Pre-operative Counselling: A Pathway for Managing Anxiety among Surgery Patients in Healthcare Facilities in Maiduguri, Borno State

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DOI: 10.56201/ijhpr.v7.no2.2022.pg54.62

Abstract
The study surveyed pre-operative counselling: A pathway for managing anxiety among surgery patients in healthcare facilities in Maiduguri, Borno State in which the pre-operative counselling rendered to surgery patients were identified. Target population of the study comprised of 447 registered nurses and 246 admitted surgical patients in 6 secondary healthcare facilities in the study area. However, a sample size of 211 subjects was selected using Guilford and Flruchter (1973) formula for determining sample size of a giving population. 101(47.9%) of the respondents are male while 110(52.1%) are female. Stratified random sampling technique was used in selecting the respondents based on gender, age and educational status. Researchers' designed 23 items open ended instrument tagged 'Pre-operative Counselling Questionnaire' (PCQ) was used to elicit data for the study. The PCQ was divided into 3 sections (A, B and C). Section A sought data on demographic characteristics of the respondents. Section B elicited information on pre-operative counselling rendered to surgery patients while section C collected data on reasons for pre-operative counselling in the study area. Sections B and C were designed using five points likert-scale. Average mean of 3.00 was used as the cut-off score for decision making. Face and content validity of the PCQ was 0.79 as determined by 3 experts from the University of Maiduguri, Borno State. It has reliability coefficient of 0.87 which was adjudged appropriate for the study. Three objectives and three research questions guided the study. Data collected for the study was analyzed using SPSS Version 23.0 Items with mean rating of 3.00 and above were regarded as acceptable pre-operative counselling measure while mean rating below 3.00 was considered not being a pre-operative counselling measure hence rejected and items with standard deviation of 0.00 to 0.05 indicates that the respondents were not far from the mean and opinion of one another. Findings of the study revealed pre-operative visit by anaesthesiologist and administration of anti-anxiety medication (Benzodiazepines or Melatonin)

as some of the pre-operative counselling services rendered to surgical patients while perceived pains and anxiety constituted some of the reasons for rendering pre-operative counselling services in the study area. Equipping all healthcare canters across the State with modern facilities and engaging professionally trained, qualified and experienced medical personnel and counsellors in aspects involving surgery were some of the recommendations proffered.

Keywords: *Pre-operative, Anxiety, Surgery, Patients, Counselling Interventions.*

Introduction

Pre-operative counselling refers to the process of providing information on surgical procedures, availability of trained nurses and professional surgeons, contemporary surgical gadgets, anticipated feelings and predictable days of discharge after successful surgery to patients through interaction, encouragement, hope and psychosocial support to undergo surgery. The objective of pre-operative counselling is to prepare patients for the surgery process, facilitate recovery after surgery and achieve better health outcomes (Bernier *et al.*, 2003). Kim et al, (2010) and Saini & Dayal (2016) reported that surgical patients, irrespective of age, levels of education, gender, and profession, suffer from tension, fear and anxiety that are associated with stressful and painful surgical processes, perceived danger, personality type and frame of mind, disposition or mood of a surgical patient, attitude of medical doctors and nurses towards the patients before the surgery, environmental factors such as lack of equipment and/or prevalence of faulty equipment, poor infrastructure and epileptic power supply. Others are previous bad or negative surgical experiences, poor or unsuccessful surgical records, concerns for children future, family financial incapacitation or feeble economic muscles and needs as well as fear of the unknown.

The pervasiveness of fear, anxiety and tension among surgical patients has proved to exert high level negative consequences and impact on medical care and surgery in general especially in health care facilities in Nigeria. It aggravates the physical and psychological sicknesses of patients and leads to many negative behaviours such as patients' agitations against surgery, avoiding surgery entirely, crying and spontaneous urination (Rice, et al, 2018). Thus, hinder patients' ability to cope with and survive surgery, and/or enjoy fast post-operative recovery. In most instances, it increases the risk of post-operative complications such as pain, prolonged recovery, longer hospitalization and death (Kain et al, 2016).

In an attempt to minimize these swelling consequences, Brewer *et'al* (2016) reported that stakeholders in the medical profession initiated different pre-educating programmes that were designed to reduce tension, fear and anxiety among surgical patients. Such programmes, which are directed or managed mainly by psychotherapists and nurses, include providing information on the surgical orientation, providing successful film model and picture books for the surgery, engaging the patients in rehearsals and visiting the operating room, exhibiting the power of anaesthesia induction, playing affectional music, and permitting the patients' loved ones to interact and be by their side. Other programmes according to Rice *et'al* (2018) include relaxation therapy, cognitive behavioural therapy, acupressure and administration of anti-anxiety medication such as benzodiazepines or melatonin, improved nurse-patient relationships, and pre-operative visit from the anaesthesiologist.

Counselling on surgical processes is essential to reducing surgical patients' worry, fear and pressure. The counselling should focus on providing information on specific surgical procedures, pains and discomfort and coping requirements (Suhonen & Leino-Kilpi, 2016). Nonetheless, information regarding possible risk and complications during surgery should not be release to the patients to avoid the risk of increasing the rate of phobia among them (Mitchell, 2010). On the contrary however, Fitzpatrick & Hyde (2015) expressed that the impacts depend on the ingenuity of the counsellor, delivery methods, availability and accessibility of counselling tools not on the number of patients counselled.

Algern & Arnow (2015) and Johnson & Anderson (2017) expressed that pre-operative counselling is efficacious in reducing phobia among pre-surgical patients across cultures and development. Additionally, such counselling equip the nurses with relevant information concerning their patients, choice of appropriate mechanism for taking care of each individual patient, supply information to patients on their operation and aftercare, reduce anxiety which invariably shorten days of admission and ultimately enable patients to manage their own situation. It is against this background that this study cast its search light on pre-operative counselling as a pathway for managing anxiety among surgery patients in secondary healthcare facilities in Maiduguri, Borno State.

Theoretical Framework

Theory of self-esteem formed the theoretical basis of this study. Coopersmith (1967) refers to self-esteem as personal worthiness or judgement expressed by individual based on subjective experience, thoughts and feelings conveyed by verbal reports and other expressive behaviours which can be categorized as being high or low. Those with high self-esteem are usually characterised as being confident and enthusiastic about life while the low self-esteem lack confidence, hold negative opinions and emotions such as anxiety, depression, unhappiness, aggression and resentment. For the purpose of this study however, the theory focuses primarily on patients' maturity, development of sense of confidence, organize and manage one with a view to performing expected positive behaviour. The fundamental assumption of the theory is that the higher the patients' confidence, the more likely they will initiate and persist in particular positive behavioural change useful for quicker and successful healthcare management (Bandura, 1997 & Heye, *et al.,* 2012). Self-esteem here serves as the mediator between ones' experience and feelings as well as the behaviour exhibited after surgery. The relevance of self-esteem theory to this study lies in the application of ideas gain from pre-operative counselling to cope with surgical suspicions and anxiety which enables the researchers investigate pre-operative counselling as a pathway for managing anxiety among surgery patients in secondary healthcare facilities in Maiduguri, Borno State.

Statement of the Problem

Observations made and discussions held by the researchers and surgeons, nurses and patients that undergone surgery in secondary healthcare facilities in Maiduguri, Borno State shows that surgery departments, theatres, and wards in secondary healthcare facilities in Maiduguri were turn into mini prayer grounds for divine interventions before, during and after surgery. It seems there are increasing cases of surgical mortality as a probable consequence of unhelpful surgical outcomes. Such misnomers could be attributed to patients' behaviour of mistrust in the surgical process following previous circumstances resulting in negative records or surgeons' unethical

conducts. It seems avoiding the perceived disobliging outcomes could be the rationale behind most surgical patients resorted to using customary or herbal medicines and sacred methods in treating complications requiring surgical attention. It is against this background that this study cast its search light on pre-operative counselling as a pathway for managing anxiety among surgery patients in secondary healthcare facilities in Maiduguri, Borno State.

Methodology

A descriptive survey research design was adopted for the study. Target population of the study comprised of 447 registered nurses in surgery department/wards (201nurses) and admitted surgical patients (246 patients) in the 6 secondary healthcare facilities in the study area. However, a sample size of 211 subjects was selected for the study using Guilford and Flruchter (1973) formula for determining sample size of a giving population. The sample were drawn from Maiduguri Specialist Hospital (MSH), Umoru Shehu Ultra-model Hospital (USUMH), Eye Hospital Maiduguri (EHM), Molai General Hospital Maiduguri (MGHM), General Shuwa Memorial Hospital (GSMH) and Maryam Abatcha Chest Hospital (MACH) all of which are secondary healthcare facilities in Maiduguri, Borno State. Stratified random sampling technique was adopted in picking sample. The stratification was based on gender, age, educational qualification, occupation and marital status.

Researchers' designed 23 items open ended instrument tagged 'Pre-operative Counselling Questionnaire' (PCQ) was used to elicit data for the study. The instrument was divided into 3 sections (A, B and C). Section A sought data on demographic characteristics of the respondents. Section B elicited information on pre-operative counselling rendered to surgery patients while section C collected data on reasons for pre-operative counselling in the study area. Sections B and C were designed using five points likert-scale with the following response patterns and corresponding values: Strongly Agree (SA) = 5 points; Agree (A) = 4 points; Undecided (UD) = 3 points; Disagree (D) = 2 points; Strongly Disagree (SD) =1 point. Average mean of 3.00 was used as the cut-off score for decision making. Any items with a mean rating of 3.00 and above was regarded as acceptable pre-operative counselling measure while mean rating below 3.00 was considered not being a pre-operative counselling measure hence rejected. Any item with standard deviation of 0.00 to 0.05 revealed that the respondents were not far from the mean and opinion of one another.

Face and content validity of the instrument was 0.79 as determined by 3 experts from the fields of Counselling Psychology, Medicine as well as Measurement and Evaluation of the University of Maiduguri, Borno State. Items in the instrument with less than 85% acceptance by the experts were removed. The experts' views were appropriately and adequately incorporated. Reliability of the instrument was established through pilot-testing among 4 healthcare facilities outside those under study. The test-re-test method adopted using Cronbach alpha yield a reliability coefficient of 0.87 which was considered suitable, adequate and adjudged appropriate for what the study purports to achieve, thus, used for the study. Copies of the instrument were administered to the respondents with the help of 2 research assistants (nurses) in each of the sampled health care facilities and the responses were collected on the spot which ensures 100% retrieval. Data collected for the study was analyzed using Statistical Package for Social Sciences (SPSS) Version 23.0 involving mean and standard deviation. Three objectives piloted the study and three research questions were answered. The results are presented in Tables 1 to 3.

Objective of the Study

The objectives of this study are to:

1. Ascertain the demographic characteristics of the surgery patients in healthcare facilities in Maiduguri, Borno State
2. Identify the pre-operative counselling rendered to surgery patients in healthcare facilities in Maiduguri, Borno State
3. Establish reasons for pre-operative counselling among surgery patients in healthcare facilities in Maiduguri, Borno State

Research Questions

The following research questions were answered in this study:

1. What are the demographic characteristics of the surgery patients in healthcare facilities in Maiduguri, Borno State?
2. What are the pre-operative counselling services rendered to surgery patients in healthcare facilities in Maiduguri, Borno State?
3. What are the reasons for pre-operative counselling services rendered to surgery patients in healthcare facilities in Maiduguri, Borno State?

Results

Research Question 1: What are the demographic characteristics of the surgery patients in healthcare facilities in Maiduguri, Borno State?

Table 1: Demographic Characteristics of Surgery Patients in Healthcare Facilities in Maiduguri, Borno State

			Gender		Age in years			Education level		
S/N	Hospital	Total	Male	Female	18-37	38-57	58&abov	None	O/L	A/L
1	MSH	38	15	23	17	15	10	9	15	14
2	USUMH	36	17	19	12	11	9	8	18	9
3	EHM	32	18	14	13	16	8	7	16	10
4	MGHM	36	17	19	15	13	11	8	15	12
5	GSMH	37	16	21	10	13	8	5	16	11
6	MACH	32	18	14	14	11	5	9	17	12
	Total	**211**	**101**	**110**	**81**	**79**	**51**	**46**	**97**	**68**

Table 1 reveals that 101(47.9%) of the respondents are males while 110(52.1%) are females. Additionally, 81(38.4%) of the respondents fall within the age bracket of 18 and 37 years, 79(37.4%) fall within the age bracket of 38 and 47 years while 51(24.2%) fall within 58 years and above. Furthermore, 46(21.8%) of the respondents are not literate, 97(46.0%) obtained ordinary/secondary school education while 68(32.2%) acquired advanced/higher level education. These statistics show that the researchers are gender sensitive, have informed respondents and possess the ability to give reliable and valid responses to the research questions.

Research Question 2: What are the pre-operative counselling services rendered to surgery patients in healthcare facilities in Maiduguri, Borno State?

Table 2: Pre-operative Counselling Services Rendered to Surgery Patients in Healthcare Facilities in Maiduguri, Borno State

S/N	Pre-operative Counselling	Mean	Std. Dev.	Decision
1.	Information on the surgical procedures	3.31	0.51	Accepted
2.	Providing successful film model	3.27	0.56	Accepted
3.	Picture books for the surgery	3.12	0.90	Accepted
4.	Engaging patients rehearsals in visiting the operation room	3.11	0.61	Accepted
5.	Exhibiting the power of anaesthesia induction	3.36	0.67	Accepted
6.	Playing affection music	3.12	0.90	Accepted
7.	Permitting the patients' loved ones to interact and be by their side	3.31	0.51	Accepted
8.	Relaxation therapy	3.01	0.22	Accepted
9.	Acupressure	3.02	0.28	Accepted
10.	Cognitive behavioural therapy	3.31	0.51	Accepted
11.	Administration of anti-anxiety medication (Benzodiazepines or Melatonin)	3.31	0.51	Accepted
12.	Enhanced nurse-patient relationships	3.12	0.90	Accepted
13.	Pre-operative visit by anaesthesiologist	3.36	0.67	Accepted

Table 2 indicated that the mean of the 13 items ranged from 3.36 to 3.01 which are above the cut-off point of 3.00 and the standard deviation ranged from 0.90 to 0.22 showing that the respondents were not far from one another in their responses. Thus, items 1 to 13 constitute pre-operative counselling services rendered to surgery patients in healthcare facilities in Maiduguri, Borno State.

Research Question 3: What are the reasons for pre-operative counselling services rendered to surgery patients in healthcare facilities in Maiduguri, Borno State?

Table 3: Reasons for Pre-operative Counselling Services Rendered to Surgery Patients in Healthcare Facilities in Maiduguri, Borno State

S/N	Reasons	Mean	Std. Dev.	Decision
1.	Trepidation	3.11	0.61	Accepted
2.	Anxiety	3.47	0.70	Accepted

3.	Nervousness	3.44	0.74	Accepted
4.	Perceived pains	3.74	1.03	Accepted

Table 3 shows that the mean of the 4 reasons ranged from 3.11 to 3.74 which are above the cut-off point of 3.00 and the standard deviation ranged from 0.61 to 1.05 indicating that the respondents were not far from one another in their responses. Thus, items 1 to 4 comprised reasons for pre-operative counselling among surgery patients in healthcare facilities in Maiduguri, Borno State.

Discussion

Based on findings of this study, 13 pre-operative counselling services were rendered to surgical patients irrespective of their gender, age and educational status in all the secondary healthcare facilities in Maiduguri, Borno State and 4 reasons were advanced for the pre-operative counselling services rendered in the study area. The study identified exhibiting the power of anaesthesia induction, pre-operative visit by anaesthesiologist, information on the surgical procedures, permitting the patients' loved ones to interact and be by their side, cognitive behavioural therapy, administration of anti-anxiety medication (Benzodiazepines or Melatonin) and providing successful film model as the major pre-operative counselling services rendered to surgical patients in secondary healthcare facilities in Maiduguri, Borno State, Nigeria while enhanced nurse-patient relationships, picture books for the surgery, playing affection music, engaging patients rehearsals in visiting the operation room, acupressure and relaxation therapy constituted the minor pre-operative counselling services rendered to surgical patients in secondary healthcare facilities in the study area. This findings corroborates the earlier studies of Algern & Arnow (2015), Johnson & Anderson (2017), Rice *et'al* (2018) and Brewer *et'al* (2016) who expressed that pre-operative counselling is effective in reducing phobia, dread or irrational fear among pre-surgical patients across socio-cultural, economic or educational status. Moreover, such counselling equip the nurses with relevant information concerning their patients, choice of appropriate mechanism for taking care of each patient, supply information to patients on their operation and aftercare, reduce anxiety which invariably shorten days of admission and ultimately enable patients to manage their own situation.

The study identified perceived pains and anxiety as the major reasons for rendering pre-operative counselling services to surgical patients in secondary healthcare facilities in Maiduguri, Borno State, Nigeria while nervousness and trepidation comprised the minor reasons for rendering pre-operative counselling services to surgical patients in secondary healthcare facilities in the study area. The findings of this study agree with the findings of Kim et al, (2010), Saini & Dayal (2016) and Suhonen & Leino-Kilpi (2016) who reported that surgical patients, irrespective of age, levels of education, gender, occupation and profession, suffer from tension, fear and anxiety that are associated with stressful and painful surgical processes, perceived danger, personality phobia of surgical blade, attitude of medical doctors and nurses towards the patients before the surgery, environmental factors such as lack of modern equipment and/or prevalence of faulty equipment, poor infrastructure in healthcare facilities and epileptic power supply. Others are previous bad or negative surgical experiences, bad or unsuccessful surgical records, shabby economic muscles of the family and fear of the unknown.

Counselling Interventions

Based on the findings of this study, the following counselling intercessions were proffered:

The Borno State government should in collaboration with Ministry of Health ensure that all the healthcare facilities (Secondary and Primary) engage services of professionally trained counsellors who should partner with medical experts to render individual or group counselling services to patient(s) registered to undergo surgery adopting cognitive and relaxation therapies or use self-esteem theory to overcome anxiety and nervousness. Curriculum designers and educators should in conjunction with policy makers and implementers introduce counselling as one of the compulsory courses or formed part of the core curriculum for colleges/schools of nursing and midwifery at all levels of their training across the nation. Counselling theories such as rational-emotive behaviour, reality and systematic desensitization among other behavioural theories or therapies should be the focus of counsellors in handling patients in healthcare facilities depending on the nature of the cases and counselling materials or clients. All healthcare facilities in Borno State should have counselling centres where professionally trained counsellors will be rendering counselling services at regular intervals.

Conclusion

Based on the findings of this study, it is concluded that surgical patients in secondary healthcare facilities in Maiduguri, Borno State irrespective of age, gender and educational status receive some pre-operative counselling services such as behavioural therapy and administration of anti-anxiety medication (Benzodiazepines or Melatonin) which drastically curtailed incidence of nervousness and anxiety among patients. The Borno State Government should in collaboration with Ministries of Health and Education engage the services of professionally trained, qualified and experience personnel in addition to equipping all healthcare centres across the State with modern healthcare facilities.

Recommendations

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

1. The Borno State Government should through Ministry of Health engage the services of Professional Counsellors in providing counselling to patients before and after undergoing surgery.
2. Counsellors should in collaboration with Ministries of Health and Education be organizing seminars and workshops on individual and group counselling to nurses and other stakeholders in healthcare facilities on regular intervals.
3. The Borno State Government should as a matter of exigency equip all the healthcare centres with modern facilities and engage professionally trained and qualified as well as experienced medical personnel especially in aspects involving surgery.

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