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REVIEW

Scoping Review of Qualitative Evaluation Methods for Mono- and Interprofessional Consultations – What Needs to Be Known and Considered?

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Abstract: Qualitative evaluation of healthcare consultations offers a profound understanding of the communication dynamics between healthcare providers and patients, fostering active patient involvement in their treatment. This scoping review aims to provide an overview of existing qualitative evaluation methods used in the context of monoprofessional as well as interprofessional consultations. Studies including qualitative and mixed-methods approaches published between 1990 and 2020 were examined across PubMed, PsycINFO, EBSCO CINAHL, Cochrane, and PEDro databases. Utilizing the JBI appraisal checklist for quality assessment, 54 studies were included (51 mono professional, 3 interprofessional consultations). Furthermore, this review identified 58 diverse qualitative methods, with content analysis emerging as the most prevalent. Qualitative methods pose both challenges and opportunities, urging researchers to carefully consider their suitability for specific research objectives. By presenting various qualitative assessment methods, it is possible to evaluate consultations in depth and thereby strengthen communication between patients and providers.

Keywords: consultations, content analysis, interprofessional collaboration, patient-oriented communication, qualitative methods, evaluation

Introduction

Successful patient-provider communication is a cornerstone in effective patient education and treatment. Despite the knowledge that evidence-based and activating communication has benefits for achieving treatment goals and improving quality of life, patient-centered communication is lacking in clinical practice.[1,2] Through an interprofessional approach in consultations, this can be increasingly addressed, while still posing challenges in implementation.[3,4] The reasons for this are manifold and multidimensional. System aspects such as limited time and human resources as well as lacking provider competencies may impair patient-provider communication. In addition, providers are often not aware of the importance of successful communication and their capabilities.[5]

To enable patients to take an active role in counseling to make informed and self-determined treatment decisions, it is worthwhile to examine detailed patient-provider interactions. Qualitative analysis of consultations is well-suited to obtain an in-depth understanding of interactions in real life. Qualitative methods differ from quantitative methods in many ways including philosophical foundations, application of theory, and research designs.[6] The potential of qualitative research in the context of health care has already been described in detail by Sofaer[7] and Ohlbrecht.[8] Accordingly, qualitative evaluation methods provide a way to understand complex, dynamic, and multi-dimensional interrelationships which can help to explain important realities. They improve understanding of the context of events as well as the events themselves by giving a voice to those who otherwise do not have their say (eg, patients). In addition, the use of qualitative methods helps develop theories or generate hypotheses in the initial phase of the investigation. Also, they can identify patterns and configurations among influencing factors, make distinctions, and explore hypotheses. Therefore, qualitative research not

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only serves to describe events and their contextual factors but also contributes to explaining the studied circumstances and their interactions.[7]

This scoping review intends to provide a comprehensive overview of the current landscape of qualitative evaluation methods employed in analyzing healthcare consultations. Its objective is to delineate and evaluate the challenges and potential applications of these methods across both monoprofessional and interprofessional contexts. By underscoring the significance of this research, it emphasizes its pivotal role in addressing the identified deficiencies prevalent in patient-centered communication within clinical settings. In addition, the innovative use of qualitative approaches to uncover different nuances in the dynamic interactions between patients and healthcare providers is emphasized. Currently, there is a noticeable gap in the literature regarding a consolidated and comprehensive overview of the various qualitative methods used for analyzing patient-provider interactions. The present research aims to bridge gaps in the current literature, guiding future research and potentially influencing improved strategies for healthcare communication. The explanation of the advantages and disadvantages serves to enable researchers to choose the right method for their specific setting, so that a high quality of research can be pursued.

Methods

Search Strategy

This scoping review was conducted following the PRISMA-ScR statement.[9] A systematic search strategy was developed, and studies were identified by five authors (JB, BK, HD, UB, NK) in the databases PubMed, PsycINFO, EBSCO CINAHL, Cochrane, and PEDro up to October 2021. An open search in all databases was conducted to capture potentially matching studies in their entirety. The search keys used included terms such as "monoprofessional and interprofessional consultations" and "qualitative research Methods". All study types reporting on qualitative methods, including mixed-methods studies, providing knowledge about patient-provider consultations, and published between 1990–2020 were eligible for inclusion. The detailed search key was customized for each database. An insight of the search strategy can be found in Appendix 1.

Data Collection

Title and available abstracts of all studies identified in the initial search using the Rayyan systematic review tool were independent assessed by five authors (JB, BK, HD, UB, NK).[10] Records that appeared to meet inclusion criteria and those with insufficient abstract details were considered for full-text screening and evaluated against defined inclusion criteria. Only studies that used audio recordings were included to analyze the entire course of interaction fully and unbiasedly. Studies that used methods other than audio recordings to analyze the interactions may not have been included as they could not represent the full interactions Audio recordings also have the advantage of being more applicable to clinical practice than video recordings and are more likely to meet with patient and provider consent. The inclusion and exclusion criteria are listed in Table 1. Any discrepancies were resolved by consensus within the research team.

Data Extraction and Management

Study characteristics of included publications were summarized in (author, setting, types of counselors, in collaboration with, counseling intervention, analysis method, main outcome, advantages and disadvantages of the method) one table. Each member of the full-text screening team reviewed an equal number of full-text studies. Any discrepancies in data extraction were resolved by discussions between the authors of the screening group within regular meetings.

Quality Assessment

Quality assessment was performed using the JBI appraisal checklist for qualitative research by all six authors (JB, BK, HD, UB, NK, MS).[11] The purpose of this assessment is to determine study quality, transferability, and trustworthiness. All included studies underwent rigorous and independent assessment by two critical reviewers. Conflicts were resolved through discussion among the research team. The results of this assessment were used to synthesize and interpret the study results.[11]

Table 1 Inclusion and Exclusion Criteria of the Full-Text Screening

Inclusion Criteria	Exclusion Criteria
Methods • Qualitative methods • Mixed-methods **Consultations** • Primary data collection of consultations **Setting** • Inpatient area • Outpatient area **Patients** • All patients • Parents of diseased children **Provider** • All kind of health care provider **Data** • Audio-recordings only	**Methods** • Quantitative methods **Consultations** • Secondary analysis of consultations **Setting** • Outside health care system **Patients** • Persons without diseases • Parents of healthy children **Provider** • Persons who do not belong to a health profession **Data** • Field notes **Analysis** • Quantitative analysis of qualitative data (RIAS, Verona coding etc).

Results

The Results of the study selection are shown in the PRISMA flowchart[9] in Figure 1. A total of 54 studies (51 monoprofessional, 3 interprofessional consultations) published between 2006 and 2019 were included in this review. Study characteristics can be found in Appendix 2 (monoprofessional) and Appendix 3 (interprofessional).

Monoprofessional Consultations

Most of the included studies were observational studies,[12–33] followed by mixed-methods studies,[34–48] exploratory studies,[49–54] and qualitative studies[55–59] as shown in Figure 2. Other study designs include intervention studies[60,61] and a collaborative study.[62] In general, studies may have different methodological characteristics, which may lead to overlap between different categories. However, in the context of this specific study, each study was specifically categorized based on its predominant methodological characteristics as described in the original publications.

Most monoprofessional consultations were conducted by physicians (n=28), or by nurses (n=14). In 7 studies, patients were consecutively consulted by two different professions (oncologists, physicians, surgeons, pharmacists, and nurses). Five studies examined a multiprofessional counseling approach, meaning that patients were counseled consecutively by more than two professions (oncologists, physicians, nurses, physician assistants, social workers, pharmacists, general practitioner, central assessors, and healthcare providers). Cancer patients (n=24) were the most frequently counseled population, followed by other chronically ill patients (n=8). In 8 studies, the patient samples were not described. The most common counseling content was treatment management (n=19); other counseling topics and their frequencies are shown in Figure 3.

A total of 58 different qualitative analysis methods and theoretical framework models were identified within the monoprofessional consultations, with qualitative content analysis (QCA) (n=11) and conversation analysis (CA) (n=11) being the most frequently used methods. Other possibilities of qualitative analysis of monoprofessional consultations were discourse analysis (DA) (n=6) and framework analysis (n=5). For a clearer presentation, sub-methods with similar analytical procedures were assigned to the main analysis method. For example, the "QCA " method also contains modified variants, such as those of Kuckartz or Mayring. An overview of all qualitative methods can be seen in Figure 4. The three most frequently used methods are described in more detail below. In addition, Table 2 provides an overview of the advantages and disadvantages of the five most frequently used methods.

Content Analysis

Qualitative content analysis (QCA) is increasingly used in the medical context for the systematic evaluation of patient and provider interviews and other qualitative data as focus groups or participant observation. In this context, QCA can be seen as a part of empirical research that helps to gain new insights for improving health care and treatment. Phillip Mayring and

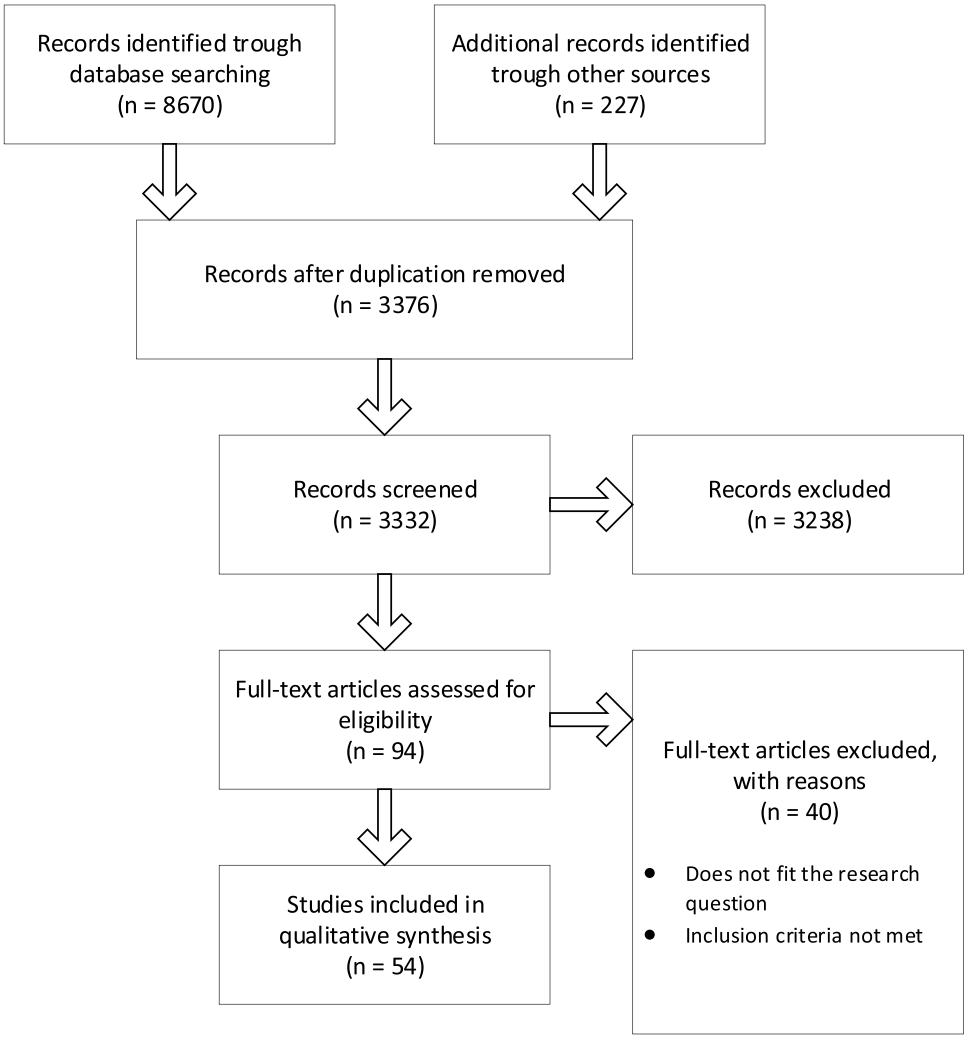

Figure 1 PRISMA flowchart.

Udo Kuckartz are among the most important representatives of QCA. Both emphasize the foundation of QCA procedures in hermeneutics, but also emphasize the systematic nature of the procedure and the orientation towards methodological quality criteria as central defining characteristics. While Philipp Mayring understands QCA essentially as a theory-guided procedure, Udo Kuckartz emphasizes the importance of the development of categories (also) on the material.[74] There is no consensus on what exactly constitutes QCA, but in general, it is a data-reducing method for capturing textual meanings. Data reduction is not seen as a disadvantage, but as a necessity to accurately capture relevant aspects of the material, which results in an advantage for the generation of results. A crucial aspect of the QCA is the systematic nature, that is, the rule-based, step-by-step approach according to predefined techniques.[63,64] The most important points are working with a category system as an analysis tool and breaking down the material into processing units. Where such an approach seems appropriate to the subject, it leads to significantly more precise results than a "free" text interpretation and it enables checking quality criteria. QCA is also suitable for large data sets, which distinguishes it from CA.[63]

A disadvantage of the method is that non-verbal aspects are not considered. In addition, the QCA may be considered vulnerable to attack, because a supposedly arbitrary interpretation is hardly verifiable intersubjectively.[75] Furthermore, Mayring's flow model (one QCA option) bears the risk that content nuances are lost due to hastily formed categories to reduce complexity. Another disadvantage of Mayring's QCA is that paraphrases, rather than the actual text, are used for explanation.[64] For example, this was done in the study of Kim et al,[57] where QCA and paraphrases were used for the analytic discussions of life-sustaining measures in patients with advanced dementia (POLST).[57]

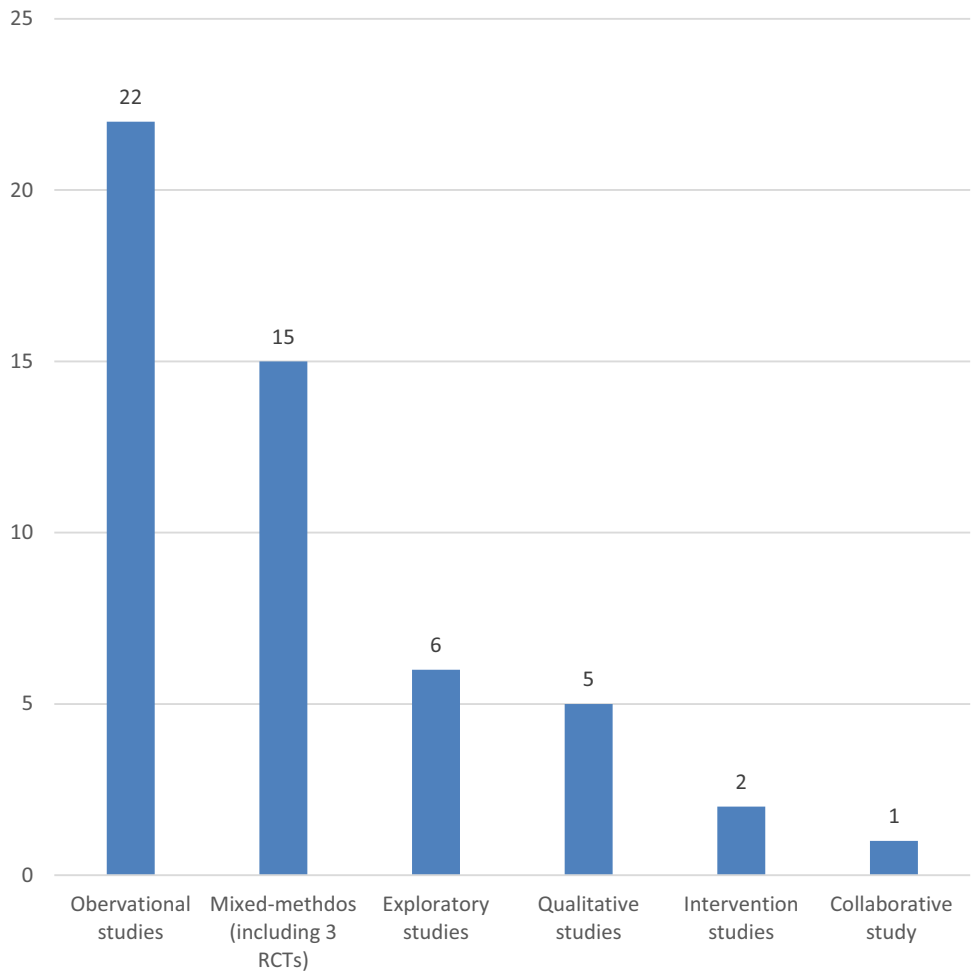

Figure 2 Study designs of monoprofessional consultations.

Conversation Analysis

CA is the name of the field of research initiated by a group of American sociologists led by Harvey Sacks and Emanuel Schegloff in the 1960s to specify and apply Harold Garfinkel's ethnomethodology. The CA examines social interaction as an ongoing process of creating and securing meaningful social order.[65] As early as 1997, a publication describedCA as a method to study doctor-patient consultations to find out what happens during the conversations.[66] CA is also suited to study healthcare provider-patient consultations in naturally occurring conversations, as opposed to an "artificial research context". The characteristics of conversation analytic theory and method imply a systematic approach to the situation-dependent organization of interaction. The approach is based on the study of utterances as social activities and their position in an organized sequence of conversation. The characterization of a particular utterance also involves the response patterns of the receiver and the understanding of language's pragmatic intentions.[67] Here the interest is not exclusively in what the participants say but also in the silence, the overlaps, the sound sections, the breathing, and so on. To show as many of these features as possible in orthographic form, the transcription of audio recordings plays a key role, although the recordings themselves are the actual source for the analysis. In the medical context, the central inquiries include patient's needs, taking a medical history, diagnosis, and counseling, all of these can be the subject of a deeper analysis.[12] Thus, CA offers many possibilities. Firstly, it is sensitive to meaning and context. This includes describing how speaker changes are handled and why language users' speech (eg, intonation, lexical choice, or syntax) is adapted to the current communicative situation or sequence of events. Second, the CA provides detailed descriptions of the data. This allows researchers to gain an in-depth understanding of specific relationships. Another feature is that it

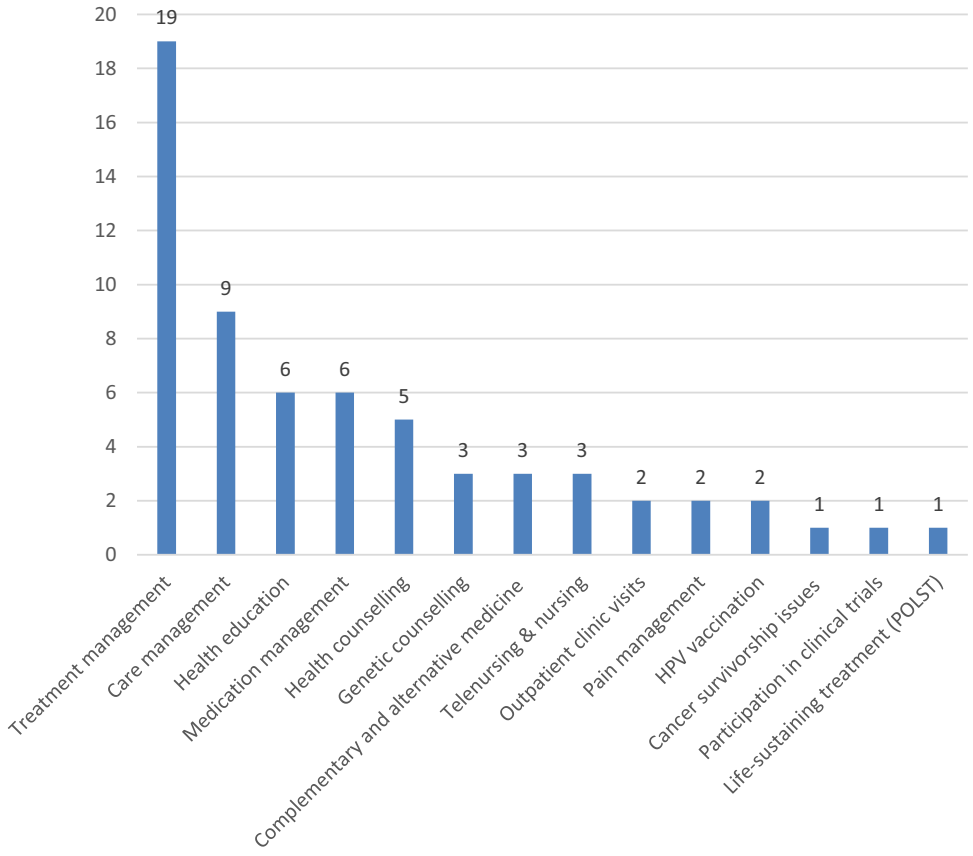

Figure 3 Consultation topics of monoprofessional consultations.

looks at the data without prior goal setting. The reason for this approach is to maintain an open-minded attitude during the investigation. To avoid influencing the data based on prior decisions by the researcher, the CA therefore suggests that researchers let the data speak for themselves.

One of the main limitations of CA is that its results cannot be transferred to other contexts. The interactions of providers and clients in a study are context-dependent and cannot be used to make assumptions about other conversational contexts. Another limitation of CA is that CA studies focus on very few data. The problem with analyzing a small amount of data is that the reliability of the findings is compromised.[76] An example of the use of CA is the study by Huber et al.[40] Here, 30 videotaped preoperative conversations were analyzed to gain an understanding of the flow and dynamics of the conversations between health professionals, patients, and informal caregivers.[40]

Discourse Analysis

Another approach to examining qualitative data is the form of discourse analysis (DA) developed by Jonathan Potter and Margaret Wetherell, who are still considered to be the main proponents of this method today.[77] Especially in medical communication DA is becoming increasingly important. The relevance of language to express feedback, healthcare needs, pain, discomfort, suffering, and anxiety, as well as to educate patients is undisputed and is considered in the context of DA.[69] DA is the generic term for a bundle of methodological-conceptual approaches, that aim to analyze regularities and orders of language, texts, text series, or corpora.[70] DA embodies two main approaches: Foucauldian DA and radical social constructivist DA. Both are underpinned by social constructionism. Social constructionism (SC) allows for a fusion of theoretical and methodological approaches tailored to a particular research interest.[71] To explain, SC shows us how we construct our knowledge or reality through our experiences, which come from stories or narratives that we deal with in our daily lives. Social constructivism emerged about 30 years ago under the collective influence of several North American, British, and Continental authors. It traces its origins to various intellectual or epistemological roots, such as existential-phenomenological

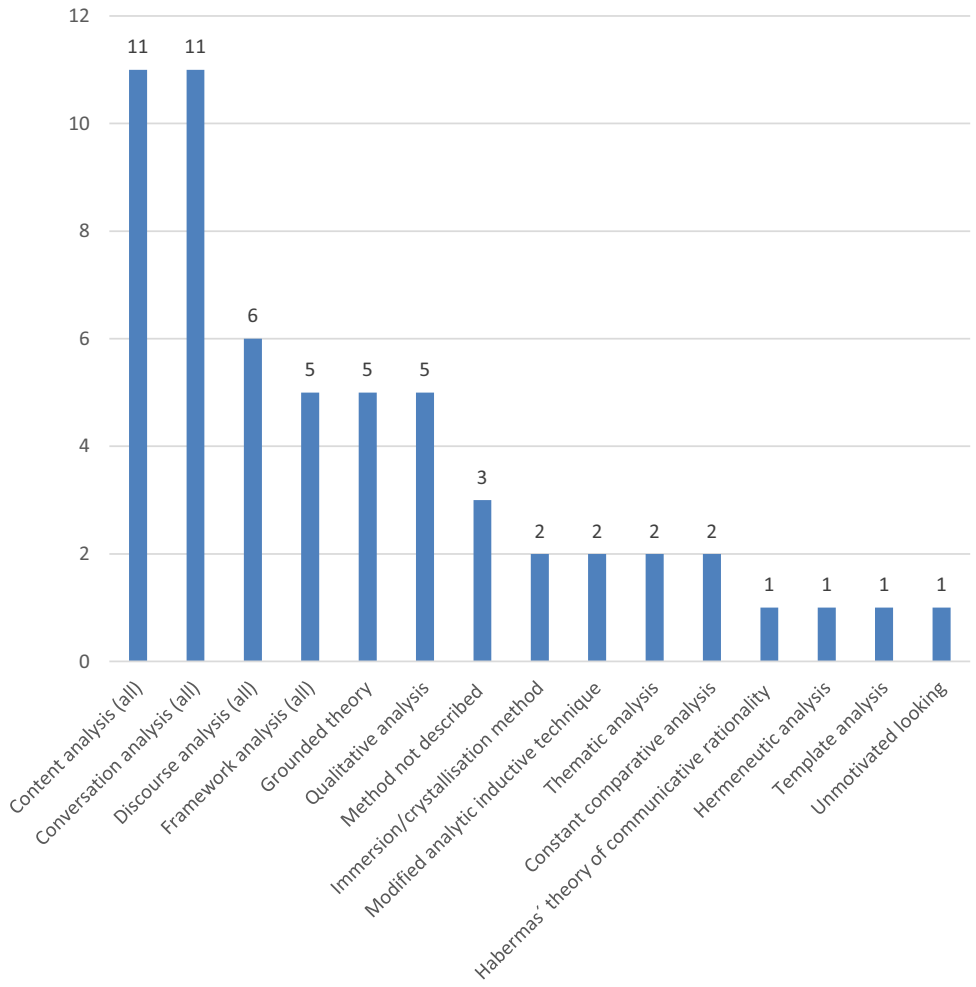

Figure 4 Overview qualitative methods used within monoprofessional consultations.

psychology, social history, hermeneutics, and social psychology. Social constructivist approaches, as part of the method of analysis, can break down dominant or established structures by focusing attention on subjective processes.[68]

CA is often cited as the starting point for DA, but in the latter, the empirical focus is more on the practices of communication and the construction of versions of events in representations and accounts, as well as the implications of those.[78] An advantage of the method is that DA can be used to examine a variety of situations and issues. It allows researchers to uncover deeply rooted attitudes and perceptions relevant to an organization's communication practices that may remain uncovered by other methods.

Meanwhile, DA is time-consuming and focuses exclusively on speech. Although language is an important component of patient communication and consultation, it rarely tells the whole story. Therefore, DA should be complemented by other qualitative techniques. DA was represented in this scoping review by the study of Babul-Hirji et al.[12] They analyzed 10 counseling consultations using a qualitative discourse analytic approach that focused on communication features (eg, question design, topic initiation, and topic control).[12]

Interprofessional Consultations

A total of three papers presenting interprofessional consultations[79–81] published between 2011 and 2019 were found. These included a prospective study, a descriptive study, and a mixed-method study. In one study, palliative patients were counseled regarding their diagnosis, treatment, and care management.[79] The consultation team was multiprofessional and included physicians, nurses, social workers, and case managers. Another study looked at counseling patients with ankle pain, back

Table 2 Strengths and Limitations of Qualitative Methods

Qualitative Method	Strengths	Limitations	Implications for Provider-Patient Communication
Content analysis (CA)	• Rule-based, step-by-step procedure according to previously defined techniques[63,64] • Suitable for large amounts of data[63] • Helps to gain new insights[63,64] • Data-reducing method for capturing textual meanings[63,64]	• Non-verbal aspects are not considered[63,64] • Arbitrariness of interpretation is hardly verifiable intersubjectively[63,64] • Assumption of similarity between foreign understanding and scientifically controlled understanding[63,64] • Loss of content nuances due to hastily formed categories[63,64] • Paraphrases for explanation and not the actual text[63,64]	• Helps to gain a better understanding of the contents of provider-patient communication by focusing only on relevant aspects[63,64]
Conversation analysis (CA)[65]	• Finds special application in the context of social sciences and humanities[66,67] • Deepening the understanding of specific contexts[66,67]	• Not suitable for large amounts of data • Results cannot be transferred to other contexts[66,67]	• Making us aware that conversation does not work by simply checking off a list of ingredients. • Conversation arises situation-specifically in a particular context, and to better understand relevant aspects and to see how conversation works, a CA is required.[66,67] • Makes it possible to identify different ways to accomplish certain medical tasks, such as in the area of diagnosis and transmission.[66,67]
Discourse analysis (DA)[68]	• Focus on practices of communication and construction[69–71] • Examining a variety of situations and issues[69–71] • Uncovering deeply held attitudes and perceptions that are relevant to communication practices[69–71]	• Takes a lot of time and effort[69–71] • Focuses exclusively on speech[69–71]	• Thereby it is possible to consider the relevance of language for patient feedback processes, their expression of healthcare needs, as well as to patient education.[69,70]
Grounded theory (GT)	• Development of a new theory (from the available empirical data)[72] • Combines the greatest possible openness towards the object of research with rule-guided theory building[72] • The categories and key categories developed in the research process can be understood as central problem or meaning attributions.[72] • The pragmatic approach of inductive category formation is especially suitable for qualitatively inexperienced researchers.[72]	• Highly time-consuming evaluation method[72] • Less suitable for closed research questions[72] • The theory can only partially satisfy the sequential derivation and testing of hypotheses[72]	• It is particularly suitable for understanding social phenomena occurring in medical contexts. Coding the data material is essentially about decoding and naming the basic problem that the actors face within the social phenomenon.[72]
Framework method (FM)	• Provides a clear step-by-step procedure to delivers highly structured results with summarized data.[73] • Suitable when multiple researchers are working on a project, where not all members have experience with qualitative data analysis, and for managing large data sets where a holistic overview of the entire data set is desirable.[73] • Data that do not come from the interview (eg, field notes from interviews) can also be included in the matrix.[73] • Not biased toward any particular epistemological point of view or theoretical approach, and thus can be adapted for inductive or deductive analysis, or a combination of both.[73]	• Time consuming and resource-intensive[73] • Does not lend itself to analysis of all types of qualitative data or to answering all qualitative research questions, ie data must cover similar topics or key issues so that it is possible to categorize it[73] • Data must cover similar topics or key questions in order to be categorized[73] • Qualitative research skills are needed to appropriately interpret the matrix and facilitate the creation of descriptions, categories, explanations, and typologies.[73]	• It is an extension of thematic analysis which can pragmatically analyse the key contents of interactions. • It can create a new structure for the data (rather than the full original participant reports) that is helpful to summarize/reduce the data in a way that can support answering the research questions.[73]

pain, head injury, and lacerations.[80] The consultations were conducted by physicians, nurses, resident physicians, and technicians. In the third study[81] parents of pediatric oncology patients were counseled about exome sequencing results. Here, the primary oncologist and genetic counselor were present. In all three studies two methods of analysis were combined.

The following qualitative analysis methods were used to examine the consultations:[1] Modified grounded theory approach; qualitative line-by-line analysis;[2] QCA; grounded theory approach;[3] Applied thematic analysis; team-based qualitative analysis. This shows consistency with the qualitative methods commonly used to analyze monoprofessional consultations. The limitations and strengths of QCA and grounded theory can be found in Table 2.

Quality Assessment by the JBI Checklist

All included studies were assessed using the JBI appraisal checklist for qualitative research (10 questions). In summary, the first question ("Is there congruity between the stated philosophical perspective and the research methodology?") was most frequently answered with "no" or "unclear". The same applies to question 6 ("Is there a statement locating the researcher culturally or theoretically?") and question 7 ("Is the influence of the researcher on the research, and vice-versa, addressed?"), while the other questions were predominantly answered with "yes". A modified version of the publication by Collet et al[82] was used to classify the study quality. Accordingly, the quality was divided into three different categories: high quality (10–8 points), moderate quality (7–5 points), and low quality (4–0 points). For each "yes" answer 1 point was awarded, the answer "unclear" resulted in 0.5 points, while "no" was assigned with no points. The analysis showed that of the total 51 studies, 33 studies were of high quality, 20 were of moderate quality, and one was of low quality. Details of the JBI appraisal can be found in Appendix 4.

Discussion

The aim of this scoping review was to outline the range of qualitative evaluation methods used in both monoprofessional and interprofessional consultations in healthcare to better understand patient-provider interactions and actively engage patients in their care. A total of 58 different qualitative analysis methods were identified, with QCA, CA, and DA being the most used methods for analyzing audio-recorded data of counseling sessions. Presenting the qualitative methods used gives researchers a quick overview of the available analysis options and their diverse applications in different contexts. This comprehensive overview enables researchers to select the most appropriate method for their specific research question and data type, optimizing the match between method choice and research objectives. Currently, research is predominantly focused on the evaluation of monoprofessional consultations, but the growing importance of interprofessional health care, which is associated with improved patient outcomes, suggests the need for a shift in focus.[83]

We showed that qualitative research of audio-recorded counseling sessions is becoming increasingly relevant in the context of medical and healthcare research, as many studies were found and have been recently published during the literature search. The reason for this is that observational studies including qualitative research serve to complement quantitative data and provide sound explanations to gain a deeper insight into healthcare from the perspective of providers and patients. As a result, optimization of health care can be achieved.[84] It is also apparent that a variety of qualitative evaluation methods are available for this purpose, and that researchers interested in applying those, need to be familiar with the different concepts and techniques.

Although the scoping review shows a clear trend in terms of the most used qualitative methods, several other methodological variants are used depending on the project and the cultural background of the researchers. These may offer great potential in the context of qualitative research but are currently less established than, for example, QCA or DA. Regardless of which method is chosen in qualitative research, researchers must be aware of the limitations and strengths to weigh which method is best suited for answering their research questions.

Knowledge of the various possibilities within the framework of qualitative research and their targeted application represents an opportunity to optimize care. Qualitative research serves to identify the causes of treatment gaps or communication deficits and thus improve patient-centered care. According to this concept, it is possible to actively engage patients as partners in the health care system and to ensure that patient preferences, needs, and values guide decision-making.[82] This may be particularly successful when counseling sessions are conducted interprofessional to advise patients holistically and from different perspectives.[85]

The scoping review showed that most consultations were mono professional; in those cases where patients were consulted by two different professional groups, this occurred consecutively. Supporting evidence suggests that the reason for this may be the difficulty of coordinating the various professional groups in the day-to-day running of the clinic.[86]

However, when interprofessional consultations with patients do occur, they are of great benefit to all involved. Patients feel well advised and taken seriously, and the counselors learn from the other profession. In addition, interprofessional collaboration increases the sense of belonging and appreciation and leads to learning more about the professional profiles of other professions. Especially in complex cases, this can reduce tensions and bring about solutions.[87] In particular, the topic of treatment management, which was most frequently addressed in the consultations, is a very encompassing topic with multiple facets. Through joint consultation with physicians and nurses, patients can receive comprehensive information ranging from medical to lifestyle issues. This extensive counseling can help improve the quality of life of the seriously ill.

Interprofessional consultations should be more implemented in the future, especially when it comes to the care of critically ill patients, such as oncology patients. These patients usually have higher counseling needs (eg, physical, or psychological counseling), and the perspectives of different professional groups can minimize burden and suffering, and each profession can target its skills A glance at the included studies shows that the interprofessional approach should continue to be strengthened in Europe as well. Only one of the three interprofessional studies originates from Europe (UK). With this in mind, qualitative research can be used to evaluate communication goals and thus adjust the implementation of communication in interprofessional tandems.

Strengths and Limitations

The strengths of the scoping review are that an overview of the state of the evidence is provided, a broad range of study designs and medical contexts have been included, and a systematic approach has been followed. This scoping review limited its search to articles published in English and did not involve grey literature, because the focus was on actual qualitative research findings.

Conclusion

This manuscript summarizes the current best available evidence regarding existing qualitative evaluation methods used in the context of monoprofessional as well as interprofessional consultations. QCA and CA were found to be most used in the context of qualitative evaluations and can be recommended to analyses of audio-recorded data of counseling sessions. While some research has focused on evaluating consultations, there exists an evident need for greater incorporation of interprofessional consultations, particularly in critically ill patient care.

The use of qualitative methods is a key recommendation resulting from this review. Qualitative methods offer a detailed view of the complex dynamics of the interaction between patient and provider, enable a deeper understanding of patient needs and facilitate more targeted and empathetic care. The targeted use of qualitative approaches could provide insights into communication patterns and help to refine and adapt strategies, especially in interprofessional settings.

Therefore, a greater emphasis on the exploration and use of qualitative methods is crucial. Further exploration of these methods would not only help to uncover the unique advantages they offer in evaluating counseling, but also highlight methods that effectively integrate different professional viewpoints in these settings. This research could promote the development of standardized guidelines for the use of qualitative analyses to ensure their consistent and effective application in the evaluation of interprofessional interactions.

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Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically

reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

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The authors report there are no competing interests to declare for this work.

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