

Participant Profile in Qualitative Research: Selection Criteria, Saturation, and Validation

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Abstract. This article analyzes the theoretical-methodological foundations underlying participant characterization in scientific studies. The specific objectives are to: (a) identify key sociodemographic variables used in characterization; (b) describe the importance of the sample profile for interpreting results; (c) analyze advantages, limitations, and classifications of sampling strategies; and (d) discuss implications for internal and external validity. The guiding question is: how does rigorous participant characterization contribute to the quality and credibility of scientific research? Methodologically, this is a narrative theoretical review of authors published mainly between 2021 and 2025, using a documentary analysis matrix (registration protocol) to record authorship, methodological approach, and thematic contribution for each source. Findings show that detailed sample-profile description is indispensable for data interpretation and generalization — a position this article endorses, arguing that characterization should be treated as an analytical instrument rather than a mere formality.

Keywords: Participant Profile; Sociodemographic Characterization; Sampling; Research Validity; Scientific Methodology.

1. Introduction

The profile of research participants is fundamental for validating results and guiding effective interventions. Mapping sociodemographic variables such as age, education, and occupation, together with behavioral and contextual patterns, is essential for interpreting phenomena, since participant characteristics directly affect both results and the applicability of conclusions.

Scientific knowledge production presupposes methodological rigor at every stage. Participant characterization situates subjects in time, space, and living conditions, giving readers the coordinates to judge the relevance and applicability of findings (Creswell & Creswell, 2022; Flick, 2021).

Despite its relevance, participant-profile analysis is often reduced to frequency tables mechanically inserted into the methodology section, without exploring its interpretive potential — a limitation noted by Yin (2023) and Stake (2021), for whom descriptive richness of the sample profile is as important as the substantive data.

This study's relevance lies in providing concrete, scientifically grounded evidence to help researchers, managers, and practitioners understand target-population characteristics. A detailed participant-profile description strengthens transparency, methodological rigor, and replicability, justifying a systematic discussion of the theoretical foundations, characteristics, implications, and perspectives of participant-profile analysis.

This discussion also aligns with the 2030 Agenda for Sustainable Development, particularly SDG 4 (Quality Education), whose target 4.3 calls for equal access to quality tertiary and research training, and with SDG 9 (Industry, Innovation, and Infrastructure), insofar as standardized characterization procedures function as methodological infrastructure supporting cumulative knowledge-building (United Nations, 2015).

The guiding research question is: how does participant-profile analysis contribute to the quality, validity, and credibility of scientific results? This unfolds into four subsidiary questions on (a) the main characterization variables, (b) the importance of the sample profile for interpreting results, (c) classifications and sampling strategies, and (d) advantages and limitations of characterization. Accordingly, the general objective is to analyze the theoretical and methodological foundations of participant characterization, with specific objectives to: (a) identify key variables; (b) describe the importance of the sample profile for interpretation; (c) analyze classifications and sampling strategies; and (d) discuss advantages and limitations.

Methodologically, this is qualitative, descriptive bibliographic research reviewing books, articles, and academic documents published mainly between 2021 and 2025. The search strategy, inclusion/exclusion criteria, and data collection instrument are detailed in Section 2.

The review shows participant-profile analysis to be essential for methodological quality, improving understanding of subjects' contexts, increasing credibility, and facilitating data interpretation; the literature recommends multiple characterization variables spanning demographic, socioeconomic, and cultural dimensions.

This article proceeds as follows: Section 2 details the methodology; Section 3 reviews the literature, including selection criteria, saturation, and validation; Section 4 presents results; Section 5 discusses them; Section 6 concludes; Section 7 lists references.

2. Methodology

2.1. Type of Study

This study adopts a qualitative, descriptive narrative (integrative) theoretical-review design (Patton, 2015; Denzin & Lincoln, 2018). Unlike a systematic review or meta-analysis, it does not pool effect sizes statistically; it synthesizes and critically discusses conceptual and methodological contributions, a design suited to a conceptual object of study.

2.2. Search Strategy and Data Sources

Sources were identified in Scopus, Web of Science, SciELO, and Google Scholar using the descriptors "participant profile", "participant characterization", "purposive sampling", "qualitative sampling", and "data saturation" (Boolean AND/OR), in English, Portuguese, and Spanish, covering January 2021-July 2025. This window was extended for a few foundational works whose conceptual centrality justified inclusion regardless of date (e.g., Lincoln & Guba, 1985; Sandelowski, 1995; Marshall, 1996; Braun & Clarke, 2006).

2.3. Inclusion and Exclusion Criteria

Sources were included if: (a) peer-reviewed articles, or books/chapters by recognized methodologists; (b) substantively treating participant characterization, sampling, saturation, or validation; (c) available in full text in English, Portuguese, or Spanish; and (d), for non-foundational works, published 2021-2025. Sources were excluded if non-peer-reviewed, only tangentially relevant, duplicates, or unavailable in full text. Titles/abstracts were screened first, followed by full-text screening of remaining records against these criteria.

2.4. Data Collection Instrument

Data extraction relied on a documentary analysis matrix (registration protocol), piloted on five sources before full application. For each source it recorded: bibliographic reference, source type, and methodological tradition, main theme addressed, key contribution, and the convergence axis used in Section 4. This instrument is functionally analogous to qualitative-review reporting protocols such as COREQ (Tong et al., 2007), adapted here to a document-based corpus.

2.5. Procedures for Analysis

The matrix supported thematic comparison (Braun & Clarke, 2006, 2021) to identify convergence and divergence, informing the tables and narrative synthesis in Section 4. Because the corpus comprises theoretical/methodological texts rather than

primary participant data, inferential statistics were not applicable; the analysis instead combines qualitative synthesis with a descriptive frequency count, reported in Section 4.4.

3. Literature Review

3.1. Concept, Objectives, Functions, and Scope of Participant Profile Analysis

The profile of research participants can be defined as the systematized set of individual, collective, and contextual characteristics that describe the subjects included in a scientific study. It is a methodological construct designed to answer, precisely, the question of who the investigated individuals are before moving on to the substantive results (Sampieri et al., 2022).

In terms of objectives, participant characterization fulfils at least three central functions. The first is descriptive: it allows readers to visualize the composition of the sample and assess its adequacy to the target population. The second is analytical: sociodemographic variables can act as control or moderating variables, influencing the interpretation of findings. The third is communicative: by making the sample profile transparent, researchers facilitate replicability and comparison across studies (Bryman, 2021; Creswell & Creswell, 2022).

The scope of characterization varies according to the nature of the research. In quantitative studies, the profile tends to be presented through descriptive statistics. In qualitative approaches, characterization takes on a narrative and contextualized character, situating each participant within their life trajectory and sociocultural context. In mixed-methods studies, both perspectives complement one another, enriching the understanding of the phenomenon under investigation (Creswell & Plano Clark, 2021; Flick, 2021).

3.2. Characteristics of Participant Profile Analysis

The analysis of participant profiles presents characteristics that distinguish it from other methodological stages. First, it is multidimensional: it spans variables of a demographic, socioeconomic, cultural, professional, and geographic nature, whose interactions produce complex and nuanced portraits of the subjects investigated (Sampieri et al., 2022).

Second, it is contextually situated: the variables selected for characterization are not universal but depend on the theoretical framework adopted and the specific objectives of the study. Research on public health may prioritize clinical and epidemiological variables, whereas an organizational study will emphasize professional and hierarchical variables (Minayo, 2021; Yin, 2023).

Third, it is dynamic: the participant profile is not static. In longitudinal research, participants' characteristics may change over time, requiring periodic reassessment of the sample. This characteristic imposes methodological challenges that demand special attention from researchers, particularly regarding the maintenance of the study's internal coherence (Stake, 2021; Bryman, 2021).

3.3. Importance, Advantages, Disadvantages, and Critical Points

The importance of participant profile analysis is widely recognized in the literature. For Flick (2021), the detailed characterization of subjects is one of the main indicators of methodological rigor in qualitative research, as it demonstrates the researcher's awareness of the study's limits and scope. From a quantitative perspective, Hair et al. (2022) argue that an accurate description of the sample is a *sine qua non* condition for inferential statistical analysis.

Among the main advantages of a rigorous characterization of the sample profile are: (a) the ability to control for confounding variables; (b) ease of replication by other researchers; (c) the transparency that strengthens scientific credibility; and (d) the capacity to identify subgroups whose behaviors and perceptions diverge from the general trend, enriching the analysis (Sampieri et al., 2022; Creswell & Creswell, 2022).

On the other hand, participant profile analysis presents limitations that constitute its weaker points. The collection of sociodemographic data may face resistance from participants, especially when it involves sensitive variables such as income, health, or sexual orientation. Moreover, an excessively detailed characterization can compromise the anonymity of subjects, raising relevant ethical concerns (Minayo, 2021; Yin, 2023). Another weakness identified by Bryman (2021) is the risk of reducing participants to static categories, disregarding the complexity and fluidity of human identities.

3.4. Classification and Typology of Profile Variables

The specialized literature proposes different ways of classifying the variables used in participant characterization. The most widespread classification distinguishes between demographic variables (sex, age, marital status, race/ethnicity), socioeconomic variables (income, education, social class), professional variables (occupation, length of service, sector of activity), and geographic variables (location, urban or rural area, region) (Hair et al., 2022; Sampieri et al., 2022).

Another relevant typology is proposed by Creswell and Plano Clark (2021), who distinguish between primary characterization variables those directly related to the phenomenon under investigation and secondary characterization variables, which provide context without directly influencing the results. This distinction guides researchers in selecting the most pertinent variables for each study, avoiding both the omission of crucial information and the accumulation of irrelevant data.

In health research, it is common to add clinical variables to the sociodemographic typology, such as diagnoses, treatment duration, comorbidities, and medication use. This expansion of the typology reflects the interdisciplinary character of contemporary research and the need to adapt characterization instruments to the specific object of each investigation (Minayo, 2021; Fontanella & Melo, 2023).

3.5. Stages of Participant Characterization

Participant characterization is not an isolated act but a process that runs through different stages of the research cycle. The first stage occurs during planning, when the researcher defines the inclusion and exclusion criteria for subjects and selects the variables to be collected based on the study's objectives (Creswell & Creswell, 2022; Bryman, 2021).

The second stage corresponds to the collection of sociodemographic data, generally carried out through specific instruments questionnaires, identification forms, or interview scripts. In this phase, attention to the clarity and precision of items is essential to avoid measurement errors and ensure the quality of the information obtained (Hair et al., 2022).

The third stage is the analysis and presentation of profile data. In quantitative studies, this involves calculating frequencies, percentages, means, and standard deviations, as well as producing tables and charts. In qualitative studies, the analysis results in descriptive narratives that contextualize the subjects. The fourth and final stage is the integration of profile data into the discussion of substantive results, exploring possible relationships between participants' characteristics and the phenomena investigated (Stake, 2021; Fontanella & Melo, 2023).

3.6. Selection Criteria, Saturation, and Validation in Qualitative Sampling

Because the article's title foregrounds selection criteria, saturation, and validation, this subsection deepens these three concepts. Participant selection in qualitative research is typically purposive, not probabilistic: researchers choose information-rich cases capable of illuminating the phenomenon (Patton, 2015; Etikan et al., 2016), following structured frameworks such as Robinson's (2014) four-point sequence for defining the sample universe, size, strategy, and source.

Saturation remains the most invoked stopping criterion, yet Saunders et al. (2018) show it is applied under at least four distinct logics, helping explain its inconsistent operationalization; Guest et al. (2006) found thematic saturation often reached within twelve interviews, while Fusch and Ness (2015) and O'Reilly and Parker (2013) caution against declaring it without a transparent, demonstrated account. As an alternative, Malterud et al. (2016) propose "information power", whereby smaller samples suffice as the information relevance of each participant increases.

Numeric rules of thumb for sample size have been replaced by purpose- and richness-based judgments (Sandelowski, 1995; Marshall, 1996), updated by Vasileiou et al.'s (2018) systematic analysis of sample-size justification practices. In mixed-methods designs, Onwuegbuzie and Collins (2007) and Palinkas et al. (2015) link sampling decisions to design and implementation goals.

Validation is treated less as a single procedure than as a set of quality criteria. Lincoln and Guba (1985) proposed credibility, transferability, dependability, and confirmability as qualitative counterparts to validity/reliability, later expanded by Tracy (2010) into eight "big-tent" criteria that explicitly incorporate participant selection as a marker of rigor. The COREQ checklist (Tong et al., 2007) operationalizes many of these criteria, including participant selection and characteristics; Braun and Clarke (2006, 2021) similarly stress that transparent reporting of who participated is inseparable from credibility. This body of work largely absent from the textbooks discussed in Section 3.1-3.5 — substantiates the claim, developed in Sections 4 and 5; those selection criteria, saturation, and validation should be planned and reported as an integrated package (Ritchie et al., 2014).

4. Analysis of Results

The literature review makes it possible to identify important convergences and divergences in how authors approach participant-profile analysis. A first convergence concerns characterization as an instrument of methodological validation: regardless of approach, all authors consulted agree that describing the sample profile is necessary for a study's scientific credibility (Creswell & Creswell, 2022; Flick, 2021; Bryman, 2021). Table 1 summarizes this and the other convergence axes identified across the reviewed literature.

Table 1. Main Convergences Identified in the Literature.

Axis of Analysis	Main Contributions	Authors
Methodological validation	Participant characterization increases the credibility and validity of research	Creswell & Creswell (2022); Flick (2021); Bryman (2021)
Multidimensionality of the profile	Recommends including demographic, socioeconomic, and cultural variables	Sampieri et al. (2022); Hair et al. (2022); Minayo (2021)
Analytical importance	The absence of characterization compromises the interpretation of results	Bryman (2021); Hair et al. (2022); Minayo (2021)
Scientific transparency	The participant profile favors the replicability of studies	Creswell & Creswell (2022); Bryman (2021)

A second point of convergence concerns the multidimensionality of profile variables. The literature is unanimous in recommending that participant characterization not be restricted to basic demographic variables but encompass socioeconomic, cultural, and contextual dimensions that may influence the phenomena under investigation (Sampieri et al., 2022; Hair et al., 2022; Minayo, 2021).

When the treatment given to participant characterization in the quantitative and qualitative traditions is compared, a further difference emerges regarding the function attributed to profile data: for authors such as Hair et al. (2022) and Sampieri et al. (2022), sociodemographic variables operate essentially as a statistical precondition an input required for significance testing, analysis of variance, and inferential generalization procedures. For Flick (2021) and Stake (2021), by contrast, the participant profile functions as an interpretive key, articulating directly with the categories of analysis that emerge from the data themselves.

This difference is not merely technical; it reflects distinct epistemological positions regarding the role of the investigated subject – on one side, a subject representative of a population; on the other, a singular subject whose trajectory illuminates the phenomenon studied. Table 2 consolidates the criteria used to compare the two traditions.

Table 2. Comparison between Quantitative and Qualitative Approaches to Participant Characterization.

Comparison Criterion	Quantitative Approach	Qualitative Approach
Main purpose	Ensure statistical representativeness of the sample	Understand participants' experiences and contexts
Role of the participant	Representative element of a target population	Singular subject bearing unique experiences
Predominant variables	Demographic and socioeconomic	Experiences and social context
Use of profile data	Statistical testing and generalization of results	Interpretation and contextualization of phenomena
Quality criterion	Statistical precision and external validity	Analytical depth and contextual validity
Main references	Hair et al. (2022); Sampieri et al. (2022)	Flick (2021); Stake (2021); Minayo (2021)

The main divergence identified lies in the recommended depth of characterization. Authors from the quantitative tradition, such as Hair et al. (2022) and Sampieri et al. (2022), emphasize statistical precision and sample representativeness. Authors from the qualitative tradition, such as Flick (2021), Stake (2021), and Minayo (2021), privilege contextual richness and the understanding of each subject's singularities.

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This tension reflects deeper epistemological differences that go beyond mere characterization technique.

As shown in Figure 1, the axes of methodological validation and multidimensionality of the profile are the most frequently supported in the reviewed literature, each corroborated by three of the main sources consulted, followed by the analytical-importance axis (three sources) and the transparency axis (two sources). It is also possible to observe a growing trend – especially in studies published from 2023 onward toward incorporating identity variables such as gender (beyond biological sex), sexual orientation, ethnic-racial identity, and disability status into participant characterization, reflecting greater attention to diversity and inclusion agendas in contemporary scientific research (Fontanella & Melo, 2023; Yin, 2023). Table 3 details this evolution, contrasting traditional characterization variables with the emerging variables noted above.

Figure 1. Frequency of Convergences Identified in the Literature.

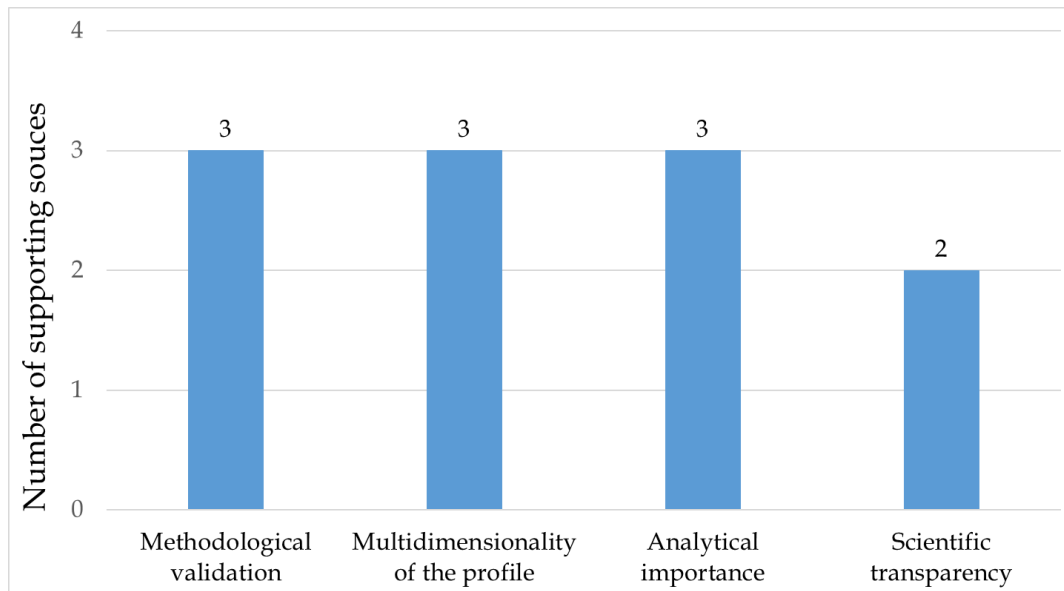


Table 3. Evolution of Variables Used in Participant Characterization.

Variable Category	Traditional Variables	Emerging Variables (2023-2026)
Demographic	Age, sex, marital status	Gender and gender identity
Educational	Education level and academic background	Digital skills and information literacy
Socioeconomic	Income, occupation, and social class	Social vulnerability and economic inclusion
Cultural	Religion and geographic origin	Cultural diversity and interculturality

Inclusion and diversity	Little explored	Sexual orientation, ethnic-racial identity, and disability
Social participation	Community participation	Digital inclusion and active citizenship

The comparative analysis of the reviewed authors also makes it possible to identify a third, hitherto underexplored, axis of convergence: all of them recognize, albeit with different emphases, that omission or superficiality in participant characterization compromises the interpretability of results. Bryman (2021) associates this omission with flaws in methodological reporting that hinder peer evaluation; Minayo (2021) relates it to a loss of contextual depth in qualitative research; and Hair et al. (2022) identify it as a source of uncontrolled bias in multivariate analyses. It is therefore clear that neglecting sample-profile characterization is not an isolated problem of a specific methodological tradition, but a cross-cutting weakness that spans different research paradigms. Table 4 summarizes the resulting gaps identified across the literature reviewed.

Table 4 Gaps Identified in the Literature.

Aspect Assessed	Situation Found
What to characterize?	Well developed
When to characterize?	Well developed
How to characterize?	Moderately developed
How to integrate profile data into results analysis?	Underdeveloped
Analytical use of participant characteristics	Insufficient

Finally, by cross-referencing the typologies proposed by Hair et al. (2022), Sampieri et al. (2022), and Creswell and Plano Clark (2021) with the characterization stages described by Creswell and Creswell (2022) and Bryman (2021), an important analytical gap becomes apparent: the literature reviewed extensively details what to characterize and when to characterize, but offers comparatively scarce guidance on how to integrate these data into the substantive analysis of results. This gap reinforces the relevance of the present article, which takes as one of its central arguments the position that participant characterization should be treated as an analytical stage of the research process, not merely a descriptive one.

4.4. Quantitative Synthesis of the Corpus

As explained in Section 2.5, inferential statistics (meta-analysis, ANOVA, significance testing) are not applicable to this narrative review of conceptual sources, since no outcome variable is measured across participants. What is informative is a descriptive quantitative synthesis of how the 30 reviewed sources distribute across six thematic axes identified during coding (Table 5); because sources can address more than one axis, columns do not sum to 30.

Table 5 Distribution of the Reviewed Corpus (n = 30) across Thematic Axes.

Thematic Axis	Sources (n)	% of Corpus
Methodological validation and credibility	14	47%
Multidimensionality and variable typology	11	37%
Sampling strategy and purposive selection	9	30%
Saturation and sample-size adequacy	8	27%
Validation criteria and reporting standards	7	23%
Ethical and inclusive characterization	6	20%

The distribution confirms, quantitatively, the pattern already seen in Table 1: methodological validation and variable typology are the most consistently addressed axes (47% and 37%), while ethical and inclusive characterization, though present in a meaningful share (20%), remains comparatively less developed – grounding the qualitative claims of Section 4 in a transparent, replicable count.

5. Discussion of Results

The findings confirm that participant-profile analysis is a first-order methodological element, not a mere academic formality. From the standpoint adopted here, characterization should be treated as a strategic analytical instrument capable of guiding data interpretation and expanding the validity of conclusions.

The literature converges on the importance of participant characterization for research quality. However, a gap persists in integrating this information into the substantive analysis of results, justifying studies that treat the participant profile not only as descriptive but as an analytical component of the investigative process.

This article therefore shares the view of Creswell and Creswell (2022), for whom the participant-characterization section is among the first to be read by reviewers and evaluators of scientific articles, precisely because it provides the framework needed to judge the relevance of the results. This perspective, however, should be complemented by the qualitative outlook of Flick (2021), who warns of the risk that excessive standardization of characterization may erase the specificities and voices of the subjects investigated.

The depth of characterization should also align with the research design: exploratory studies, where little is known about the phenomenon, demand more detailed characterization, whereas confirmatory studies may rely on more synthetic profiles once relevant variables are already established (Yin, 2023; Stake, 2021).

Ethically – a dimension often underestimated – participant characterization requires care, since presenting sensitive data, even aggregated, may allow indirect identification of subjects in small or specific communities. Methodological transparency and participant protection must coexist, sometimes requiring the

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omission of certain variables or broader categories (Minayo, 2021; Fontanella & Melo, 2023).

Incorporating new identity variables — non-binary gender, neurodivergence, intersectional markers — represents a significant advance for inclusive research, while posing instrumental and analytical challenges not yet fully resolved: an open frontier whose development remains both necessary and promising.

In practical terms, this discussion has concrete implications for research in Business Administration and Management, the disciplinary area of this article. In organizational studies, characterization should extend beyond age, sex, and education to include tenure, hierarchical level, and prior exposure to organizational change, which, per Hair et al. (2022), tend to moderate respondents' perceptions of management practices; neglecting them compromises both descriptive quality and the robustness of causal inferences.

A further tension concerns how exhaustive characterization should be without compromising readability. Sampieri et al. (2022) advocate presenting all collected variables, even in appendices, whereas Stake (2021) recommends highlighting only variables actually mobilized in interpreting results. This article adopts an intermediate position: the extent of characterization should be proportional to its explanatory relevance, avoiding both informational overload and the omission of seemingly secondary variables that may prove decisive at the analysis stage.

Finally, participant-profile characterization can and should be mobilized as a crosscutting analytical variable in a study's substantive results, rather than presented in isolation at the start of the results section. Following the fourth stage proposed by Stake (2021) and Fontanella and Melo (2023), profile data should be reincorporated into the discussion, checking whether perceptions vary by experience, hierarchical level, or region — transforming characterization from a protocol element into an effective analytical tool.

6. Conclusion

6.1. Summary of the Authors' Contributions

The authors consulted in this review converge on the understanding that the analysis of participant profiles is a structuring component of scientific research. Creswell and Creswell (2022) and Bryman (2021) emphasize its validating function, while Flick (2021), Stake (2021), and Minayo (2021) highlight its interpretive potential and its role in the contextualized understanding of phenomena. Sampieri et al. (2022) and Hair et al. (2022) underscore the importance of sociodemographic variables for statistical analysis, whereas Fontanella and Melo (2023) and Yin (2023) broaden the debate by incorporating identity and ethical dimensions. Creswell and Plano Clark (2021) offer

an integrative synthesis by proposing typologies that articulate quantitative and qualitative approaches.

6.2. Author's Position

From the standpoint of this article, the analysis of participant profiles should be elevated to the status of a central, rather than peripheral, analytical instrument of scientific research. It is argued that the characterization of subjects should be planned with the same rigor devoted to the data-collection instrument and the theoretical framework, integrating organically into the research design. This article aligns with the integrative perspective of Creswell and Plano Clark (2021) and further contends that participant characterization, when treated as an analytical instrument, is capable of revealing patterns and tensions that significantly enrich data interpretation.

6.3. Future Perspectives, Suggestions, and Proposed Improvements

Based on the findings of this review, four priority future perspectives are identified. First, the development of standardized, validated instruments for collecting profile data, adapted to different fields of knowledge, is recommended, as this would facilitate comparison across studies and advance systematic reviews.

Second, it is proposed that the editorial guidelines of scientific journals include minimum requirements for presenting participant profiles, similar to existing guidelines for clinical trial reporting (such as CONSORT) and for qualitative studies (such as COREQ). Such standardization would raise the methodological quality of publications and facilitate critical appraisal by reviewers.

Third, future research is recommended to investigate the impact of emerging identity variables — such as non-binary gender, neurodivergence, and intersectional markers — on the phenomena studied across different scientific fields, contributing to the construction of analytical categories that are more inclusive and representative of human diversity.

Finally, a research agenda is proposed to evaluate the impact of characterization quality on studies' reproducibility indices. It is hypothesized that studies with more rigorous and detailed characterizations present greater reproducibility potential — a hypothesis that merits systematic empirical investigation in the coming years.

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