

Prescribers' Perceptions of the Rationality of Drug Prescription in Primary Care: A Qualitative Study in the Health District of Commune I of Bamako (Mali)

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Abstract

Original Research Article

Purpose: The rational use of medicines remains a major challenge in healthcare systems in resource-limited countries. Beyond quantitative indicators, understanding the perceptions, representations, and experiences of prescribers is essential for explaining their prescribing practices. **Methods:** An exploratory qualitative study was conducted from March to July 2023 in the Community Health Centers (CSCoM) and the Reference Health Center (CSRef) of Commune I of Bamako. Semi-structured individual interviews were conducted with prescribers selected through purposive sampling for this study. Inductive thematic analysis was conducted according to Braun and Clarke's approach. **Results:** The analysis revealed five major themes: (1) plural representation of rational prescription, often reduced to compliance with protocols; (2) tension between therapeutic norms and clinical realities; (3) ambivalent perception of drugs in INN; (4) the weight of structural and socio-economic constraints; and (5) needs expressed in terms of training and support. Prescription appears to be a permanent compromise between scientific ideals and field constraints. **Conclusion:** Prescribers' perceptions revealed a partial appropriation of the concept of rational prescriptions. The practices observed can be explained more by systemic constraints than by a lack of knowledge. Future interventions should incorporate the lived experiences of the prescribers.

Keywords: qualitative study, perception, prescribers, rational prescription, essential medicines, Mali.

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INTRODUCTION

The rational use of medicines is defined by the World Health Organization (WHO) as the prescription of the appropriate medicine in the right dose for a sufficient duration and at an acceptable cost for the patient and the community (Organization, 2009, 2023; WHO DAP, 1993). Despite national pharmaceutical policies and international recommendations, irrational prescribing remains common, particularly in primary healthcare.

Most studies conducted in this area favor a quantitative approach based on WHO/INRUD indicators (WHO DAP, 1993). Although these indicators are useful for measuring the extent of dysfunction, they do little to

explain the deep motivations of the prescribers. However, prescribing is a complex act influenced by clinical, organizational, economic, sociocultural, and personal factors.

The qualitative approach provides access to the professional logics, social representations, and daily arbitrations made by prescribers (Pope & Mays, 2020; Whyte *et al.*, 2002). In the Malian context, where resources are limited and social pressure is strong, this understanding is crucial for developing realistic policies to promote rational prescribing.

This study aimed to explore prescribers' perceptions of the rationality of drug prescriptions in primary care in the Health District of Commune I of Bamako.

METHODS

Study Type

This was an exploratory qualitative study with descriptive and interpretive purposes.

Scope of the study

The study was conducted in the CSComs and CSRef of Commune I of the District of Bamako, an urban area marked by a high population density and diverse prescriber profiles.

Study population and sampling

Participants were regular prescribers (physicians, midwives, nurses, and obstetricians) involved in curative and antenatal consultations. Principled sampling was used to ensure diversity of profiles (occupation, seniority, structure). The interviews continued until the theoretical saturation of the data.

Data collection

Data were collected using semi-structured individual interviews conducted in French. The interview guide explored the following: - the personal definition of rational prescription; - the criteria influencing the choice of medicines; - the perception of medicines in INNs; - the constraints encountered on a daily basis; - perceived needs to improve prescribing. The interviews were recorded with the participants' consent and transcribed in full.

Data Analysis

Inductive thematic analysis was conducted according to the six steps described by Braun and Clarke and in COREQ format (Braun & Clarke, 2006; Tong *et al.*, 2007): familiarization with the data, generation of initial codes, research of themes, revision of themes, definition and naming of themes, and writing of the report. The analysis was performed using QDA miner 6 and discussed among researchers.

Ethical considerations

Informed consent, anonymity, and confidentiality of the participants were strictly maintained.

RESULTS

The interview analysis identified five major themes.

Theme 1: A normative understanding of rational prescribing

Most prescribers defined rational prescribing as compliance with national protocols and guidelines. This definition, which is essentially biomedical, leaves little room for the socioeconomic dimension of the patient.

" *Rational prescribing means following the protocol and administering the right medication.* »

Theme 2: The permanent confrontation between theory and reality

Prescribers described a discrepancy between the recommendations and the reality on the ground: patients seen late, multiple comorbidities, and lack of diagnostic means.

" *Often, the patient arrives already complicated, we no longer have a choice.* »

Theme 3: An ambivalent perception of medicines in INNs

Generic drugs are recognized as theoretically effective; however, their clinical effectiveness is sometimes questioned, particularly in cases of treatment failure or poor adherence.

" *We know that the DCI is good, but sometimes the result is not what we expected.* »

Theme 4: The weight of structural and social constraints

The unavailability of certain drugs, their cost to patients, and the pressure of social expectations (demand for antibiotics or injectables) strongly influence prescribing decisions.

Theme 5: A strong need for continuing education and support

Prescribers expressed a need for practical and contextualized training, as well as regular support rather than controls perceived as punitive.

DISCUSSION

This in-depth discussion articulates the empirical results from the interviews with theoretical frameworks from the sociology of prescribing, medical anthropology, and health systems research (Pope & Mays, 2020; Tong *et al.*, 2007). It aims to understand drug prescription not as a simple technical act but as a social practice situated and regulated by multiple norms.

Professional knowledge: between biomedical knowledge and prescribed knowledge

Prescribers mobilize a common base of biomedical knowledge (protocols, recommendations, lists of essential medicines). However, this knowledge is mostly perceived as an external standard to be applied.

" *We know the protocols, but sometimes they don't correspond to what we see in front of us.* »

This observation is in line with the sociological distinction between *formal knowledge* and *knowledge of use*. The first is learned and transmitted by institutions, while the second is built in daily experience.

Theoretical comment: This tension illustrates what Lipsky describes as the behavior of *street-level*

bureaucrats, where professionals adapt the rules to the concrete constraints of the field (Lipsky, 2010).

Prescribing as a situated and contextualized practice

Prescription appears to be a process of permanent adjustment between several rationalities: scientific, economic, social and ethical.

"If I prescribe exactly according to the protocol, the patient will not be able to buy, or he will not follow."

The rationality of prescribers is therefore not purely biomedical, but pragmatic.

Theoretical comment: This observation is part of the notion of *limited rationality* where decisions are made in a context of incomplete information and constrained resources (Simon, 1959).

INN Drugs and Efficacy Representations

Although the scientific knowledge of prescribers recognizes the therapeutic equivalence of ICNs, social representations of efficacy remain marked by clinical experience and patient feedback.

"The generic is good on paper, but when the patient comes back without improvement, we have doubts."

Sociological comment: This situation illustrates the social construction of therapeutic effectiveness, where perceived clinical outcomes, adherence and patient-caregiver trust play a central role (Hogerzeil, 1995; Whyte *et al.*, 2002) – generics are considered to be ineffective.

Structural constraints and contradictory injunctions

Prescribers describe a constant pressure between institutional injunctions (prescribing rationally, limiting costs) and patient expectations (strong drugs, injections, antibiotics).

"The patient thinks that the more medication, the better."

Theoretical comment: This contradiction refers to work on medicalization and the social demand for care (Moynihan, 2002; Trap *et al.*, 2002; Whyte *et al.*, 2002), particularly marked in the African urban context.

Moral dimension and responsibility of the prescriber

The statute of limitations also engages a moral responsibility. Prescribers express discomfort when they deviate from the norms, even if this responds to a contextual necessity.

"We know it's not ideal, but we do what we can with what we have."

Analytical comment: This moral tension is characteristic of health systems under constraint and can generate a progressive normalization of suboptimal practices.

Implications for national health policies

The results call for a rethink of policies to promote rational prescribing in Mali.

Contextualized continuing education: integrate real-life case analyses and peer-to-peer reflective spaces.

Participatory pharmaceutical policies: involve prescribers in the development of essential medicines lists and guidelines. Fighting against pharmaceutical marketing.

Strengthening supply: improving the availability and perceived quality of medicines in INNs.

Corporate communication:

Develop targeted messages for patients to reduce inappropriate demand.

Policy comment: An exclusively prescriptive approach risks widening the gap between recommendations and practices. National policies would benefit from recognising the pragmatic rationality of prescribers and acting on structural determinants.

Limitations of the study

This study is limited by its unique geographical anchoring and by the declarative nature of the data. However, the diversity of the profiles questioned, and the theoretical saturation reinforce the credibility of the results.

Interpretive conceptual framework

The results of this study provide a dynamic conceptual framework linking knowledge, perceptions, clinical decisions and prescribing practices. Formal knowledge (protocols, recommendations, pharmacology) is a necessary but insufficient basis. They are filtered by the individual and collective perceptions of prescribers, shaped by clinical experience, structural constraints, patient expectations and the socio-economic context. Therapeutic decisions are then the result of a pragmatic arbitration, giving rise to prescribing practices that may deviate from the norms while remaining consistent from the point of view of the actors.

Analytical comment: This framework allows us to go beyond a binary compliant/non-conforming reading and invites us to reconsider rational prescription as an adaptive and contextualized process.

Implications for health practice and policy

The results suggest that strategies to improve rational prescribing should be oriented towards: (i) interactive and contextualized continuing education; (ii) the establishment of spaces for discussion among peers; (iii) improving the availability and perceived quality of essential medicines; and (iv) integrating the prescribers' perspective into pharmaceutical policy-making.

CONCLUSION

Drug prescribing in primary care appears to be a complex process, shaped by professional representations, structural constraints and socio-economic realities. Improving the rational use of medicines requires a systemic approach that integrates the words and experience of prescribers.

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