging staff/students participation:** She draws academic programme with other staff and includes co-curricular activities. She encourages students to participate in co-curricular activities by assigning teachers to supervise different activities to make sure the student partake at list in one while she supervises them.

12 **Liaison role:** The administrator liases with the experts in different co-curricular activities to schedule on when, where and how to teach the students. She inculcates in the students the benefit of co-curricular activities and emphasizes the importance of each one.

13. **Organizing of fitness examination:** She organizes medical fitness examination to make sure the students are healthy enough to partake in some of the activities. She also organizes programmes for staff and students to emphasize the importance of co-curricular activities.

14. **Fund raising:** The administrator uses different avenues to raise fund that will be used to support welfare and co-curricular activities. The educational administrator can organize fund raising activities like graduation ceremony, capping ceremony, debate and quiz competition, induction of new grandaunts. These may form avenues to raise money to support school welfare and co-curricular activities.

Importance of welfare and co-curricular activities in nursing programmes.

Nursing academic programmes in its entity needs much seriousness and commitment but that does not ensure success when followed strictly without programme diversions.[2] There are numerous values achieved by participating in co-curricular activities[11] Studies have also shown consistently that when we compare students who participate in co-curricular activities and those who do not, the former groups have better grade point averages, more positive attitudes towards school, more interest in continuing their education after graduation and a slightly better educational achievement rates.[12] Nysveen[13] affirms that curricular and co-curricular activities produce nurses that are intellectually creative, morally responsible, spiritually enlightened, emotionally mature and socially committed. Hence the following are the importance of welfare and co-curricular activities to nursing students

1. **Academic excellence:** This can only be achieved when a person has sound mind with full concentration. When a student's welfare is taken care of, she will concentrate on her studies and consequently perform well.

2. **Moral responsibility:** Education goes beyond academics, so any one who passes through a school is expected to have acceptable behaviour. This will bring about the school spending more time teaching the students and less on disciplinary measures. In schools of nursing students are usually given moral instructions which helps to mould their character and make them acceptable professional nurses in feature. The moral instructions are a form of co-curricular activity and have been of immense importance to nursing students.

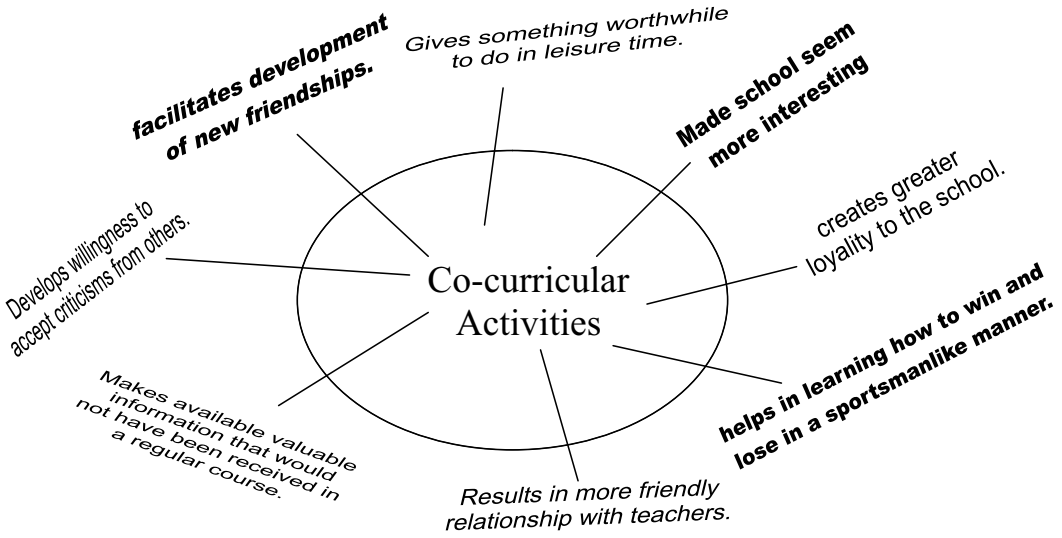
3. **Creation of healthy environment:** A healthy and peaceful environment is enjoyed when the welfare of both the teachers and learners are met. This will enhance sharing of knowledge among them. The nursing school administrator should from time to time arrange for students' forum during which time the students are allowed to intract with their teachers and air their views.

4. **Improves physical fitness:** The co-curricular activities lead to physical fitness. This is required in nursing education because it helps to provide active nurses who can always stand the taste of the profession even after retirement.

5**. Creates forum for knowledge update:** In nursing school /institutions there is update of knowledge through co-curricular activities like workshops, seminars, symposium and even through interactions with other students and staff.

6. **Enhances competition:** A competitive spirit from co-curricular activities is brought into the educational system. The students compete with one another and this will help to give them strength of mind and body and improve their academic performance.

7. **Improvement on nursing image:** Co-curricular activities help in many ways to improve the image of nurses in the society. When nurses perform well in competitions, it will project their image in the society. They may win Nobel prices that will attract credence to the profession, and this will in turn give the profession more challenge to sustain such ego in education.



Values students achieve by participating in co-curricular activities (Annarino, Cowell & Hazelton 1980).

Implications of welfare and co-curricular activities to nursing education

- The staff and students of nursing department can testify that there is an overload in the nursing curriculum from the first degree to the doctoral degree probably because of the diversified nature of the profession. That not withstanding, there is need to find space to include co-curricular activities and welfare services in the programme. As the curriculum is drawn, the administrators of nursing institutions should endeavour to include welfare services and co-curricular activities since their importance cannot be overemphasized.
- Membership of student to co-curricular activities is a valued source of status and seems to go hand in hand with positive educational experience for some students; reduces dropout rates, and increases identification with the school.[15] The school administrator should inculcate the importance of co-curricular activities and welfare services to the students. The students should be involved in solving some of the welfare problems so as to develop such attribute. They should also be challenged to run the affairs of their class such as selection of class representatives, management of class fund and their association activities, as this will improve their leadership skill and interpersonal relationship.
- There should be provision of the materials and services needed to boost the welfare and co-curricular activities of a school.
- The school administrator should support the students to raise fund in order to provide the materials they need for welfare and co-curricular activities like school bus, sports materials etc. Nursing administrators should advocate for the students so that they will enjoy certain benefits that come from welfare and co-curricular activities. These benefits include sponsorship, scholarship, Nobel prizes, financial grants etc.
- Attention in the feature must be give to the design of school facilities so that comprehensive programmes can be provided.

Summary and Conclusion

The importance of welfare and co-curricular activities in nursing programmes cannot be overemphasized. A welfare service includes financial services, guidance and counseling, moral instruction, solving accommodation problem, co-ordinating the individual (staff or students) and family or immediate environment where necessary. Co-curricular activities include associations, clubs, games, choir, symposium etc.

Welfare and co-curricular activities create a healthy environment, sound mind and academic excellence in the nurse and staff. This must be included in the curriculum of nursing institutions so that a nurse who is equipped to excel in interpersonal relationship and spirit of sportsmanship will be the product of every department of nursing.

Educational administrators should endeavour to recognize and include welfare services and co-curricular activities in their institutions so as to produce nurses that are uniquely effective in meeting the needs and demands of their consumers which will in effect uplift the image of nursing profession.

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