

A protocol on patient satisfaction in three national hospital settings: an observational cross-sectional multicentre study

Protocollo sulla soddisfazione dei pazienti in tre strutture ospedaliere nazionali: uno studio osservazionale trasversale multicentrico

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Key words: Newcastle Satisfaction with Nursing Scales, patient satisfaction, patient engagement, organizational factors, quality of services provided.

ABSTRACT

Background: to assess, using the Newcastle Satisfaction with Nursing Scales (NSNS) questionnaire, the degree of patient satisfaction with healthcare services, in patients who were admitted to three obstetrics and gynaecology wards in three different Italian public hospitals. The aim of the study was to understand the correlations between basic organisational characteristics and the perceived quality of care.

Materials and Methods: an Italian multi-centered cross-sectional observational study of female patients aged 18 or older with good Italian language skills is ongoing between June 2022 and June 2023. The study excludes patients who access the facility exclusively for outpatient services and visits. The tool in use is a validated questionnaire translated into Italian, already tested internationally; the Newcastle Satisfaction with Nursing Scales (NSNS) questionnaire. The tool guarantees the anonymity of data, a minimum sample size of 465 women is expected, and the ethics committee of the promoting hospital has approved the study. The nurses deliver the questionnaire to all inpatients upon admission, and the completed forms are placed exclusively by patients in a sealed urn on the ward, at discharge.

Conclusions: assessment using the Newcastle Satisfaction with Nursing Scales (NSNS) questionnaire, in its validated Italian version, can enable improvements in healthcare processes through important innovations and organizational changes. This study, using the translated and validated questionnaire can add knowledge for a better understanding of the correlations between basic organizational features and the perceived quality of services.

Background: valutare, tramite il questionario Newcastle Satisfaction with Nursing Scales (NSNS), il grado di patient satisfaction rispetto ai servizi assistenziali, nelle pazienti ricoverate in tre reparti di ostetricia e ginecologia di tre diversi ospedali pubblici italiani. Lo scopo dello studio è stato quello di comprendere le correlazioni tra le caratteristiche organizzative di base e la qualità percepita dell'assistenza.

Materiali e Metodi: da giugno 2022 a giugno 2023, è in corso uno studio osservazionale, trasversale, multicentrico, nazionale di donne maggiorenni, ricoverate, con una buona comprensione della lingua italiana. Sono state escluse dallo studio le pazienti che accedono alle strutture unicamente per servizi ambulatoriali e visite. Lo strumento utilizzato è un questionario validato e tradotto in italiano, già sperimentato a livello internazionale; la Newcastle Satisfaction with Nursing Scales (NSNS) questionnaire. Lo strumento garantisce l'anonimato nell'utilizzo dei dati, il campione previsto è di almeno 465 donne e lo studio è stato approvato dal comitato etico dell'ospedale promotore. Il personale infermieristico, nel corso dello studio consegna il questionario a tutte le degenti durante la fase di accoglienza e successivamente, al momento della dimissione, lo strumento compilato è depositato esclusivamente dalle pazienti nell'urna sigillata, in reparto.

Conclusioni: la valutazione attraverso la Newcastle Satisfaction with Nursing Scales (NSNS), nella sua versione validata Italiana può consentire di migliorare i processi sanitari tramite innovazioni e cambiamenti organizzativi rilevanti. Lo studio tramite lo strumento tradotto e validato può aggiungere conoscenze per comprendere meglio le relazioni esistenti tra le caratteristiche organizzative di base e la qualità percepita dei servizi.

INTRODUCTION

Regardless of age, gender, ethnicity, income, or health status, patient engagement is a care model focused on the mindful, active and long-term involvement of patients in their own healthcare pathway.¹ Active user involvement has been a key priority in many areas of healthcare, from improving the standard of treatment to fostering patient safety² and lowering hospital readmission rates.³ Patient satisfaction is a subjective assessment (cognitive and emotional responses) that is the result of the association between patients' expectations of nursing care (ideal) and their perceptions of actual nursing care; considered an essential parameter in the assessment of health care quality worldwide.⁴⁻⁶ Some authors divide patient assessment into two categories: satisfaction with technical qualities and satisfaction with functional qualities.⁷ Technical quality assessment is based on the technical accuracy of diagnostic and therapeutic procedures; whilst functional quality is related to how healthcare is delivered to a patient.

Patient satisfaction surveys often reveal information that does not emerge using traditional quality measures such as mortality rates and complication rates.⁸

Age, gender, income, education, and type of hospitalization have all been demonstrated in the literature to influence patients' satisfaction with nursing care assessment.⁹ Patients undergoing surgery who were male, of average age (40-59 years), with lower education and income levels, that were hospitalized for longer periods reported higher levels of satisfaction. In contrast, the groups that expressed less satisfaction were younger-aged women with a good education, a high income and shorter hospital stays.⁹

The analysis of patient satisfaction requires the use of sensitive, specific, and dependable instruments capable of highlighting the variables among various methods of care delivery. The Newcastle Satisfaction with Nursing Scales (NSNS) questionnaire^{10,11} is a frequently used instrument for this type of assessment. This scale is one of the few that measures satisfaction, from an adult patient's perspective, exclusively regarding nursing care.^{10,11}

There is evidence in the literature that supports patient satisfaction in service improvement, particularly at the outpatient level; nevertheless, research in the hospital setting is lacking. According to some studies, women in general and expectant mothers in particular, are ideal study subjects for evaluating patient experience and satisfaction.¹² A positive experience boosts the mother's self-esteem and positive feelings towards the baby,¹³ whereas a negative experience increases the risk of postpartum depression and post-traumatic stress disorder.^{10,14} For both these reasons, it is important to assess women's perceptions of care and satisfaction with services.¹⁵

The study's objective is to investigate into the satisfaction level of patients admitted to three multi - center obstetrics and gynecology departments in order to understand further the relationships between basic organizational characteristics and perceived quality of care.

Objectives

The study's main objective is to determine the level of patient satisfaction with the health services provided during hospitalization in the obstetrics and gynecology departments of three Italian hospital centers, using the Newcastle Satisfaction with Nursing Scales (NSNS) questionnaire in its validated Italian version.

Secondary objectives are the monitoring of health outcomes through increased patient engagement and empowerment, as well as the involvement (engagement) of patients in possible facility improvement actions.

MATERIALS AND METHODS

The Inter-Agency Ethics Committee approved this observational, cross-sectional, multicenter study aimed at improving clinical practice as an integrative part of non-industrial healthcare in accordance with the Ministerial Decree of 17-12-2004 (No-Profit trial). The population is represented by patients who are admitted to the SC Gynaecology and Obstetrics of the Azienda Ospedaliera SS. Antonio e Biagio and Cesare Arrigo, Alessandria, the Centre for Oncological Gynaecology and Onco-fertility of the IRCCS Istituto Nazionale Tumori Regina Elena, Rome, and at the SS Obstetrics and Gynaecology of the L. Bonomo Hospital, Andria, Barletta, after signing the informed consent, with a good comprehension of the Italian language and being over the age of 18. Patients who visit the Gynaecology and Obstetrics Specialty Centre for outpatient services and follow-up visits are not eligible.

Adherence to the study will be requested of inpatients during the admission reception phase, followed by the delivery of study information and the signing of the informed consent. Patients will provide information on their experience of admission to the Gynaecology and Obstetrics departments in question by completing anonymously the self-report questionnaire Newcastle Satisfaction with Nursing Scales (NSNS) in the validated Italian version before discharge from the ward.

Tools

The tool used in this observational study was the Newcastle Satisfaction with Nursing Scales (NSNS) questionnaire.¹⁶ Its design and development were based on adult patients' perceptions of the 'bad' or 'good' quality of care received, while admitted to acute medical-surgical departments, which were obtained through qualitative interviews and focus groups.⁶ Individual item selection was promoted by the participation of patients as expert informants, and the questions were then simplified using appropriate psychometric techniques.⁴ The questionnaire was subsequently validated and translated into several languages, including Italian.¹⁷

It consists of 47 items divided into three sections that contribute to the patient's sense-making:

Section 1 - Experiences of nursing care received: 26 questions on

various aspects of nursing care are presented and patients are asked to indicate how true or false they are according to their experience on a seven-point Likert scale (1=I completely disagree, 2=I strongly disagree, 3=I slightly disagree, 4=I neither agree nor disagree, 5=I slightly agree, 6=I strongly agree, 7=I completely agree). In order to avoid systematic positive terminology errors (affirmation bias), some negative statements are also included. The scores for each of the different items are summed up and transformed to obtain an overall score that can range from 0 to 100, with 100 representing the best possible experience.

Section 2 - Satisfaction with nursing care received: consists of 19 questions, each with a five-point Likert scale score (1=Not at all satisfied, 2=Slightly satisfied, 3=Somewhat satisfied, 4=Very satisfied, 5=Fully satisfied). The total score is calculated by adding and transforming the individual scores to produce an overall satisfaction score ranging from 0 to 100, with 100 representing complete satisfaction or the highest level of satisfaction with all aspects of nursing care.

Section 3 - Demographic data: collects demographic and additional information about the patient, as well as data about the hospital stay, with two items for an overall assessment of nursing care and hospital stay. They offer seven answer options, with scores ranging from 1 to 7 (1=Very poor, 2=Very poor, 3=Poor, 4=Fair, 5=Good, 6=Very good, 7=Very good).

Data collection

The data obtained from the paper submission of the questionnaire will be subsequently collected in a database on the online platform "Electronic Data Capture" (REDCap), currently in use at the Azienda Ospedaliera SS Antonio e Biagio e Cesare Arrigo di Alessandria.

The electronic tool complies with current regulations on clinical trials and privacy (GCP E6(R2)-IHC, European Regulation 2016/679 - GDPR), is validated (GCP E6(R2)-IHC), all changes are recorded and tracked electronically, access is password-protected, located within the company server and automatically backed up.

Statistical analysis

Statistical analysis will be based on descriptive analysis methods, including mean, median, standard deviation, range, minimum and maximum value for continuous variables, absolute and relative frequencies for categorical variables and simple correlation methods with the main clinical parameters available. Specifically, the type of instruments planned for data collection is suited to an analysis of frequency distributions. The possible association between variables will be assessed using parametric and non-parametric statistical tests. For all statistics, a p-value <0.05 was considered statistically significant and analyses will be conducted using SPSS version 25 software.

DISCUSSION

The purpose of this study is to survey patient satisfaction with the care services offered.

In the literature, it is highlighted that the world's healthcare expenditure is growing at an overwhelming rate, while the quality of the care systems is poor.¹⁸ In the search for possible solutions, there

is a tendency to consider the involvement of patients at an organizational level as being effective in evaluating care and planning strategies to improve services.⁶

Several studies have been conducted on the satisfaction of women admitted to obstetrics wards, with cognitive and emotional support being identified as the determinants with the greatest impact on satisfaction during pregnancy and childbirth. During labor, information and advice, along with emotional support, comfort provision, and communication, can help to reduce anxiety and fear, as well as the associated negative effects. The structural factors that appear to have the greatest influence on female satisfaction levels appear to be hygiene, the availability of medicines, and facilities.¹⁹ These data, however, are influenced by the type of healthcare organization and population culture.

The nature of patient involvement may vary from the inclusion of patients as members of a board of directors to time-limited consultation on service redesign.^{18,20} Consequently, patients and caregivers would assume new roles and responsibilities within a reorganization of services.²⁰

Healthcare organizations are becoming increasingly aware that addressing patient satisfaction is not only essential for improving the quality of care and clinical outcomes, but also for developing an increasingly competitive environment. Therefore, healthcare services that understand the value of patient satisfaction will be able to emerge and assert themselves by offering higher-quality care and assistance.²¹

CONCLUSIONS

The primary objective of the healthcare system is to provide safe care to patients in order to improve their health and well-being. Involving patients in the reorganization of healthcare systems is an ethical and pragmatic priority for ensuring the National Health System's long-term viability.

Patient satisfaction assessment could be a valuable tool for converting patients' subjective perceptions into quantifiable data in order to implement improvement actions in healthcare delivery while reducing healthcare expenditure.

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Authors' contributions: DG, DF, ER, AP: interpretation of data for the work, drafting the work and revising it critically for important intellectual content; RDM, LI, FR, MG, EG: acquisition, analysis and interpretation of data for the work, drafting the work and revising it critically for important intellectual content; TB, AM,CP, DD: substantial contributions to the conception, design of the work, acquisition, analysis and interpretation of data for the work, drafting the work and revising it critically for important intellectual content. All the authors have read and approved the final version of the manuscript, and agreed to be held accountable for all aspects of the work.

Conflict of interest: the authors declare no potential conflict of interest.

Funding: none.

Availability of data and materials: the data used to support the findings of this study are available from the corresponding author upon request.

Received: 3 March 2023.

Accepted: 22 March 2023.

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Working Paper of Public Health 2023;11:9704

doi:10.4081/wpph.2023.9704

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