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Doctors in Demand: Media Framing of General Practitioners in German Local Newspapers Before, During, and After the COVID-19 Pandemic

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ABSTRACT

General practitioners (GPs) are central to primary healthcare, yet their representation in local news remains underexamined. Addressing this gap, this study investigates how GPs are framed in German local newspapers between 2018 and 2023. Drawing on a quantitative content analysis of 576 articles from 112 local newspapers, the study reconstructs frames and examines their development before, during, and after the COVID-19 pandemic. The findings show that media attention to GPs increased during the pandemic and remained elevated afterward. Coverage is characterized by a persistent focus on GP shortages, structural strain, and political responsibility, while also portraying GPs as essential and trusted actors in patient care. At the same time, the analysis reveals that frames are not static: structurally rooted frames remain stable, whereas crisis-specific frames gain and lose prominence over time. The study contributes to health communication and framing research by demonstrating how local news constructs primary care through dynamic interpretive patterns.

General practitioners (GPs) play a crucial role in the healthcare system. As the first point of contact for most health concerns, they occupy a central position in primary care. Their role became even more critical during the COVID-19 pandemic, as they were directly involved in polymerase chain reaction (PCR) testing, vaccine distribution, and patient care. This highlights their essential function not only in routine healthcare but also in managing public health crises (Stark, 2024). At the same time, the healthcare sector is facing growing challenges, with studies predicting a significant shortage of medical personnel in the coming years, particularly in Germany (van den Bussche, 2019).



Given their central role in healthcare, medical professionals are frequent subjects of public attention and media portrayal. They appear in diverse formats, ranging from films and television series (e.g., Gross et al., 2012; Tapper, 2010; Turow, 2012) to social media, where they increasingly act as influencers (e.g., Bautista et al., 2021; Maggio et al., 2024), as well as in traditional news discourse (e.g., Inthorn & Bittner, 2012; Lupton & McLean, 1998; Mroz et al., 2024). The portrayal of GPs in the media offers insights into how society perceives their role and importance within the healthcare system (Medcalf & Nunes, 2018). Despite the relevance of this issue, content analyses in the field of health communication remain relatively limited, and only a few studies have examined the portrayal of health professionals and medical practices in the media (Scherer & Link, 2019). In particular, research on the representation of GPs during critical events such as the COVID-19 pandemic remains scarce (Mroz et al., 2024).

While local journalism is often overlooked, it continues to play a crucial role in covering issues of immediate relevance to

citizens and local decision-making (Hagen et al., 2025a, 2025b; Schultz et al., 2023). Even amid declining print readership, this role remains significant, as local journalism not only reflects community-level concerns but also serves as a central information resource and intermediary between citizens and political actors, thereby shaping local discourse and priorities (Fawzi et al., 2018; Hagen et al., 2025b).

This focus matters for at least three reasons. First, general practice is a strongly local field of healthcare in which structural problems are experienced most directly at the community level, especially in rural and underserved regions. Local newspapers are therefore a particularly relevant arena in which such issues are publicly interpreted and debated (Fawzi et al., 2018). Second, even though news markets have changed considerably, local journalism remains an important part of community-level public communication (Wadbring & Bergström, 2017). Third, by adopting a framing perspective, this study contributes theoretically by showing not only which frames characterize local health reporting, but also how such frames dynamically evolve across crisis periods and co-occur within articles (Foley et al., 2019; Yang & Li, 2025). In doing so, the study extends framing research toward a more dynamic and multidimensional perspective on media representations of healthcare.

Against this background, the present study examines how local news media in Germany frame GPs and their services. By focusing on local newspapers, the study addresses an empirically underexplored yet socially important arena of health communication. In doing so, it provides a basis for understanding how GPs are portrayed in a healthcare landscape marked by structural shortages, external crises, and shifting political responsibilities.

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Literature review

Media framing

Media coverage can strongly shape how GPs are perceived, largely through the ways in which they are portrayed. By emphasizing certain aspects of GPs' roles or actions, communicators, e.g., journalists, can influence audience perceptions. According to Entman (1993), this process can be described as framing. This does not necessarily mean that journalists consciously decide which frame they want to choose, framing can also occur unintentionally, while still shaping the context in which aspects are presented (Chan et al., 2024). Matthes (2014) further explains that these so-called frames can be seen as horizons of meaning, which exist both in media content and among audiences.

Health communication research has primarily examined framing effects in the context of experimental survey designs (Guenther et al., 2021). Within the news context, studies have investigated the influence of framing and sourcing in news stories (Coleman et al., 2011), the effects of emotional framing in health news headlines (Nabi et al., 2024), and the impact of alarm frames during health crises (Chang, 2012). The present study, however, shifts the focus to media frames, examining how they are constructed and evolve over time. In this context, a media frame can be understood as a way of contextualizing a topic or presenting a particular perspective within a news report. Related research in this domain has dealt, for instance, with health risk frames in newspapers (Dan & Raupp, 2018) and television news (Gollust et al., 2019) as well as global framings of the COVID-19 pandemic (Ogbodo et al., 2020). In our study, we focus on *thematic frames* in news media coverage, representing a neglected research area in health communication (Dan & Raupp, 2018). This approach also allows for deeper insights into the framing process of healthcare issues (Guenther et al., 2021).

According to Entman (1993), a frame highlights certain aspects of reality by defining problems, diagnosing causes, suggesting remedies, and making moral evaluations. In this regard, a frame is based on four elements: (1) the *problem definition* highlights a specific aspect of a topic or related actors (Matthes & Kohring, 2008). The way a problem is presented plays a crucial role in shaping its overall perception and understanding. Additionally, the topic is positioned within a specific social and temporal context, influencing how it is interpreted and discussed. For example, a commonly highlighted issue in the context of GPs could be their workload. (2) The second element of a frame, referred to as *causal interpretation*, involves attributing responsibility for the problem. These causes can be either situational or personal, and they refer to the identification and attribution of underlying factors or agents responsible for the success or failure of a given outcome (Matthes & Kohring, 2008). For instance, the excessive workload of GPs could be attributed to the COVID-19 pandemic and the immense strain it placed on healthcare professionals. The third element, *treatment recommendations*, presents potential solutions to the problem and specific calls for or against action (Entman, 1993; Matthes & Kohring, 2008). These solutions can also be either personal or situational, i.e., measures proposed to address the issue, as well as the actors

deemed responsible for implementing them. In the case of GPs, suggested remedies might include increased financial support during the pandemic or allowing pharmacists to administer vaccinations to ease the burden on doctors. The fourth element, *moral evaluation*, which Entman (1993, p. 52) describes as "moral judgment," refers to the assessment of the actors involved and the consequences of the issue. Such evaluations can be positive, negative, neutral, or even ambivalent (Matthes & Kohring, 2008). In the context of COVID-19, the portrayal of this issue could lean toward a predominantly negative evaluation, given the crucial role GPs play in the healthcare system.

Depending on the unit being analyzed, it is possible that all four frame elements are present. However, it is equally plausible that only some—or even none—of the elements appear within a given analytical unit. The understanding of a frame as a shared pattern of frame elements serves as an analytical heuristic rather than a strict requirement. In practice, frames may emphasize certain elements while omitting others, thereby making some aspects of an issue more salient than others (Entman, 1993). A frame can thus be understood as a recurring configuration of meaning that does not necessarily contain all four elements but still guides interpretation by foregrounding specific elements over others.

Framing research has increasingly emphasized that frames should not be understood as fixed and stable interpretive packages, but as patterns that may evolve over time in response to changing events, discursive contexts, and institutional conditions. Recent work has explicitly called for a more dynamic understanding of framing by conceptualizing frame evolution as a process rather than merely as an outcome (Yang & Li, 2025). Longitudinal studies likewise show that frame changing is often gradual and reflects broader transformations in public discourse rather than abrupt replacement of one frame by another (e.g., Brimeyer et al., 2012). Building on this perspective, the present study aims at examining not only which frames characterize local reporting on GPs, but also how these frames evolve across crisis periods and how they are combined within articles. In doing so, the study extends framing research toward a more dynamic and multidimensional understanding of health communication.

Healthcare professionals in the media: current state of research

Previous research on the portrayal of GPs in the media has been relatively limited. However, the studies that do exist have primarily examined three types of media: news media (e.g., Inthorn & Bittner, 2012; Lupton & McLean, 1998), fictional media (e.g., Gross et al., 2012; Tapper, 2010; Turow, 2012), and social media, including the rise of influencer doctors (e.g., Bautista et al., 2021; Maggio et al., 2024).

In recent years, scholarly attention has increasingly focused on social media (e.g., Maggio et al., 2024; Zengin, 2023). As the present study does not address doctors' self-portrayal, this aspect is not considered further. Research on the depiction of doctors in fictional media, however, provides valuable insights into how their image has evolved over time. Tapper (2010), for instance, examined how television portrayals of general

practitioners have shifted over the past five decades—from idealized and compassionate figures to more conflicted and morally ambiguous characters. Adding to this, Turow (2012) offers a historical comparison of television portrayals of nurses and physicians, showing that nurses have consistently been portrayed as subordinate to doctors. Moreover, the study also found that television programs neglected to address the structural changes in healthcare, such as the shift from individual doctors being the sole decision-makers in patient care. A study by Gross et al. (2012) examines doctor-patient and doctor-colleague interactions in television shows, highlighting gendered patterns and evolving social dynamics in the portrayal of physicians on television, with doctors often yelling at colleagues, subordinates, or even supervisors.

A less ambiguous picture emerges in the context of media coverage. Lupton and McLean (1998) conducted a content analysis of the portrayal of doctors in Australian media. As early as 1998, the authors explained that doctors enjoyed a considerable degree of authority and were overwhelmingly portrayed as the central figures in health-related reporting. Inthorn and Bittner (2012) analyzed the portrayal of cosmetic surgeons in German newspapers, highlighting the role of these physicians in media discussions. Cosmetic surgeons have a different function in society compared to GPs. Their task is not so much to treat specific illnesses, but rather to fulfill the special wishes of patients. Nevertheless, the results show that the image of the virtuous doctor is also communicated here. Cosmetic surgeons are portrayed as experts who are familiar with special medical interventions. The role of the doctor in the context of cosmetic surgery is therefore not necessarily framed in terms of health and illness but instead is determined by their expertise. Moreover, cosmetic surgeons are also framed in the context of financial and economic aspects, such as the fact that beauty clinics are often commercial enterprises. In this context, negative examples of cosmetic surgeons are also mentioned (Inthorn & Bittner, 2012). Wangler and Jansky (2020) examined media portrayals of GPs and identified five frames, three of which depicted GPs as overburdened yet dedicated, consistently portraying them as idealistic, grounded, and selfless despite increasing professional challenges. Challenges faced by GPs during the COVID-19 pandemic were also addressed in newspaper coverage. A British study (Mroz et al., 2024) examining the shift from in-person GP visits to remote consultations during the pandemic found that media narratives changed significantly over the course of two years. Initially, technology-assisted consultations were described with optimism and seen as a symbol of modernity and efficiency. At this stage, GPs were primarily portrayed as mere operators of technological devices, with the technology itself taking center stage in the coverage. However, over time, the reporting took on a nostalgic tone, calling for a return to where patients were properly treated. The initial enthusiasm portrayed in the media gradually turned into frustration with these digital tools, which over time became directed at the doctors themselves. They were depicted as lazy, merely offering occasional advice over the phone rather than personally attending to their patients (Mroz et al., 2024). In line with that, a study by Bunz and Braghieri (2022) focuses on the media portrayal of artificial intelligence (AI) systems in

healthcare, specifically those that automate tasks traditionally performed by medical professionals. Results show that AI systems are portrayed as surpassing human capabilities. This could be attributed to the fact that the technology is still in its early stages, and a nostalgic undertone may emerge later, as observed by Mroz et al. (2024) in the case of remote consultations.

In summary, previous research on media portrayals of healthcare professionals shows that, apart from some findings related to fictional and social media contexts, doctors have generally been portrayed in quite a positive light across various countries and time periods, often depicted as dedicated professionals who are readily available to assist with health concerns (Inthorn & Bittner, 2012; Lupton & McLean, 1998; Wangler & Jansky, 2020). At the same time, professional challenges such as staff shortages, systemic changes, technological developments, and financial pressures are also addressed and sometimes linked to critical portrayals (Inthorn & Bittner, 2012; Mroz et al., 2024; Wangler & Jansky, 2020). These representations are particularly significant as they can directly shape public perception of doctors and their role in the healthcare system (Bartoš et al., 2022).

Despite these findings, little attention has been given to how GPs are framed in local newspapers. This gap is significant, as local newspapers cater to a different audience than national outlets, often addressing issues that directly impact local communities. The way GPs are represented here may shape public perceptions, influence patient trust, and even inform policy decisions at the municipal or state level (Fawzi et al., 2018). Given the central role that GPs play in everyday healthcare, analyzing media frames in local news is crucial for understanding how these portrayals affect both the medical profession and public discourse. To address this research gap, the present study examines the following research question:

RQ1: How are GPs framed in German local newspapers?

In the last decade, concerns about GP shortages have emerged across many healthcare systems, including Germany (van den Bussche, 2019). A content analysis by Wangler and Jansky (2020) indicates that GP shortages have been a prominent topic in media coverage. With the onset of the COVID-19 pandemic in early 2020, local reporting on GPs entered a new phase, as their role in testing, vaccination, and patient care became central. Existing content analyses, however, suggest that doctors are generally portrayed predominantly positively, even when systemic challenges are acknowledged (Inthorn & Bittner, 2012; Lupton & McLean, 1998; Wangler & Jansky, 2020).

Despite these insights, little is known about how local media have covered GPs over time, particularly in the face of broader structural and policy changes. In Germany, several developments have shaped the healthcare landscape in recent years—from the growing shortage of GPs since 2017/2018 (van den Bussche, 2019) to the profound effects of the COVID-19 pandemic (Stark, 2024) and subsequent national policy initiatives such as the 2023 digitalization strategy (Deutscher Bundestag, 2023). As Mroz et al. (2024) highlight, new technological requirements have

presented significant challenges for both doctors and patients. Rather than treating the pandemic as a distortion of GP coverage, this study conceptualizes it as a major external shock that restructured the conditions of primary healthcare and, consequently, the media framing of GPs. Examining the periods before, during, and after COVID-19 therefore adds value by capturing framing dynamics in a rapidly changing health communication environment. Consequently, the present study analyzes how media representations of GPs in local newspapers evolved across three analytically distinct phases (pre-pandemic, pandemic, and post-pandemic) in Germany, leading to the following research question:

RQ2: How did the framing of GPs differ between the pre-pandemic, pandemic, and post-pandemic periods from 2018 to 2023?

While classical framing studies often focus on identifying and measuring individual frames, such approaches frequently assign one dominant frame to an entire article and may therefore overlook the internal complexity of journalistic texts. This is particularly relevant in local health reporting, where one and the same article may combine, for example, structural criticism with personal appreciation of local GPs, or political accountability with depictions of professional expertise. Reconstructing frames only at the article level would therefore be insufficient for capturing frame dynamics within texts, as it would obscure how different frames emerge, interact, and shift across individual passages. We therefore suggest a more nuanced approach by adopting a paragraph-level perspective, which allows frames to be reconstructed at a finer level of analysis and then examined in relation to one another at the article level. As Foley et al. (2019, p. 10) argue in their longitudinal analysis of media framing of diabetes, focusing on text passages “rather than whole pieces of text enabled a more intricate understanding of the issue and was able to excavate the ways in which framings became layered over time.” Building on this insight, we additionally analyze frame co-occurrence at the article level, not as a substitute for paragraph-level framing analysis, but as a complement to it. This makes it possible to identify which reconstructed frames tend to appear together within broader news narratives. In doing so, we capture the multidimensionality of media representations more adequately and identify typical frame patterns in local coverage of GPs. Recent computational and content-analytic studies also point to the value of co-occurrence analyses for examining such layered framing patterns (e.g., Arora et al., 2025). Thus, we pose the following research question:

RQ3: How do frames co-occur within articles, and what patterns emerge?

Method

To examine how GPs are framed and how this evolves over time, we conducted a quantitative content analysis of local newspaper

articles in Germany published between 2018 and 2023, explicitly distinguishing between pre-pandemic (2018–2019), pandemic (2020–2021), and post-pandemic (2022–2023) phases. Focusing on local newspapers allowed us to capture place-specific framing often absent from national coverage. Structural challenges, such as rising GP workloads and shortages, particularly in rural areas (Bundesgesundheitsministerium, 2025), make local reporting a valuable source for understanding shifts in representation.

Article selection and sampling procedure

Articles were retrieved from the *Genios* press database using headline-based keyword searches that specifically referenced GPs. This approach yielded a total corpus of $N = 17,986$ articles published in $N = 178$ local newspapers across all federal states in Germany. From this corpus, a stratified random sample of $n = 576$ articles from $n = 112$ newspapers was drawn to ensure broad geographical representation.

Rather than analyzing entire articles, we defined text passages as the primary unit of analysis. Text passages encompass titles, subtitles, and paragraphs in the article texts. In total, the 576 articles yielded $n = 4,663$ relevant passages. This decision was made for both methodological and analytical reasons: First, newspaper articles on complex healthcare issues regarding GPs might often contain multiple problem definitions, causal interpretations, treatment recommendations, and moral evaluations resulting in shifts in framing. Focusing on text passages enables a more precise capture of specific references to GPs. Second, analyzing text passages allows for a more granular coding of frame element characteristics, which may vary within a single article. Consequently, this approach ensures a higher level of validity and sensitivity in identifying relevant patterns and themes in local GP coverage. While framing research is predominantly based on article-level analyses, the frame element approach is well suited for more granular coding (Matthes & Kohring, 2008). By focusing on text passages, this study enhances the analytical precision and extends the body of knowledge with a more nuanced understanding of frame dynamics in local health reporting.

Measures and coding procedure

A hybrid category development approach combined deductive categories based on the four frame elements (problem definition, causal interpretation, treatment recommendation, and moral evaluation) with inductive refinements derived from iterative article screenings and expert consultations.¹ Entman’s (1993) framework served as the overall analytical lens and thus as the crucial deductive foundation of the coding system. The categories were designed to be exhaustive and mutually exclusive and to ensure accurate measurement given the characteristics of the sample. At the same time, our approach acknowledges that framing analysis has developed methodologically beyond the direct identification of holistic frames in individual texts. Instead, following reconstructive approaches in framing research, we treated frames as recurring patterns of frame elements that can be identified empirically across units of analysis and then statistically reconstructed

(Foley et al., 2019; Matthes & Kohring, 2008). In other words, the codebook did not contain predefined frames. Rather, it operationalized the categories within the single frame elements from which frames could later be reconstructed.

All categories were coded in a dichotomous manner, indicating whether a specific element was present or not present in each text passage. For example, within the domain of *problem definition*, coders recorded whether a passage addressed the GP shortage, COVID-related issues such as vaccination, or broader topics like healthcare system reforms. In the *causal interpretation* domain, categories included mentions of causes such as work overload, bureaucratic hurdles, or the situation created by the pandemic. *Treatment recommendations* captured proposed solutions such as the opening of new practices, digital transformation, or political responsibility. *Moral evaluation* was assessed by determining the overall tonality of the passage (coded as positive, negative, neutral, or ambivalent) regarding the presented problem. The [Appendix](#) provides a full overview of all formal and thematic categories.

The articles were coded by two trained, native German-speaking coders who contributed to the development of the codebook. An iterative pretesting process refined categories for clarity and discriminability. The final codebook provided detailed definitions, coding rules, and practical examples for each variable, ensuring consistency in coding decisions. Intercoder agreement was calculated using Krippendorff's alpha, with an average alpha of .84, indicating good coding quality. Coders entered their responses into a structured Excel spreadsheet designed to ensure uniform data entry.

Data analysis

To reconstruct the frames analytically, a hierarchical cluster analysis was conducted based on the coded variables. This exploratory method identifies clusters of text passages that share similar framing patterns, thereby allowing for data-driven reconstruction of latent frames (Matthes & Kohring, 2008). This method has been established as a valid and reliable approach for reconstructing frames when they are conceptualized as clusters of co-occurring frame elements (Burscher et al., 2015; David et al., 2011). Accordingly, the aim of the cluster analysis was not to test whether predefined frames from the codebook existed in the material, but to identify whether specific combinations of coded frame elements (Entman, 1993) formed empirically recurring patterns. All dichotomously coded variables corresponding to the four framing elements were included in the analysis. The clustering procedure used the within-groups linkage method and the Tanimoto similarity coefficient, which is particularly suited for detecting similarities in binary data and emphasizing shared presences over shared absences (Finch, 2005). To determine the optimal number of clusters (i.e., frames), a dendrogram was generated and interpreted based on the visual elbow criterion (sudden increases in linkage distances). After selecting the appropriate cluster solution, each cluster was interpreted as a distinct media frame. These frames represent empirically reconstructed patterns of problem definitions, causal interpretations, treatment recommendations, and moral evaluations. In this sense, Entman's (1993) frame elements

were indispensable to the analysis: they structured both the coding instrument and the interpretation of the final cluster solution. In this way, we identified seven major frames. Cross-tabulations were subsequently used to describe and differentiate these frames based on their characteristic features and topical dimensions.

Results

The analysis revealed notable temporal dynamics in the media attention to GPs between 2018 and 2023. The number of coded text passages peaked during the COVID-19 pandemic in the years 2020 and 2021, when the German government included GPs in the national vaccination campaign. In this period, $n = 2,603$ text passages were identified, nearly four times the number recorded in the pre-pandemic period of 2018 and 2019 ($n = 726$). This underscores the heightened visibility of GPs in local reporting during a critical phase of pandemic management. Even after the acute phase of the pandemic had subsided, the media presence of GPs remained elevated. In 2022 and 2023, the number of relevant text passages ($n = 1,334$) continued to exceed pre-pandemic levels, indicating a sustained public and journalistic interest in GP-related issues.

RQ1: GP-related frames in local newspapers

The hierarchical cluster analysis revealed seven distinct media frames. As shown in [Figure 1](#), the most prominent frame addresses structural healthcare challenges, followed by frames that focus on broader reflections of GPs' role in the healthcare system, and associated political responsibilities. The work of GPs is also framed as an important pillar of patient care, albeit often with a limited scope of action, especially during the pandemic. Their role during the pandemic is also captured in a frame emphasizing their expertise in times of this global health crisis. The internal structure of these frames based on Entman's (1993) frame elements will be presented and illustrated with examples in the following sections. Each frame description is organized around problem definitions, actor constellations, causal attributions, treatment recommendations, and/or evaluations in order to make transparent how the reconstructed clusters map onto the underlying frame-element structure.

Frame 1: structural challenges to the work of GPs (32%)

The frame *Structural Challenges to the Work of GPs* encompasses neutral reporting about the systemic barriers and structural shortcomings that GPs face in their professional practice, particularly in the context of the COVID-19 pandemic and the ongoing GP shortage in rural areas. It is the most pronounced frame in the sample.

The central problem definitions in this frame include the overall shortage of GPs in rural areas (12.0%), resulting in supply bottlenecks in healthcare provision (8.9%), especially regarding vaccinations during the pandemic (18.2%) and the increasing difficulty of filling vacant GP positions (8.4%). These problems are situated within a broader context of demographic change and local health disparities. GPs are portrayed

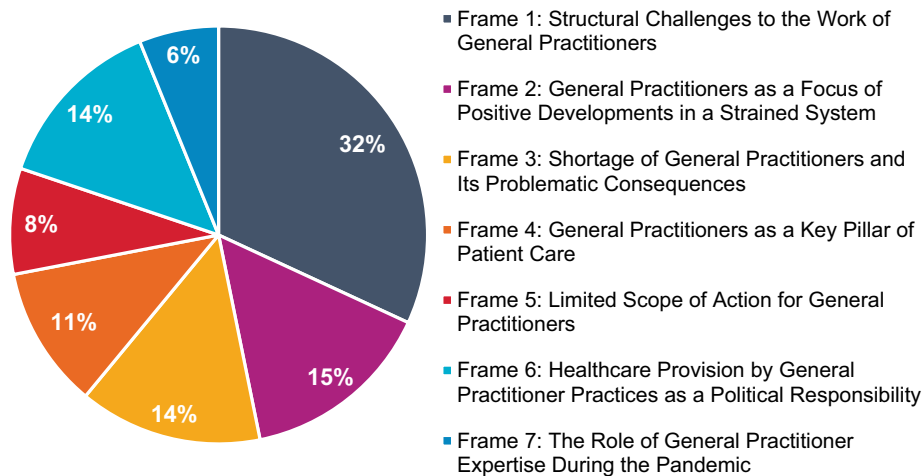


Figure 1. Distribution of frames (proportion of coded statements, $n = 4,663$) (RQ1).

as the primary actors (50.3%) confronted with the consequences of systemic strain, which ultimately affects patients (14.6%). Health associations (11.6%) and political actors (9.4%) are also featured as relevant stakeholders but are frequently depicted as slow to act or ineffective in addressing the challenges. This framing highlights both the individual and institutional levels of responsibility. Causes are predominantly attributed to situational factors such as the COVID-19 pandemic (10.4%) and the widespread shortage of doctors (8.2%). Proposed solutions remain strongly tied to the individual and institutional level, with GPs (15.5%) and policy (11.1%) framed as responsible for resolving the situation. Other broader structural remedies, such as targeted incentive programs, are mentioned only rarely. The frame's valence is rather neutral (87.3%). The following example illustrates the basic idea of this frame:

Lieder [name of the GP] started a few days ago as the successor to Dr. Heinrich Wulf in Kürten; Wulf had handed over his practice in the main town of Kürten for reasons of age. The fact that the transition went smoothly can be seen as a stroke of luck for the municipality. In recent years, Mayor Willi Heider and his predecessor Ulrich Iwanow had been desperately recruiting young doctors for the Bergisch community. All the enticements, even at medical congresses, had not helped so far. Even calls for help from politicians (such as the CDU [a conservative political party in Germany]) and initiatives directed at the state government did not have much effect. A few years ago, the case of a GP successor who had moved his new practice in Kürten to Bergisch Gladbach prompted the administration and politicians to take action. (Boelen-Theile, 2018, p. 32)

Frame 2: GPs as a focus of positive developments in a strained system (15%)

The frame *GPs as a Focus of Positive Developments in a Strained System* highlights encouraging developments within an otherwise strained healthcare environment, portraying GPs as proactive agents of stability and progress. While the broader context remains defined by well-known challenges such as GP shortages, succession difficulties, or increased demand during the COVID-19 pandemic, the coverage focuses on cases where solutions are found, or improvements become visible.

The problem definitions addressed in this frame mirror those found in more critical frames: the overall shortage of GPs (10.5%) and supply bottlenecks in care (6.3%). However, these issues are not foregrounded to emphasize failure, but rather to set the stage for reporting on optimistic developments. The most pronounced aspects here include successful practice successions (6.8%) as well as a well-functioning vaccination campaign during the pandemic (44.0%). GPs are the central actors in the frame (47.8%), often contextualized as committed professionals who ensure continuity of care despite difficult conditions. Patients (22.6%) appear as indirect beneficiaries, while associations (13.4%) and practices (10.6%) are occasionally mentioned as institutional supports. Causal attributions (particularly during the pandemic) point to situational factors such as COVID-19 (23.6%) and bureaucratic hurdles (5.3%) but are less emphasized than the actors' ability to overcome them. Proposed solutions revolve primarily around the practitioners themselves (19.7%) and the conditions they manage or improve (4.6%). In some cases, individual local policy efforts are framed as contributing to successful outcomes (6.0%). What distinguishes this frame is not the absence of problems, but the emphasis on how they are met with constructive responses. Hence, the evaluation in this frame is exclusively ambivalent (100.0%), balancing the acknowledgment of structural strain with a cautiously optimistic tone. The following text passage reflects the frame's logic in acknowledging a concerning structural fact (a high percentage of older GPs) and contrasts it with a local example of successful succession:

The pure figures initially make you wonder, because 54 percent of GPs in the Bünde Land region are over 60 years old. The average in Westphalia-Lippe is 40 percent. However, there does not seem to be a problem with handing over practices to younger hands in the future, as is now evident on Bismarckstrasse. (Dunkel, 2021, p. 1)

Frame 3: shortage of GPs and its problematic consequences (14%)

The frame *Shortage of GPs and its Problematic Consequences* presents the lack of GPs as a pressing and unresolved

structural crisis with serious consequences for local health-care access. In contrast to the more balanced tone of other frames, this frame is distinctly negative in its evaluation, often marked by urgency, frustration, and growing concern among both patients and professionals. It is less centered on the pandemic and instead foregrounds longer-term structural issues.

The core problem definitions focus on the cumulative effects of the GP shortage (27.2%), such as overloaded practices, delayed appointments, and even complete practice closures. The frame highlights succession (12.7%) and supply (14.5%) issues connected to high levels of workload (11.3%), often reporting on GPs nearing retirement without available successors. In this vein, GPs are central actors (51.0%), portrayed as both overwhelmed by the current situation and potentially unable to maintain patient care. Patients (21.6%) appear as particularly vulnerable actors, often depicted as helpless in the face of diminishing access to care. GP practices (10.1%), politicians (9.5%), and associations (14.5%) are also addressed. Causal attributions point clearly to situational circumstances regarding the shortage of doctors (21.6%), difficulties in succession planning (9.5%), and bureaucratic hurdles (8.0%). Solutions are only rarely mentioned in this frame. From a situational perspective, they tend to focus on the conditions for GPs in rural environments (3.5%). The evaluation in this frame is clearly negative (99.8%). Unlike other frames that attempt to balance critique with optimism or individual success stories, this frame remains focused on what is not working and what might get worse. The following example illustrates the frame's key elements: widespread concern, systemic failure, few visible solutions, and a local population caught in an overburdened healthcare system:

The horror scenario for many patients is that they fall ill but there is no doctor there to treat them. The news that there will be one less place to go after the departure of Dr. Zotzmann makes some Mengen residents anxious. They are faced with full waiting rooms, postponed appointments and worries that the remaining general practitioners will stop accepting patients. Rumors are circulating that some doctors have already reached this point. There is also the fear that Dr. Klaus Seubert, Dr. Jürgen Selbherr or Dr. Alexander Reifschneider could retire soon and possibly even at the same time without a successor taking over their practices. The editorial team also repeatedly receives the accusation that the town council and the Association of Statutory Health Insurance Physicians are simply standing idly by while Mengen plunges into a shortage of doctors. At the same time, the people of Mengen are well aware that the overall situation is tense. That is why they want their municipality to create attractive framework conditions. (Kuhlmann, 2019, p. 25)

Frame 4: GPs as a key pillar of patient care (11%)

The frame *GPs as a Key Pillar of Patient Care* centers on the portrayal of GPs as trusted, indispensable figures in the healthcare system. It highlights GPs' longstanding and close connections to their patients and emphasizes their personal dedication, especially under challenging conditions. Unlike other frames that focus on structural deficits or systemic reform, this frame shifts the spotlight to the human and relational dimension of general medical care.

The problem definition in this frame is less oriented around structural issues or specific events. Instead, it emphasizes the

essential and stabilizing role of GPs in patient care. During the pandemic, this mainly included vaccination support and patient communication (33.0%). In addition, the everyday importance of GPs in people's lives is pronounced. The actor focus is clear: GPs take center stage (53.7%), with patients as the primary beneficiaries (19.1%). GP practices (13.5%) are mentioned occasionally as the context in which this relationship unfolds. Causes are largely absent or deemphasized in this frame. There is little interest in explaining why challenges exist; instead, the frame focuses on how GPs respond to them. This aligns with the frame's function: to recognize, appreciate, and reinforce GP's trustworthiness, rather than to critique or diagnose systemic problems. Thus, it is not surprising that GPs themselves are presented as the personnel-related solution (23.6%), accompanied by successful policy developments (11.1%). The evaluation in this frame is clearly positive (99.0%). The following example portrays GPs as reliable and emotionally intelligent actors who form a critical pillar of patient trust and healthcare stability:

GPs have always been more than just doctors, but even more so now. They are friendly advisors and, especially in this pandemic, also social workers. They put up with the madness when hundreds of people want a vaccination appointment at once. They take abuse when anti-vaccination campaigners are around and accuse them of their conspiracy-mongering bullshit. And they convince those who have doubts to get vaccinated. Because many patients have trusted their GPs for years, sometimes decades, it works. (Rasche, 2021, p. C1)

Frame 5: limited scope of action for GPs (8%)

The focus of the frame *Limited Scope of Action for GPs* lies in the significant barriers that GPs face in fulfilling their medical responsibilities, especially in the context of the COVID-19 pandemic. While GPs remain central to patient care, the focus here is on the institutional and logistical limitations that present obstacles to acting effectively. The frame conveys a sense of frustration and helplessness, not due to a lack of professional commitment, but due to external constraints beyond their control.

The problem definition centers primarily on vaccination logistics (86.9%), which emerged as a dominant issue during the pandemic. Reports typically highlight disrupted vaccine deliveries, unclear policies, or changing government regulations. While GPs (58.9%) and patients (31.2%) remain the main actors, the focus shifts from their agency to the limits of that agency. Causes are attributed largely to situational and institutional circumstances. The pandemic (55.2%) is acknowledged as a background factor, but government policies (10.7%), bureaucratic decisions (7.9%), individual overload (8.9%), and logistics (7.9%) are portrayed as immediate obstacles. GPs are thus depicted not as decision-makers but as implementers who are burdened with the consequences of policy shortcomings. There are almost no proposed solutions. Relevant text passages typically document problems without presenting realistic remedies or clear paths forward. Consequently, the frame's overall evaluation is negative (100%). It is not a frame of structural critique in the broader sense, but one of immediate operational failure in a moment of crisis.

The following text passage illustrates the frame's core idea as GPs are portrayed as willing and prepared to vaccinate, yet external constraints undermine their capacity to deliver care:

The effects of the Biontech order cap announced by Federal Health Minister Jens Spahn are even worse than feared for doctors in private practice. Dr. Olaf Nedden, who has a practice in Friemersheim, says that he will only have half as many vaccine doses available next week as he ordered. His colleague Dr. Axel Heidböhmer from Rumeln reports the same. (Wiberny, 2021, p. 1)

Frame 6: healthcare provision by GP practices as a political responsibility (14%)

In the frame *Healthcare Provision by GP Practices as a Political Responsibility*, the focus is on the institutional accountability of political actors in the context of healthcare provision through GPs and GP practices. While GPs remain central actors in the coverage, the framing emphasizes that their ability to provide effective care is directly dependent on political decision-making and administrative coordination. This is particularly evident during the COVID-19 vaccination campaign. The narrative thus shifts responsibility from individual healthcare providers to those shaping the systemic framework.

The problem definition largely centers on the organization and execution of the vaccination campaign during the pandemic (81.3%). Coverage frequently points to failures in vaccine distribution as a core issue affecting GP practices. While GPs themselves are visible in the reporting (12.2%), the framing positions GP practices (22.3%) more broadly as the institutional frontline affected by institutional (in) action. Patients appear as those ultimately affected by these shortcomings (19.4%), while politicians (12.2%), policy in general (19.1%), authorities (12.9%), and associations (11.6%) are explicitly named as responsible actors. Causes are attributed to both the pandemic (38.4%) and, more directly, to political processes and decisions (9.4%). The logic of the frame attributes solutions to policymakers (15.7%) to create more solid opportunities for the transfer of treatment (6.4%) and workload relief (4.9%). The frame thus reinforces the view that structural problems require institutional responses, not just the personal commitment of GPs. The evaluation in this frame is mostly neutral (83.2%) to ambivalent (11.6%). This quote exemplifies the frame's logic: political actors are held responsible for decisions that directly affect practice operations whereas GP practices are positioned as the site where political shortcomings become visible:

The Baden-Württemberg Association of General Practitioners criticized the fact that practices were to receive the additional vaccine from Astrazeneca from 19 April, but less from Biontech/Pfizer. The 2nd Chairman Frank-Dieter Braun described this as 'completely unacceptable.' 'We will then have to vaccinate the unsettled people primarily with Astrazeneca vaccine. This shifts the political vaccination chaos to GP practices, which is unacceptable for us.' (dpa, 2021, p. 6)

Frame 7: the role of GP expertise during the pandemic (6%)

The frame *The Role of GP Expertise During the Pandemic* highlights the professional expertise of GPs in managing the

challenges of the COVID-19 pandemic. While GPs are portrayed as important actors, the frame places a stronger emphasis on their functional role in pandemic containment rather than on recognition or support. It reflects a pragmatic tone focused on the medical responsibility GPs carried during an exceptional public health crisis.

The problem definition centers on pandemic-specific issues such as infection control (91.6%) and the clinical course of the disease (8.4%). In contrast to other frames, the main actors here are patients (26.5%), who are seen as potentially at risk, and GPs (26.5%), whose task it is to assess and manage their condition. The cause is clearly attributed to COVID-19 (65.9%). COVID-19 is framed as the external threat that challenges the existing capacities of both the primary care system and the hospital infrastructure. However, there is hardly any attribution of solutions in this frame. GPs are described as acting under pressure and with limited resources, but there is little discussion of how their work could be supported or improved by policy or system-level interventions. The evaluation is neutral (55.1%) to negative (40.8%). While the tone remains respectful of GPs' roles, the overall narrative conveys urgency and strain. The emphasis is on responsibility and demand, not on recognition or structural deficits. GPs appear as essential but burdened frontline actors. The text passage below shows how GPs are depicted as expert coordinators of care during the pandemic:

Hanke-Velten [name of the GP] sees the task of GPs as deciding in the coming weeks which patients need to be tested for coronavirus, monitoring suspected and confirmed cases and then deciding in good time whether a patient needs to be treated in hospital. This requires daily contact, as the condition of a coronavirus patient can deteriorate quickly. At the same time, the aim is to 'prevent a rush on the clinics. We need them for the severe cases,' he emphasizes. (Bender, 2020, p. 12)

RQ2: phase-specific framing dynamics from 2018 to 2023

The longitudinal analysis reveals notable changes in the distribution of media frames related to GPs between 2018 and 2023, reflecting how the COVID-19 pandemic influenced both the volume and diversity of GP-related reporting in local newspapers (Cramer's $V = .216$, $p < .001$; see Table 1). To address phase-specific dynamics, the analysis distinguishes explicitly between the pre-pandemic (2018–2019), pandemic (2020–2021), and post-pandemic (2022–2023) periods of reporting.

Before the pandemic (2018–2019), the dominant frames were *Structural Challenges to the Work of GPs* (44–47%) and *Shortage of GPs and its Problematic Consequences* (20–25%), largely dominating local news coverage. These frames reflect a discourse mainly focused on long-standing systemic issues such as practice succession, workforce decline, and regional healthcare disparities.

During the pandemic (2020–2021), there was a shift in the frame landscape. Not only did reporting volume increase, particularly in 2021, but the framing also diversified. While *Structural Challenges* remained present, its relative share decreased (to 35% in 2020 and 23% in 2021), making space for the emergence of more context-specific frames. For

Table 1. Frame evolution 2018–2023 (RQ2).

	Pre-Pandemic		Pandemic		Post-Pandemic	
	2018 (n = 446)	2019 (n = 280)	2020 (n = 627)	2021 (n = 1976)	2022 (n = 643)	2023 (n = 691)
Frame 1: Structural Challenges to the Work of GPs	44%	47%	35%	23%	37%	37%
Frame 2: GPs as a Focus of Positive Developments in a Strained System	14%	15%	11%	17%	14%	14%
Frame 3: Shortage of GPs and its Problematic Consequences	25%	20%	10%	7%	19%	26%
Frame 4: GPs as a Key Pillar of Patient Care	14%	15%	7%	11%	11%	11%
Frame 5: Limited Scope of Action for GPs	1%	0%	7%	14%	6%	3%
Frame 6: Healthcare Provision by GP Practices as a Political Responsibility	2%	3%	9%	24%	8%	6%
Frame 7: The Role of GP Expertise During the Pandemic	0%	0%	22%	4%	6%	5%

Note. Cramer's V = .216; $p < .001$; Rounded values, totals may not sum to 100%.

instance, the frame *Limited Scope of Action for GPs*, which was nearly absent pre-pandemic, rose to 14% in 2021, particularly reflecting structural strains on healthcare throughout the pandemic. Similarly, *Healthcare Provision by GP Practices as a Political Responsibility* peaked at 24% in the same year, suggesting that the crisis spotlighted the interface between politics and local healthcare delivery. This frame was the most pronounced one in 2021. The frame *The Role of GP Expertise During the Pandemic* reached 22% in 2020, directly reflecting the discursive relevance of GPs' frontline roles in testing, monitoring, and triaging patients.

Post-pandemic (2022–2023), the frame distribution partially returned to earlier patterns but remained more differentiated than before. *Structural Challenges* regained prominence (37% in both years), and *Shortage of GPs* rose again (to 26% in 2023), indicating that structural issues continued to dominate local health reporting. However, the presence of previously pandemic-specific frames like *GPs as a Focus of Positive Developments* and *Political Responsibility* remained notable, albeit at lower levels. This suggests a lasting expansion of the discursive repertoire around GPs, reflecting more complex attributions of responsibility and a broader range of problem definitions.

RQ3: frame co-occurrence on the article level

To explore which frames co-occur at the article level, we aggregated the data from paragraph to article by creating a binary indicator for each frame. These indicators mark whether a frame appears at least once in an article. For each article, we then generated a combination string listing all present frames in fixed order. We counted these combinations across all articles to identify the most common frame co-occurrences.

The five most frequent combinations on the article level were Frame 1 + Frame 6 (structural challenges and political responsibility; 36 articles, 6.3%), Frame 1 + Frame 2 + Frame 3 + Frame 4 (structural challenges, positive developments, GP shortage, and GPs as a key pillar; 33 articles, 5.7%), Frame 1 + Frame 3 (structural challenges and GP shortage; 31 articles, 5.4%), Frame 1 + Frame 2 + Frame 3 (structural challenges, positive developments, and GP shortage; 27 articles, 4.7%), as well as Frame 1 + Frame 2 + Frame 4 (structural challenges, positive developments, and GPs as a key pillar; 20 articles, 3.5%).

Taken together, these co-occurrences show that media coverage is typically anchored in structural strain (Frame 1) and frequently pairs with the GP-shortage narrative (Frame 3), often embedded in stories underscoring GPs' central role in patient care (Frame 4), selective positive developments (Frame 2), and political responsibility attributions (Frame 6).

Discussion

This study examined how German local newspapers framed GPs before, during, and after the COVID-19 pandemic. Beyond identifying seven recurrent frames, the study contributes to framing research and health communication in three main ways. First, it shows that local newspapers are a particularly relevant arena for studying media portrayals of GPs because primary care is experienced and negotiated at the community level. Second, it demonstrates that media frames are not static but evolve unevenly. Third, by combining paragraph-level frame reconstruction with article-level frame co-occurrence, the study advances a more dynamic and multi-dimensional understanding of framing in health reporting.

Regarding RQ1, the findings show that local newspaper coverage of GPs is shaped by a tension between appreciation and strain. On the one hand, GPs are frequently portrayed as indispensable, trusted, and competent actors who form a key pillar of patient care. On the other hand, this positive image is consistently embedded in reporting on shortages, overload, limited room for action, and political responsibility. In this sense, the study extends prior research that has described doctors in a positive light despite considerable professional pressure (Inthorn & Bittner, 2012; Lupton & McLean, 1998; Wangler & Jansky, 2020). At the local level, however, these positive portrayals are more tightly interwoven with structural concerns such as practice closures, succession problems, and supply bottlenecks. This suggests that local reporting does not reproduce generalized professional images but anchors them in specific community-level healthcare challenges. The relevance of this finding lies in showing how healthcare problems are publicly translated into local narratives about care, access, political responsibility, and institutional strain.

The study's main theoretical contribution emerges from RQ2, which addresses the evolution of frames over time. Rather than treating frames as fixed interpretive packages, the findings support a more dynamic understanding of framing. The longitudinal analysis shows that frame change is uneven: some frames, especially those tied to long-term

structural challenges such as GP shortages and the strained working conditions of GPs, remained comparatively stable across the entire period of analysis. Other frames, by contrast, were much more volatile and closely linked to the exceptional conditions of the pandemic, such as the limited scope of action for GPs, political responsibility for healthcare provision, or GP expertise during pandemic management. This distinction is theoretically relevant because it suggests that frames differ in their susceptibility to change depending on whether they are anchored in enduring structural conditions or in more immediate event-driven developments.²

In this respect, the study answers recent calls to conceptualize frame evolution not merely as a shift in outcomes, but as an ongoing process that unfolds under changing contextual conditions. Yang and Li (2025), for example, argue that framing theory benefits from understanding frame development as dynamic, context-sensitive, and temporally layered. Our findings support this perspective by showing that the COVID-19 pandemic did not simply replace one dominant frame with another. Instead, it redefined the local frame repertoire: crisis-specific frames gained visibility during the pandemic, while more durable shortage-related and structural frames persisted and reasserted themselves afterward. This also resonates with longitudinal framing research by Brimeyer et al. (2012), who argue that frame changing is often gradual and reflects broader transformations in public discourse. In the present case, pandemic-related reporting temporarily diversified and reoriented local news coverage, but it did so against the background of already existing structural concerns in primary care. The study thus contributes to framing theory by demonstrating that media frames in health communication are temporally differentiated and responsive to both long-term structural problems and acute external shocks.

A second theoretical and methodological contribution concerns RQ3 and the question of frame co-occurrence. Classical framing studies often identify a dominant frame at the article level, thereby treating news items as relatively coherent units. Our findings suggest that such an approach may overlook important internal dynamics of journalistic texts. Because frames were reconstructed at the paragraph level, it became visible that multiple frames often coexist within the same article (Foley et al., 2019). This does not mean that all frames are equally salient. Rather, salience remains located at the level of specific text passages, while co-occurrence analysis reveals how distinct salient elements are assembled into broader news narratives. In this way, the article-level analysis complements Entman's (1993) understanding of framing. It shows that local reporting on GPs is often layered: structural strain is frequently combined with positive depictions of GPs' dedication, narratives of political accountability, and, during the pandemic, elements of medical expertise and crisis management. Thus, local healthcare coverage appears as a multidimensional discursive space in which frames are combined and occasionally balanced against one another. By integrating paragraph-level frame reconstruction with article-level co-occurrence, the present study extends framing research toward a more relational understanding of how interpretive patterns are organized within single texts.

Taken together, these findings also clarify the broader significance of the study. Its contribution does not lie solely in the descriptive observation that local newspapers frame GPs in particular ways. Rather, it shows how local journalism organizes a central field of healthcare into recurring interpretive patterns. This matters especially because general practice is deeply embedded in local infrastructures and everyday community life. Questions of access to GPs, continuity of care, practice succession, and rural shortages are not abstract national concerns, but concrete local problems. Local newspapers therefore remain a relevant site for understanding how such healthcare issues are publicly interpreted, even in a changing media environment.

Limitations and future research

This study has several limitations. Although it covers the period before, during, and after the pandemic up to 2023, media coverage in 2022–2023 may still have been influenced by the pandemic, suggesting a need for analysis of subsequent years. Additionally, this study focuses on local reporting in Germany. Since healthcare systems and particularly the role of GPs during the pandemic vary across countries, further research should examine media portrayals in different healthcare contexts as well as on social media. Moreover, while we used a statistical method to reconstruct frames, alternative methodological approaches could capture different aspects of framing, such as audience perceptions. Our study should not be taken to imply direct media effects on readers' trust, knowledge, or policy preferences. The analyzed coverage largely reflects routine local reporting rather than overtly sensationalist or strategically distorted journalism. However, even routine reporting is not frame-neutral. From a framing perspective, repeated selections and emphases provide interpretive resources through which healthcare issues are understood and discussed. Future research should therefore build on the present findings by examining how these media portrayals are perceived by audiences. Comparative studies across media systems and healthcare contexts could also help determine whether the temporal and relational framing patterns identified here are specific to German local journalism or indicative of broader dynamics in health communication.

Implications

The analyzed articles primarily follow conventional journalistic routines, yet the ways in which GPs are portrayed reveal consistent interpretive patterns that highlight particular aspects of healthcare challenges while backgrounding others. From a framing perspective, such representations contribute to meaning-making processes that shape how healthcare issues are publicly understood. This underscores the importance of local newspapers, which connect health issues directly to community realities and act as mediators between policy debates and citizens' everyday experiences. The portrayals provide interpretive resources that can inform policymaking (Bou-Karroum et al., 2017; Weishaar et al., 2016) by framing problems and solutions, legitimizing either individual responsibility or structural interventions (Weishaar et al., 2016). For

policymakers, these findings highlight long-standing structural issues affecting GPs and the broader healthcare system in Germany. These problems became particularly visible during the pandemic, and in the post-pandemic context, it is crucial to support GPs, especially in addressing physician shortages, adapting to new challenges such as digitalization, and ensuring the functioning of the healthcare system.

Conclusion

This study shows that German local newspapers portray general practitioners through a persistent tension between appreciation and strain: GPs appear as essential and trusted actors in patient care, yet these portrayals are consistently embedded in narratives of shortage, overload, and political responsibility. By tracing these representations before, during, and after the COVID-19 pandemic, the study demonstrates that media frames are not static but evolve unevenly over time, with structurally rooted frames remaining comparatively stable while crisis-specific frames gain and lose prominence. At the same time, the combination of paragraph-level frame reconstruction and article-level frame co-occurrence highlights the complex nature of local health reporting. Taken together, the findings underline the value of local journalism as a key site where healthcare challenges become publicly meaningful and where changing interpretations of primary care can be observed.

Notes

1. The category system was validated through expert consultations with representatives of the German Association of General Practitioners (Hausärztinnen- und Hausärzterverband), whose support and insights are gratefully acknowledged.
2. Exploratory Google Trends data for Germany (2018–2023) support this pattern: search interest for the term “Hausarzt” peaked during the pandemic (reaching the maximum index value of 100 in early 2021) and remained elevated thereafter (index around 60 compared to approximately 40 before the pandemic), roughly mirroring the temporal peaks in newspaper coverage identified in our analysis (Google Trends, 2026).

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Appendix. Full category system

Formal categories

Article level

Case ID, Article ID, Date, News outlet

Text passage level

Text passage ID, Passage, Source (Journalist, GP, Other physician, Patient, Family member, Nursing staff, Government authority, Politician, German Association of General Practitioners, National Association of Statutory Health Insurance Physicians, Medical chambers, Other association, Student, Researcher, Pharmacist)

Thematic categories (frame elements)

Problem definition

Topic. Shortage of GPs (Shortage general, Overload, Care supply bottlenecks, Practice closures, Practice succession), COVID-19 (Vaccination, Infection, Disease progression, Long-term effects), Medical studies, Reforms (Electronic health record, e-Prescription, Sick note by phone, Telemedicine), Opening a practice, Pharmaceuticals (Drugshortage, Side effects), Illness and Disease (Diagnosis, Treatment, Health risks)

Actors. Individual Actors (GP, Patient, Nursing staff, Politician, Family member), Collective Actors (Authorities, Professional associations, GP practices, Health insurers, Politics and political institutions)

Causal interpretation

Situational causes. GP shortage, Overload, Bureaucracy, Succession challenges, Lack of time, Private life and work-life balance, COVID-19, Financing, Logistics

Personal and institutional causes. GPs, Patients, Nursing staff, Politics and policy makers

Treatment recommendation

Situational remedies. Opening new practices, Postponing retirement, Practice takeover, Merger and group practice, Taking on new patients, Digitalization, Teaching practices, Training and education, Working conditions, Consultation hours, Transfer of treatment, Workload relief

Personal and institutional remedies. GPs, Other physicians, Medical students, Politics and policymakers, Associations, Patient counseling, Researchers, Public health office

Moral evaluation

Valence (neutral, negative, ambivalent, positive)