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## Knowledge and Practice of Patient Activation in achieving Quality Nursing Care in Ahmadu Bello University Teaching Hospital, Zaria

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### ABSTRACT

The study aimed at determining the knowledge and practice of patient activation in achieving quality nursing care for patients by nurses in Ahmadu Bello University Teaching Hospital, Zaria. The study assesses nurse's knowledge about patient activation, the practice of patient activation by nurses in the hospital and identify barriers to patient activation by nurses. A cross-sectional survey design was adopted for the study. Questionnaire was the instrument for data collection. Data collected was analysed using the Statistical Package for Social Sciences version 21. Results were presented in frequency distribution tables with percentages. The result showed that 51.4% of the respondents had heard of patient activation. More than half (73.5%) practiced patient activation. Majority (69.2%) of the respondents identified more than one barrier to patient activation. Some barriers identified include; time constraint (14.6%), lack of knowledge (4.9%), diverse background (4.3%), inadequate personnels (2.7%) and language barrier (2.7%) among others. It was therefore recommended that more enlightenment should be carried out among the nurses to improve the practice of patient activation. The management should employ more nurses so that they can have time for the practice of patient activation.

**Key words:** Activation, Knowledge, Patient, Practice, Quality Care,

### INTRODUCTION

Patient activation is a behavioural concept. It captures a number of core components of patient involvement, each of which is important for active engagement and participation. It is defined as, an individual's knowledge, skill, and confidence for managing their health and health care<sup>1</sup>. Patients with high levels of activation understand their role in the care process and feel capable of fulfilling that role. Individuals with long-term conditions who are more highly activated are more likely to engage in positive health behaviours and manage their health conditions more effectively<sup>2</sup>. Patient activation is

the best predictor of healthy behaviour over a wider range of outcomes<sup>3</sup>. In case of chronic illnesses like diabetes, cancer etc., there is need for patients to be knowledgeable about their condition, be equipped and skilful in managing their health. This makes the health care providers involve patients in their care in order to achieve better results<sup>4</sup>.

### **Patient Activation Measure (PAM)**

In health care, it is commonly understood that measurement is a necessary first step in effectively improving care. The Patient Activation Measure (PAM) is the most commonly used measure of activation. PAM was developed using qualitative methods; Rasch analysis, and classical test theory psychometric methods. It was developed by Judith Hibbard and colleagues at the University of Oregon<sup>5</sup>.

The PAM is a measure that patients complete themselves, although they can be supported in the process. The PAM contains a series of 13 statements designed to assess the extent of a patient's activation. These statements are about beliefs, confidence in the management of health-related tasks and self-assessed knowledge. Patients are asked to rate the degree to which they agree or disagree with each statement. These answers are combined to provide a single score of between 0 and 100, which represents the person's concept of themselves as an active manager of their health and health care. These range from low activation to high activation. They are based on experience and observation; provide a means of understanding the patient's capabilities, beliefs and likely behaviours at different points along the scale; and are used to support patients more appropriately. Although patient activation scores lie between 0 and 100, for the purpose of intervention, they are often subdivided into four groups known as, levels of activation. Measuring patient activation supports clinicians and organisations to help patients adopt positive health behaviours and improve the management of their conditions<sup>2</sup>. The PAM has been tested extensively across a number of different languages, cultures and demographic groups, and among people with

different health conditions<sup>6</sup>. It has been found to be a scientifically valid and reliable tool, providing a consistent and accurate way of measuring changes in activation over time<sup>2</sup>. Perhaps most importantly, patient activation is a much better predictor of health outcomes than known socio-demographic factors such as ethnicity and age<sup>7</sup>

### **The Relationship between Patient Activation and Clinical Outcomes**

One of the most important attributes of the PAM, which sets it apart from other measures of engagement, is its established relationship to patient outcome. This is because, unlike measures of perceived support and health literacy, patient activation captures not only the patient's beliefs about their ability to self-manage but also the likelihood that they will put these beliefs into action. It has been robustly demonstrated that levels of patient activation are related to most health behaviours, many clinical outcomes, health care costs and patient experiences<sup>2</sup>.

Empirical studies indicate that people who are more activated are significantly more likely to attend screenings, regular check-ups, immunisations, and significantly more likely to engage in healthy behaviours like eating a healthy diet<sup>8</sup>. They are also more likely to take regular exercise<sup>9,10</sup> compared with people who score lower on the activation scale. Conversely, less activated patients are significantly less likely to have prepared questions for a visit to the doctor, to know about treatment guidelines for their condition or to be persistent in asking if they don't understand what their doctor had told them<sup>11,12</sup>. They are also two to three times more likely to have unmet medical needs and to delay medical care compared with more highly activated patients, even after controlling for income, education and access to care<sup>13</sup>.

In the management of long-term conditions, higher activation scores are positively correlated with adherence to treatment and condition monitoring, as well as obtaining regular care associated with the

condition<sup>14,9</sup>. While most studies control for severity of illness and socio-demographic factors, these findings appear to be true for patients with a range of different conditions and economic backgrounds, including disadvantaged and ethnically diverse groups and those who have less access to care<sup>15</sup>. One study following disadvantaged diabetes patients over a six-month period found that more-activated patients were more likely to perform foot checks, obtain eye examinations and exercise regularly than less-activated patients<sup>15</sup>.

Another study of patients' adherence to physical therapy regimens after spine surgery found that more highly activated patients were more adherent to and engaged in their physical therapy than less-activated patients<sup>16</sup>. More highly activated patients are more likely to have clinical indicators in the normal range, including body mass index (BMI), blood sugar levels, blood pressure and cholesterol<sup>11</sup>. A study of HIV patients found that every five-point increase in PAM scores was associated with a significant improvement in CD<sub>4</sub> counts, adherence to drug regimens and viral suppression<sup>17</sup>. Patient activation has been found to be highly relevant to the outcome of people with mental health disorders, including depression, post-traumatic stress disorder, bipolar disorder, anxiety and schizophrenia. Studies also show that higher activation is linked with lower levels of substance abuse<sup>18</sup>.

## THEORETICAL FRAMEWORK

### Chronic Care Model

The Chronic Care Model (CCM) is an organizing framework for improving chronic illness care and an excellent tool for improving care at both the individual and population level. The model is based on the assumption that improvement in care requires an approach that incorporates patient, provider, and system level interventions. The nurse practitioner and other advanced practice nurses are ideally suited for intervention through the CCM. Wagner<sup>19</sup> developed the Chronic Care Model. The CCM summarizes the basic elements for improving care in health systems on different levels. These elements

are the community, the health system, self-management support, delivery system design, decision support and clinical information systems. Evidence-based change concepts under each element, in combination, foster productive interactions between informed patients who take an active part in their care and providers with resources and expertise. The Chronic Care Model can be applied to a variety of chronic illnesses, health care settings and target populations. The bottom line is healthier patients, more satisfied providers, and cost savings.

The knowledge that patients should also be effective managers of their care is lacking in our society as evidenced by the orthodox orientation of health care providers in general. This orientation makes that the health care providers are more concerned with proffering treatment without educating the patients or even teaching them skills to self-manage their condition. It is usual for patients in our society to rely solely on care given by the health professionals without even having a basic understanding of the disease, therefore the role of health practitioners is to first be knowledgeable about how to activate patients and teach them skills necessary for maintaining their health. In line with this, this study raised the following objectives;

- To assess the nurse's knowledge on patient activation.
- To assess the practice of patient activation by nurses.
- To identify barriers to patient activation by nurses.
- To determine the relationship between nurse's knowledge about patient activation and practice..

## MATERIALS AND METHOD

**Study design:** This study adopted a cross-sectional descriptive survey design.

**Study Area:** The research covers the nurses of Ahmadu Bello University Teaching Hospital (ABUTH) Zaria. It is the largest facility within the North West geopolitical region with regard to both size and personnel. The hospital provide health services not only to people residing in Zaria but also to surrounding districts and states

as well as serve as a referral centre for cases from all over the Federation to its various special clinics. The hospital has clinical department, accident and emergency unit, laboratories, operating theatre, clinics, intensive care unit, the obstetrics and gynaecology ward, obstetric ward, maternity and delivery suite. It has also a reproductive health unit, which provides family planning services and screening for cancer of the cervix.

**Scope of the study:** This study was delimited to nurses of Ahmadu Bello University Teaching Hospital, Zaria. It assess the knowledge and practice of patient activation to achieve quality nursing care.

**Study Population:** The study population is made up of nurses in Ahmadu Bello University Teaching Hospital, Zaria.

**Sample Size:** This was determined using 40% of the study population as suggested by Nwana<sup>20</sup> who stated that if a population is a few hundred, 40% is representative of the population. The total population of nurses in ABUTH is 500. Sample size was 200, but 185 nurses were used for the study based on availability of nurses in the wards at the time of conducting this study.

**Sampling Technique:** A cluster sampling technique was used. The wards were clustered into five groups. Questionnaires were randomly distributed to the nurses based on availability during each shift. Below is a table representing the number of respondents used in each ward.

**Table 1: Distribution of Nurses within the wards**

Ward	Number of nurses	Calculation	Number used
Medical	77	$77/185 \times 100$	31
Surgical	79	$79/185 \times 100$	31
Obstetrics and Gynaecology	55	$55/185 \times 100$	22
Paediatrics	60	$60/185 \times 100$	24

Others	231	$231/185 \times 100$	77
Total	185		185

**Instrument for data collection:** This was by the use of self-administered questionnaire and in-depth interviews.

**Method of data analysis:** This was by the use of Statistical Package for Social Sciences Version 21. Results were presented in frequency tables and percentages.

**Ethical Consideration:** Consent and permission was obtained from the hospital administration to administer questionnaire to the population concerned. Consent from each respondent was obtained, explaining the aim and objective of the project ensuring confidentiality in the course of the study.

## RESULTS AND DISCUSSION

Table 1a shows that, more than half (56.2%) of the respondents were below 50 years. Table 1b shows that majority of the respondents (86.5%) were females while 13.5% were males. Table 1c shows that more than half (68.6%) were married while 30.3% were single. Table 1d shows that most of the respondents (60.5%) were Christians while 39.5% were Muslims. Table 1e shows that 30.8% were Hausa and Yoruba, 19.5% were Igbo and 18.9% were other tribes. This result is not surprising as Nursing profession is dominated by females. The study area is also dominated by people speaking Hausa Language.

**Table 1: Socio-demographic characteristics**

a. Age	Frequency	Percentages (%)
20-30	61	33
31-40	61	33
41-50	43	23.2
>50	20	10.8
Total	185	100
<b>b. Sex</b>		
Male	25	13.5
Female	160	86.5

Total	185	100
<b>c. Marital status</b>		
Married	129	69.7
Single	56	30.3
Total	185	100
<b>d. Religion</b>		
Muslim	73	39.5
Christianity	112	60.5
Total	185	100
<b>e. Ethnic group</b>		
Hausa	57	30.8
Igbo	36	19.5
Yoruba	57	30.8
Others	35	18.9
Total	185	100
<b>f. Occupation</b>		
Nurse	127	68.6
Midwife	29	15.7
Nurse/Midwife	29	15.7
Total	185	100
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Mean age =48	Standard deviation =18.8	

Table 2 shows that 25.4% of respondents were Staff Nurses, 23.2% were Nursing Officers, 16.8% were Staff Nurse Midwives, 13% were Chief Nursing Offices, 9.2% were Senior Nursing officers, 6.5% were Assistant Chief Nursing Officers, 3.8% Principal Nursing Officers and 2.2% were Assistant Directors of Nursing services.

**Table 2: Rank of respondents**

Rank	Frequency	Percentage (%)
Assistant Director of Nursing Services	4	2.2
Chief Nursing Officer	24	13
Assistant Chief Nursing	12	6.5



Officer		
Principal Nursing Officers	7	3.8
Senior Nursing officers	17	9.2
Staff Nurses	47	25.4
Nursing Officers	43	23.2
Staff Nurse Midwives	31	16.8
<b>Total</b>	<b>185</b>	<b>100</b>

Table 3 shows that 16.8% of respondents were from Medical and Surgical wards, 11.9% were from Obstetrics and Gynaecology, 12.9% from Paediatric ward and 41.6% were from other wards and clinics within the hospital.

**Table 3: Departments of respondents**

Variables	Frequency	Percentage (%)
Medical	31	16.8
Surgical	31	16.8
Obstetrics and Gynaecology	22	11.9
Paediatrics	24	12.9
Others	77	41.6
<b>Total</b>	<b>185</b>	<b>100</b>

Table 4 shows that 59.5% of respondents had experience for less than 10 years, 24.8% had experience of 10-20 years, and 14.6% had experience for 21-30 years while 1.1% had experience for more than 30 years.

**Table 4: Years of experience**

Variable(years)	Frequency	Percentage (%)
<10	110	59.5
10-20	46	24.8
21-30	27	14.6
>30	2	1.1
<b>Total</b>	<b>185</b>	<b>100</b>

## Knowledge of patient activation

The result obtained showed that half (51.4%) of the respondents were aware of the concept, patient activation. Table 5 shows that less than half (40%) of the respondents defined patient activation correctly as; having skills and knowledge to manage one's health. Table 5b shows that more than half (84.9%) of respondents were aware that a patient should be equipped to become effective managers of their health. Table 5c shows that most (74.6%) of the respondents did not know of the questionnaire designed to measure patient activation. According to Hibbard<sup>2</sup>, patient activation focuses on giving patients the skills, knowledge and confidence they need to take an active role in their own health care. It is therefore, a necessary first step in effectively improving care. Lack of knowledge of the questionnaire and how to measure makes assessment of patient's level of activation impossible and does not allow for improvement in care rendered.

**Table 5: Defining Patient activation**

<b>a. Definition of patient activation</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Having skills and knowledge to manage one's health	74	40
A patient that relates with everyone in the ward and is active	10	5.4
Encouraging a patient to be quick in managing his health	57	30.8
I do not know	44	23.8
Total	185	100
<b>a. Awareness that a patient should be equipped to become an effective manager of his/her health</b>		
Yes	157	84.9
No	28	15.1
Total	185	100
<b>c. Knowledge of measuring patient activation</b>		
Yes	47	25.4
No	138	74.6
Total	185	100

### Source of Information about Patient Activation

Out of the 74 respondents who knew about patient activation, 54% could not identify the source of information although some said that they got the information from journals.

Table 6a shows that majority (89.2%) of the respondents said that the practice of patient activation is important. Table 6b shows that 73.5% practice patient activation, 97.3% educate their patients about their condition. Table 6d shows that 90.8% educate patients about their role in managing their health and 87% build confidence in their patients to enable them manage their health themselves. Studies in the workplace highlight a relationship between patient activation, job satisfaction and absenteeism<sup>12</sup>. Effective interventions are often those that are tailored to an individual's level of activation<sup>21,22</sup>.

A prospective cohort study<sup>23</sup> among people living with Diabetes in Queensland, Australia was carried out to determine the association between patient activation and quality of care in low and high patient activation groups at baseline in the year 2008, 2009 and 2010. The result showed that patient activation was positively associated with the median 20-item Patient Assessment of Chronic Illness Care (PACIC) score.

**Table 6: Practice of patient activation**

<b>a. Is patient activation important?</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Yes	165	89.2
No	9	4.9
I do not know	11	5.9
Total	185	100
<b>b. Do you practice patient activation?</b>		
Yes	136	73.5
No	40	21.6
I do not know	9	4.9
Total	185	100
<b>c. Do you educate patients about their condition?</b>		
Yes	180	97.3
No	5	2.7

Total	185	100
<b>d. Do you educate patients about their role in their health care?</b>		
Yes	168	90.8
No	17	9.2
Total	185	100
<b>e. Do you build confidence in patients to enable them manage their health?</b>		
Yes	161	87
No	24	13
Total	185	100

### Barriers to Patient Activation

Majority (97.3%) of the respondents said that there are barriers to activating patients. Table 7 shows that majority of the respondents (69.2%) mentioned a combination of more than one barrier that inhibit patient activation among which 14.6% mentioned time constraint, lack of knowledge (4.9%), diverse background(4.3%) language barrier (2.7%) and inadequate personnel (1.6%). This is presented in Table 7.

**Table 7: Barriers to activating patients**

Barriers	Frequency	Percentage (%)
Time constraints	27	14.6
Lack of knowledge	9	4.9
Language barrier	5	2.7
Inadequate personnel	5	2.7
Diverse backgrounds	8	4.3
Age	3	1.6
More than one kind of barrier	128	69.2
<b>Total</b>	<b>185</b>	<b>100</b>

**Table 8: Ways of improving the practice of patient activation**

a. Are there ways to improve the practice of patient activation?	Frequency	Percentage (%)
Yes	182	98.4
No	3	1.6
Total	185	100
<b>b. Ways to improve practice</b>		
Awareness of what patient activation is	44	23.8
Enlightenment on the importance of activating patients	24	12.9
Hospital policies should be set	4	2.2
More than one way of improvement	113	61.1
Total	185	100

Majority (98.4%) of the respondents are of the view that patient activation can be improved. Table 8b shows that majority of the respondents (61.1%) mentioned more than one way of improving the practice among which are; creating awareness among nurses of what patient activation is (23.8%), enlightenment on the importance of activating patients (12.9%), hospital policies that favour the practice should be formulated (2.2%).

## CONCLUSION

Many of the nurses do not practice patient activation. There is the need to educate patients about their condition, allowing them to be involved in their care and building skills in them to enable them manage their health themselves. Tackling the identified barriers and enlightenment about what patient activation is with its importance are suggested ways of improving the practice of patient activation.

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