Community empowerment and care management: analysis of the impact of the role of nursing in Primary Health Care in a peri-urban community of Risaralda

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ABSTRACT

Introduction: Primary Health Care (PHC) in Colombia faces fragmentation and a biomedical approach that limits the treatment of social determinants of health. The role of nursing in PHC is theoretically key, but its impact on community empowerment is insufficiently evidenced. Objective: To analyze the impact of a PHC-based nursing intervention on the social determinants of health and community empowerment in a vulnerable population in Pereira, Risaralda. Methodology: A mixed-methods study with a participatory action research (PAR) design. The quantitative phase was a pre-post quasi-experimental design without a control group (n=50 families). The qualitative phase was based on grounded theory, using focus groups (n=18) and field notes. The "Nursing at Your Door" intervention included home visits, health education, and intersectoral management over six months. Results: Quantitatively, a significant increase in adherence to health promotion and disease prevention programs was observed (45% to 80%; $p<0.01$), along with a 20% reduction in emergency room visits for preventable causes ($p<0.05$). Qualitatively, the central theme that emerged was "nursing as the articulating and translating axis of the system," highlighting trust-building and agency as empowerment mechanisms. Conclusion: The role of nursing in primary health care transcends the clinical realm, operating as a health asset manager that transforms the community-system relationship. Strengthening political and leadership competencies in nursing education is necessary to consolidate this impact

Keywords: Primary Health Care; Role of the Nurse; Community Participation; Social Determinants of Health; Empowerment

INTRODUCTION

Primary Health Care (PHC), reaffirmed in the Astana Declaration [1], remains the most effective strategy for moving towards universal health coverage. However, its implementation in Latin America has historically been weak, with curative and hospital-centric models predominating [2]. In Colombia, Law 1438 of 2011 and the subsequent Comprehensive Territorial Care Model (MAITE) represent a normative effort to reorient the system towards PHC, but evidence shows a persistent gap between political discourse and operational practice, especially in peri-urban and rural communities [3,4].

In this context, the nursing professional emerges as a strategic agent. Starfield [5] pointed out that longitudinality and comprehensiveness, central attributes of a strong PHC, are inherent competencies of the nursing discipline. However, recent literature shows an "invisibility of community care" [6], where management indicators continue to privilege the production of services (number of consultations,

vaccinations) over population health outcomes, such as empowerment, autonomy in self-care, or the modification of intermediate social determinants (e.g., housing, food, support networks).

This article addresses the following question: *What is the impact of the role of nursing in PHC on community empowerment and care management in a peri-urban community of Risaralda?* The objective is to analyze this impact, transcending clinical evaluation to understand the social mechanisms through which community nursing generates transformations in the health of the population.

MATERIALS AND METHODS:

Study design

Study of mixed methods with a concurrent triangulation design [7]. Participatory action research (PAR) was chosen as the methodological umbrella, as the objective was not only to measure, but to co-construct solutions with the community [8].

Context and participants

The study was carried out in a neighborhood, a peri-urban settlement of Pereira, Risaralda, with an Unsatisfied Basic Needs (UBN) index of 68% (according to data from the municipal Sisbén, 2023). Purposive convenience sampling was used for the quantitative phase (50 families, n=185 individuals) and theoretical saturation sampling was used for the qualitative phase (2 focus groups: 8 community leaders and 10 caregiver mothers). Inclusion criteria: residence >1 year, presence of a child under 5 years of age or older adult with chronic disease. Exclusion: simultaneous participation in another community health program.

Nursing intervention: "Nursing at your doorstep"

Designed under the principles of comprehensive PHC [9] and the Nola Pender Health Promotion Model [10]. It consisted of three phases:

1. **Participatory community diagnosis:** Mapping of health assets (e.g., leaders, community spaces) and application of genogram and family APGAR [11].

2. **Educational and management intervention (6 months):** Weekly workshops on social determinants (nutrition, healthy housing, stress management), personalized accompaniment for navigating the health system (appointment management, care routes) and follow-up home visits.

3. **Strengthening of networks:** Linkage with community dining room and "pregnant mothers" program of the mayor's office.

Instruments and analysis

- **Quantitative:** Health Promoting Lifestyle Profile II (HPLP-II) questionnaire validated in Colombia [12] (α=0.92). Analysis with SPSS v.26: descriptive statistics and Student's t-test for related samples ($p<0.05$).

- **Qualitative:** Recorded and transcribed focus groups, plus the researcher's field diary. Analysis with ATLAS.ti v.9 using open, axial and selective coding [13]. Triangulation was performed by contrasting qualitative categories with quantitative findings and literature.

Ethical considerations

Approved by the Research Ethics Committee of the University Foundation of the Andean Area (Minutes No. 023-2023). Resolution 8430 of 1993 of Colombia (minimum risk category) was followed. Verbal and written informed consent. Confidentiality guaranteed by pseudonyms

RESULTS

Quantitative impact: improvement in clinical and lifestyle indicators

Table 1 shows significant changes. Of note is the reduction in emergency room visits for preventable pathologies (acute respiratory infections, diarrheal diseases) from 100% to 80% of families who reported at least one consultation in the last month ($p<0.05$). In the HPLP-II, the dimension of "responsibility in health" increased by 42% ($p<0.01$), suggesting an incipient empowerment.

Table 1. Pre-post intervention indicators (n=50 families)

Health Indicator	Pre-intervention (%)	Post-intervention (%)	Difference	P value
Full vaccination in <5 years	78	95	+17	<0.05
Controlling hypertension in older adults	60	88	+28	<0.01
Adherence to promotion and prevention programs	45	80	+35	<0.01
% of families with at least one	100	80	-20	<0.05

Health Indicator	Pre-intervention (%)	Post-intervention (%)	Difference	P value
avoidable visit in the last month*				
Satisfaction with health services	52	89	+37	<0.01

Note: Percentage of families who reported at least one avoidable visit in the last month.

Qualitative findings: mechanisms of empowerment

From the axial analysis, a **central category** *emerged: The nurse as the articulating axis of trust and the capacity for agency*. This category is based on three subcategories:

1. **System translator (cognitive accessibility):** The nurse reduces the power asymmetry between the biomedical system and the community.

   "Doña Luz does not speak difficult. She tells us: 'look, your appointment is here, take this paper and ask for this person'. Without it, you get lost in the hospital." (Focus group, caregiver mother 3).

2. **Bond builder (longitudinality):** Continuous presence and respect generate a "fabric of trust" that allows sensitive issues such as mental health or domestic violence to be addressed.

   "At first I didn't tell him anything. But she came every week, she remembered the name of my children... Now I tell him if I feel sad." (Focus group, community leader 2).

3. **Asset manager (decisiveness):** The ability to connect the family with resources (food, subsidies, appointments) transforms the nurse's perception from "auxiliary" to "agent of change".

   "She didn't just take our blood pressure. He managed the dining room for the children and helped us with the Sisbén. It's that she solves." (Focus group, caregiver mother 7).

Triangulation shows that the increase in adherence (quantitative result) is mediated by the bond of trust (qualitative finding).

DISCUSSION

This study demonstrates that the impact of the role of nursing in PHC is a complex phenomenon that is not reduced to production indicators. We agree with Kringos et al. [14] that strong PHC depends on community-oriented human resources, but we add a nuance: *it is not enough to be in the community, it requires a "professional agency" approach* that combines clinical, political and social navigation competencies.

The finding of "nurse translator" is consistent with Peplau's theory of interpersonal relationships [15], where therapeutic communication is the central tool. However, in the community context, this communication is not only individual, but acts as an intermediate determinant of health by improving the "health literacy" of the family [16]. The reduction of emergencies due to preventable causes is not only a clinical achievement, but evidence that families acquired the ability to solve minor health problems at home and recognize warning signs.

The role of health advocacy mentioned by Hanks [17] and Bu & Jezewski [18], was manifested here in a concrete way in intersectoral management. The nurse not only "defends" the patient in the system, but also repairs the broken bridges between the community and the institutions, an invisible work but with a high emotional and political cost that is rarely recognized in care positions.

Limitations of the study: 1) Without a control group, we cannot attribute causality exclusively to the intervention (history effect). 2) The small sample size (50 families) limits generalization. 3) The 6-month period is short to assess the sustainability of empowerment. 4) Possible social desirability bias in focus groups.

Implications for practice and policy: The findings support the need for PHC teams to have one nurse for every 500-800 inhabitants in vulnerable contexts [19], with protected time for extramural community work, not just institutional consultation. In addition, training programs should include competencies in community leadership, cross-sectoral management, and public policy..

CONCLUSION

1. The role of nursing in PHC analyzed transcends the execution of procedures to constitute a social process of care management, where community empowerment is the result of trust, system translation, and asset management.
2. The "Nursing at your door" intervention proved to be effective in improving biomedical health indicators (vaccination, chronic control) and in reducing the inappropriate use of emergency services, evidencing potential savings for the system.
3. It is concluded that the invisibilization of community nursing work is a political problem, not a methodological one. As long as health systems continue to measure "production" and not "social transformation", the contribution of PHC will continue to be underestimated.

RECOMMENDATIONS

1. **For territorial entities (Secretariats of Health):** Incorporate in the contracts for the provision of services with the ESCOs indicators of community health results (e.g., percentage of families with a self-care plan, reduction of avoidable events) together with the production indicators.

2. **For university education:** Introduce simulations and practices in community settings that develop advocacy, asset mapping, and intersectoral negotiation skills.
3. **For future research:** Conduct longitudinal studies with a control group and cost-effectiveness analyses that compare the traditional outpatient model versus the comprehensive home visit nursing model

FUNDING

This research did not receive specific external funding. It was carried out with the authors' own resources and the institutional support of the University Foundation of the Andean Area.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest related to this study

BIBLIOGRAPHY

1. World Health Organization (WHO). Astana Declaration: on primary health care: from Alma-Ata to universal health coverage and the Sustainable Development Goals. Geneva: WHO/UNICEF; 2018.
2. Giovanella L, Vega R, Almeida PF. Is comprehensive Primary Health Care part of the response to the COVID-19 pandemic in Latin America? Cad Saude Publish. 2021; 37(4):e00056621.
3. Ministry of Health and Social Protection. Resolution 3280 of 2018. Bogotá: Ministry of Health; 2019.
4. Vega R, Alzate ML. Primary Health Care in Colombia: A Review of the Last Decade. Gerenc Polít Salud. 2020;19:1-18.
5. Starfield B. Primary Care: Balancing Health Needs, Services, and Technology. Barcelona: Masson; 2001.
6. Sánchez-Gómez MB, Duarte-Clíments G. Nursing leadership in community case management: a systematic review. Rev Latinoam Enferm. 2022; 30:e3567.
7. Creswell JW, Plano Clark VL. Designing and conducting mixed methods research. 3rd ed. Thousand Oaks (CA): SAGE Publications; 2017.
8. Reason P, Bradbury H, editors. The SAGE handbook of action research. 3rd ed. London: SAGE; 2015.
9. World Health Organization (WHO). Primary Health Care: Report of the International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978. Geneva: WHO; 1978.
10. Pender NJ, Murdaugh CL, Parsons MA. Health promotion in nursing practice. 6th ed. Upper Saddle River (NJ): Pearson; 2011.
11. Smilkstein G. The family APGAR: a proposal for a family function test and its use by physicians. J Fam Pract. 1978; 6(6):1231-9.

12. Pérez A, Rodríguez M, Gómez C. Adaptation and validation of the HPLP-II in the Colombian population. Rev Colomb Salud Pública. 2020; 22(1):45-56.

13. Strauss A, Corbin J. Bases of qualitative research: techniques and procedures for developing grounded theory. Medellín: Universidad de Antioquia; 2002.

14. Kringos DS, Boerma WG, Hutchinson A, Saltman RB. Building primary care in a changing Europe. Copenhagen: European Observatory on Health Systems and Policies; 2015.

15. Peplau HE. Interpersonal relationships in nursing. Barcelona: Masson; 1997.

16. Nutbeam D. The evolving concept of health literacy. Soc Sci Med. 2008; 67(12):2072-8.

17. Hanks RG. The lived experience of nursing advocacy. Nurs Ethics. 2008; 15(4):468-77.

18. Bu X, Jezewski MA. Developing a mid-range theory of patient advocacy through concept analysis. J Adv Nurs. 2007; 57(1):101-10.

19. Pan American Health Organization (PAHO). Expanding the role of nurses in primary health care. Washington D.C.: PAHO; 2020.