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Determining Sample Size in Qualitative Research: Implications for Sport Management Studies

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Article Info	Abstract
Article type: Research Article	Determining an appropriate sample size remains one of the most debated methodological challenges in qualitative research, with particular relevance for the expanding field of sport management. Because qualitative inquiry prioritizes depth, richness, and contextual understanding rather than statistical generalization, numerical guidelines must be viewed as flexible rather than prescriptive. This review synthesizes key principles, debates, and empirical evidence related to sample size determination across qualitative traditions and examines their implications for sport management studies. Existing recommendations vary widely, ranging from single cases in narrative or case study designs to more than 50 interviews in large-scale or multi-site projects. Frameworks such as data, thematic, meaning, and theoretical saturation remain influential, although their applicability differs across methodologies. Emerging approaches, including the concept of information power, emphasize the importance of research aim specificity, participant relevance, and analytic depth in shaping sample adequacy. Despite these developments, sample size justification in sport management research is often inconsistent, overlooking the field's heterogeneity and the complexity of its organizational settings. This review highlights the need for sport management researchers to avoid universal numerical rules and instead adopt flexible, transparent, and methodologically aligned approaches to sample size determination. Considerations such as the focus of the research question, participant homogeneity or diversity, analytic aims, and data quality should guide decisions more than predetermined counts. Strengthening transparency and grounding sample size decisions in principles such as saturation or information power will enhance the credibility and trustworthiness of qualitative sport management research and support the continued maturation of the discipline.
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Introduction

Sport management is an emerging and rapidly developing academic discipline that is relatively new compared to fields such as medical sciences, law, and education (Li et al., 2008). Like other disciplines, the advancement and maturation of sport management depend on systematic scientific inquiry. Research is defined as an organized process of collecting and analyzing data to answer scientific questions (Pitney & Parker, 2009). More specifically, research in sport management involves the systematic, purposeful collection, analysis, and interpretation of data (information units) to generate new knowledge or validate existing knowledge within the sport management domain (Li et al., 2008). Although research is inherently systematic and serves to advance understanding within a discipline—or contribute meaningfully to a related field—the methodological approaches in quantitative and qualitative research differ substantially (Pitney & Parker, 2009). Unlike quantitative inquiry, qualitative research extends beyond simple investigation; it is fundamentally an interpretive process grounded in the meanings individuals ascribe to their experiences. Qualitative research is generally more fluid, flexible, and responsive to data compared with quantitative approaches, making it particularly suitable for exploring complex, ambiguous, or under examined phenomena (Li et al., 2008). One of the most frequently discussed—and at times debated—issues in qualitative research is determining an appropriate sample size. Because qualitative researchers rarely seek to generalize their findings, large samples are uncommon (Pitney & Parker, 2009). Nonetheless, a critical question arises: How many participants are sufficient for conducting qualitative research in sport management? Given the substantial growth of qualitative research in sport management, there is a pressing need to address methodological ambiguities, particularly those related to determining sample size. In sport management—where research spans diverse areas such as leadership, policy-making, fan behavior, athlete development, and organizational culture—establishing an appropriate sample size is essential. This decision affects not only the credibility and dependability of the findings but also the feasibility and ethical integrity of the research process. Despite its importance, there remains a lack of consensus and standardized guidance on how sample size should be determined, justified, or reported in qualitative studies within sport management. The purpose of this review is to critically examine the current landscape of sample size determination in qualitative sport management research. It explores how sample size is conceptualized, reported, and justified in the literature, and identifies prevailing patterns, gaps, and best practices. By doing so, this article aims to provide clearer guidance to researchers, reviewers, and students navigating the methodological complexities of qualitative inquiry in sport management contexts.

Sample Size in Qualitative Research

Experts in qualitative research argue that there is no straightforward answer to the question of how many participants are required, as sample size depends on a variety of epistemological, methodological and practical considerations (Baker & Edwards, 2012). Consequently, despite increasing attention to rigor in qualitative inquiry, the reporting of sample size and the assessment of its adequacy remain inconsistent and often superficial across many research fields (Vasileiou et al., 2018). Although some qualitative researchers have offered numerical recommendations for determining sample size, these figures should be interpreted cautiously. Creswell (2007) for example, noted that in certain qualitative designs such as case studies or narrative inquiries, a single individual may constitute the entire sample. Kuzel (1992) recommended 6 to 8 interviews for a homogeneous sample, while Bertaux (1981) stated that at least 15 interviews are necessary for a qualitative study. Creswell (2009) suggested that 5 to 25 interviews may suffice, whereas Morse (2000) proposed a much larger range of 30 to 50 interviews. Green and Thorogood (2004) argued that in studies with a focused research question, little new information tends to emerge after approximately 20 interviews within an analytically coherent participant group. Britten (1995) suggested that large-scale qualitative studies may require 50 to 60 interviews, whereas Ritchie et al. (2003) advised researchers not to exceed 50 interviews in individual interview studies to ensure manageable analytic complexity. As a result, sample sizes in qualitative research may range from a 1 participant to approximately 60 (Pitney & Parker, 2009). In studies that rely on open-ended

questionnaires, where interaction between researcher and participant is limited, Tran et al. (2016) recommended distributing at least 150 questionnaires to ensure adequate data. Although such numerical recommendations are conceptually useful, they cannot determine sample size in advance with precision; rather, they provide a general sense of the number of participants that may be needed (Abdul Majid et al., 2018).

Beyond numerical guidelines, qualitative methodologists have proposed broader principles for determining sample size. Sandelowski (1995) argued that qualitative samples should be large enough to allow the emergence of rich and meaningful insights, yet small enough to permit an in-depth, case-oriented analysis. Similarly, Morse (2000) emphasized that the more detailed and high-quality the data obtained from each individual, the fewer participants are required. She recommended that researchers consider factors such as the scope of the study, the nature and complexity of the phenomenon, the accessibility of participants, the quality of data and the study design. Brown and Clark (2006) also, have noted that in determining an appropriate sample size, it is essential for the sample to be sufficient for generating themes and conducting complex analysis (i.e., data quality and richness are more important than mere “quantity”). Guest et al. (2006) argued that when the aim is to explore variation among participants, a larger sample may be necessary. Malterud et al. (2021), drawing on the principle of information power, suggested that the greater the information power of the sample, the smaller the required sample size will be. Kumar (2005) argued that when the purpose of a study is to investigate or describe aspects of a phenomenon to uncover new evidence, the sheer number of participants is not the primary concern; instead, achieving saturation is more important, an idea also emphasized by Dibley (2011). As a result, saturation has become one of the most widely invoked principles for determining sample size and assessing its adequacy in qualitative research (Abdul Majid et al., 2018).

The concept of saturation originates in grounded theory (Creswell, 2024) and was first articulated by Glaser and Strauss (1967), who defined it as the point at which no new data or insights emerge from ongoing interviews (Abdul Majid et al., 2018). Morse (1995) described saturation as central to high-quality qualitative research and emphasized the importance of documenting when and how saturation was achieved. Saturation is often described as the “gold standard” in qualitative inquiry (Guest et al., 2006; Fusch & Ness, 2015). Researchers use various forms of saturation, including data saturation, when no new data are generated; thematic saturation, when no new themes emerge during analysis; meaning saturation, when the full depth and nuance of each theme has been fully understood; and theoretical saturation, when all main and subsidiary categories and their relationships have been identified and additional data offer no further theoretical insight. Despite its influence, some qualitative researchers argue that saturation is less applicable for certain methodologies, such as discourse analysis (O’Reilly & Parker, 2013), phenomenology (Manen et al., 2016), and thematic analysis (Braun & Clarke, 2021), and others challenge the concept more fundamentally (Nelson, 2017). Although saturation remains central to qualitative sampling, there is limited evidence indicating exactly when saturation occurs (Bowen, 2008), and few studies provide detailed accounts of how saturation was determined (Guest et al., 2006). In response, several empirical investigations have attempted to estimate the number of interviews needed to achieve saturation. Bavik (2016) suggested that 18 interviews may be required. Guest et al. (2006) found that 12 interviews could be sufficient in homogeneous samples with focused research aims, although more diverse samples may require larger numbers. Abdul Majid et al. (2018) also reported achieving saturation at 12 interviews. Hagaman and Wutich (2017) observed that multi-site or cross-cultural studies may require 20 to 40 interviews for saturation of meta-themes. Francis et al. (2010) reported that 17 interviews were adequate to saturate pre-existing theoretical constructs. More recently, Wutich et al. (2024) proposed 9 interviews for code

saturation, 24 for meaning saturation, and between 20 and 30 for theoretical saturation. Hennink et al. (2017) similarly found that code saturation may be reached with 9 interviews, while meaning saturation requires between 16 and 24.

Table 1 synthesizes major recommendations for determining sample size across different qualitative research contexts, highlighting the substantial variability that exists in published guidelines. Rather than presenting a universal standard, the table demonstrates that appropriate sample size is highly dependent on research design, epistemological orientation, participant characteristics, and analytic goals. The smallest sample sizes are found in case studies and narrative inquiries, where a single participant may be sufficient to provide an in-depth, context-rich account. Early guidelines for qualitative interviews suggested modest sample sizes of 6–8 participants when working with homogeneous groups, while other foundational scholars proposed minimum thresholds of 15 participants for basic qualitative projects. More general recommendations—such as Creswell’s range of 5 to 25 interviews or Morse’s broader range of 30 to 50—reflect the diversity of qualitative traditions and analytical demands. Some guidelines emphasize practicality and analytic manageability. For example, Ritchie et al. (2003) argue that datasets exceeding 50 interviews become difficult to analyze in depth, whereas authors like Britten (1995) note that extensive national or multi-site studies may require 50–60 interviews due to their broader scope.

A significant portion of the table focuses on empirical studies examining data saturation, revealing considerable consistency across findings. Many saturation studies report that homogeneous samples reach saturation between 9 and 12 interviews, though more complex or cross-cultural projects may require 20–40 interviews. Recent distinctions between code, theme, meaning, and theoretical saturation further refine these estimates, indicating that deeper interpretive objectives demand larger sample sizes. Finally, contexts with limited participant–researcher interaction—such as open-ended questionnaires—require substantially higher numbers (≥ 150) to ensure adequate data richness. Overall, the table illustrates that qualitative sample size decisions must be contextually grounded and justified rather than determined by fixed numerical rules.

Table 1- Recommended sample size in qualitative research types

Study Type/Context	Recommended Sample Size	Notes/Rationale	Reference
Case study / Narrative inquiry	1 participant	Single case may suffice	Creswell (2007)
Homogeneous sample (early guideline)	6–8 interviews	For focused homogeneous groups	Kuzel (1992)
Minimum for qualitative studies	≥ 15 interviews	Basic minimum threshold	Bertaux (1981)
General qualitative studies	5–25 interviews	Common recommended range	Creswell (2009)
General qualitative studies (broader scope)	30–50 interviews	Larger, more diverse projects	Morse (2000)
General interview studies	~20 per analytically relevant category	Little new info after ~20	Green & Thorogood (2004)
Focused interview studies	~20 interviews	Little new information after ~20	Green & Thorogood (2004)
Interview-based studies (manageable analytic load)	≤ 50 interviews	Analysis becomes unmanageable beyond this	Ritchie et al. (2003)
Large-scale qualitative studies	50–60 interviews	Common for extensive	Britten (1995)

Study Type/Context	Recommended Sample Size	Notes/Rationale	Reference
		national/large projects	
Qualitative research overall	1–60 participants	Wide expected range	Pitney & Parker (2009)
Open-ended questionnaires	≥150 questionnaires	Low interaction → need higher sample	Tran et al. (2016)
Multi-site / cross-cultural qualitative research	20–40 interviews	Needed to saturate cross-site meta-themes	Hagaman & Wutich (2017)
Homogeneous samples (empirical saturation test)	~12 interviews	Saturation reached early in homogeneous datasets	Guest et al. (2006)
Grounded theory	20–30 interviews	Theoretical category saturation	Marshall et al. (2013)
Single-case qualitative studies (intensive)	15–30 interviews	Ensures depth for single-case designs	Marshall et al. (2013)
Saturation point (empirical)	18 interviews	Saturation detected at 18	Bavik (2016)
Saturation (general focused research)	12 interviews	Saturation often around 12	Guest et al. (2006)
Saturation (applied qualitative)	12 interviews	Empirical support	Abdul Majid et al. (2018)
Theory-driven content analysis	17 interviews	All pre-specified constructs saturated	Francis et al. (2010)
Code saturation	9 interviews	No new codes after ~9	Hennink et al. (2017)
Meaning saturation	16–24 interviews	Needed for depth, nuance	Hennink et al. (2017)
Theoretical saturation	20–30 interviews	Sufficient for category-level saturation	Wutich et al. (2024)
Theme saturation	9–24 interviews	Theme vs meaning saturation differences	Wutich et al. (2024)
General saturation range (evidence synthesis)	5–24 interviews	Common saturation interval across studies	Saunders et al. (2021)

Application in Sport Management: A Case Example

The study “Exploring the reasons for preferring digital games over physical activity games in adolescents” (Asefi et al., 2024) exemplifies a context-sensitive approach to sample size in sport-related qualitative research. The study aimed to understand adolescents’ preferences and behaviors regarding digital and physical activity games, recruiting 21 male adolescents aged 11–19 from Isfahan, Iran. Participants were selected based on accessibility, gaming preference, and adherence to WHO guidelines for physical activity and screen time. Semi-structured interviews were conducted, lasting 35–60 minutes, and analyzed using thematic analysis (Braun & Clarke, 2006). Sample size justification relied primarily on information power. The study aimed for a sufficiently large and diverse sample to capture variations in gaming behaviors and physical activity engagement. The combination of a focused study aim, specific participant characteristics, high-quality interview dialogue, and rigorous thematic analysis ensured that 21 interviews provided sufficient data richness. This practical example illustrates how theoretical frameworks such as information power can guide sample size decisions in applied sport management research, balancing methodological rigor with practical constraints.

Discussion

This review highlights that determining an appropriate sample size in qualitative sport management research remains a complex methodological decision shaped by epistemological stance, research design, and the purpose of the inquiry. Unlike quantitative paradigms—where sample sizes are often statistically derived—qualitative research prioritizes depth, richness, and contextual understanding. Accordingly, numerical recommendations function only as general guidelines rather than prescriptive rules. As the literature demonstrates, suggested sample sizes vary widely, ranging from a single participant in narrative and case study designs to more than 50 interviews in large-scale projects, and from small interview samples to at least 150 respondents in studies employing open-ended questionnaires.

This variability does not reflect methodological inconsistency but rather the flexible and iterative nature of qualitative inquiry. Across the broader social sciences, saturation has emerged as the most influential principle guiding sample size decisions. Saturation—whether conceptualized as data, code, meaning, theme, or theoretical saturation—remains the most commonly cited benchmark. However, the concept is not universally applicable. Scholars in discourse analysis, phenomenology, and reflexive thematic analysis argue that saturation may conflict with the philosophical assumptions underlying these approaches. They suggest that alternative frameworks, such as analytic sufficiency or information power, may be more appropriate. Evidence reviewed in this article indicates that saturation may occur relatively early in homogeneous samples (often between 9 and 12 interviews), whereas more complex, heterogeneous, or multi-site studies require larger samples to adequately capture contextual variability.

These debates hold particular importance within sport management. Sport organizations, athletes, administrators, fans, and policymakers represent diverse populations with varied experiences, motivations, and cultural backgrounds. Consequently, the complexity of sport management phenomena—ranging from leadership behaviors, policy processes, and organizational culture to athlete development and consumer engagement—necessitates sample sizes tailored to both the depth and breadth of the research aims. Some topics, such as elite athlete identity or board-level governance dynamics, may be effectively explored with small, information-rich samples. In contrast, inquiries involving diverse fan bases, cross-cultural sport development initiatives, or multi-level policy systems may require substantially larger and more heterogeneous samples. The case example of Asefi et al. (2024) illustrates how qualitative sport management research can justify sample size through the principle of information power rather than reliance on numerical norms. Their decision to recruit 21 adolescents was informed by the specificity of the research aim, the relevance of participant characteristics, and the richness of the interview data. This example demonstrates that explicit methodological justification—rather than adherence to generic numerical expectations—enhances the credibility and transparency of qualitative sport research. Despite this, sample size justification remains inconsistently reported in many sport management publications, where numerical counts are often presented without reference to methodological principles.

Taken together, the evidence suggests that qualitative sport management researchers should avoid defaulting to predetermined numerical conventions and instead provide a clear, contextually grounded rationale for sample size decisions. Such justification should reflect the aims of the study, the research design, the heterogeneity of the participant population, the complexity of the analysis, and practical considerations such as participant access, ethical issues, and constraints inherent in sport settings. As qualitative research continues to expand within sport management, enhanced transparency and methodological reflexivity will strengthen the credibility of the field and improve the trustworthiness of its findings.

Conclusion

This review synthesizes and evaluates principles, guidelines, and empirical evidence pertaining to sample size determination in qualitative research. Although numerical recommendations vary widely across qualitative traditions, no universal rule exists for determining the appropriate sample size. Instead, sample size must be aligned with the purpose of the study, the nature of the phenomenon under investigation, the methodological approach, and the depth of understanding sought. Evidence from the broader qualitative

literature indicates that saturation remains one of the most robust and widely applied frameworks for guiding sample size decisions. However, saturation is not suitable for all qualitative methodologies used in sport management, underscoring the need for methodological flexibility and explicit justification. In this regard, the concept of information power—emphasizing the specificity of research aims, the relevance of the sample, the quality of dialogue, and the chosen analytic strategy—offers a particularly useful and adaptable framework for researchers studying complex or underexplored sport-related topics. Given the diversity of research contexts, participant groups, and organizational environments within sport management, sample size should be justified transparently rather than selected by convention. The field would benefit from greater methodological rigor in reporting how sample sizes were determined, how sample adequacy was assessed, and how principles such as saturation or information power were operationalized. Strengthening these practices will enhance the credibility and trustworthiness of qualitative findings and contribute to the continued maturation of sport management as an academic discipline. Future research should extend current methodological discussions by examining how sample size decisions are made in practice across sport management subfields, exploring researchers' reasoning processes, reporting practices, and challenges specific to sport contexts. Such efforts will support the development of more coherent methodological standards, greater clarity in qualitative research design, and a stronger foundation for qualitative scholarship within the discipline.

Implications for Sport Management Researchers

Sport management researchers should avoid relying on universal numerical rules for sample size and instead emphasize flexibility, transparency, and methodological alignment, determining sample adequacy through guiding principles rather than fixed counts. The clarity and specificity of the research aim are central: narrow, focused inquiries—such as examining athlete experiences within a single team—may achieve sufficient depth with a relatively small sample (often around 9–15 interviews), whereas broader, multi-level, or cross-cultural topics, including fan behavior across markets or sport development initiatives, may require substantially larger samples, sometimes 20–40 interviews or more.

The nature and heterogeneity of the participant group likewise influence sample size; homogeneous groups frequently reach saturation around 9–12 interviews, while heterogeneous or multi-site samples may necessitate 30 or more participants to capture meaningful variation.

The analytic approach and the depth of interpretation sought further shape sample needs, as studies aiming for basic code, or theme-level patterns may require fewer participants, while research seeking meaning saturation, theoretical development, or cross-case analysis typically benefits from larger samples, often within the 20–30 range. Throughout this process, researchers should attend to the principle of information power, recognizing that well-aligned, information-rich samples may justify smaller numbers, whereas broad aims or thin data require more extensive sampling. Although many qualitative sport management studies commonly fall within a working range of 10–30 participants, this should be treated as a practical reference point rather than a prescriptive standard. Ultimately, researchers must provide explicit, conceptually grounded justification—drawing on saturation, information power, and analytic purpose—rather than relying on numerical conventions.

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