

Effects of Psycho Education Intervention on Job productivity of Nurse Educators in Plateau State, Nigeria

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Abstract

The study aimed at ascertaining the efficacy of psycho-education intervention in improving students' evaluation and individual teaching competences among nurse educators. A true experimental research design was employed for the study. Thirty-four of the 87 nurse educators in the seven public nursing institutions in Plateau State participated in the study. Seventeen participants were each randomly assigned to the experimental and control groups respectively. Data were collected using Nurse Educators Job Productivity Rating Scale. Analysis was done using mean, standard deviation and ANCOVA. The result revealed moderate level of job productivity among the NEs in both the experimental and control groups. There were also, among others, significant difference between the experimental and control groups on students' evaluation competence after controlling for pre-test; significant difference between the experimental and control groups on individual teaching competence after controlling for pretest effect. The study concluded that psycho-education intervention is an effective intervention for enhancing job productivity among nurse educators in public nursing institutions in Plateau State Nigeria. It was recommended, among others, that the management of nursing institutions should organize regular workshops or seminars for their educators on psycho-education intervention and job productivity.

Keywords: nurse educators, job productivity, psycho-education, students' evaluation competence, individual teaching competence

Introduction

Much of the success of any academic institution relies upon the productivity of its workforce. Job productivity is an important determinant for effective service delivery (Rouse, 2018), especially in nursing institutions. Educationally, job productivity is the amount or efficiency of services that a member of staff (such as a nurse educator) incurs. Job productivity in nursing education could be one of the significant measures of the academic success of any nursing institution and a measure of job performance. It is that behaviour which describes how one carries out the tasks, duties and responsibilities associated with a particular job (Abdulkareem et al., 2017; Rouse, 2018). Job productivity can describe the output of a nurse educator on the job, measurable in terms of quality and quantity of job performed or done. It also explains the competence of an educator in carrying out his or her task associated with direct students' and patients' care, as well as fulfilling assigned roles and responsibilities effectively.

Furthermore, job productivity is a multidimensional construct that includes a worker's experience in fulfilling their work tasks and results from the relationship between an individual's health resources and the expectations and structural conditions that operate within social settings such as the workplace (Lagerveld et al., 2010). It is influenced by a number of variables including the value system of the employees (Omeje & Eyo, 2008). Job productivity is the quantity of work that is attained in a unit of time by means of the resources expended. These resources include space, technology, capital, entrepreneurship, teaching materials, adequate and quality of school plant, and factors like motivation which could serve as determinant of job productivity (Ivandic et al., 2017). Unfortunately, low job productivity has been reported among academic staff of university (Usang et al., 2017). Baluyos et al. (2019) revealed that teachers were not highly satisfied with their job, and their work productivity was less satisfactory. Onyejekwe et al. (2020) reported occupational stress as key determinant of job productivity among nurse educators.

Quality nurse education is the foundation for developing competent health workers who are equipped with the knowledge, attitudes and skills necessary to deliver quality care. In Nigeria, nurse educators are nurses licensed by the Nursing and Midwifery Council of Nigeria who are lecturers, tutors and clinical instructors and who inspire, teach and mentor the next generation of nurses leading the way to the future of patients' care. Consequently, the productivity of a nurse educator is generally measured by work result in the form of the quantity, quality and timeliness of nurse educators completing their work such as

planning and implementing learning, conducting evaluation and professional development activities. Other tasks include, students' evaluation process, individual teaching (particularly, goal setting), teaching strategies, collaboration, interpersonal relationship, communication, research, clinical services, leadership skills, time management and organizational skills (Anisah et al., 2020). Students' evaluation and individual teaching competences are of concern in this study.

Nurse educators' competence in students' evaluation relates to the use of assessment data to develop students' learning expectations. Amin et al. (2014) posited that clinical instructors' (nurse educators') role-modelling responsibilities such as demonstration of professional competency, clear commitment to moral principles and effective supervision of students' learning are the main components in evaluating their clinical teaching performance. Nurse educators have a great task of assisting nursing students by inculcating the right type of knowledge and skills as well as creating rapport with their students and colleagues. Factors such as paying attention to students' educational needs, giving them orientation on the rules and regulations of clinical courses, effective management of clinical teaching-learning process, instructors' professional knowledge, attitude, and competence are important in the evaluation of nursing clinical instructions (Farahani et al., 2015). Good (2021) observed that high-quality feedback in a learning activity strongly associated with learners' perceptions of high-quality teaching. Nurse educators are expected to measure students' performance and learning effectively through data collection, analysis and interpretation of their knowledge, comprehension, application, analysis, synthesis and evaluation of materials learnt.

In addition to students' evaluation competences, individual teaching competence involves how nurse educator handles the subject matter while teaching. Subject matter knowledge is related to the teacher's understanding of subject information, concepts, principles and pedagogical thinking and decision making (Stronge, 2010). It involves setting of goals and delivering well-prepared lessons and creating safe environments for teaching and learning. Unfortunately, this competence could be constrained by conflict within and outside school system (Alimba, 2017).

Several approaches seem to have been used by nursing institutions and hospital management to improve job productivity. One of these approaches is psycho-education. The efficacy of psycho-education in addressing psychological disorders has been established in the USA, Serbia, Kosovo, South Africa and Germany (Mebu, 2017). Psycho-education interventions have been discovered to be effective in reducing stressors and improving confidence (Casañas et al., 2012) and role stress (Onyejekwe et al., 2023).

Psycho-education is an intervention that has components of psychology and education directed towards symptoms recognition and coping skills acquisition. It provides both psychological and educational treatment plan and has three components: condition-specific information, skills training for managing challenging circumstances, and emotional support to help individuals with mental health conditions. The education component of psycho-education intervention is based on the assumption that people who have developed or have the potentials to developing low job productivity would have accurate information about their condition and strategies to improve it. Whereas, the psychological component could be physiological, emotional, or behavioural (such as low job productivity). Psycho-education intervention comprises of a series of weekly lessons whereby participants are offered general information on managing stress and developing techniques for teaching. These can be accomplished by controlling bodily sensations through progressive relaxation and breathing exercises; cognitive techniques like challenging dysfunctional thoughts; some practical techniques on problem-solving; ending safety behaviours, and assignments or homework.

Considering the invaluable place of job productivity in an organization or educational institutions, several interventions have been developed and used for the improvement of job productivity (Lerner et al., 2012; Marlow et al., 2017). For example, Learner et al. (2012) examined work-focused intervention on productivity and found that the programme had moderate to large positive effects on at-work performance, at-work productivity loss, work absences and productivity loss due to missed work time. Additionally, work-focus treatment group experienced improved at-work performance. Onjoro et al. (2015) posited that leadership motivation and mentoring can improve efficiency of a classroom teacher. Usoro and Etuk (2016) indicated increased job effectiveness among university lecturers due to workload intervention. Dreer (2020) revealed effectiveness of positive psychological interventions for teachers on workplace-related positive activities and competence.

Similarly, Onjoro et al. (2015) found that leadership motivation and mentoring improved the efficiency of classroom teachers and workers in educational institutions. Good et al. (2016) who developed an integrative framework relating mindfulness to workplace outcomes, discovered that the intervention greatly impacts workplace outcomes including performance, relationships and well-being. Usang et al. (2017) reported that academic staff research productivity was significantly affected by specialization; meaning that lecturers who did not receive specialized training such as psycho-education may or may not be productive in research. Alimba (2017) discovered that teachers' productivity was significantly lowered due to conflict levels. Nwannebuife (2017) applied motivation

intervention to employees and the findings revealed that a high percentage of the variations in productivity were explained by employee motivation strategies in the organization. Also, Kersemaekers et al. (2018) used workplace mindfulness intervention and found that the intervention was associated with improved psychological well-being and productivity. Additionally, greater increases in team climate, organizational climate and personal performance were reported during the intervention compared to the pre-intervention period. Khan and Abdullah (2019) established a positive and strong relationship between training/development and the productivity of teachers. Therefore, findings from these studies tend to suggest that psycho-education interventions would improve job productivity of nurse educators. Borremans and Spilt (2022) also revealed that pre-service teachers in the final year of teacher training felt more competent, but not for all aspects of dyadic relationship building.

There seems to be dearth of research studies on the use of psycho-education interventions for the improvement of job productivity among nurse educators in Plateau State. Findings from this study would have significant contributions to education, especially for policy implementation and theoretical implications; it will lead to reduction in cases of low job satisfaction, absenteeism and turnover of nurse educators. It will also help in reducing poor quality of work, low morale, poor student-teacher relationships, unacceptable behaviour, lateness to work and long-term illnesses among nurse educators. It is therefore necessary to apply a rigorous methodology to determine the effectiveness of psycho-education in enhancing job productivity among nurse educators in Plateau State, Nigeria.

Objectives of the study

The study aimed to investigate effect of the psycho-education intervention on job productivity of nurse educators in Plateau State, Nigeria. The specific objectives of the study are to:

1. Ascertain the level of job productivity of nurse educators in Plateau State before and after psycho-education intervention.
2. Determine the level of students' evaluation and individual teaching competences among nurse educators in Plateau State before and after psycho-education.
3. Ascertain the effects of a psycho-education intervention on job productivity (students' evaluation and individual teaching competences) of nurse educators.

Research questions

The study answered the following questions:

1. What is the level of job productivity of nurse educators in Plateau State before and after psycho-education intervention?

2. What is the extent of students' evaluation competences of nurse educators in Plateau State before and after psycho-education intervention?
3. What is the level of individual teaching competences of nurse educators in Plateau State before and after psycho-education intervention?

Hypotheses

The researchers formulated and tested the following hypotheses at 0.05 level of significance:

Ho1: There is no significant difference between the job productivity's mean scores of experimental and control groups of nurse educators in Plateau after exposure to psycho-education intervention.

Ho2: There is no significant difference between the students' evaluation competences' mean scores of experimental and control groups of nurse educators in Plateau State after exposure to treatment.

Ho3: There is no significant difference between the individual teaching competences' mean scores of experimental and control groups of nurse educators in Plateau State after exposure to treatment.

Methodology

The study employed a true experimental (pre-test – post-test randomized control group) research design. Participants were randomly assigned into two groups: experimental and control groups. The two groups were pre-tested and post-tested with the same instruments, but only the experimental group was manipulated (Cohen et al., 2013).

The 87 (male = 47, female = 40) nurse educators (academic staff and clinical instructors) in the seven public nursing institutions in Plateau State constituted the population. The sample of the study consists of 34 nurse educators (males = 13, females = 21) selected from four state owned public nursing institution in Plateau State. A multistage sampling technique was used to select the sample. First, a purposive sampling was utilised to select state-owned public nursing schools. Next, stratified sampling technique was used to stratify the participants into male and female. This was then followed by the application of simple random sampling technique to arrive at the sample size.

Nurse Educators Job Productivity Rating Scale (NEJPRS) was adapted from the Clinical Teaching Competence Inventory for Clinical Nursing Preceptors in Taiwan developed by Hsu et al. (2014). The instrument had Section A which elicited information on the demographic variables such as course taught and gender. Section B consisted of twenty-four (24) items made up of two constructs – nurse-educators' competence in students'

evaluation and individual teaching. Students' evaluation competence consisted of 9 items, for example, "The educator is giving students the grades that truly reflect their efforts and performance;" "The educator is giving students positive feedback for good work". Likewise, 15 items measured individual teaching. For example, "The educator is setting performance standard for individual student and adjusting teaching practice where necessary;" "The educator is setting goals and objectives based on students' expectations and levels of experience".

The supervisors and students of the nurse educators were used to rate the nurse-educators. The average of the two ratings were used as their score. Respondents (students and supervisors) were required to rate each nurse educator in their offices or where they reside. A Likert scale as: Extremely Competent (EC) = 5, Very Competent (VC) = 4, Moderately Competent (MC) =3, Less Competent (LC) =2, Not Competent (NC) = 1 were used.

The content validity was carried out on NEJPRS. This was determined by experts in Educational Psychology, as well as Research, Measurement and Evaluation units in the Department of Educational Foundations, University of Jos, Nigeria. Construct validity was carried out using Exploratory Factor Analysis (EFA). Results indicated that two components with commonalities extractions ranging from 0.627 to 0.971 accounted for 56.51% total variance. Cronbach's alpha reliability test was conducted and yielded a 0.77 reliability coefficient.

The researchers identified the eligible participants and issued consent letters to them based on ethical grounds. An introductory letter from the Department of Educational Foundations, University of Jos was presented to the management of nursing institutions to use some school facilities and engage their nurse educators as participants in the study. The approval was granted; baseline data and post-test were obtained using a direct method of administration before and after the intervention programme. Participants were directed to complete the instrument independently by reading the introductory letter and instructions. They were asked to complete the questionnaire within 40 minutes and return it directly to either the researchers or research assistants. The responses of the participants were assured of and treated with utmost confidence.

The psycho-education intervention (PEI) was administered to nurse educators that were randomized into the experimental group. This was carried out by the researchers and research assistants. The six-session activities were completed within six (6) weeks. Each session lasted for two hours (120 minutes), with fifty (50) minutes of theoretical teaching before break time, twenty (20) minutes break, and another fifty (50) minutes of practical

application and exercise after the break. The objectives of the first session were to cover the introduction and pretest. Two weeks covered two sessions that focused on students' evaluation competence. Another two weeks covered two sessions focusing on individual teaching competence. The fifth session of the intervention focused on relaxation and muscle progression techniques, as well as exercises, assignments, and summary. The last session was on get-together and post-test.

Nurse Educators in the control group were not exposed to PEI but were given a placebo that focused on "Child Abuse". The placebo consisted of activities that lasted six (6) weeks, structured into six (6) sessions also. Each session lasted for two hours amounting to 120 minutes, with fifty (50) minutes teaching before break time, twenty (20) minutes break, and another fifty (50) minutes teaching after the break. The meetings of the participants were scheduled to meet once a week. Contents of the placebo included: introduction, meaning, and types of child abuse, cause, and effects of physical child abuse, sexual child abuse, child neglect, and maltreatment among others. Seventeen participants were also assigned to this group and all of them completed the sessional teachings.

The data were analyzed using descriptive statistics (means and standard deviation). These determined the level of NEs job productivity. Analysis of covariance (ANCOVA) was also used to test the hypotheses at 0.05 level of significance. This statistical method allows for test of difference in job productivity mean scores of nurse educators exposed to the psycho-educational intervention and those who are not while controlling the effect of the covariate factor, which is, the pre-test effect (Cohen et al., 2013). In answering the research questions, mean score from 24.00 to 56.0 means Low job productivity; 57.0 to 88.0 means Moderate; and 89.0 to 120 implies High job productivity using 5-point scale. For students' evaluation competence, the scoring is: mean score 9-21 = low, 22.0-33.0 = Moderate, and 34.0-45.0 = high on 5-point scale. Whereas, the measurement of individual competence is: mean score 15.0-35.0 = low job productivity, 36.0-55.0 = Moderate, and 56-75 = high on 5-point scale.

To cater for ethical consideration, all the participants (clinical instructors and academic staff) were provided with consent form and only those who signed the informed-consent form participated in the study. The responses of the respondents were treated with utmost confidentiality and all data supplied by the respondents were used for research purposes only.

Presentation of results

Research question 1: What is the level of job productivity of nurse educators in Plateau State before and after psycho-education intervention?

Table 1: Level of job productivity of nurse educators before and after Psycho-Education Intervention

Group	n	Pre-test			Post-test		
		\bar{x}	SD	Percentage	\bar{x}	SD	Percentage
Experimental	17	60.47	5.40	50.05 %	98.82	10.37	60.9 %
Control	17	60.35	5.96	49.95 %	63.53	10.59	39.1 %

N= 34.

Table 1 indicated that pretest mean scores of the experimental and control groups were moderate ($\bar{x} = 60.47$, $SD = 5.40$ & $\bar{x} = 60.35$, $SD = 5.96$ respectively). The experimental group had posttest mean and standard deviation scores as: $\bar{x} = 98.82$ and $SD = 10.37$ respectively representing 60.9 %. Whereas control group had 63.53 and 10.59 as posttest mean and standard deviation scores respectively representing 39.1 %. This portrayed that nurse educators had moderate level of job productivity before exposure to psycho-education intervention. After exposure to psycho-education intervention, job productivity of nurse educators highly increased due to the intervention.

Ho1: There is no significant difference between the job productivity’s mean scores of experimental and control groups of nurse educators in Plateau state after exposure to psycho-education intervention.

Table 2: ANCOVA result of post-test job productivity mean scores of nurse educators exposed to Psycho-Education Intervention and those who are not exposed

Source	Type III Sum		Mean		
	of Squares	df	Square	F	p
Corrected Model	10990.241 ^a	2	5495.12	54.73	0.000
Intercept	3968.880	1	3968.88	39.53	0.000
Pre-test	402.006	1	402.01	4.00	0.154
Group Post-test (Experimental & Control)	10631.083	1	10631.08	105.88	0.000
Error	3112.700	31	100.41		

Total	238150.000	34
Corrected Total	14102.941	33

NB: R Squared = .779 (Adjusted R Squared = .765).

Table 2 indicated that at $df = 1, 31, p=.000$ for post-test mean difference between the experimental and control groups was less than 0.05 level of significance ($p<0.05$). Consequently, there was significant difference between the experimental ($\bar{x} = 98.82, SD = 10.37$) and control ($\bar{x} = 63.53, SD= 10.59$) groups on post -test job productivity, when the pre-test effect is being controlled, $F(1, 31) = 105.88, p < 0.05$. Overall, psycho-education explained 77.9% variance of job productivity. This suggests that Psycho-education significantly improved the overall job productivity of nurse-educators in Plateau State.

Research question 2: What is the extent of students’ evaluation competences of nurse educators in Plateau State before and after psycho-education intervention?

Table 3: Level of students’ evaluation competence among nurse-educators before and after Psycho-Education Intervention

Group	Test	n	\bar{x}	SD	Percentage	Remark
Experimental	Pretest	17	22.53	3.06	49.3 %	Moderate
	Posttest	17	36.65	3.92	59.3 %	High
Control	Pretest	17	23.18	3.26	50.7 %	Moderate
	Posttest	17	25.12	5.02	40.7 %	Moderate

n = 34,

Table 3 reported that experimental and control groups had moderate pretest mean scores ($\bar{x} = 22.53$ & 23.18 , representing 49.3% and 51.7 % respectively). Whereas, the posttest mean scores of the experimental group ($\bar{x} = 36.65, 59.3 \%$) was high while that of the control group was still moderate ($\bar{x} = 25.12$) representing 40.7 % response rate. It suggested that nurse educators had moderate level of students’ evaluation competence at baseline but the level increased with consistency after the psycho-education intervention.

Ho2: There is no significant difference between the students’ evaluation competences’ mean scores of experimental and control groups of nurse educators in Plateau State after exposure to treatment.

Table 4: ANCOVA result of post-test students’ evaluation competence mean scores of nurse-educators exposed to Psycho-Education Intervention and those who are not exposed

Source	Type III Sum of Squares	df	Mean Square	F	p
Corrected Model	1164.375 ^a	2	582.19	29.34	0.000
Intercept	888.366	1	888.37	44.77	0.000
Pre test	34.493	1	34.49	1.74	0.197
Group Post-test (Experimental & Control)	1076.725	1	1076.73	54.26	0.000
Error	615.154	31	19.84		
Total	34206.000	34			
Corrected Total	1779.529	33			

R Squared = .654 (Adjusted R Squared = .632).

Table 4 revealed that post-test mean score for experimental group ($\bar{x} = 36.65$, $SD = 3.92$) was higher than that of the control group ($\bar{x} = 25.12$, $SD = 5.02$) with probability value ($p = .000$) less than the level of significance ($p < .05$). Thus, there was significant difference between the experimental and control groups on post-test students’ evaluation competence after controlling for pre-test, $F(1, 31) = 54.26$, $p < .05$. This implies that psycho-education intervention significantly enhanced students’ evaluation competence of nurse-educators.

Research question 3: What is the level of individual teaching competences of nurse educators in Plateau State before and after psycho-education intervention?

Table 5: Level of individual teaching competence among nurse-educators before and after Psycho-Education Intervention

Group	Test	n	\bar{x}	SD	Percentage	Remark
Experimental	Pretest	17	37.94	3.54	50.5 %	Moderate
	Posttest	17	62.18	7.14	61.8 %	High
Control	Pretest	17	37.18	3.23	49.5 %	Moderate
	Posttest	17	38.41	5.98	38.2 %	Moderate

n = 34,

Results in table 5 showed that pretest mean scores of the experimental group ($\bar{x} = 37.94$) and the control group ($\bar{x} = 37.18$) were moderate (50.5 % and 49.5 % respectively), while the posttest mean score of the experimental group ($\bar{x} = 62.18$, 61.8 %) was higher than that of the control group ($\bar{x} = 38.41$, 38.2 %). It implies that nurse educators before exposure to psycho-education intervention had moderate levels of individual teaching competence and improved to high levels after psycho-education intervention.

Ho3: There is no significant difference between the individual teaching competences' mean scores of experimental and control groups of nurse educators in Plateau State after exposure to treatment.

Table 6: ANCOVA Result of post-test individual teaching competence mean scores of nurse-educators exposed to Psycho-Education Intervention and those who are not exposed

Source	Type III				
	Sum of Squares	df	Mean Square	F	p
Corrected Model	4950.854 ^a	2	2475.43	61.98	0.000
Intercept	1427.784	1	1427.78	35.75	0.000
Pretest	150.383	1	150.38	3.77	0.161
Group Posttest (Experimental & Control)	4933.414	1	4933.41	123.51	0.000
Error	1238.205	31	39.94		
Total	92192.000	34			
Corrected Total	6189.059	33			

R Squared = .800 (Adjusted R Squared = .787).

Table 6 analysis reported that the p-value = 0.000 for post-test mean difference between the experimental and control groups was less than the level of significance ($p < .05$). Thus, there was significant difference between the experimental ($\bar{x} = 62.18$, $SD = 7.14$) and control groups ($\bar{x} = 38.41$, $SD = 5.98$) on post-test individual teaching competence, when the pre-test effect was controlled for, $F(1, 31) = 123.51$, $p < .05$. This signified that psycho-education intervention significantly increased individual teaching competence of Nurse-educators in Plateau State.

Discussion of the findings

This study investigated the effects of the psycho-education intervention on job productivity of nurse-educators in Plateau State Nigeria. Findings indicated that nurse-educators had moderate levels of job productivity before exposure to the psycho-education intervention. This finding aligned with a previous study by Amin et al. (2014) which found that clinical instructors (such as nurse educators) who were not adequately developed professionally demonstrated low professional competency, low commitment to moral principles, and ineffective supervision of students' learning during the evaluation of clinical teaching performance. Nurse educators in the area studied at baseline had a moderate level of job productivity in terms of students' evaluation, and individual teaching. This moderate job productivity may be linked to insufficient or lack of psychological education targeting improving work productivity levels.

Subsequently, nurse educators had a high level of job productivity after exposure to the psycho-education intervention. A significant difference in post-test job productivity was obtained between nurse-educators that received the psycho-education intervention and those who did not, when the pre-test effect is being controlled. Overall, psycho-education explained a high percentage (77.9%) change in job productivity. That is, psycho-education significantly improved the overall job productivity of nurse-educators. This finding is in tandem with the result by Farahani et al. (2015) which revealed that interventions relating to professional development improved clinical instructors' competencies, especially in the aspects of paying attention to students' educational needs, giving orientation to students on the rules and regulations of clinical courses, effective management of clinical teaching-learning process and instructors' professional knowledge. Similarly, in the present study, those exposed to psycho-education intervention sustained a normal level of job productivity than the educators who were not. Participants who received psychological education gained more from the knowledge that the intervention offered them and demonstrated high job productivity in terms of individual teaching and students' evaluation competencies.

Again, the finding revealed that nurse educators had a moderate level of competence in students' evaluation before psycho-education but increased after the psycho-education intervention. This finding is in agreement with the result of the study by Stronge (2010) which showed high competence in evaluating students' performance in terms of data collection, analyses, and measure of learners' progress. Initially, the majority of nurse educators were moderately competent to give students grades that truly reflected their efforts and performance, respond positively to students' comments and suggestions about teaching performance, and encourage students to evaluate their performance. Also,

consistent with Marlow et al. (2017), psycho-education enabled teachers to value and develop caring teacher-student relationships with a solid foundation to evaluate students' performance.

Many nurse educators were moderately effective to give students positive feedback for good work, evaluate students based on the objectives set at the beginning of the practical, discussing with students the pros and cons and limitations of the field practical, ask students to evaluate the teaching performance of clinical nurse educator, and evaluate students' attitude, knowledge and skills properly. However, a significant difference existed between the experimental and control groups in post-test students' evaluation competence after controlling for pre-test. After gaining insight into how to competently evaluate the students' performance in all sectors of classroom and clinical teaching through psycho-education, participants reported a high level of competence in evaluating students' performance after post-test. Although Dreer's (2020) results showed an increase in job satisfaction and teacher engagement that lasts for two weeks of Positive Psychological Interventions, the effect size was small compared to that of the current finding. This variation might be attributed to the targeted population and research approach.

In the same vein, participants before exposure to the psycho-education intervention had a moderate level of individual teaching competence but heightened after the psycho-education intervention as indicated after post-test. A significant difference in post-test individual teaching competence had been reported between the nurse-educators who received the intervention and those who did not when the pre-test effect was controlled. This means that those who received the psycho-education intervention had high levels of individual teaching competencies than those who were not. The present study is compatible with previous research by Baluyos et al. (2019) which revealed that teachers were not highly satisfied with their job, and their work productivity was less satisfactory. Similarly, the present outcome tends to agree with Abdulkareem et al. (2017) that the level of lecturers' productivity in community service in universities is low. This may include the aspects of goal setting and individual teaching in terms of identifying individual learners and the ability to provide a range of opportunities for students to learn.

Before psycho-education, nurse educators could not competently set the performance standard for the individual student and adjust teaching practices where necessary, and were not highly competent to address issues that students had not dealt with in previous theoretical and practical experience. Furthermore, nurse-educators could not direct students to fulfil certain responsibilities in practical and theoretical exercise, explain the

purpose and objectives of teaching or practical experience, set goals and objectives based on students' expectations and levels of experience, as well as plan the right kind of activities that would help students achieve their goals in the learning process or field practical. However, these competencies heightened after exposure to psycho-education as evidenced after post-test. This outcome tends to disagree with Abdulkareem et al. (2017) that the level of lecturers' productivity in teaching in universities is on average, while productivity in research is high. Borremans and Spilt (2022) also revealed that pre-service teachers in the final year of teacher training felt more competent, but not for all aspects of dyadic relationship building. The different outcomes could be traced to the research method and procedure. Both previous studies employed a survey approach but the current study adopted the experimental research procedure.

Conclusion

The present study investigated the effects of psycho-education intervention on job productivity of nurse-educators in Plateau State. From the findings, it can be inferred that psycho-education intervention significantly increased job productivity of nurse educators. Specifically, psycho-education significantly improved students' evaluation competence as well as students' individual teaching competence among nurse educators. Therefore, application of psycho-education intervention by nurse educators at home, school and similar environment would significantly improve job productivity among nurse educators.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Nurse educators should be provided opportunities for learning and application of psycho-education intervention both at home and school. The intervention should be flexible to be directly applicable to the teaching environment and easily utilizable on their job.
2. Colleges of nursing as well as schools of nursing and midwifery should provide training workshops for nurse educators about psychological education on students' evaluation and individual teaching competences.
3. Both Federal and State governments should provide funds and advocate for mandatory workshops and training of nurse educators on psycho-education intervention.
4. Curriculum planners and policymakers should introduce a psycho-education intervention into the school programme and policy in such a way that will compel educators to utilise it during the course of their work.

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