Indicators Associated with Scientific Production and Competencies in Clinical Nurses at a Specialized Institute, Lima-Peru

Indicadores Asociados a la Producción Científica y Competencias en Enfermeras Asistenciales en un Instituto Especializado, Lima-Perú

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ABSTRACT

Introduction: nursing research is a scientific process that supports the practice of care by improving and generating new knowledge for incorporation into practice. However, it is limited by factors that affect the development of the research function, such as indicators that hinder the work of researchers and their investigative competencies.

Objective: to determine the indicators associated with scientific production and competencies in clinical nurses at a specialized institute.

Method: this was a non-experimental study with a quantitative, descriptive, correlational, and cross-sectional approach. The population consisted of a total of 248 nurses working in a specialized institute. Two instruments were used: the Scale of Indicators Associated with Scientific Production and the Instrument of Research Competencies.

Results: regarding the indicators associated with scientific production, the highest scored dimension was preparation for research production (Me=3.00, RI=1.00), and the lowest scored dimension was teamwork and network formation (Me=0.00, RI=1.00). In the variable of scientific production competencies, the lowest scored dimension was dissemination (Me=20.00, RI=8.50). Conclusions: It is evident that the nursing professional’s production is limited by factors supporting research. Moreover, scientific production can be boosted by identifying its relationship with the competencies required to conduct research in health institutions.

Keywords: Research Competencies; Scientific Production Indicators; Scientific Production; Nursing; Research.

RESUMEN

Introducción: la investigación en enfermería es un proceso científico que apoya la práctica del cuidado al mejorar y generar nuevo conocimiento para su incorporación en la práctica. Sin embargo, está limitado por factores que afectan el desarrollo de la función investigativa, como los indicadores que obstaculizan el trabajo de los investigadores y sus competencias investigativas.

Objetivo: determinar los indicadores asociados a la producción científica y las competencias en enfermeras asistenciales en un instituto especializado.

Método: este fue un estudio no experimental con un enfoque cuantitativo, descriptivo, correlacional y...
La producción científica en el mundo, y en Perú en particular, ha experimentado cambios significativos en los últimos años. Las indicadores científicos muestran una tendencia decreciente. Los indicadores de producción científica son fundamentales, y su uso y mejora en las fuentes de publicación reconocidas de alta calidad es crucial. Sales, sheets and management, derived from searches in high-impact indexed journals, are therefore essential, and missing the opportunity to gain visibility in scientific production.

Las actividades relacionadas con el ensayo de la enfermería no están exentas de esta realidad; un significativo número de proyectos de investigación no ha sido convertido en publicaciones científicas, y los enfermeros se enfrentan a barreras para desarrollar y aplicar la investigación en la práctica enfermera.

La investigación enfermera es vital para promover estilos de vida saludables y brindar cuidado de alta calidad, y se celebra como una tarea fundamental en el ámbito de la práctica enfermera, demostrando calidad en su trabajo y garantizando una atención segura.

Las competencias requeridas para realizar investigación en las instituciones de salud incluyen, entre otras, la auto-regulación, tolerancia al desacuerdo, análisis crítico, amplitud de miras y curiosidad.

HISTÓRICO

La transformación de la enfermería ha sido impulsada por el aumento de las necesidades de salud a escala mundial, y esto ha llevado a un enfoque cada vez más científico en la práctica enfermera. Las competencias en enfermería se han visto impulsadas y entrenadas en la formación avanzada. Sin embargo, la participación activa de las enfermeras en la investigación enfrenta importantes desafíos, tales como el tiempo, el estrés, la falta de recursos y una cultura organizacional que a menudo prioriza el cuidado directo sobre la investigación.

El papel de la enfermería ha evolucionado significativamente desde roles directamente centrados en el cuidado, hacia roles más amplios e integrados en la práctica. La importancia de identificar e investigar indicadores que muestren tanto el aporte de las competencias clínicas como de las competencias de investigación es esencial. Esta investigación enfatiza el papel de las enfermeras en la promoción de la salud y la promoción de cuidados de alta calidad.

INTRODUCCIÓN

El intercambio entre la producción científica y las competencias clínicas en enfermería es un campo de estudio crucial, ya que se enfoca en avanzar en las prácticas de atención a la salud y fomentar la investigación enfermera. Este campo de estudio enfatiza la importancia de identificar y analizar indicadores que demuestren la contribución de las enfermeras a la adquisición de conocimientos científicos y su capacidad para desarrollar e implementar competencias especializadas en el cuidado de los pacientes.

La importancia de los indicadores de producción científica es evidente. La dimensión con mayor puntuación fue el trabajo en equipo y formación de redes (Me=0,00, RI=1,00). En la variable de competencias de producción científica, la dimensión con menor puntuación fue la divulgación (Me=20,00, RI=8,50).

Conclusiones: es evidente que la producción del profesional de enfermería está limitada por factores de apoyo a la investigación. Además, la producción científica puede ser impulsada identificando su relación con las competencias requeridas para realizar investigación en instituciones de salud.

Palabras clave: Competencias de investigación, indicadores de producción científica, producción científica, enfermería, investigación.
scientific production are obtained from the count of scientific publications and provide information about one of the most important aspects of scientific activity, such as the growth of a discipline, a country, an institution, or a research group. In this sense, some indicators favor or hinder scientific production and are related to attitudes, knowledge, and the use of resources, which can either obstruct or facilitate the work of the researcher.

Thus, competencies are human skills and abilities for problem-solving and effective development in their environment. In this sense, dimensions are established: Attitudes towards research are considered as a cognitive and methodological factor that influences the conduct of research. In this context of ideas, the attitude towards research can be understood as a system of beliefs, feelings, and dispositions towards research by a community. It is an attitude that is not innate and largely depends on the conditions implemented during the educational process and its trajectory.

Research knowledge is acquired through the human ability to identify, observe, and analyze facts and information surrounding them. Through their cognitive skills, they obtain and use it for their benefit. Knowledge, as such, is a very broad term that can be practical or theoretical, besides having numerous branches and areas. Scientific knowledge is that obtained through the scientific method. This knowledge is generated through a series of steps and has properties and characteristics that other types of knowledge do not have. The steps of the scientific method are as follows: observation, induction, hypothesis, experimentation, analysis, and conclusion.

The use of resources for research constitutes a complex system that must be known, assimilated, understood, and efficiently exploited by the researcher or research team. The skills, abilities, and attitudes necessary for generating new knowledge involve the ability to distinguish in the surrounding reality situations or problems susceptible to research, to formulate a situation from reality as a research problem adequately, to understand that every research must constitute an original contribution to an area of knowledge, to formulate a scientific problem in terms of hypotheses or research questions, to distinguish among various methodologies the most suitable for a determined problem, to have the judgment to select participants for a study appropriately, to select and design data collection instruments, to master basic statistical analysis tools for processing results, to have the ability to reflect results in tables or graphics, to contrast one’s results with those of other research, and to know the ethical elements that must be followed when research involves human beings.

The dissemination of knowledge involves all possibilities to make research results publicly available, choosing the most appropriate spaces according to the relevance of the results, and formatting the research report according to the principles and agreements of the scientific community. In this sense, a competent researcher must know the different scenarios (scientific meetings and publications) usual for the dissemination of research, to be able to adapt the format of the research results to the context in which they are presented.

The localization of information sources are instruments for the knowledge, search, and access to information. The spread of computer communication use and information flows through the Internet acquires a decisive strategic importance in developed societies. This importance will continue to grow to shape future culture and increase the structural advantage of the elites that have determined its format. Given the above, the general objective is to determine the indicators associated with scientific production and competencies in clinical nurses of a Specialized Institute, Lima 2022. It is important to measure the phenomenon of study to fill knowledge gaps on the chosen topic to improve the indicators of scientific production as well as the development of research competencies in nursing professionals.

**METHODS**

**Design and participants**

The study utilized a quantitative, descriptive-correlational approach with a non-experimental, cross-sectional design. A non-probabilistic convenience sampling was used. Among the 241 nursing professionals who participated in the study, the average age was 40.03±7.68 years, with 92.5% being female and 7.5% male. Regarding the level of education achieved, 80.1% have a specialty degree, 13.7% are in the process of obtaining it, and 6.2% do not have one; 12.9% have a master’s degree, 19.9% are in the process, and 67.2% do not have master’s studies; 12% have a doctoral degree, 2.1% are in the process, and 96.7% do not have doctoral studies.

**Instruments**

The first instrument, developed by Marquina-Luján et al., focuses on the Indicators Associated with Scientific Production, Attitude, Knowledge, and Use of Resources for Research (ACRIN). This tool includes 30 items with dichotomous response options, allowing a detailed evaluation of researchers’ attitudes, knowledge, and use of resources. The validity of the instrument was confirmed through the assessment of 10 expert judges and the calculation of Aiken’s V coefficient, which yielded a value of 0.89, indicating a high level of agreement.

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among the experts. Additionally, the reliability of the instrument was determined through Cronbach’s alpha coefficient, obtaining a value of 0.718, reflecting acceptable reliability for the instrument.

### Table 1. Sociodemographic Characteristics of Nursing Professionals at a Specialized Institute in Lima - 2022

<table>
<thead>
<tr>
<th>Variables and Categories</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>223</td>
<td>92.5</td>
</tr>
<tr>
<td>Male</td>
<td>18</td>
<td>7.5</td>
</tr>
<tr>
<td>Specialty</td>
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<td></td>
</tr>
<tr>
<td>No</td>
<td>15</td>
<td>6.2</td>
</tr>
<tr>
<td>In Process</td>
<td>33</td>
<td>13.7</td>
</tr>
<tr>
<td>Yes</td>
<td>193</td>
<td>80.1</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>162</td>
<td>67.2</td>
</tr>
<tr>
<td>In Process</td>
<td>48</td>
<td>19.9</td>
</tr>
<tr>
<td>Yes</td>
<td>31</td>
<td>12.9</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>233</td>
<td>96.7</td>
</tr>
<tr>
<td>In Process</td>
<td>5</td>
<td>2.1</td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>1.2</td>
</tr>
<tr>
<td>Age</td>
<td>40.03 (7.68)</td>
<td>39 (11)</td>
</tr>
</tbody>
</table>

The second instrument, created by Hernández et al., is titled “Scale for the Assessment of Scientific Production Competencies in Higher Education Teachers”. This instrument consists of 32 items distributed across three dimensions: identification and organization of information, knowledge generation, and dissemination of scientific knowledge. Each item is evaluated using a five-point Likert scale, ranging from "not competent at all" (1) to "completely competent" (5). The validity and reliability of the instrument were also confirmed, achieving a Cronbach's alpha of 0.962, denoting excellent reliability. The Aiken's V coefficient for this instrument was 0.93, reflecting a high degree of consensus among the five experts consulted.

**Procedure**

Initially, the necessary coordination with the Nursing Department was established to obtain the required permissions and coordinate the application of the research instruments in various areas of nursing staff care. Subsequently, dates for the application of the evaluation instruments were set. During the days established for data collection, each clinical nurse was informed about the purpose of the study and the instrument to be used, emphasizing the voluntary nature of their participation. The evaluation, conducted through a questionnaire provided in Google Forms format, had an estimated duration of 10 to 20 minutes for each nursing professional, seeking to minimize interference with their work responsibilities while ensuring complete and detailed data collection.

**Data analysis**

In our study's data analysis procedures section, advanced statistical methods were implemented to ensure an accurate and rigorous evaluation of the collected data. Using IBM SPSS Statistics software version 24.0, a detailed description of the variables involved in the research was conducted. For inferential analysis, the Rho Spearman correlation coefficient was applied, a non-parametric method suitable for evaluating the relationship between variables in studies of this type.

The research instrument was rigorously validated through the judgment of five expert specialists in the area, obtaining a Cronbach's alpha of 0.962, indicating excellent reliability. Furthermore, the statistical analysis process included data mining techniques, focusing on data cleaning and preparation. This process considered the transformation of reverse items to minimize biases in the results.

Results were presented using frequency tables for categorical variables and measures of central tendency and variability for numerical variables. The bivariate analysis was conducted using the Spearman test to determine the correlation between variables. In addition, assumptions for linear regression were verified, including the
independence of errors through the Durbin Watson statistic (DW=2.172), which indicates the absence of error autocorrelation. Linearity and homoscedasticity were examined through scatter plots, and data normality was checked with the Kolmogorov-Smirnov test (K-S=0.030, p=0.200). Collinearity was evaluated through the variance inflation factor and tolerance, considering a significance level of 5%.

The statistical treatment and analysis of the data were performed using IBM SPSS Statistics software version 26, ensuring compliance with essential ethical aspects of research at all times. This meticulous and detailed approach guarantees the validity and reliability of the findings obtained in the study.

RESULTS
Preliminary analysis

The indicators associated with scientific production are close to the scale's average score, with over 50% of participants scoring below the median cut-off point (Mdn=13.00, IQR=7.00). The best-scored dimension was preparation for research production, where more than 50% scored the maximum (Mdn=3.00, IQR=1.00). Dimensions around the median scores included document drafting and publishing (Mdn=2.00, IQR=3.00), time spent on scientific production (Mdn=2.00, IQR=2.00), infrastructure and resources (Mdn=3.00, IQR=2.00), and economic and professional benefits (Mdn=3.00, IQR=1.00). The lowest scoring dimension was teamwork and network formation, where more than 75% scored below the cut-off point (Mdn=0.00, IQR=1.00) (Table 1).

| Scientific Production Indicators among Nursing Professionals at a Specialized Institute in Lima - 2022 |
|--------------------------------------------------------|---|---|---|---|---|---|
| Preparation for Research Production | 1 | 3 | 2.47 | 0.64 | 3.00 | 1.00 |
| Document Drafting and Publishing | 0 | 6 | 2.27 | 1.72 | 2.00 | 3.00 |
| Time Spent on Scientific Production | 0 | 6 | 2.07 | 1.36 | 2.00 | 2.00 |
| Teamwork and Network Formation | 0 | 5 | 0.86 | 1.23 | 0.00 | 1.00 |
| Infrastructure and Resources | 0 | 5 | 2.58 | 1.34 | 3.00 | 2.00 |
| Economic and Professional Benefits | 0 | 4 | 2.69 | 1.05 | 3.00 | 1.00 |
| Indicators Associated with Scientific | 2 | 26 | 12.94 | 5.01 | 13.00 | 7.00 |

The competencies in scientific production are close to the median cut-off values, slightly above (Mdn=86.00, IQR=24.00) for more than 50% of the participants. The lowest scored dimension among participants was dissemination, with more than 50% scoring below the median cut-off (Mdn=20.00, IQR=8.50). The identification (Mdn=27.00, IQR=7.00) and generation (Mdn=39.00, IQR=11.00) dimensions had over 50% of participants scoring above the median cut-off (Table 3).

| Scientific Production Competencies among Nursing Professionals at a Specialized Institute in Lima - 2022 |
|--------------------------------------------------------|---|---|---|---|---|---|
| Identification | 9 | 45 | 26.35 | 5.80 | 27.00 | 7.00 |
| Generation | 17 | 61 | 39.27 | 8.36 | 39.00 | 11.00 |
| Dissemination | 9 | 37 | 21.12 | 6.03 | 20.00 | 8.50 |
| Scientific Production Competencies | 35 | 141 | 86.73 | 18.37 | 86.00 | 24.00 |

Correlations

The bivariate analysis shows a moderate and significant direct relationship between the indicators associated with scientific production and scientific production competencies (Rho=0.592, p=0.000). Dimensions that showed a moderate and significant direct relationship with scientific production competencies include indicators related to preparation for research production (Rho=0.434, p=0.000), indicators related to document drafting and publishing (Rho=0.503, p=0.000), indicators of time spent on scientific production (Rho=0.481, p=0.000), and indicators related to infrastructure and resources (Rho=0.490, p=0.000); however, indicators related to teamwork and network formation (Rho=0.298, p=0.000), and indicators related to economic and professional benefits (Rho=0.203, p=0.002) showed a low direct correlation with scientific production competencies (Table 4).

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DISCUSSION

Scientific production is currently undertaken as part of the refinement of research competencies to address society's demands. The findings indicate that the highest-scoring dimension in the variable of scientific production indicators was preparation for research production (β=4,258, p=0,008), where over 50% scored the maximum. Survey respondents noted that time associated with scientific production (β=2,932, p=0,000), and infrastructure and resources (β=3,900, p=0,000) (Table 5).

The linear regression model obtained indicates a good fit (F=47,424, p=0,000), explaining 44.6% of scientific production competencies. Indicators associated with scientific production that best explain investigative competencies include preparation for scientific production (β=4,258, p=0,008), indicators of document drafting and publishing (β=2,573, p=0,000), and infrastructure and resources (β=3,900, p=0,000) (Table 5).

Note: ** Significant correlation <0,01, IA_PPI= Preparation for research production, IA_EP= Document drafting and publishing, IA_PC= Time in scientific production, IA_TEFR= Teamwork and network formation, IA_IR= Infrastructure and resources, IA_BEP= Economic and professional benefits, IAPC= Indicators associated with scientific production, CPC_I= Identification, CPC_G= Generation, CPC_D= Dissemination, CPC=Scientific production competencies.

** Table 4. Bivariate Correlations between Scientific Production Indicators and Scientific Production Competencies among Nursing Professionals at a Specialized Institute in Lima - 2022 **

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Rho (p)</th>
<th>IA_PPI</th>
<th>IA_EP</th>
<th>IA_PC</th>
<th>IA_TEFR</th>
<th>IA_IR</th>
<th>IA_BEP</th>
<th>IAPC</th>
<th>CPC_I</th>
<th>CPC_G</th>
<th>CPC_D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0,453**</td>
<td>0,000</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>IAPC</td>
<td>0,368**</td>
<td>(0,000)</td>
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<tr>
<td>CPC_I</td>
<td>0,453**</td>
<td>(0,000)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>CPC_G</td>
<td>0,432**</td>
<td>(0,000)</td>
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<tr>
<td>CPC_D</td>
<td>0,227**</td>
<td>(0,000)</td>
<td></td>
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<tr>
<td>CPC</td>
<td>0,634**</td>
<td>(0,000)</td>
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<tr>
<td>CPC_EP</td>
<td>0,365**</td>
<td>(0,000)</td>
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<tr>
<td>CPC_EP</td>
<td>0,372**</td>
<td>(0,000)</td>
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<tr>
<td>CPC_EP</td>
<td>0,445**</td>
<td>(0,000)</td>
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<tr>
<td>CPC_EP</td>
<td>0,434**</td>
<td>(0,000)</td>
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</tbody>
</table>

Note: Tol.=Tolerance; R2=0,446; F=47,424; p=0,000

** Table 5. Multivariate Analysis of Scientific Production Indicators Predicting Scientific Production Competencies among Nursing Professionals at a Specialized Institute in Lima - 2022 **

<table>
<thead>
<tr>
<th>Indicator</th>
<th>B</th>
<th>t</th>
<th>p</th>
<th>IC 95 % B (LI-LS)</th>
<th>Tol.</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>54,239</td>
<td>14,900</td>
<td>0,000</td>
<td>47,068-61,411</td>
<td>0,766</td>
<td>1,305</td>
</tr>
<tr>
<td>Preparación para la producción de la investigación</td>
<td>4,258</td>
<td>2,675</td>
<td>0,008</td>
<td>1,122-7,393</td>
<td>0,766</td>
<td>1,305</td>
</tr>
<tr>
<td>Document Drafting and Publishing</td>
<td>2,573</td>
<td>4,067</td>
<td>0,000</td>
<td>1,327-3,820</td>
<td>0,666</td>
<td>1,501</td>
</tr>
<tr>
<td>Time Spent on Scientific Production</td>
<td>2,932</td>
<td>3,806</td>
<td>0,000</td>
<td>1,414-4,450</td>
<td>0,724</td>
<td>1,382</td>
</tr>
<tr>
<td>Infrastructure and Resources</td>
<td>3,900</td>
<td>5,064</td>
<td>0,000</td>
<td>2,383-5,418</td>
<td>0,748</td>
<td>1,337</td>
</tr>
</tbody>
</table>

Note: Tol.=Tolerance; R2=0,446; F=47,424; p=0,000
lead to new questions, novel discoveries, and changes that bind us and hold us accountable to societal needs. The expectation regarding education, research, and outreach from the nursing professional community broadens the boundaries and development of the institution in the academic field, projecting us towards the future and fostering internationalization, the maintenance of alliances, and integration between different knowledge areas. This, in turn, stimulates interdisciplinary collaboration and the promotion of innovation in the discipline.

The vast amount of research focused on healthcare provision confirms the imperative and constant demand to stay updated and disseminate knowledge to promote health. This dissemination of knowledge contributes to strengthening care delivery more effectively, generating benefits for both the community and the healthcare system as a whole. The scientific production presented in these studies reflects a deep concern for the development of nursing as a discipline that sits at the intersection of the social and the humanistic.

Regarding scientific production competencies, the lowest-scoring dimension among participants was dissemination, with over 50% scoring below the median cutoff, which limits the accessibility of the scientific productions worked on by nursing professionals. These results align with Paz et al., which identifies a large number of academic theses that have not yet been transformed into scientific articles, resulting in a lost opportunity to increase their visibility in the realm of scientific production. Nursing, as a profession, is responsible for exploring and perfecting various care delivery strategies, relying on advancements in knowledge and research outcomes. This discipline faces two imperatives: first, to adapt to the health needs of an ever-evolving society where scientific and technological knowledge becomes quickly outdated; and second, to assume its role as a knowledge generator, its dissemination, and application to enhance the quality of care provided to individuals and communities.

However, it is essential to note that not all nursing professionals recognize the urgent need to maintain an active and constant search for improvement through continuous training. Therefore, the authors emphasize the importance of promoting the development of research competencies, particularly in the context of primary healthcare, as a fundamental means to meet these professional and disciplinary commitments.

Moreover, the development of research competence in professional nursing, the desire to do and the ability to do, is crucial for carrying out studies on the phenomena of practice, along with knowing, knowing how, and being. It is the health institution’s responsibility to provide the means and infrastructure necessary for realizing the ability to do within research competence. Additionally, there is low scientific productivity, partly due to the high academic and administrative load.

However, it is worth noting that several studies have revealed factors that hinder nursing professionals’ participation in research activities. Among these factors are the lack of resources, ranging from the availability of funding to limited access to relevant technologies and tools; unfavorable attitudes towards research, which may manifest as reluctance or apathy towards scientific exploration; and insufficient levels of knowledge and competence in the research field.

Implications

The interrelation between indicators associated with scientific production and competencies in clinical nurses reflects a crucial dimension for advancing nursing practice and promoting a research culture in the healthcare sector. This study highlights the importance of addressing the challenges faced by clinical nurses at the Specialized Institute in Lima, Peru, focusing on preparation for research, training in research competencies, and dissemination of results, which are key aspects for enhancing nursing’s contribution to scientific knowledge and healthcare improvement.

From a professional perspective, these findings underscore the need for strategies aimed at strengthening nurses’ research skills, promoting their active participation in research. Implementing mentorship programs and developing training workshops could be effective measures to improve research competencies and encourage teamwork and the formation of scientific networks.

Politically, it is crucial for healthcare and educational institutions to collaborate in creating an environment that supports nursing research. This includes allocating adequate financial resources, access to information technologies, and promoting policies that incentivize research and the publication of results. Integrating research as an essential component of nursing practice could significantly transform healthcare quality and the efficacy of nursing interventions.

Theoretically, this study contributes to a deeper understanding of the factors influencing scientific production in nursing. Future research should explore specific strategies to overcome identified barriers, examine the impact of advanced training on research competency, and assess the effect of nursing research on patient health outcomes.

Limitations

These inherent limitations in our study might have biased the results and their interpretation. The cross-
sectional design of the research, for example, prevents establishing causal relationships between indicators associated with scientific production and competencies in clinical nurses. Moreover, the non-probabilistic convenience sampling may not be representative of all clinical nurses in specialized institutes, limiting the generalization of findings to other populations or contexts.

A major restriction of this study is its ability to reflect only an instant snapshot of the evaluated situation, without capturing the evolution of competencies and scientific production over time. This design does not allow for observing the development or change in attitudes, knowledge, and resource use for research that could occur as a result of specific interventions or the natural progression of the profession.

The limitation related to the use of self-administered tools, such as Google Forms questionnaires, also deserves consideration. While these methods facilitate data collection, they may be subject to social desirability bias, where participants might tend to respond in ways that are perceived more favorably. This factor could influence the accuracy of the collected information on research competencies and scientific production.

To address these limitations in future research, employing longitudinal designs that allow tracking the evolution of competencies and scientific production over time would be advisable, as well as expanding the sample to other specialized institutes or even a broader spectrum of health professionals to increase the generalization of results. Additionally, incorporating mixed methods that combine quantitative with qualitative techniques could enrich the understanding of the dynamics underlying the indicators and research competencies, allowing for a deeper exploration of clinical nurses’ perceptions, experiences, and motivations towards research.

CONCLUSIONS

It is crucial to implement strategies aimed at mitigating the exposed obstacles to foster and enhance the active participation of nursing professionals in research, promoting the convergence of efforts towards an evidence-based practice that optimizes the quality of care provided and contributes to the progress of the nursing discipline as a whole.

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