

TRAINEES' AND TRAINERS' PERSPECTIVES ON EFFECTIVENESS OF CLINICAL TRAINING FOR NURSING STUDENTS IN KENYA**Dr. Boibanda F. O.****Prof. Mutema A.****Prof. Kangethe S.****Prof. Orodho J. A.**

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ABSTRACT

Although nurse training has been undertaken for over two decades, holistic evaluation of clinical teaching has not been documented. The purpose of the study was to determine students and trainers perspectives on effectiveness in clinical training of nurses in Kenya. This was a descriptive survey. The target population was third year Kenya Registered Community Health Nursing Students, lecturers and the supervisors in the clinical training sites. The study should have included the community who are the recipients of the services but because of finance and time limitations, it was not possible. Fourteen KMTCs and fifteen institutions where students are placed for clinical experience was selected for the study. Self administered questionnaires were utilized. Data entry was done in EPI-info and SPSS version 12.0 was used for data analysis. Research results indicated that clinical training in across the three specialty areas of nursing is effective (221) 79% students, (174) 69% clinical supervisors and teachers (29) 70%; effectiveness in midwifery was (244) 87% students (194) 77% clinical supervisors and teachers (32) 75%; effectiveness in Community health nursing was (238) 85% students, (194) 77% clinical supervisors and teachers (32) 77%. The study concluded that clinical training is an effective method of skill acquisition in nurse training. Limited resources constrain clinical teaching.

Key Words: *Trainees' and trainers' perspectives, effectiveness of clinical training, nursing students, Kenya*

Introduction

“Trainees and trainers perspectives on effectiveness of clinical training of nursing students in Kenya “arise out of the contention that developed and developing countries, Kenya included use clinical placement in training of their health professionals.

Emerging trends in nursing education at diploma level suggest new paradigms in the overall approach to clinical skills acquisition. The nursing program lasts three and half years. However, with enlargement of the curriculum from general nursing to focus on three areas; general nursing, midwifery and community health nursing, the duration of the training remains the same.

This poses challenges to acquisition and demonstration of competence expected of the nurse. Clinical training has been and still continues to be widely used in training for the purpose of acquisition of practical skills, (UN 2003). Taylor in the period of industrial revolution used industrial attachment, which in essence is a form of understudying to boost productivity. When this is looked at traditionally, it can be labeled an “apprenticeship”.

Health care training for a long time has all over the World used apprenticeship for training of health personnel. Clinical placement in traditional medical education for doctors, nurses and other allied health professionals has always utilized the concept of apprenticeship. This approach of training has been criticized for being opportunistic and unsystematic (Harden, 1984).

Much of the criticisms have tended to focus on unstructured nature of clinical placement since it is very hard to plan for the type of experience you are not sure the student will experience. The learning depends on availability of the relevant clinical cases. Increasing number of students is another challenge in placement for clinical experience as new training institutions are utilizing the same limited resources.

The purpose of the study was to determine trainee/trainer perspectives on effectiveness of clinical training for nurses in Kenya. The primary concern of this study was to determine whether there is a significant difference in ranking between students, clinical supervisors and teachers regarding effectiveness according to the three specialty areas of nursing. Problems being encountered that interfere with effectiveness of clinical training of nurses should not escape the notice or attention of the policy makers; neither should that be left to chance.

Objectives of the Study

1. Determine trainees’ and trainers perspectives on the effectiveness of clinical training in the three specialty areas of nursing.
2. Determine the relationship in trainer perspectives on effectiveness in clinical training of nurses in Kenya

Data analysis and presentation

Table 1: Trainee/Trainer responses on effectiveness of clinical training in general nursing competencies

General Nursing Competencies	Students		Clinical Supervisors		Teachers	
	N=280 poor	Good	N=252 Poor	Good	N=42 Poor	Good
Assess e admitted sick adult	0.3	99.7	0.9	99.1	4.8	95.2
Make post operative/divided bed	7.1	92.9	0.3	99.7	2.4	97.6
Maintain elimination in patients	4.6	95.4	0.4	99.6	2.3	97.7
Perform Urinary catheterization	28.5	71.5	19.9	80.1	33.4	66.6
Perform urinary irrigation of bladder	45	55	30.6	69.4	47.6	52.4
Provide care to surgical patients	7.5	92.5	4.4	95.6	11.9	88.1
Provide postoperative care	2.4	97.6	2.8	97.2	4.8	95.2
Provide care to patients before theatre	4.6	95.4	2.4	97.6	11.9	88.1
Provide care using nursing care plans	21.8	78.2	14.7	85.3	16.7	83.3
Assess adult with illness	8.6	91.4	6.3	93.7	7.2	92.8
Prescribe, administer and store drugs	11.1	88.9	4.3	95.7	23.8	76.2
Give patient instruction on taking medicine	5.3	94.7	5.1	94.9	11.9	88.1
Discharge and transfer patients	3.6	96.4	0.5	99.5	7.1	92.9

The data contained in Table 2 shows that trainee/trainer perspective on performance of students in general nursing was rated as generally good. The mean rating of those who rate clinical training in general nursing as good hence effective comprised 79% students, 69% clinical supervisors and 70% lectures. This leads to a conclusion that respondents perspective is, the clinical training in general nursing, as a specialty area, is effective.

Teachers tended to rate performance in clinical training lower than the clinical supervisors. The rating by students tended to lie between that of clinical supervisors, which was highest and that of teachers which was equally high.

Notable variations in this scenario include the ability to take history from a sick adult admitted into the ward, where students rated 99.7% as compared to the clinical supervisor’s 99.1% and the teachers 95.2%.

Table 2: Trainee/trainer perspective on performance of students

Trainee Trainer	General Nursing			Reproductive Nursing			Health Community Nursing		
	Mean	Var	SD	Mean	Var	SD	Mean	Var	SD
Students	79	110.30	10.50	85	43.08	6.56	85	31.77	5.64
Lecturers	70	231.38	15.21	75	46.15	6.79	77	28.54	5.34
Clinical Supervisors	69	162.07	12.73	77	46	6.78	77	46.23	6.79
Students Versus Lectures	74.5	Calculated P	Critical P	Calcu.P 1.61	Crit.P 2.064			Calcu. P	Crit. P
Students Versus Clinical Sup	74	0.3160	2.064	Calcu.P 1.3471	Crit.P 2.064			1.5942	2.064
Students Versus Clinical sup	69.5	Calculated P	Critical P	Calcu. P	Crit.P 2.064			Calcu. P	Critic P
		0.4405	2.064	0.2664				1.2322	P
		0.0305	2.064					2,064	2,064
								0.000	2.064

Correlation of student’s and teacher’s ranking on performance of specific skills in general nursing shows a loose positive correlation on effectiveness of clinical training as derived from the ranking of students versus the ranking of teachers.

Some of the student’s low rating of ability to perform specific skills in general nursing outcomes are associated with low rating by teachers on the specified skills in general nursing outcomes. Some of the student’s high rating in general nursing skills is associated with high rating of the same by teachers.

The coefficient of correlation was 0.451 whereas the coefficient of determination was 0.20. That is 20% of variation in the opinion of students regarding the ability of the clinical training sites to provide suitable experience to nursing students in specified general nursing outcomes is coupled with variability with the teacher’s opinion regarding the same.

Similarly 20% of the variance in teacher's opinion is associated with student's opinion on the ability of the clinical training sites to empower performance of specific skills in general nursing. Conversely 80% of students ranking is not coupled with variability in teacher's ranking, similarly 80% of the variance in teacher's ranking are not associated with variability in students ranking.

Correlation between students ranking and clinical supervisor ranking shows that the rating between the students and the clinical supervisors co-vary and the direction of covariance is positive. Some low rating by students is associated with low rating by clinical supervisors. The correlation coefficient is 0.687 and the coefficient of determinism is 0.47. The degree of co-variation is 47% that is 47% of variance in students student's opinion is coupled with variability in clinical supervisor's rating. Conversely, 53% of the variance in student's opinion is not coupled with variability in the clinical supervisors rating and similarly that 53% of variance in clinical supervisors rating is not associated with student rating.

Correlation between teacher's ranking and clinical supervisor's ranking shows varied patterns ranging from perfect to curvilinear correlation. Some low rating by teachers is associated with low rating by teachers. The coefficient of correlation was 0.904 whereas the coefficient of determinism was 0.82.

Table 3: Trainee/Trainer responses on effectiveness of clinical training in reproductive health nursing competencies

Midwifery Competencies	Students		Clinical Supervisors		Teachers	
	N=280 poor	Good	N=252 Poor	Good	N=42 Poor	Good
Take and record a history of a pregnant woman	2.6	97.4	2	98	4.7	95.3
Examine each pregnant woman	7.2	92.8	5.2	94.8	26.2	73.8
Identify, counsel and refer high risk pregnant mother	7.1	92.9	4	96	7.1	92.9
Provide routine antenatal care	3.3	96.7	2	98	19.1	80.9
Provide care for conditions that complicate and also complicated by pregnancy	6.7	93.3	16	84	9.5	90.5
Take and record labour history of all women in labour	4.6	95.4	0	100	9.5	90.5
Give a woman in labour a complete physical examination	5	95	0.3	99.7	16.6	83.4
Check the progress of women in labour	6.1	93.9	0.7	99.3	7.2	92.8

Midwifery Competencies	Students		Clinical Supervisors		Teachers	
	N=280 poor	Good	N=252 Poor	Good	N=42 Poor	Good
Assist in delivery of a woman in labour	4	96	1.5	98.5	11.9	88.1
Provide care to mothers after delivery	4.3	95.7	0	100	9.5	90.5
Perform a first exam to a newborn baby	10	90	4	96	11.9	88.1
Manage common labour problems after delivery	14	86	8	92	23.8	76.2
Manage complications and emergencies during labour and delivery	30.8	69.2	29	71	42.9	57.1
Take and record medical history of a woman seeking post natal care	10.7	89.3	1.2	98.8	21.4	78.6
Perform and record a physical exam of a woman seeking post natal care	7.8	9.2	0.8	99.2	9.5	90.5
Provide routine post natal care	11.1	88.9	11.1	88.9	26.2	73.8
Perform and record physical exam on all new born	8.2	91.8	0.8	99.2	4.8	95.2
Recognize and manage complications of new borns	9.3	90.7	0	100	11.8	88.2
Share with women on care and prevention of newborn complications	4.8	95.2	0.5	99.5	4.7	95.3
Advise health workers on care and prevention of post natal problems	5.4	94.6	0.3	99.7	9.6	90.4

The data contained in Table 3 shows mean rating that clinical training in midwifery is good hence effective by 87% students, 77% clinical supervisors and 75% lecturers. This leads to a conclusion that respondents perspective is, the clinical training in reproductive health nursing, as a specialty area, is effective. Teachers tended to rate performance in clinical training lower than the clinical supervisors. The rating by students tended to lie between that of clinical supervisors, which was highest and that of teachers which was equally high. Exceptions to the tendency include the ability to provide care to patients with conditions that complicate pregnancy and those that are complicated by pregnancy. Students rated good hence effective by 93,3% followed by lecturers 90.5% and clinical supervisors 84% which was as well an attribute of effective clinical training.

The ability to manage complications and emergencies during labour across the respondents was rated good hence effective though it revealed the lowest rating. Highest rating was by clinical supervisors 71%, followed by students 69.2% and then lecturers 57.1%.

However, in the ability of the trainee to provide routine post natal care results show, students and clinical supervisor's was comparable by 88.9%, respectively followed by lecturers 73%. The ability of the trainee to share with women on care and prevention of complications of a newborn also varied in the order of rating as clinical supervisors were the highest by 99.5% followed by lecturers 95.3%, then students a close 95.2%. These show that clinical training in midwifery as a specialty area in a KRCHN curriculum is good hence effective.

Table 4: Ability of the trainee to provide routine post natal care

Trainee Trainer	General Nursing			Reproductive Health Nursing			Community Health Nursing		
	Mean	Var	SD	Mean	Var	SD	Mean	Var	SD
Students	79	110.30	10.50	85	43.08	6.56	85	31.77	5.64
Lecturers	70	231.38	15.21	75	46.15	6.79	77	28.54	5.34
Clinical Supervisors	69	162.07	12.73	77	46	6.78	77	46.23	6.79
Students Versus Lectures	74.5	Calculated P	Critical P	Calcu.P	Crit.P			Calcu. P	Crit. P
		0.3160	2.064	1.61	2.064			1.5942	2.064
Students Versus Clinical Sup	74	Calculated P	Critical P	Calcu.P	Crit.P			Calcu.P	Crit. P
		0.4405	2.064	1.3471	2.064			1.2322	2.064
Lectures Versus Clinical sup	69.5	Calculated P	Critical P	Calcu. P	Crit.P			Calcu. P	Critic P
		0.0305	2.064	0.2664	2.064			0.000	2.064

Correlation of student's and teacher's ranking on performance of specific skills in Reproductive health nursing shows a loose positive correlation on effectiveness of clinical training as derived from the ranking of students versus the ranking of teachers. Some of the student's low ratings of ability to perform specific skills in Reproductive health nursing outcomes are associated with low rating by teachers on the specified skills in Reproductive health nursing outcomes. Some of the student's high rating in skills is associated with high rating of the same by teachers.

The f correlation coefficient was 0.324 whereas the coefficient of determination was 0.10. That is 10% of variation in the opinion of students regarding the ability of the clinical training sites to provide suitable experience to nursing students in Reproductive health nursing outcomes is coupled with variability with the teacher's opinion regarding the same. Similarly 10% of the variance in teacher's opinion is associated with variability in student's opinion on the ability of

the clinical training sites to empower performance of specific skills in Reproductive health nursing. Conversely 90% of students ranking is not coupled with variability in teacher’s ranking, similarly 90% of the variance in teacher’s ranking are not associated with variability in students ranking.

Correlation between students ranking and clinical supervisor ranking shows loose positive correlation between the students and the clinical supervisors. The correlation coefficient is 0.648 and the coefficient of determination is 0.42. Some low rating by students is associated with low rating by clinical supervisors. The degree of co-variation is 42% that is 42% of variance in students student’s opinion is coupled with variability in clinical supervisor’s rating. Conversely, 58% of the variance in student’s opinion is not coupled with variability in the clinical supervisors rating and similarly that 58% of variance in clinical supervisors rating is not associated with student rating.

Correlation between teacher’s ranking and clinical supervisor’s ranking shows varied patterns ranging from perfect to curvilinear correlation. Some low rating by teachers is associated with low rating by teachers. The coefficient of correlation was 0.465 whereas the coefficient of determinism was 0.22. The degree of co-variation is 22% that’s 22% of the variance in teacher’s views is coupled with variation in clinical supervisor’s views; similarly 22% variance in clinical supervisor’s views is associated is associated with variability in teacher’s views. Conversely 78% of variance in teacher’s views is not coupled with variability in the clinical supervisor’s views and similarly that 78% of the variance in clinical supervisor’s views is not associated with variability with teacher’s views.

Table 5: Trainee/Trainer response on effectiveness of clinical training in reproductive health nursing competencies

Community Health Nursing Competencies	Students		Clinical Supervisors		Teachers	
	N=280		N=252		N=42	
	poor	Good	Poor	Good	Poor	Good
Administer KEPI	6.1	93.9	1.2	98.8	9.4	95.6
Prepare Immunizations	10.7	89.3	7.9	92.1	14.3	85.7
Identify risk factors for malnutrition	6.1	93.9	1.6	98.4	4.7	95.3
Diagnose malnutrition in children	6.5	93.5	6	94	11.9	88.1
Perform a case study on malnutrition	12.5	87.5	1.5	98.5	11.9	88.1
Take history from a client who has come for FP services	5.4	94.6	1.6	98.4	7.2	92.8
Perform a physical exam on a client who has come for FP services	4.7	99.3	1.6	98.4	7.1	92.9

Community Health Nursing Competencies	Students		Clinical Supervisors		Teachers	
	N=280		N=252		N=42	
	poor	Good	Poor	Good	Poor	Good
Perform a case study on an FP client	8.2	91.8	2.8	97.2	9.5	95.5
Assess a child with URTI	13.7	86.3	2	98	14.3	85.7
Give care to a new borne in a CHC	8.5	91.5	4.4	95.6	9.6	90.4
Instruct a new FP client	27.2	72.8	27	73	47.6	52.4

The data contained in Table 5 shows mean rating that clinical training in community health nursing is good hence effective by 85% students, 77% clinical supervisors and 77% lecturers. This leads to a conclusion that respondent’s perspective is, the clinical training in community health nursing, as a specialty area, is effective. Teachers tended to rate performance in clinical training lower than the clinical supervisors. The rating by students tended to lie between that of clinical supervisors, which was highest and that of teachers which was equally high. Exceptions to the tendency include the ability to identify risk factors for malnutrition where the clinical supervisors rated highest 98.4% followed by lecturers 95.3% and then students 93.9% which was as well an attribute of effective clinical training. Although the ability to instruct an FP client showed performance level as good, it was the least rated across the respondents, clinical supervisors 73%, students 72.8% and lecturers 52.4%. These show that clinical training in community health nursing as a specialty area in a KRCHN curriculum is good hence effective.

Table 6: Ability to instruct an FP client

Trainee Trainer	General Nursing			Reproductive Health Nursing			Community Health Nursing		
	Mean	Var	SD	Mean	Var	SD	Mean	Var	SD
Students	79	110.30	10.50	85	43.08	6.56	85	31.77	5.64
Lecturers	70	231.38	15.21	75	46.15	6.79	77	28.54	5.34
Clinical Supervisors	69	162.07	12.73	77	46	6.78	77	46.23	6.79
Students	74.5	Calculated	Critical	Calcu.P	Crit.P		Calcu.	Crit.	
Versus Lectures		P	P	1.61	2.064		P	P	
Students	74	0.3160	2.064				1.5942	2.064	
Versus Clinical Sup		P	P	1.3471	2.064		1.2322	P	
Lectures	69.5	0.4405	2.064					2,064	
Versus Clinical sup		P	P	0.2664	2.064		0.000	2.064	
Lectures		Calculated	Critical	Calcu.	Crit.P		Calcu.	Critic	
Versus Clinical sup		P	P	P	2.064		P	P	
Lectures		0.0305	2.064						
Versus Clinical sup		P	P						

Correlation of student's and teacher's ranking on performance of specific skills in community health nursing shows a loose positive correlation on effectiveness of clinical training as derived from the ranking of students versus the ranking of teachers.

Some of the student's low ratings of ability to perform specific skills in Reproductive health nursing outcomes are associated with low rating by teachers on the specified skills in Reproductive health nursing outcomes. Some of the student's high rating in skills is associated with high rating of the same by teachers.

The r correlation coefficient was -0.372 whereas the coefficient of determination was 0.14 . That is 14% of variation in the opinion of students regarding the ability of the clinical training sites to provide suitable experience to nursing students in community health nursing outcomes is coupled with variability with the teacher's opinion regarding the same. Similarly 14% of the variance in teacher's opinion is associated with variability in student's opinion on the ability of the clinical training sites to empower performance of specific skills in community health nursing.

Conversely 86% of students ranking is not coupled with variability in teacher's ranking, similarly 86% of the variance in teacher's ranking are not associated with variability in students ranking.

Correlation between students ranking and clinical supervisor ranking shows loose negative correlation between the students and the clinical supervisors. The correlation coefficient is -0.087 and the coefficient of determination was 0.01 . Some low rating by students is associated with low rating by clinical supervisors. The degree of co-variation is 1% that is 1% of variance in students student's opinion is coupled with variability in clinical supervisor's rating. Conversely, 99% of the variance in student's opinion is not coupled with variability in the clinical supervisors rating and similarly that 99% of variance in clinical supervisors rating is not associated with student rating.

Correlation between teacher's ranking and clinical supervisor's ranking shows varied patterns ranging from perfect to curvilinear correlation. Some low rating by teachers is associated with low rating by teachers. The coefficient of correlation was 0.472 whereas the coefficient of determinism was 0.22 . The degree of co-variation is 22% that's 22% of the variance in teacher's views is coupled with variation in clinical supervisor's views; similarly 22% variance in clinical supervisor's views is associated is associated with variability in teacher's views.

Conversely 78% of variance in teacher's views is not coupled with variability in the clinical supervisor's views and similarly that 78% of the variance in clinical supervisor's views is not associated with variability with teacher's views.

Conclusions

Clinical training is effective as demonstrated by response from students, clinical supervisors across the skills in Reproductive health nursing. There were however, some competencies in which both the respondents though minority, implied dissatisfaction with the ability of the trainee to demonstrate competence. Space for additional comments revealed that some clinical supervisors view trainees as additional workforce and are not available to guide them during some procedures. Teachers do not follow students' regularly in clinical areas and only appear at the time of clinical assessments. There was a significant correlation at 0.05 and 0.01 on twenty out of fifty two skills.

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