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PATIENT SATISFACTION LEVEL WITH PRESCRIPTION COMMUNICATION, INFORMATION, AND EDUCATION (IEC) SERVICES

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ABSTRACT

This study aims to analyze the level of patient satisfaction with drug Communication, Information, and Education (KIE) services at the Banyumulek Community Health Center and identify the dominant factors influencing it. Using a descriptive quantitative method with a cross-sectional approach, data were collected from 97 respondents through a questionnaire based on Expectancy Disconfirmation Theory. The results showed a negative gap (score = -0.25) between high patient expectations (mean = 4.35) and lower perceived performance (mean = 4.10), indicating dissatisfaction. The reliability of information was the main determinant of this dissatisfaction.

Keywords: *Patient; Information; Education; Communication.*

INTRODUCTION

Pharmaceutical services at community health centers (Puskesmas) play a crucial role in ensuring successful therapy and patient safety. One of its main pillars is the Communication, Information, and Education (IEC) service for medicines, which aims to ensure patients correctly understand the use, benefits, and risks of their prescriptions. Optimal IEC quality is directly correlated with the level of treatment adherence [5]. Patient satisfaction is an important indicator for assessing the quality of these services, but there is often a gap between patient expectations for comprehensive information and perceived actual performance, making an in-depth evaluation at the Banyumulek Community Health Center relevant.

Patient satisfaction is a subjective perception formed from a comparison between pre-service expectations and perceived performance. Although numerous studies measure satisfaction, in-depth analysis of specific factors such as information reliability, responsiveness, and staff empathy in the context of IEC at community health centers remains limited. Identifying the dominant factors influencing satisfaction is crucial for targeted service improvement. Therefore, this study aims to analyze the level of patient satisfaction with drug IEC services at the Banyumulek Community Health Center and identify the most significant service factors in shaping this perception of satisfaction.

The theoretical framework of this research is based on Expectancy-Disconfirmation Theory. This theory explains that satisfaction is a function of the subjective comparison between a person's expectations before receiving a service and the actual performance perceived afterward. When perceived performance exceeds expectations, high satisfaction

(positive disconfirmation) results. Conversely, if performance falls below expectations, dissatisfaction (negative disconfirmation) results. Neutral satisfaction occurs when perceived performance matches the patient's initial expectations.

In the context of drug Communication, Information, and Education (IEC) services, patients come to the community health center with certain expectations. These expectations are shaped by past experiences, information needs, and the reputation of the healthcare service. Patients expect pharmacists to provide clear, accurate, and understandable explanations about prescribed medications. The actual performance of the IEC service they receive is then mentally compared with these expectations, ultimately shaping their perceptions of satisfaction or dissatisfaction.

To measure perceived service performance, several key factors are relevant. These factors include the reliability of the information provided, the responsiveness of the staff in providing service, the assurance demonstrated through competence and friendliness, and empathy in understanding the patient's condition. The quality of verbal and non-verbal communication from pharmacists is also a crucial component in shaping patient perceptions of the overall performance of IEC services in primary healthcare facilities such as community health centers.

Therefore, this study uses Expectation Disconfirmation Theory as a lens to analyze patient satisfaction levels. Satisfaction is not only assessed by the quality of information provided, but also by the gap between what patients expect from IEC services and what they actually experience. Positive gaps in communication, completeness of information, and effectiveness of education will directly correlate with higher levels of satisfaction, which is the primary focus of this study's analysis

METHODS

Research Design

This research is quantitative and uses descriptive methods [10]. This approach was chosen because it is relevant for systematically measuring and describing patient satisfaction levels with drug Communication, Information, and Education (IEC) services. Descriptive research aims to present a factual and accurate picture of the variables studied without manipulation or intervention. Thus, this method allows researchers to objectively capture the phenomenon of patient satisfaction at the Banyumulek Community Health Center based on numerical data obtained from respondents, which is then analyzed to explain the influencing factors in accordance with the research objectives.

The research design used was a cross-sectional study [6], in which data collection on patient expectations and perceptions of service performance was conducted at the same point in time. This design aligns with the Expectancy Disconfirmation Theory framework, as it allows for simultaneous measurement of the gap between patient expectations and reality. The use of a cross-sectional design is considered efficient for identifying the prevalence of satisfaction levels and analyzing the relationship between IEC service factors—such as staff reliability, responsiveness, and empathy—and overall patient satisfaction over a predetermined time period.

Population and Sample

The population in this study was all outpatients receiving prescription drug services at the pharmacy unit of the Banyumulek Community Health Center in West Lombok Regency. This target population was defined as the group directly experiencing Communication, Information, and Education (IEC) services from pharmacists. Based on the health center's medical records, the number of patient visits receiving prescriptions in the three months prior to the study was recorded at 3,731. This figure represents a reachable population that is homogeneous in terms of experience receiving IEC services, making it relevant for determining a representative research sample.

The sample size was determined using the Slovin formula [1] with a margin of error of 10%, resulting in a sample of 97 respondents. The sampling technique used was non-probability sampling with a purposive sampling method [2]. This method was chosen to ensure that each selected respondent met the established inclusion criteria: adult patients (aged 18 years and older), receiving a prescription, being fully conscious, and willing to participate voluntarily after receiving an explanation of the study's objectives. These criteria aim to capture relevant samples and provide valid data regarding IEC service experiences.

Research Intruments and Data Collection

The research instrument used was a structured questionnaire developed based on Expectation Disconfirmation Theory and dimensions of service quality. The questionnaire was divided into three sections: respondent demographic data, questions regarding their level of expectations regarding IEC services, and questions regarding their perceptions of actual performance. Questions were designed to measure the reliability, responsiveness, assurance, and empathy of pharmacists. Measurements were made using a Likert scale. Prior to distribution, the instrument underwent validity and reliability testing [7] on 20 respondents outside the main sample to ensure that each question item accurately and consistently measured the research variables.

Data collection was conducted between May and June 2024 in the pharmacy waiting room of the Banyumulek Community Health Center. Researchers approached patients who met the inclusion criteria after they had completed their medication and IEC services. After explaining the purpose and benefits of the study, they requested their participation by signing an informed consent form. Respondents who agreed were then given a questionnaire to complete independently. Researchers accompany the participants during the filling process to help if there are difficulties in understanding the questions, so that the collected data has high validity and completeness in accordance with the research objectives.

Data Analysis

The data collected from the questionnaire will undergo editing, coding, and tabulation before being processed using a statistical program. Data analysis will begin with univariate analysis [9] to present descriptive statistics. This analysis aims to describe the demographic characteristics of respondents (age, gender, education) as well as the frequency and percentage distribution of each research variable. Mean scores for the level of expectations and perceptions of performance for each IEC service dimension—reliability, responsiveness, assurance, and

empathy—will also be calculated to provide an initial overview of the central tendency of the data obtained.

In accordance with the Expectation Disconfirmation Theory framework, core analysis is conducted to measure patient satisfaction levels. This is achieved by calculating a gap score [3] between perceived performance and patients' initial expectations for each service dimension. This score is obtained from the difference between the average performance score and the average expectation score. The results are then interpreted to determine the level of satisfaction: positive disconfirmation (satisfied), confirmation (somewhat satisfied), or negative disconfirmation (dissatisfied). The analysis continues by identifying the dominant factors influencing satisfaction by comparing the magnitude of the gap score for each IEC service dimension.

RESULT

Respondent Demographic Characteristics

Univariate analysis results showed that of the 97 respondents, the majority were female (65 respondents) (67.0%), while 32 were male (33.0%). This predominance of female respondents may indicate their more active role in family health management. Based on age group, respondents were predominantly in the productive age group 36-55 (46.4%), followed by young adults 18-35 (30.9%), and seniors over 55 (22.7%). This age distribution implies that patients receiving IEC services have diverse information needs, influenced by their health conditions and levels of understanding.

In terms of educational level, the majority of respondents were high school graduates (49 respondents) (50.5%), followed by elementary school graduates (34 respondents) (35.1%), and the remainder were college graduates (14.4%). Educational background is a significant factor that potentially influences patients' expectations and ability to understand complex drug information. This diversity highlights the challenge for pharmacists to adapt their communication styles. Their ability to provide simple yet accurate explanations is key to bridging gaps in understanding and ultimately impacting overall patient satisfaction.

Overview of Expectations and Perceptions of Drug Information and Services Performance

The analysis results show that patient expectations regarding drug IEC services at the Banyumulek Community Health Center are generally very high, with an average expectation score of 4.35 on a scale of 5. The reliability dimension, which encompasses the accuracy of dosage and side effect information, demonstrated the highest expectation score (mean = 4.52), followed by assurance of staff competence (mean = 4.41). These high expectations indicate that patients view drug information as a crucial element in their treatment process. These expectations serve as a benchmark that pharmacists must meet to provide services that patients find satisfactory.

Meanwhile, respondents also rated the actual performance of pharmacists as good, with an overall average score of 4.10. Responsiveness, in terms of speed of service and empathy in understanding patient needs, received the highest perception scores. However, these performance scores generally fell slightly below patient expectations, particularly for the reliability of information dimension. This shows that although the officers were considered

friendly and fast, patients felt there was still room for improvement in terms of the completeness and clarity of explanations regarding how to use and the side effects of the drugs they received.

Patient Satisfaction Level with Drug Information and Communication Services

A gap analysis between patient performance perception scores and expectations yielded a negative average score of -0.25. Based on the Expectation Disconfirmation Theory framework, these results indicate negative disconfirmation, meaning that the actual performance of IEC services as perceived by patients was generally below their expectations. Although perceived performance was rated good (mean = 4.10), high patient expectations (mean = 4.35) created a gap, indicating suboptimal satisfaction levels. This finding indicates that, despite the service provided being good, there is still room for improvement to meet the high standards expected by patients.

Breaking down by dimension, the largest negative gap was found in reliability, where patients felt the completeness and clarity of drug information did not meet expectations. Conversely, the smallest gap was found in responsiveness and empathy. This suggests that patients were relatively satisfied with the speed of service and the friendly attitude of the staff, but were less satisfied with the substance of the information received. This phenomenon confirms that patient satisfaction with IEC services is not solely shaped by positive interpersonal interactions but is highly dependent on meeting their need for accurate and comprehensive health information.

Dominant Factors Influencing Patient Satisfaction

Based on the gap analysis, reliability was the dominant determinant influencing patient satisfaction levels. The largest negative gap in this dimension indicates that patient expectations regarding the accuracy and completeness of drug information—such as dosage, how to use, and side effects—have not been optimally met. This finding aligns with Expectation Disconfirmation Theory, where patients' highest expectations (mean = 4.52) for reliability were not matched by perceived performance. This indicates that although pharmacists were perceived as friendly, the substance of the information conveyed was the most significant critical factor in shaping patient satisfaction perceptions.

Although responsiveness and empathy showed smaller gaps, these were not sufficient to offset the shortcomings in reliability. While patients appreciated the speed of service and the caring attitude of the staff, their primary need was clear information for the safety of their treatment. Satisfaction with interpersonal interactions cannot replace satisfaction with essential information content. Therefore, the focus of improving IEC services at the Banyumulek Community Health Center should be on enhancing the technical competence of staff in conveying comprehensive, accurate, and easily understood information to patients.

CONSLUSSIONS

Based on the gap analysis, it was concluded that patient satisfaction with drug IEC services at the Banyumulek Community Health Center was suboptimal. This was indicated by negative disconfirmation with an average gap score of -0.25, indicating that actual service performance generally fell below patients' high expectations. Although perceived staff

performance was considered good, very high patient expectations, particularly regarding information, created a significant gap. This finding confirms that satisfaction is not solely determined by good service quality, but by the extent to which the service meets or exceeds patient expectations.

The dominant factor influencing patient satisfaction was information reliability. The largest negative gap in this dimension confirms that meeting patients' needs for accurate, clear, and complete drug information is a key determinant of satisfaction. Although staff responsiveness and empathy were rated higher, these were not sufficient to offset deficiencies in the substance of the information received. Therefore, efforts to improve IEC services must prioritize strengthening the technical competence of pharmacists in delivering comprehensive and easy-to-understand drug education to ensure medication safety and meet patient expectations.

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