

# Core Self-Evaluations as Predicates of Clinical Decision Making in Selected Team of Perioperative Nurses in Ondo State, Nigeria

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Research Article

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## Abstract

The study examined core self-evaluation as predicates of clinical decision making in selected sample of perioperative nurses in Ondo State Nigeria. Sixty-three (63) perioperative nurses from a Federal hospital in Ondo State, were selected using convenience sampling method. The Core Self-Evaluations Scale (CSES) The Clinical Decision-Making Survey (CDMS) were used in the study to measure the independent variables. The sample comprised of 35 (55.5%) male and 18 (28.5%) female nurses whose age ranged between 21 and 55 (M=32.56; SD=7.11). The result of the study revealed that clinical decision making was significantly and positively related to self-esteem [ $r(63) = .20, p < .01$ ] and locus of control [ $r(63) = .18, p < .01$ ]. The relationship between emotional stability and clinical decision making was positive [ $r(63) = .41, p < .00$ ], such that clinical decision making is enhanced with an increase in emotional intelligence. A positive significant relationship was realized between self-efficacy and clinical decision making [ $r(63) = .21, p < .01$ ], such that clinical decision making increases among perioperative nurses with increase in self efficacy. Based on the outcomes of this study, it is recommended that an all-inclusive, effective and functional healthcare support system that promotes the development and sustainability of core self-evaluative traits should be established by healthcare management board to replace the existing system. Also, it is recommended that during conscription and training of nurses in school of nursing, psychological courses should made be mandatory so as to indoctrinate the need personality structure in would-be nurses that predisposes them into making better clinical decision making in managed care professional healthcare practice.

**Keywords:** Core self-evaluation; Clinical decision making perioperative nurses.

## Introduction

Most studies conducted within perioperative nursing populations have been extensively conducted in Europe and Asian climes, among African researchers these types of studies are relatively non-existent [1,2]. Research on perioperative nurses in quite scant within medical scientific literature in Nigeria. Research among these specialized group have not received the attention it deserves. It is believed that data from this category of medical healthcare workers is grossly underrepresented. Nursing practice in Nigeria is quite an established field of endeavor. However, little is known about the different specialty of nursing and only a few studies have attempted to conduct research among this specialized group of health workers.

The practice of perioperative nursing is one that requires that nurses within the field have functions and responsibilities that set them apart from other categories of nurses within expert healthcare practice. Perioperative nursing is a registered nursing practice and specialty whose responsibility bring them to working with patients who are having operative or other invasive

procedures and these categories of nurses work closely with surgeons and other clinicians who perform surgical operations within healthcare practice [3]. Association of perioperative Registered Nurses (AORN) (2012) states that the term 'perioperative' is used to refer to the comprehensive duration used to cover all the stages of perioperative procedures, these include; preoperative (before operation), intraoperative (during operation) and postoperative (after operation) processes. In other words, the practices of a perioperative commences from the time a patient is informed of the operation, this extends throughout the duration of the operational exercise and the responsibilities of the perioperative nurses stops after the postoperative process immediately the patient is discharged from the surgical theatre [4]. AORN (2012) enunciates that the recommended practices engaged in by perioperative nurses makes it a profession saddled with humongous responsibilities that have important implications for professionals and patients undergoing operation within healthcare institutions.

Core Self-Evaluation (CSE) is an umbrella term for a group of

four personality dimensions: self-esteem, self-efficacy, locus of control and emotional stability [5]. Self-esteem is the perception that individuals feels worthy about himself and how he or she is perceived [6]. Self-efficacy can be described as one's perception of been able to effectively carry out responsibilities [7]. Locus of control refers to perception that an individual has towards events happening around them whether it is caused by inner or self-makings (internal) or circumstance outside one's control (extrinsic) [8]. Emotional stability refers to one's ability to remain stable and balanced in face unpleasant situations [9]. The importance of CSE cannot be over emphasized, several studies have demonstrated the significance of CSE to cognitive and emotional behaviour responses extends across a wide array of situations and events [10]. Clinical decision making (CDM) is a complex mental process often regarded as the final stage of the clinical rational thinking which involves using problem solving techniques, critical thinking and prioritization in the resolution of problems in healthcare practice [11]. CDM deals with evaluating and appraising clinical situations that requires value judgement in other to come to an adequate management of the difficulties addressed, which consequently leads to clinical judgement [11-13]. Scholars have reported that significant correlations between and it implies that individuals with positive core self-evaluation might have better decision-making propensities than their counterparts who negative core self-evaluations [14]. Judge et al. [15] reasoned that the manner in which people appraise themselves using the CSE portend some abilities to predict positive work outcome in terms of job satisfaction and performance. As a result, this has led to the increase in number of research on CSE in recent times and it has provided valuable implications for work related outcomes [16].

### Statement of problem

CDM among perioperative nurses is an intricate subject matter and it is often the hallmark of nursing profession [11]. This makes CDM an important area of study and nursing training. Research studies that examined CDM in Nigeria is relatively inexistent in scientific literature. Reasons for the relative paucity of empirical studies on this subject-matter is unknown. But, some scholars believe that most scientist focus more on clinical outcomes rather than the decision-making processes that precede clinical judgments [17]. Some authors have suggested that another reason for the relative scant literature on CDM in Nigeria may be due to limited research grants and scholarships in this area of study. It is important note that, the dimensions of core self-evaluations have often been studied individually rather than as a composite variable that combines all their factors together. Factors such as loci of control, self-efficacy, emotional stability and self-esteem have been extensively researched in scientific literature. Of the few studies that have been conducted on CDM among nurses, most of the studies have often originated from Europe and Asia and only a handful of studies lay claim to have been conducted in Afrique noire and Nigeria in particular.

In addition, studies conducted on CSE among nurses mostly does not generally provide consistent outcomes [18,19]. The problem is that nursing clinical decision making requires several influences, and most studies that have been conducted in this area have often developed conceptual frameworks that are either inadequate or generally lack theoretical underpinnings that provide answers to the problems presented by the general scope of such studies [17]. It is in purview of this identified problems

that the present study intends to fill this gap by examining the roles of core self-evaluations and how they could predict clinical decision-making among perioperative nurses.

### Objectives of the study

Based on the identified problems the study examined the roles of core self-evaluations as correlates of clinical decision making in selected sample of perioperative nurses in Ondo State, South-East, Nigeria. In addition, the study sets out to attain the following specific objectives:

- 1) To determine whether self-esteem dimension of CSE would serve as a predicate of CDM in selected sample of perioperative nurses in Ondo State, South-East, Nigeria.
- 2) To ascertain if self-efficacy dimension of CSE will significantly predict CDM in selected sample of perioperative nurses in Ondo State, South-East, Nigeria.
- 3) To find out whether locus of control dimension of CSE will significantly predict CDM in selected sample of perioperative nurses in Ondo State, South-East, Nigeria.
- 4) To establish whether emotional stability dimension of CSE will significantly predict CDM in selected sample of perioperative nurses in Ondo State, South-East, Nigeria.
- 5) To find out whether the composite dimension of core self-evaluations (self-esteem, self-efficacy, locus of control and emotional stability) will jointly significantly predict clinical decision-making in selected sample of perioperative nurses in Ondo State, South-East, Nigeria.

### Research hypotheses

- 1) Self-esteem dimension of CSE will significantly predict CDM in selected sample of perioperative nurses in Ondo State, South-East, Nigeria.
- 2) Self-efficacy dimension of CSE will significantly predict CDM in selected sample of perioperative nurses in Ondo State, South-East, Nigeria.
- 3) Emotional stability dimension of CSE will significantly predict CDM in selected sample of perioperative nurses in Ondo State, South-East, Nigeria.
- 4) Locus of control dimension of CSE will significantly predict CDM in selected sample of perioperative nurses in Ondo State, South-East, Nigeria.
- 5) The composite dimension of core self-evaluations (self-esteem, self-efficacy, locus of control and emotional stability) will jointly significantly predict clinical decision-making in selected sample of perioperative nurses in Ondo State, South-East, Nigeria.

### Method

#### Research design

This study was survey design as participants (perioperative nurses) were selected from a selected Federal hospital in Ondo State, Nigeria. The independent variable was core self-evaluation (self-esteem, self-efficacy, locus of control and emotional stability). The dependent variable was nurses clinical decision making.

#### Sampling and sampling technique

The sample of the study consist of 63 perioperative nurses situate at a federal hospital in Ondo State. The perioperative nurses who gave consent and also volunteered to participate in

the study were sampled using convenient sampling technique at the Federal Medical Centre, Ondo State. The sampling procedure employed was convenient sampling is simple random sampling was used to select the participants of the study.

### Research instruments

The instrument used to obtain the research data was a structured self-report pencil-and-paper questionnaire with standardized constructs measuring the study variables. These scales were preceded by a section meant to elicit information on the respondents' personal and biosocial data. These include, age, gender, religion, marital status, academic qualification, and working experience.

The Clinical Decision-Making Survey (CDMS) was used to measure clinical decision making which was developed by Ferrell et al. [20]. The CDMS was developed to obtain information from nurses relating to nurse's decision making processes when they are attending to patients. The CDMS was made up by 14 items, each answered in an ordinal frequency scale that varied from 1= Never and 5 = Always. Ferrell and colleagues reported a test-retest reliability of .89 and for the present study, .91 Cronbach alpha was obtained. Core Self-Evaluation was measured using the 4 dimensional The Core Self-Evaluations Scale (CSES) developed by Judge et al. [21]. The alphas, item-total correlations, and inter-item correlations all suggest a high level of internal consistency. Test-retest reliability was .81, which shows good stability (test-retest reliability). The ICC value showed reasonable inter-rater reliability. The CSES is scored on 5-point Likert type scale, 1= 'Strongly Disagree and 5= 'Strongly Agree'. Judge et al. [21] reported a Cronbach alpha of .87. The present study reported a Cronbach's alpha of .92.

### Participants

Sixty-three (63) perioperative nurses from a federal hospital in Ondo State, were recruited for the research purpose using convenience sampling method. The nature of the shift-work schedules and the huge demand placed on nurses within managed care led to the use of convenient sampling so as to get as much participants as possible during the period of the research. From the distributed 72 questionnaires, 70 were retrieved while 63 were

found analyzable and valid for the research purpose. The sample comprised of 35 (55.5%) male and 18 (28.5%) female nurses whose age ranged between 21 and 55 ( $M=32.56$ ;  $SD=7.11$ ). Other personal characteristics show that 64.4% of the respondents were Christians, while 35.6% were Muslims. The academic qualification indicated that 24% were educated to the secondary school level, 27.2% had either National Diploma (ND) or Nigeria Certificate in Education (NCE), 45.9% has either a First Degree or Higher National diploma (HND), while 2.9% had a Master Degree. Their marital status was such that 18.6% were single, while 81.4% were married. Participants' working experience level indicated that 33.2% were junior, 42.5% were intermediate, while 19.4% were senior personnel.

### Procedure

Each participant gave consent and volunteered to participate in the study by filling the ethical and consent form. After the establishment of a convincing anonymity and formality in expected participants' information, the research instruments were distributed to the participants simultaneously during the period. An agree time frame was reached for the retrieval of the questionnaire which was ten minutes and the questionnaire administration lasted for a period of two weeks.

### Data analysis

Correlation analysis was utilized to test the extent and direction of relationship among the study variables. This was carried out with both Pearson Product Moment Correlation and hierarchical multiple regression analysis.

### Results

Table 1 indicated that clinical decision making was significantly and positively related to self-esteem [ $r(63) = .20$ ,  $p < .01$ ] and locus of control [ $r(63) = .18$ ,  $p < .01$ ]. The relationship between emotional stability and clinical decision-making was positive [ $r(63) = .41$ ,  $p < .00$ ], such that clinical decision making is enhanced with an increase in emotional intelligence. A positive significant relationship was realized between self-efficacy and clinical decision making [ $r(63) = .21$ ,  $p < .01$ ], such that clinical decision making increases among perioperative nurses with increase in self efficacy.

**Table 1:** Correlation Matrix Showing the Mean, SD and the Inter-Variable Correlations of the Study Variables.

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. Decision Making	1	.20**	.18**	.41**	.21**	.20**	.08	-.11	-.03	-.20**	.15*	.10
2. Self-esteem		1	.40**	.23**	-.33**	.01	.01	-.13*	.09	.08	-.05	.05
3. Locus of control			1	.44**	-.38**	.06	.14*	-.19*	.09	.08	-.02	.19*
4. Emotional Stability				1	-.29**	.14*	.10	-.14*	.06	.10	.06	.18**
5. Self-Efficacy					1	.00	.04	.14*	.12	.16*	.03	.15*
6. Age						1	.02	.02	.40*	.18**	.79*	.49*
7. Gender							1	.09	.01	.16*	.09	.05
8. Religion								1	.10	.01	.08	.01
9. Marital Status									1	.27**	.39*	.40*
10. Academic Qualifica.										1	.08	.32*
11. Work Experience											1	.49**
12. Job Level												1
Mean	36.16	36.81	7.17	137.57	18.91	32.56	-	-	-	-	14.04	-
SD	6.22	4.38	1.74	17.75	3.68	7.11	-	-	-	-	8.30	-

Note: \*\* =  $p < .01$ , \* $p < .05$ , N=63, Academic Qualifica = Academic Qualification.

Testing the biosocial factors of the respondents with clinical decision making, it was observed that age [ $r(63) = .20, p < .01$ ], academic Qualification [ $r(63) = .20, p < .01$ ] and work experience [ $r(63) = .15, p < .05$ ] were significantly related with clinical decision making. T.

Four step hierarchical multiple regression was conducted to test the study's hypotheses and the findings were summarized in Table 2.

**Table 2:** Hierarchical Multiple Regression Showing the Predictions on Clinical Decision Making.

Predictors	Step 1	Step 2	Step 3	Step 4
	$\beta$	B	$\beta$	B
<b>Core Self-Evaluation</b>				
Self-Esteem	.14*	.13*	.12*	.24
Emotional Stability		.40**	.38**	1.44**
Self-Efficacy			.19*	.89*
Locus of Control				.60*
R	.24	.42	.43	.47
R <sup>2</sup>	.06	.18	.18	.22
$\Delta R^2$	–	.12	.01	.04
Df	4, 63	4, 63	4, 63	4, 63
F	4.83**	13.10**	10.95**	7.59**
$\Delta F$	–	35.83**	2.12	2.94*

**Note:** \*\*  $p < .01$ , \*  $p < .05$ , N=63; dv= Clinical Decision Making.

In the step 1 of the analysis, each of the dimensions of the core self-evaluation variables were tested on clinical decision making and the result revealed that only self-esteem dimension of core self-evaluation predicted clinical decision making ( $\beta = .14, p < .05$ ). This was such that increase in self-esteem dimension of core self-evaluation leads to increase in clinical decision making among perioperative nurses in Ondo State. Although, a significant joint contribution was observed with a variance contribution of 6% from personality variables on changes in clinical decision making [ $R^2 = .06, F(4, 63) = 4.83, p < .01$ ]. Therefore, hypothesis 1 was confirmed and accepted. In step 2, emotional stability was added and it was observed that emotional stability dimension of core self-evaluation predicted clinical decision making such that emotional stability dimension of core self-evaluation increases chances of clinical decision making in perioperative nurses ( $\beta = .40, p < .00$ ). With a significant variance of 18% observed at the step 2, emotional stability dimension of core self-evaluation accounted for 12% of the variance observed in clinical decision making [ $R^2 = .18, \Delta R^2 = .12, F(4, 63) = 13.10, p < .00$ ]. Therefore, hypothesis 2 was accepted and confirmed.

In step 3, self-efficacy dimension of core self-evaluation was added to the model and the result revealed that self-efficacy dimension of core self-evaluation predicted clinical decision making ( $\beta = .19, p < .05$ ). This implied that self-efficacy dimension of core self-evaluation increase the chances of clinical decision making among perioperative nurses in Ondo State. This suggest that self-efficacy dimension of core self-evaluation significantly predict clinical decision significant variance added [ $R^2 = .19, \Delta R^2 = .01, F(4, 63) = 10.95, p < .00$ ]. Therefore, hypothesis three was accepted and confirmed.

The step 4 of the regression analysis introduced the locus of control and it was noted that locus of control predicted dimension of core self-evaluation clinical decision making ( $\beta = .60, p < .05$ ). This implies that locus of control dimension of core self-evaluation is a predictor of clinical decision making among perioperative nurses in Ondo State. Therefore, hypothesis 4 was accepted. In conclusion, the combined effects of the study variables, that dimensions of core self-evaluation [ $R^2 = .18, \Delta R^2 = .12, F(4, 63) = 13.10, p < .00$ ] (self-esteem, self-efficacy, emotional stability and locus of control) jointly significantly predicted clinical decision making among perioperative nurses in Ondo State. Therefore, hypothesis five was accepted and confirmed.

## Discussion

The result indicated that all dimensions of the core self-evaluation were significant predictors of clinical decision making among perioperative nurses. This implies that components that make up the core self-evaluation portend important factors to be considered in nurses' clinical decision making. This result portends that perioperative nurses will show significant levels of self-esteem have the ability to show confidence and worthwhile knowledge of self and others in making clinical decisions. This supports the idea of Penataro-Pintado et al. [1]. Also, self-efficacy in individuals and individuals who show consistent levels of emotional stability have a higher tendency to make valid decisions because their emotions are not based on bias and they can effectively control their emotions so as not to let their emotions sway their decisions. In addition, studies on locus of control in individuals have suggested that people with high level of internal and external loci of control tend to learn from experience by allotting certain cognitions to the understanding of events and decisions that have personal and general implications [5,9,14].

## Conclusion

Perioperative nursing is a specialty within the nursing discipline that is responsible for preparing patients before, during and after operations in the hospital. This study examined the predictive roles of the dimensions of core self-evaluations (self-esteem, self-efficacy, emotional stability and locus of control) and the results suggest that each of the dimensions showed significant predictive values on decision making among perioperative nurses in Ondo State Nigeria. Based on the outcome of the study. Core self-evaluation is an important set of psychological factors that have significant implications for clinical decision making among perioperative nurses in Ondo State Nigeria.

## Recommendations and Direction for Future Studies

This study recommends that nurses and other healthcare practitioners should engage in training and consultation from psychologist to help improve the state and level of core self-evaluations propensities in other to develop and sustain a viable healthcare service, one that could compete favorably with its counterparts in developed societies. It is also recommended that during conscription and training of nurses in school of nursing, psychological courses should made be mandatory so as to indoctrinate the need personality structure in would-be nurses that predisposes them into making better clinical decision making in managed care professional healthcare practice.

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## Conflict of interest

Authors declare that there is no conflict of interest.



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