

The Social Construction of the Patient-Physician Relationship in the Clinical Encounter: Media Frames on Shared Decision Making in Germany

ABSTRACT

The literature on healthcare management has noted that shared decision-making (SDM) - a practice of organizing joint decisions between healthcare professionals and patients - should improve healthcare outcomes through patient engagement and autonomy, fostering patient-centeredness. While SDM projects are implemented across Europe and the US, the diffusion of the practice remains partial, and its' conceptualization scattered. Healthcare management literature explores SDM on the underlying assumption that its limited diffusion results from an information problem, implying objective criteria and rational behavior. The purpose of this research is to study the social construction of SDM within the clinical setting and the underlying rationales using the case of one of the largest healthcare markets worldwide – Germany. To capture the complexity of SDM, a frame analysis is conducted on its medial representations. News media is both influential in shaping public opinion, as well as in generating public discourse. This analysis enables one to elaborate different facets of the construct of SDM, to capture inherent patterns of facilitating and obstructing aspects and to explore consequences for the diffusion of SDM. Three facilitating and three obstructive frames on the implementation of SDM were identified. The polarities of these frames range from the questioning of one's decision-making authority to the perception of individual competence and decision-making agency. Moreover, this study reflects on how physicians' and patients' role for SDM is conceived.

Keywords Shared decision-making, frame analysis, innovation acceptance, healthcare innovation, news media analysis

THE SOCIAL CONSTRUCTION OF THE PATIENT-PHYSICIAN RELATIONSHIP IN THE CLINICAL ENCOUNTER: MEDIA FRAMES ON SHARED DECISION-MAKING IN GERMANY

INTRODUCTION

Integrating shared decision-making (SDM), a practice of organizing joint decision-making between health professionals and patients, is a viable component for patient treatment. It is valued as a promising approach for improving healthcare treatment (Bunn et al., 2018; Charles et al., 1997, 1999; Elwyn et al., 2012; Härter et al., 2015). How social issues, like SDM, are framed affects both their evolution and approach towards these issues (Cornelissen & Werner, 2014; Entman, 1993; Goffman, 1974; Snow et al., 1986). Within this article, the implementation of SDM in healthcare practice is understood as being conditioned by frames, in that they shape the social construction of SDM. These frames need to be explored in order to understand the stakeholders' approaches towards SDM and its' implementation.

SDM and patient-centered projects are being implemented throughout Europe. A substantial contribution is made by the WHO, aiming at putting patient participation at the center of healthcare. European projects such as *Developing and Evaluating Communication strategies to support Informed Decisions and practice based on Evidence* are representative for this stance. The EU-funded *IC-Health project*, which aims to improve the digital health literacy of European citizens, also fits into this picture. In Germany, our study context, for instance, the cooperative university project *PETUPAL* and the *SHARE TO CARE* program are two main projects piloting the implementation of shared decision-making in the clinical setting.

In this study, we address the stance towards shared decision-making within the setting of clinical care. Postoperative complications represent a major challenge to patient health and healthcare costs (Manecke et al. 2014; Marmelo et al. 2018; Vonlanthen et al. 2011). Articles concerning the setting of clinical care suggest that SDM improves patient health, satisfaction and compliance (Elwyn et

al., 2012; Mandelblatt et al., 2006), reduces treatment costs (Mühlbacher, 2017) and improves treatment quality (Glöser, 2018; Klemperer, 2015).

Still, the implementation of SDM as an innovation in healthcare remains partial and requires further elaboration. Thereby, although the drive to implement SDM is emphasized by concerned stakeholders, in practice it is often not embraced by patients, nor consistently implemented by physicians and not adequately supported by hospital management (Bomhof-Roordink et al., 2019; Couët et al., 2015; Coulter et al., 2015). Contemporary literature on healthcare management and innovation indicates that practice of analyzing the implementation of shared decision-making should be improved. Given the discrepancy between the declared commitment to SDM by concerned stakeholders and the lack of implementation, stakeholders' underlying rationale and conceptualization of shared decision-making must be considered (Elwyn et al., 2012; Légaré et al., 2016; Woltmann & Whitley, 2010). We argue that healthcare management and innovation literature explores SDM implying objective criteria and rational behavior. Its diffusion constraints become mere practical issues. As opposed to assessing their inherent relations of constraints nor fostering rationales or deviating approaches towards SDM (Bomhof-Roordink et al., 2019; Makoul & Clayman, 2006; Montori et al., 2017; Moumjid et al., 2007). It is therefore necessary to go beyond mere identification of single facilitators and barriers in order to explore their underlying rationales and their relational structures.

The aim of this study is to identify underlying social constructs of SDM. For this we conduct a news media analysis on assumptions, values, and decision-making premises. Conceptually and methodologically we hereon refer to frame analysis, based on Goffman (1974). Frames are considered to have a perceptual and action-guiding function, which makes them useful for the analysis of social constructs. Frame analysis is a qualitative text-based method, which enables an exploration of frames through analysis of relevant subjects, linguistic expressions and visual

language employed. The result of the study consists of determining news-media frames on SDM, which are consumed by patients and physicians. Following research question is examined:

Which news-media induced frames shape the perception, evaluation, and acceptance of shared decision-making among patients and physicians?

Arguments and facts are not objective applicable entities, waiting to be discovered and set in motion. The relevance and applicability of arguments and facts *become* - through individual and collective interpretations - and are therefore embedded in frames. The analysis of frames is therefore paramount for understanding the social construction of SDM, including its' related arguments and statements of fact, which are presented as barriers, as well as facilitators for its implementation. The analysis will, therefore, also identify underlying rationales as to why arguments and facts become applicable and relevant for the implementation of SDM in the first place. We thus move away from the analysis and discussion of individual arguments and identify tangible coherent ideas surrounding the individuals' view on SDM. These frames shape the perception of SDM and the arguments resulting thereof.

THEORY

Problem Statement

The concept of shared decision-making. Shared decision-making is described by terms such as 'patient involvement', 'autonomy', and 'joint decision'. However, there are varying approaches toward, and definitions of, SDM. This is partly depending on the specific settings for its applications (Bomhof-Roordink et al., 2019), therefore rendering the field as conceptually scattered (Bae, 2017; Makoul & Clayman, 2006; Moumjid et al., 2007). The predominant approaches vary between processual (description of interactions), objective-oriented (description of endpoints) and communicative prospects (description of content and communicative elements) (Bae, 2017). Within a processual perspective SDM is being defined "as a decision making process in which

patient and healthcare provider discuss possible treatment options and come to a joint decision” (Härter et al., 2015, p. 672). Further, SDM is defined as “an approach in which clinicians and patients communicate together using the best available evidence when faced with the task of making decisions” (van de Pol et al., 2017, p. 482). In an objective-oriented manner, the focal point lies on patient autonomy as it is “grounded in the principle of a person’s autonomy” (Vucicevic et al., 2018, p. 62). This results in diverging practical approaches, ranging from a high degree of patient autonomy along a spectrum towards the continued paternalism of healthcare professionals (Davis & Davison, 2017; Flynn et al., 2012; Vucicevic et al., 2018), within various medical settings (Pilnick & Zayts 2015). One reason for these differing approaches stems from the varying conceptualizations of ‘sharing’ within the clinical setting. Thus, the implementation of SDM ranges from “information exchange” (sharing of health information) and “deliberation on options” (sharing of treatment information) to “acting on the decision” (sharing of decision-making responsibility) (Woltmann & Whitley, 2010, p. 34). We therefore question the prevalence of a unified understanding of shared decision-making (Bae, 2017; Bomhof-Roordink et al., 2019; Makoul & Clayman, 2006; Moumjid et al., 2007). The underlying rationale and practical conceptualization of shared decision-making is an essential issue to consider for the analysis of an implementation of SDM.

This article concerns SDM within the clinical setting. It is guided by four characteristics as set forth by Charles et al. (1997, 1999) and Coulters (1999) definition on SDM. These authors consider SDM for the medical encounter between patients and physicians. This involves the construct of sharing information and decision-making, the inherent legitimacy issues and the subjective constructs and conceptions of patient and physician roles that are involved when implementing SDM.

Facilitators and barriers to shared decision-making. Healthcare management and innovation literature has long identified that SDM can enhance patient-centeredness (Charles et al., 1997, 1999; Elwyn et al., 2012; Légaré et al., 2016; Montori et al., 2017; Woltmann & Whitley, 2010). In Germany, our study context, treatment-related decision-making is also constitutionally embedded in the ‘Patient Protection Act’ (BGBl I, 2013).

Studies on SDM acceptance are primarily of a quantitative nature and feature a broader list of factors – yet remaining without any assessment of underlying rationales of arguments, relations, or in-depth exploration as to why these factors are attributed relevance. Facilitators, associated with having a positive impact on SDM acceptance, can be divided into improvement of treatment and patient autonomy. The former refers to the reduction of (preoperative) anxiety, (postoperative) depression (Härter et al., 2015) and frustration associated with treatment (van der Zwaard et al., 2019). Some studies indicate a positive impact on recovery after treatment (Giampieri, 2012; O’Donnell et al., 2019). Patient autonomy is a major factor for patients’ SDM acceptance (Corbett & Brown, 2018; Requarth, 2015). This autonomy is associated with higher perceived participation in the treatment process and the enhancement of the patients’ role (acting on a more equal footing with physicians) (Dhesi et al. 2019; Rijken et al. 2019). In this sense, integrating individual desires and preferences is crucial.

Barriers, on the other hand, can be divided into institutional, treatment consistency, patients’ health, and communication. Institutional barriers include time constraints, lack of human resources (healthcare personnel), ambiguous allocation of responsibilities and a paternalistic culture (Bunn et al. 2018; Dyrstad et al. 2015). Treatment consistency includes, in particular, staff rotation (physicians and healthcare personnel) and the transition between clinic and outpatient sectors (O’Donnell et al., 2019). The underlying assumption is that high degrees of treatment continuity are conducive to building trust and performing SDM (Selman et al., 2019; van de Pol et al., 2017).

The central issue for patients' health is that patients are overstrained (across cognitive, physical and psychological senses) by SDM processes (Gainer et al., 2017; Murthy et al., 2015), making it difficult to participate actively. The asymmetric power relations between patients and physicians are also considered as major barrier to joint decision-making (Gainer et al. 2017; Ekdahl et al. 2010; Zisman-Ilani et al., 2021). Communication arguments include linguistic barriers (Giampieri, 2012; Selman et al., 2019), social and emotional understanding of physicians and healthcare staff (Bunn et al., 2018; van de Pol et al., 2017) and the need for tailored communication (Muth et al., 2018). On this subject, Siminoff and Step (2005) draw on a comprehensive communication model that encompasses physicians' and patients' individual characteristics.

Given these numerous facilitating factors and barriers, the question arises as to which underlying assumptions are inherent in these studies. We argue that the above examined studies contain objective-rational arguments, implying objective criteria and rational behavior, yet omit to explore the underlying construct of, and deviating approaches towards, SDM (Bomhof-Roordink et al., 2019; Makoul & Clayman, 2006; Montori et al., 2017; Moumjid et al., 2007). The impression prevails that the implementation of SDM is considered a mere practical problem, which could be overcome, for example, by improving internal communication and healthcare personnel skills, without questioning the constructs underlying these barriers and facilitators. Extant analyses do not consider which relational structures underlie singular facilitators and barriers or whether these seemingly singular aspects are singular at all. Preceding analyses have been conducted to find every possible reason for the facilitation and obstruction of SDM yet resulting in a pile of topics for which it is uncertain which can be considered singularly, and which imply reciprocal relationships. While current literature has identified important barriers such as paternalistic culture obstructing the success of SDM, the origin, anchoring, and reproduction of these patterns by respective stakeholders has not been considered. What constitutes the underlying rationale for barriers and

facilitators? Are patients overburdened to participate or is this perception of overburdened patients resulting from the paternalistic perspective on patients? A major issue, then, is to identify relational structures between what appears to be single aspects. Since there is an absence of discussion on this point, the impression prevails that these aspects are understood as plausible arguments in the field of healthcare management and innovation and are subsequently categorized as facilitating and obstructing for SDM.

Frames and Frame Analysis

With these issues in mind, we propose the conceptual and methodological employment of frame analysis to contribute to understanding the concept of SDM. The purpose of this research is to explore the social construction of SDM and related facilitating and obstructing elements vis-à-vis its' implementation. For this, we conduct a news media analysis, on content and nature of facilitators and barriers, for understanding and describing perceptual and action-guiding assumptions, values, logics of action and behavior, thus the social construct of SDM. This is important because designing SDM practices involves changes in underlying norms, values, and practices of main stakeholders, including medical professionals, patients, and other status groups in hospitals.

Frames are a conceptual approach to experiences, rationales and expectations, shaping individuals' perception, interpretation and attribution of meaning and thereof derived actions (Goffman, 1974; Levin et al., 1998; Kahneman & Tversky, 1984). Frames therefore operate as an internally coherent input-processing-output triad: Beginning with individuals' perception, continuing with respective interpretation of the perceived and concluding with the consequential action (Entman, 1993). Frames arise through the social context of the individuals and imply selective perception and agency (Entman, 1993; Goffman, 1974). How we perceive our experiences, develop attitudes and

make decisions are not subject of rational and objective consideration of arguments and facts but are conditioned by frames (Entman, 2007). These preconditions concern the individual and collective layer: “By rendering events or occurrences meaningful, frames function to organize experience and guide action, whether individual or collective” (Snow et al., 1986, p. 464).

Originating within the intersection of sociology and psychology (Gamson & Modigliani, 1989; Scheufele, 2003), we view the origin and evolution of frames as a collective process. How individuals perceive, interpret, draw conclusions and take action, is embedded within the individuals’ socialization. This is carried out under the assumption that framing processes (e.g. learning of social norms, and behavior patterns) are determined by the respective social setting (Bateson, 1978; Bourdieu, 2014; Goffman, 1974). We therefore consider frames to be subjective, tied to an individual, but embedded in socio-cultural frames (Van Gorp, 2007).

Turning to this research project, innovations are conceived as socially constructed (Bijker et al., 2012; Star & Ruhleder, 1996). Its adoption is subject to contested and conflicting frames among stakeholders (Bernardi et al. 2017). We position the exploration of frames as an approach to identify patients’ and physicians’ stance vis-à-vis a healthcare innovation, respectively shared decision-making (Gong et al., 2013). Within the realm of studies on the diffusion of an innovation and the respective stance by users the analysis of frames serves as an approach for analyzing, understanding and describing perceptual and action-guiding assumptions, values, logics of action and behavior (Goffman, 1974; Maule & Villejoubert, 2007; Parsons, 1994).

The relationship between audience and news media is reciprocal and subject to continuous and interdependent evolvement. As a major opinion-shaping source, news media are considered to be both influential in shaping public opinion as well as generating public discourses (Scheufele, 2003; Gamson & Modigliani, 1989). The analysis of news media thus enables the assessment insights for specific societal realities.

METHOD

Research design

This research study follows an inductive and explorative approach. The core of this methodical approach is constituted by Gamson and Modiglianis' (1989) framing devices. These are: metaphors, exemplars, catchphrases, words, and couplings. Further, a modification of Entmans' (1993) reasoning devices (define problems, diagnose causes, make moral judgements, suggest remedies) constitutes the second theory-based component. Since this study is not focused on visual or motion picture media content (television news, illustrations), formatting devices are not considered.

The research design consists of four main parts: (1) Identification of news articles and organizations' press releases, (2) content, rhetorical and lexical analysis of news articles via MAXQDA, (3) hierarchical clustering with R, and (4) qualitative analysis and identification of frames.

Identification of news articles and further sources of information. National daily newspapers Süddeutsche Zeitung, Frankfurter Allgemeine Zeitung and Die Welt have been selected for the study. National daily newspapers have the highest reach of all types of newspapers (53.9% in 2019 (AGMA, 2019)). The selected newspapers are, in the order shown here, the most distributed daily newspapers in Germany (respectively 1,22, 0,88 and 0,62 million with regard to direct range and 8,33, 7,24 and 5,92 million with regard to extended audience (IfD Allensbach, 2019)). Beyond this, Apotheken-Umschau was selected as a public health magazine. This quarterly magazine had a distribution of 8.2 to 9.3 million in the period under consideration (since 1st quarter of 2018) (IVW, 2020).

Physicians, rely on further sources of information. Their view is therefore shaped through several channels (Wessel et al. 2017). German general practitioners, and internists obtain medical related information through following channels: 92.1% through medical journals, 77.9% through conferences and congresses, 63.8% through online services, 63.1% through specialist books, 60.9% through discussions with colleagues and 55.4% through pharmaceutical representatives (LA-MED, 2019). Discussions with colleagues are excluded, due to their informal nature, the challenge of assessing these and justified by virtue that this article concerns news media analysis. This crucial component will be addressed as part of a subsequent study. Specialist books are also excluded by virtue that this article concerns news media analysis.

Regarding medical journals, the Deutsches Ärzteblatt was considered in this study. Based on API studies of 2017 and of 2019 by the LA-MED working group, the weekly journal Deutsches Ärzteblatt has a coverage of 57.1% (LA-MED, 2017) and 55.1% (LA-MED, 2019) among German general practitioners, and internists, representing the most-read medical journal. To represent the content of congresses, the online available press releases, and statements of major organizers of congresses (e.g., associations, organizations, and federations) are considered. Here we selected the German Medical Association, the National Association of Statutory Health Insurance Physicians, German National Academy of Sciences Leopoldina, the German Society of Anesthesiology and Intensive Care Medicine and the German Society of Surgery, including its journal *Innovative Surgical Sciences*. These are leading professional associations of physicians and represent an integral source of information. The latter were selected because the specific context of this study concerns the setting of clinical healthcare interventions. To include pharmaceutical representatives, online available press releases, publications, and position papers of major pharmaceutical associations are considered. Here we selected the Federal Association of the Pharmaceutical Industry (BPI) and the Federal Association of Pharmaceutical Manufacturers (BAH). With more

than 260 (BPI, 2020) and over 400 (BAH, 2020). affiliated companies, BAH and BPI are the largest pharmaceutical representative organizations in Germany (Simon, 2015). For online sources, physicians use a variety of services. The shift to online sources does not imply a shift of primary sources (Pfannstiel et al., 2020). The most frequent sources are for example apotheken-umschau.de (for patients) (Haschke et al. 2018), Pubmed and Medline (Kettler et al. 2011). This research was conducted through online news media and through relevant newspapers, associations, and stakeholders. Accordingly, there will be no separate analysis of online platforms.

The search was conducted through WISO and LexisNexis databases and respective websites (see figure 1). Hereby, every article containing respective keywords was selected. According to the search term identification strategies by Phelps, Fisher, & Ellis (2007) we first identified key concepts for our search for news articles. The identified subjects are healthcare (field of application), shared decision-making (innovative subject), clinical interventions (specific context of SDM) and digitalization (practical feature of the innovation, in form of digital communication). Based on these concepts and inherent relations we identified following search items¹: ‘shared decision-making’ OR ‘patient orientation’ OR ‘patient preferences’ OR ‘patient empowerment’ OR ‘patient perspective’ AND ‘medical care’ OR ‘healthcare treatment’ OR ‘surgery’ OR ‘surgical intervention’ AND ‘digitalization’ OR ‘digital medical care’. The search has been conducted in calendar week 29/2020 and concerned all articles since December 2013. This choice of this point in time is based on the German federal governments’ coalition agreement of December 14 of 2013, in which patient orientation was issued as a guiding principle of the German healthcare system (CDU/CSU/SPD, 2013).

Based on these search items, we conducted a research of the databases of the respective sources. First, the duplicates were removed. Further, the introductions of all articles were read and the content was browsed to ascertain if their content is relevant for this research. Remaining articles

were reviewed in their entirety and assessed according to their relevance in terms of content. All remaining articles were included in the qualitative analysis. Here, a limited number of articles were discarded for lack of content relevance. Further, it was our aim to integrate an exploratory research phase. We performed a **backward search** (Levy and Ellis 2006; Webster and Watson 2002), following-up on relevant references of identified articles. This was a valuable approach to circumvent potential database, keyword, or source related omissions. Moreover, this approach provides a valuable contribution to understanding of the phenomenon SDM by identifying crucial sources and contributions that are not covered by the present search scope (Hardy et al., 2020). In this way, we were able to identify work that proved to be promising for expanding our analysis on SDM frames. We identified 15 further contributions. Among these are implemented SDM projects, and legislative resolutions.

Insert Figure 1 about here

Content, rhetorical, and lexical analysis of transcripts via MAXQDA. Transcripts were analyzed regarding content, rhetorical, and lexical elements. The content analysis corresponds to reasoning devices, while rhetorical and lexical analysis correspond to framing devices.

The content analysis was based on the predefined structure by the modification of Entmans' reasoning devices and were executed manually. The modified categories are: Content description, causal description, evaluative description, suggestions for action. The statements of the articles were assigned to respective categories.

The rhetorical analysis concerns the analysis of employed metaphorical elements and was conducted manually. The metaphorical language employed and its function for respective reasoning were analyzed. Particular attention was given to the alternation between metaphorical language and precise and explicit terms. This was based on the assumption that this enables an

insight into individual patterns of orientation (Lakoff & Johnson, 2003). The articles were analyzed to determine which metaphors are essential and the extent to which they underpin the reasoning. The lexical analysis concerns the analysis of Gamsons' framing devices (exemplars, catchphrases, words, and couplings) and was employed by MAXQDA. The analysis for exemplars and catchphrases was conducted manually. The keyword and coupling analysis were executed through the build-in keyword, phrase search and further searches for attributes, frequencies of words and interactive word trees. All terms were lemmatized, counted and conjunctions filtered to select those terms that were found in at least 50% of the articles. For the keyword coupling search, all terms were lemmatized, counted and keyword strings between 3-5 words were selected. All results were further filtered to select couplings that were found in at least 10% of the articles. All keyword couplings that occurred at least 10 times were selected. The impact of these thresholds on the qualitative results was examined by adjustment of these (40% and 30% instead of 50% and 5% instead of 10% of the articles and keyword couplings that occurred at least 5 times instead of 10 times). Regarding the robustness of the qualitative results, the adjusted thresholds do not constrain the results. The consequence would be that a few more keywords and key sentences could be introduced. Accordingly, it emerges that the analysis of the keywords plays a limited role in the qualitative interpretation and analysis.

Building the frame: Hierarchical cluster analysis. This phase consists of three steps: (1) Spearman correlation analysis of codes per paragraph, having a distance matrix as the output, (2) hierarchical cluster analysis, using the Ward method, in order to cluster correlated codes, (3) qualitative analysis of clusters and description of identified clusters.

Frames can be depicted through different patterns of text, interview or any form of human expression. This step consists of depicting and composing the frame evaluation and the compilation of consistent frame elements (or more specifically, ascertained codes). Initially, all codes with less

than five entries were discarded. The first step concerns the one-on-one analysis of the consistency of device elements. This part was performed through the build-in Spearman correlation analysis in MAXQDA. The result of this first step consists of a representation of the correlation between single elements within a distance matrix.

In the second step the elements are clustered, according to the consistency of their correlations. This was done through a hierarchical cluster analysis, using the Ward method, via R Studio. The number of clusters was determined through the elbow criterion. The goal was to determine a solid compromise between too few clusters (the heterogeneity of the individual clusters was too high, the aim was to reduce heterogeneity of clusters) and too many clusters (clusters cannot be differentiated in terms of content or even have the same content, the aim was to reduce intra-cluster redundancies). The ‘elbow’ therefore represents the point where heterogeneity was near its lowest point and the number of clusters in this respect represents the lowest value (Matthes & Kohring, 2008). To determine the number of clusters, the decline of variance of the first derivation by the total within-cluster sum of squares was determined and plotted. To account for competing solutions, adjacent numbers of clusters were also employed and tested for interpretability. At this point, the aim was to establish a high level of intra-subjectively comprehensible and reproducible procedures: “[...] reliability in frame analysis is not completely resolved but is shifted to the content analytical assessment of single frame elements” (Matthes & Kohring, 2008, p. 264).

Qualitative analysis and assessment of frames. Frames were analyzed by means of the pheatmap (see appendix A and B). The pheatmap is an R package that enables a more detailed analysis of the individual correlations using heatmaps. In contrast to the pure determination of clusters, here it becomes apparent which codes exhibit a close correlation when analyzed in isolation. A perfect relationship (= codes always occur in the same text segment) corresponds to value 1 (colored dark red). Codes that do not have a relationship correspond to value 0 and codes

that have an opposite relationship correspond to value -1. Concluding, clusters are described and represented in narrative frames.

RESULTS

Frames

Three facilitating and three obstructing frames were identified. These emerged from 56 facilitating and 44 obstructing codes that were identified through the qualitative analysis and have subsequently been merged into the frames using cluster analysis (see appendix A and B). The three facilitating frames are: *Digitalization: Empowerment through digital communication and information channels*, *Patients' health literacy: The proficient patient* and *The informed decision as the guiding principle*. The titles of the obstructive frames are: *Wealthcare: Political-economic boundaries to SDM*, *The paternalistic understanding: Demigod and Layman* and *Rejecting the novel*.

Figure 2 provides an initial overview of the frames identified and the qualitative relations. Overall, the frames *Patients' health literacy: The proficient patient*, *The informed decision as the guiding principle* and *The paternalistic understanding: Demigod and Layman* represent a stark polarity of mutual promotion and disaffirmation - it is these three frames that constitute the cornerstone of the stance towards SDM. Concerning facilitating frames, *Patients' health literacy: The proficient patient* serves as a point of intersection between *The informed decision as the guiding principle* and *Digitalization: Empowerment through digital communication and information channels*, emphasizing patient autonomy and competence. *Digitalization: Empowerment through digital communication and information channels* is aimed at digital tools, facilitating patients' access to health related information and enabling patient participation. With regard to obstructing frames, *The paternalistic understanding: Demigod and Layman* is qualitatively and quantitatively

important. *Rejecting the novel* and *The informed decision as the guiding principle* contrast in terms of content but are similar in their approach since both frames imply a pragmatic view vis-à-vis shared decision-making. *Wealthcare: Political-economic boundaries to SDM* addresses the broad perception of physicians' loss of authority as their scope of agency is undermined by economic considerations and predetermined treatment structures. These constitute a major barrier to the implementation of SDM.

Insert Figure 2 about here

Facilitating Frames

The frames exhibit a different number of codes (see figure 3). *Digitalization: Empowerment through digital communication and information channels* has 10 codes, *Patients' health literacy: The proficient patient* refers to 21 codes and *The informed decision as the guiding principle* refers to 25 codes. These also harbor varying degrees of complexity (see heatmap, appendix A). The heatmap shows that correlations range between 0.8 and -0.2. Although there are significant correlations between codes, these are by no means perfect. Similarly, there are no codes that are in considerable opposition. Overall, the majority of the correlations range between -0.2 to +0.2 - hence most correlations are weak. Decisive for the composition of the clusters are values between 0.4 to 1. The frame displaying the most significant correlations is *Digitalization: Empowerment through digital communication and information channels*, followed by *Patients' health literacy: The proficient patient*. These frames are characterized by a high density and closeness of the underlying codes. The correlations are predominantly between 0.4 - 0.8. This is in contrast with the frame *The informed decision as the guiding principle*. This frame is characterized by two sub-clusters. The correlations for these subclusters are in range 0.4 to 0.8. Overall, the frame is based on relatively weak correlations.

In addition, the heatmap allows to analyze code overlaps. Thus, it has been used to identify quantitative (and potentially qualitative) overlaps of frames or codes. This revealed that *Digitalization: Empowerment through digital communication and information channels* is quantitatively well bounded but has significant correlations to patient autonomy related codes of *Patients' health literacy: The proficient patient*, which are qualitatively plausible. The frames *Patients' health literacy: The proficient patient* and *The informed decision as the guiding principle* exhibit some quantitative and qualitative overlaps.

Insert Figure 3 about here

Digitalization: Empowerment through digital communication and information channels. This frame is shaped by the belief and conviction that digital tools facilitate patient access to health-related information and participation in the medical encounter.

The substantive issues that emerge from it are *e-patient – participation through digitalization*, *digitalization: access to medical information* and *digitalization: transformation of the healthcare system*. Representative of the transformative impact of digitalization on the healthcare system is the following statement of the code *connected medicine/patients*: “A new generation of patients, the so-called e-patients, puts the values of the connected world, open communication, transparency and participation at the core. The big ‘E’ in front of patient stands not only for ‘electronic’, but also for educated, enabled, engaged and empowered” (#19). These subjects are enriched by the metaphors *connected medicine*, *replaceability of physicians* and *fruits of digitalization* and catchphrases on *digital medicine*, and *digitalization of the healthcare system*. The frame is shaped by the belief and opinion that patients are experiencing a new role as a result of digitalization (and the opportunities for digital participation associated with it). The frame primarily concerns the

competencies and expertise in patients' own health interest and joint relationship with physicians in shared decision-making, enabled by digital tools.

This frame is in particular contrast to some elements of *The paternalistic understanding: Demigod and Layman*. While this frame is based on the assumption that patients' health literacy can be enhanced through digitalization, patients are denied participatory competence in *The paternalistic understanding: Demigod and Layman*.

The heatmap indicates that the overall frame is well defined. Nevertheless, there are a substantive correlations with the codes of the frame *Patients' health literacy: The proficient patient* relating to patient autonomy. This in turn is qualitatively plausible as this code implies a significant reference to patient participation enabling aspects of digitalization.

The informed decision as the guiding principle. This frame is rather complex: It is characterized by the belief in the meaningfulness of patient participation coupled with very tangible ideas on how this can be achieved. In this respect the frame is pragmatic.

The important content issues that emerge are *patient orientation & individualization, health improvement as therapeutic indication* and *informed decision*. The will for change is expressed by *overcoming economic constraints, creating financial incentives, and developing standards*. The following statement of the code *informed decision* is representative for this frame: "Patients have an ethical and legal right to an informed decision for or against consent to a medical measure" (#65). This frame is not characterized by an emotional stance towards patients, nor by an elevated competence of patients, but is based on a solid ethical stance: Medical treatments are carried out on patients; therefore, patients must assume decision-making authority in this matter.

These are complemented by examples of *pilot projects and implementation of SDM and standards and guidelines* and catchphrases on *SDM must be part of the daily routine of patients and physicians' relationship* and *adherence to therapy*. The following statement is representative of

this, which aims at the relevance of establishing clear standards and guidelines: “Imagine that stewardesses would have to devise something new for the safety instructions on board every time they need to do so. Just as they are in a good mood. Sometimes there would be a good day, sometimes a bad day, sometimes a lot would be forgotten. Nobody would feel safe. Such a thing would be unimaginable in flight operations, but in medicine it is part of everyday life” (#24).

This frame is in contrast to with the frames *Wealthcare: Political-economic boundaries to SDM* and *The paternalistic understanding: Demigod and Layman*. This is due to the contrasting perspective on patients: While in this frame patients are granted autonomy, self-determination, and competence the contrasting frames imply that patients’ participation is as a burden and a waste of time. Representative of the latter is the following statement of the code *paternalistic attitude*: “In the clinic the chief rolls his eyes after only ten minutes and the patient sits there and hasn't understood anything. In everyday life, one goes over to assembly line work and in case of doubt quickly decides for oneself” (#87).

This frame is compatible with *Patients’ health literacy: The proficient patient*. This is also partly indicated in the heatmap. This refers in particular to a series of codes which are associated with *The informed decision as the guiding principle*, but which are also relevant to *Patients’ health literacy: The proficient patient* in terms of both quantity and quality (see *Patients’ health literacy: The proficient patient*). The essential common ground is the attitude towards patients, who are assigned self-determination and a role at eye level.

Patients’ health literacy: The proficient patient. This frame is characterized by the belief and attitude that patients are competent, self-determined and responsible. In this respect, patients are considered to have the ability and will to participate in shared decision-making.

The important issues that emerge are *shared decision-making, active, autonomous, self-determined & competent* and *patient preferences, wishes & needs*. Representative for this frame is a statement

of the code *active, autonomous, self-determined & competent*: “As an informed patient, she now considers herself on an equal footing with the physician” (#1).

These are enhanced by the metaphors *at eye-level* and *the proficient patient/the therapeutic alliance* and catchphrases on *joint decisions, informed patients* and *patients want to participate*. Also, with regard to key words it becomes clear that this frame implies the most significant reference to shared decision-making: The codes *decision* and *decision-making* have the most significant correlations to codes of this frame. Representative for this frame is a statement of the code *the proficient patient/therapeutic alliance*, which summarizes the new role of patients and their demands: “The modern patient no longer wants to be an obedient patient, but a proficient, competent interlocutor” (#25). This frame contrasts in particular with *The paternalistic understanding: Demigod and Layman*. This is due to the different approach to patients. On the one hand, patients are attributed competence and expertise in one’s own matter and on the other hand, the role of physicians is exaggerated, and participation of patients is not considered relevant. Representative for the latter is the following statement of the code *demigod in white*: “The patient is needed for joint decision-making - but the patient, as the authors of the study describe it, has the image of the demigod in white before his eyes and does not even dare to ask questions” (#28). The significant correlation to *The informed decision as the guiding principle* becomes apparent through the heatmap. At this point there is a whole group of codes (e.g., *therapy acceptance & compliance*, and *satisfaction & trust*) which are assigned to *The informed decision as the guiding principle*, but also exhibit significant correlations to *Patients’ health literacy: The proficient patient*. Furthermore, the key words *decision* and *decision-making* but also contents such as *satisfaction and trust* and *Patients/Physicians: Shifting attitudes* are relevant for both frames. Accordingly, boundaries between these frames are partly blurred. This frame is also compatible with *Digitalization: Empowerment through digital communication and information channels*, although this frame

considers digitization as the key driver. The codes *Dealing with one's own health* and *digitalization: Access to medical information* are compatible in terms of content as well, in that they promote the autonomy of patients.

Obstructing Frames

The frames refer to different amounts of codes (see figure 4). *Rejecting the novel* includes 13 codes, *Wealthcare: Political-economic boundaries to SDM* six codes and *The paternalistic understanding: Demigod and Layman* 25 codes. These also harbor varying degrees of complexity. The heatmap helped identifying quantitative (and potentially qualitative) overlaps of the frames (see appendix B). The heatmap shows that correlations range between 1 and -0.2. This means that perfect correlations between some codes exist. None of the codes are fully opposed to each other. Overall, it is clear that the majority of correlations lie in the range between -0.2 and +0.2 - most correlations are not significant. Decisive for the formation of clusters are values between 0.4 - 1. The frame with the most significant relationships is *Wealthcare: Political-economic boundaries to SDM*. *The paternalistic understanding: Demigod and Layman* is characterized by two sub-clusters with correlations between 0.4 and 0.8. *Rejecting the novel* contains two sub-clusters. Overall, this frame implies weak correlations, ranging primarily between 0.2 – 0.6. Regarding the overlap between the clusters, the heatmap indicates that the frames are well separated overall. There are some overlaps, but these are partial and lie in range of 0.4 - 0.6.

Wealthcare: Political-economic boundaries to SDM. This frame shifts the responsibility for participation and involvement towards the political and economic sphere. Structural political and economic aspects are referred to as barriers and are thereby loaded with a strong metaphorical charge. Accordingly, the emphasis lies on major imbalances of authority and power: Neither the patients nor the physicians are attributed the control for implementing SDM, but rather the political sphere and hospital management, towards which the patients and physicians remain powerless.

The substantive issue that emerges from this is *economic pressure/constraints*. The following statement is representative for this frame: “The driving forces in the hospital system, with its hardly comprehensible regulations, fixed rates and therapy guidelines, are less the physicians than the economists and number fetishists in the administrations of the hospital corporations, as well as the numerous associations with their generously rewarded functionaries” (#35).

This is further supplemented by the metaphors *economic constraints*, *bloody dismissals & revolving door medicine* and *politics of symbolism* and catchphrases on *economization of medicine* and *healthcare - stepchild of politics*. With regard to the role of the economy, the following statement of the code *economic constraints* is typical: “Hardly anyone wants to admit that this system has long since degraded sick people to mere subjects of capitalist profit” (#48). Representative of the criticism due to lack of political support is the following statement of the code *politics of symbolism*: “Deficiency management and platitudes everywhere. Allegedly 97 times it is emphasized that patients are the core focus. This is not sincere. Nobody has dared to say that the healthcare system is primarily about the interests of hospital associations, health insurance companies, the medical and pharmaceutical industries. There is no sign in the coalition agreement of a health policy that is geared to the needs of patients” (#33).

This frame contrasts with the frame *The informed decision as the guiding principle*. This is due to the attitude towards implementing shared decision-making. While the *The informed decision as the guiding principle* frame is characterized by a pragmatic will to implement, the other side of the coin plays a role in the *Wealthcare: Political-economic boundaries to SDM* frame: Barriers are not perceived as manageable milestones, but as unbreakable walls. This also implies a negative perspective on the relationship between political and economic spheres. This is evident in the metaphorical language. Representative of this is the following statement of the code *politics of symbolism*: “Nothing can be expected from politics. Politicians will not be able to turn the

healthcare system around. Or do you really think they would mess with the globally organized corporate operators? The state is earning a lot of money from this madness. Why should politicians want to change anything about it?" (#35). The heatmap illustrates that the frame as a whole is well defined. Nevertheless, there is a sound relation to the topic *politics/physicians: Low priority, lack of standards and guidelines* and *organizational structures*. As this frame implies a negative perspective on the role of politics and shifts the responsibility away from individual physicians, the relation to these codes is plausible.

The paternalistic understanding: Demigod and Layman. In praxis, the implementation of SDM concerns the personal encounter between physicians and patients. This encounter is subject of this frame, embodying the two sides of the same coin, turning physicians to demigods and patients to laymen. Regarding physicians, this frame is characterized by the belief and conviction that only physicians have the training, competence and understanding of patients' conditions and treatment options necessary to make decisions. Patients are viewed as layman, who lack the medical competence to fully understand their health conditions, who have difficulties assessing possible treatment options and who are overstrained by participating in clinical decision-making processes. Hereby, it is important not to confuse the perspective *on* physicians as demigods and *on* patients as laymen with the perspective *of* physicians and patients - both parties can potentially have either perspective. As in the *Wealthcare: Political-economic boundaries to SDM* frame, power imbalances are also highlighted here, between physicians and patients. Patients are attributed a lower level of medical competence and denied possible participation. Eventually, this frame leads to the notion that patients are not empowered to enforce an SDM - even if it were in their own best interest.

Considering the demigod perspective, emerging issues are *paternalistic attitudes, lack of priority, lack of time* and *complexity of diseases & therapeutic options*. Representative for this frame is a

statement of the code *complexity of diseases & therapeutic options*: “It takes more than the pure knowledge of the rules. A decision - whether shared or not - is ultimately the end of a process of reasoning that leads to a judgment. Here it is the judgement as to whether an operation should be carried out in a specific case. This requires judgement sharpened by experience” (#28). This is supplemented by the metaphors *demigod in white* and *thicket healthcare system* and examples about *former role models*. Representative of the perspective on patients (and related perception of physicians) is the following statement of the code *thicket healthcare system*: “It has complex structures, costs a lot of time and money; many doctors are constantly working under tension and are often under time pressure. They must be quick and precise. To do this, they use complicated technical language. For most patients, however, it sounds like gibberish. They are overwhelmed by it” (#27). The complexity of care and resulting overtaxing of patients is mentioned in the same breath with the ability of physicians to be ‘quick and precise’. A contrasting relationship is painted, putting the competence of physicians in the foreground. However, it is plausible that a frame which elevates the level of competence of physicians, undermines the competence and participation of patients - and vice versa.

Considering the layman perspective, the topics that result from this are *e-lack of health literacy* and *lack of digital health literacy*. Representative for this is a statement of the code *lack of digital health literacy*: “The amateurish search on the internet often does not make things better - on the contrary. One no longer knows what to do. Specialists speak of limited health literacy in such situations - the ability to maneuver safely and perhaps successfully through the health system” (#27). These are supplemented by the metaphors *the layman* and *parallel universes* and the examples on *complexity of illness and therapy*.

This frame contrasts in particular with *Patients' health literacy: The proficient patient* (for more details see *Patients' health literacy: The proficient patient*). Overall, this frame is quantitatively well bounded.

Rejecting the novel. This frame is related with the highest load of the obstructive frames to shared decision-making - in a rejecting manner.

In contrast to previous frames, in which the perspective on patients or physicians was the decisive impetus, the focus here is on collaborative participation of patients in medical decision-making or research. Participation itself is critically examined and supported by arguments originating in different areas, which implies that the primary function of this frame lies in rejecting the novel. The content-related topics that result from this are *lack medical evidence, data security, and doubts about improving satisfaction/trust/health*. These are supplemented by examples on *digital health literacy, standards & guidelines* and *deficient pilot projects and implementation of SDM*. The catchphrases on *lack of implementation of SDM* complete the picture. Representative for this is a statement of the code *standards & guidelines*: “The analysis of information forms currently used in Germany also shows that these are not suitable for supporting an informed decision. An assessment of the information with regard to its actuality and reliability is only possible to a limited extent. The assessment of different treatment options is not supported because a numerical representation of benefits and harms in comparison to alternative measures is missing” (#65). This example demonstrates two core elements of this frame: (1) Rejection of patient participation, (2) coupled with a pragmatic approach. This frame cannot be classified as emotional, let alone hostile to patients or physicians. In a certain manner the frame is structurally similar to *The informed decision as the guiding principle*, with the major difference that in this frame the obstructing aspects are given much more emphasis, considering solely the flipside of the coin. Therefore, this

frame is in contrast to *The informed decision as the guiding principle*. The heatmap indicates that the frame is well bounded.

DISCUSSION

The analysis of news media frames on SDM within the setting of clinical healthcare interventions in Germany revealed three facilitating and three obstructive frames. The facilitating frames include: *Digitalization: Empowerment through digital communication and information channels*, *The informed decision as the guiding principle* and *Patients' health literacy: The proficient patient*.

The obstructing frames include: *Wealthcare: Political-economic boundaries to SDM*, *The paternalistic understanding: Demigod and Layman* and *Rejecting the novel*.

Overall, these frames illustrate a broad scope of assumptions, as well as logics of action, and ethical purposes that prevail on SDM. Such frames are having a decisive influence on which stance one takes towards shared decision-making within the setting of clinical healthcare interventions.

Turning to the social constructs of the assessed frames on shared decision-making: In a sense, these frames reveal the conflict of fulfilling the aim of patient orientation without undermining the medical profession. In *The paternalistic understanding: Demigod and Layman*, the ability to make decisions is equated with the competence to understand and evaluate treatment choices. This perspective corresponds to a rational decision-model, according to which decision problems are reduced to information problems. Within this frame, patients are denied the ability to participate in decision-making because they do not have the competence to understand all the necessary information in order to make an informed decision. The aim of involving patients, or even in making jointly responsible decisions, therefore, is understood as a parody of the medical profession. Within this frame, power relations must also be addressed, in that they indicate a distinct disparity in favor of physicians. These power relations, in turn, are not cast in formal

structures that could be easily defined. Rather, these are implicit patterns, conditioned by subjective perceptions of roles, as well as in diverging competencies and resources in the medical setting. Overcoming these implicit patterns constitutes a major barrier for the implementation of SDM. It is important to understand that SDM is not about patients adopting the competencies of physicians, or about physicians adopting the living circumstances of patients: Each participant brings their respective capacities and authority to the encounter to create a shared decision (Zisman-Ilani et al., 2021).

By contrast, key characteristics of *Patients' health literacy: The proficient patient* involve subjective and individual perspectives on personal expectations of quality of life. Within this frame, patients are granted the right to participate in clinical decisions. This is substantiated by the understanding that such a decision concerns them - their body - and has an influence on their life. Patients are thus viewed as responsible experts of their own health and as indispensable participants in clinical decision-making processes.

The frames *Digitalization: Empowerment through digital communication and information channels* and *The informed decision as the guiding principle* pursue the same approach as *Patients' health literacy: The proficient patient*: The rationale of these frames is based on the decisional information model – only with a different outcome. Within the latter, it is being argued that patients can very well enjoy and acquire solid health literacy (i.e., facilitated by digital tools) and have both an understanding of their state of health and an understanding of the options available to them. It is only a matter of providing information.

A divergent yet engaging account on decision-making emerges in *Wealthcare: Political-economic boundaries to SDM*. Therein, the individual autonomy of clinical decision-making is called into question and the greatest power over decision-making processes is assigned to the economic-political system. The implementation of SDM is thus located at the political level and at the level

of hospital management. At this point, the individual deteriorates into a pawn of the systemic structures. This imbalance of power, which undermines the practical ability of patients and physicians to act due to systemic boundaries, should also concern political authorities. The implementation of the Patient Protection Act, which concerns, in a practical sense, the implementation of SDM, must be addressed at the political and economic level. While the frame *The paternalistic understanding: Demigod and Layman* highlights the microcosm of the patient-physician relationship, and therewithin the implicit power structures which pose a barrier, the frame *Wealthcare: Political-economic boundaries to SDM* illustrates that the implementation of SDM is also conditioned by economic and political conditions and recommendations.

LIMITATIONS

There are some limitations to this article which should be addressed. For one, this refers to the exclusion of conversations among physicians with patients. These conversations are an essential source of information, especially for patients. Its exclusion therefore implies a major limitation. In order to address this, further empirical analysis on the qualitative assessment of patient and physician frames should be conducted in subsequent studies. A valuable element of this empirical study should concern the exploration of the inherent power structures. Moreover, this research only refers to conventional media, which means that digital platforms (e.g., Twitter, Facebook) were not included. It is recommended that this should be included in subsequent studies.

Overall, the selected articles are distributed widely across outlets, with the exception of Deutsches Ärzteblatt, which covers a considerable share of the articles (33 of 89). We conducted a separate frame analysis for the articles published by Deutsches Ärzteblatt. The facilitating frames are more heterogeneous and less distinct. Although *the frames Patients' health literacy: The proficient patient* and *The informed decision as the guiding principle* are apparent, the frame *Digitalization:*

Empowerment through digital communication and information channel is not separately identifiable. We consider a division into two facilitating frames to be more appropriate for the Deutsches Ärzteblatt. With regard to the obstructing frames, it is particularly evident that the Frame *Wealthcare: Political-economic boundaries to SDM* and its underlying codes are negligible. Accordingly, these were hardly discussed in the Deutsches Ärzteblatt. Although the frames *The paternalistic understanding: Demigod and Layman* and *Rejecting the novel* are not identical to the overall frame analysis, with respect to the underlying codes, substantial patterns are recognizable. We also consider a division into two obstructing frames to be more appropriate for the Deutsches Ärzteblatt. This analysis highlights the robustness of the results, as these are not significantly biased by the major outlet.

Further limitations of this article relate to the analysis of the articles in terms of (1) strategic theme setting and framing, pursuing a deliberate agenda, and (2) a discussion on the congruence between postulated themes and frames and associated agency. This study exclusively covers the discourses on SDM, by assessing news media frames. Thus, the analysis concerns solely the communicative layer and not the action layer of potential frame holders. This boundary condition should be included in further studies.

The qualitative analysis of articles, development of codes and concluding discussion of frames remain as qualitative-subjective activities, which are conditioned by the personal background of the researcher. It was again our concern to find an alternative solution at a crucial juncture: The composition of the frames. By means of quantitative frame composition or cluster analysis we tried to mitigate this concern. All in all, it can be summarized that this study remains primarily qualitative in nature but contains an essential quantitative element. In addition, we were concerned to provide a substantial degree of transparency and accountability within subjectivity.

CONCLUSION

Within the scope of this news media analysis, our study pursued the exploration of frames on shared decision-making within the setting of clinical healthcare interventions in Germany. Three facilitating, and three obstructive frames, were identified. The facilitating frames include: (a) *Digitalization: Empowerment through digital communication and information channels*, (b) *The informed decision as the guiding principle* and (c) *Patients' health literacy: The proficient patient*. The obstructing frames include: (a) *Wealthcare: Political-economic boundaries to SDM*, (b) *The paternalistic understanding: Demigod and Layman* and (c) *Rejecting the novel*.

Aiming at understanding how obstructive and facilitating arguments and facts towards SDM become relevant and applicable, the analysis of frames has been positioned as paramount for understanding the social construction of shared decision-making.

The identified facilitating and obstructing frames have a major influence on the stance towards SDM of the frame holders. This study on news media frames highlights that the discourse on shared decision-making is polarized, which, in some cases, compromises the implementation of SDM. The frames accentuate the conflict of fulfilling the aim of integrating patients in clinical decision-making processes, without undermining the profession clinical healthcare specialists. The understanding and subsequent bridging of obstructing frames should become a main issue in further research projects. The identification of frames is positioned in this article as a means for understanding the implementation of an innovation, which can enable the exploration of the social construction of, and stances towards, SDM. We have attempted to move beyond the analysis of peripheral and isolated arguments, in order to identify coherent perceptions towards the construction of SDM.

The methodological contribution performed in our analysis lies in its (a) application of frame analysis to address the social construction of an innovation and (b) in the implementation of

quantitative frame and cluster analysis. With regard to the analysis of the acceptance of innovations within healthcare, the application of frame analysis represents a hitherto uncommon approach. This article, therefore, underpins the relevance of analyzing the interaction between subject and innovation. The acceptance or rejection of an innovation is not based on rational, linear, and unidirectional processes, but on subjective and multidirectional processes along the respective field of application.

¹The search terms were translated for the purpose of comprehensibility. The original terms are as follows: ‘partizipative Entscheidungsfindung’ OR ‘shared decision-making’ OR ‘Patientenorientierung’ OR ‘Patientenpräferenz’ OR ‘Patient-Empowerment’ OR ‘Patientenperspektive’ AND ‘medizinische Versorgung’ OR ‘gesundheitliche Versorgung’ OR ‘Operation’ OR ‘operativer Eingriff’ AND ‘Digitalisierung’ OR ‘digitale medizinische Versorgung’

REFERENCES

- AGMA (Ed.). (2019). Ma 2019 Pressemedien II. Arbeitsgemeinschaft Media-Analyse e.V. (agma). <https://www.agma-mmc.de/presse/pressemitteilungen/pressearchiv/pressemitteilung/ma-2019-pressemedien-ii-veroeffentlicht>.
- Bae, J.-M. (2017). Shared decision making: Relevant concepts and facilitating strategies. *Epidemiology and Health*, 39, e2017048.
- Bateson, G. (1978). *Steps to an ecology of mind: A revolutionary approach to man's understanding of himself* (7. printing). Ballantine Books.
- BAH. 2020. ‘Über Uns’. Bundesverband der Arzneimittel-Hersteller e.V. <https://www.bah-bonn.de/derverband/ueber-uns/>.
- Bernardi, R., Constantinides, P., & Nandhakumar, J. (2017). Challenging Dominant Frames in Policies for IS Innovation in Healthcare through Rhetorical Strategies. *Journal of the Association for Information Systems*, 18(2), 81–112.
- BGBl I, Gesetz zur Verbesserung der Rechte von Patientinnen und Patienten § 630a - 630h (2013), Ausgegeben zu Bonn am 25. Februar 2013.
- Bijker, W. E., Hughes, T. P., & Pinch, T. (Eds.). (2012). *The social construction of technological systems: New directions in the sociology and history of technology* (Anniversary ed). MIT Press.
- Bomhof-Roordink, H., Gärtner, F. R., Stiggelbout, A. M., & Pieterse, A. H. (2019). Key components of shared decision making models: A systematic review. *BMJ Open*, 9(12), e031763.
- Bourdieu, P. (2014). *Die feinen Unterschiede: Kritik der gesellschaftlichen Urteilskraft* (B. Schwibs, Trans.; 24. Auflage 2014). Suhrkamp.
- BPI. 2020. ‘Organisaton’. <https://www.bpi.de/de/bpi/organisation>.
- Bunn, F., Goodman, C., Russell, B., Wilson, P., Manthorpe, J., Rait, G., Hodkinson, I., & Durand, M.-A. (2018). Supporting shared decision making for older people with multiple health and social care needs: A realist synthesis. *BMC Geriatrics*, 18(1), 165.
- CDU/CSU/SPD. (2013). DEUTSCHLANDS ZUKUNFT GESTALTEN - Koalitionsvertrag zwischen CDU, CSU und SPD (18. Legislaturperiode; p. 130). <https://www.bundestag.de/resource/blob/194886/696f36f795961df200fb27fb6803d83e/koalitionsvertrag-data.pdf>
- Charles, C., Gafni, A., & Whelan, T. (1997). Shared decision-making in the medical encounter: What does it mean? (or it takes at least two to tango). *Social Science & Medicine*, 44(5), 681–692.

- Charles, C., Gafni, A., & Whelan, T. (1999). Decision-making in the physician–patient encounter: Revisiting the shared treatment decision-making model. *Social Science & Medicine*, 49(5), 651–661.
- Corbett, R. W., & Brown, E. A. (2018). Conventional dialysis in the elderly: How lenient should our guidelines be? *Seminars in Dialysis*, 31(6), 607–611.
- Cornelissen, Joep P., and Mirjam D. Werner. 2014. ‘Putting Framing in Perspective: A Review of Framing and Frame Analysis across the Management and Organizational Literature’. *Academy of Management Annals* 8(1):181–235.
- Couët, N., Desroches, S., Robitaille, H., Vaillancourt, H., Leblanc, A., Turcotte, S., Elwyn, G., & Légaré, F. (2015). Assessments of the extent to which health-care providers involve patients in decision making: A systematic review of studies using the OPTION instrument. *Health Expectations: An International Journal of Public Participation in Health Care and Health Policy*, 18(4), 542–561.
- Coulter, A. (1999). Shared decision-making: A summary and future issues. In Maslin AM, Powles TJ (eds) *Breast Cancer. Sharing the Decision*. (pp. 99–108). Oxford University Press.
- Coulter, A., Härter, M., Moumjid, N., Perestelo-Perez, L., & Weijden, T. van der. (2015). *European Experience with Shared Decision Making (Working Papers No. 1538)*. Groupe d’Analyse et de Théorie Economique Lyon St-Étienne (GATE Lyon St-Étienne), Université de Lyon. <https://ideas.repec.org/p/gat/wpaper/1538.html>
- Davis, J. L., & Davison, S. N. (2017). Hard choices, better outcomes: A review of shared decision-making and patient decision aids around dialysis initiation and conservative kidney management. *Current Opinion in Nephrology and Hypertension*, 26(3), 205–213.
- Dhesi, J. K., Lees, N. P., & Partridge, J. S. (2019). Frailty in the perioperative setting. *Clinical Medicine*, 19(6), 485–489.
- Dyrstad, D. N., Testad, I., & Storm, M. (2015). Older patients’ participation in hospital admissions through the emergency department: An interview study of healthcare professionals. *BMC Health Services Research*, 15(1), 475.
- Ekdahl, A. W., Andersson, L., & Friedrichsen, M. (2010). “They do what they think is the best for me.” Frail elderly patients’ preferences for participation in their care during hospitalization. *Patient Education and Counseling*, 80(2), 233–240.
- Elwyn, G., Frosch, D., Thomson, R., Joseph-Williams, N., Lloyd, A., Kinnersley, P., Cording, E., Tomson, D., Dodd, C., Rollnick, S., Edwards, A., & Barry, M. (2012). Shared Decision Making: A Model for Clinical Practice. *Journal of General Internal Medicine*, 27(10), 1361–1367.
- Entman, R. M. (1991). Framing U.S. Coverage of International News: Contrasts in Narratives of the KAL and Iran Air Incidents. *Journal of Communication*, 41(4), 6–27.
- Entman, R. M. (1993). Framing: Toward Clarification of a Fractured Paradigm. *Journal of Communication*, 43(4), 51–58.
- Entman, R. M. (2007). Framing Bias: Media in the Distribution of Power. *Journal of Communication*, 57(1), 163–173.
- Flynn, D., Knoedler, M. A., Hess, E. P., Murad, M. H., Erwin, P. J., Montori, V. M., & Thomson, R. G. (2012). Engaging Patients in Health Care Decisions in the Emergency Department Through Shared Decision-making: A Systematic Review: SHARED DECISION-MAKING IN THE ED. *Academic Emergency Medicine*, 19(8), 959–967.
- Gainer, R. A., Curran, J., Buth, K. J., David, J. G., Légaré, J.-F., & Hirsch, G. M. (2017). Toward Optimal Decision Making among Vulnerable Patients Referred for Cardiac Surgery: A Qualitative Analysis of Patient and Provider Perspectives. *Medical Decision Making*, 37(5), 600–610.
- Gamson, W. A., & Modigliani, A. (1989). Media Discourse and Public Opinion on Nuclear Power: A Constructionist Approach. *American Journal of Sociology*, 95(1), 1–37.
- Giampieri, M. (2012). Communication and informed consent in elderly people. *MINERVA ANESTESIOLOGICA*, 78(2), 7.

- Glöser, S. (2018, September 28). Projekt zur intensiveren Arzt-Patienten-Kooperation. Deutsches Ärzteblatt. <https://www.aerzteblatt.de/archiv/201035/Projekt-zur-intensiveren-Arzt-Patienten-Kooperation>
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. (pp. ix, 586). Harvard University Press.
- Gong, J., Zhang, Y., Yang, Z., Huang, Y., Feng, J., & Zhang, W. (2013). The framing effect in medical decision-making: A review of the literature. *Psychology, Health & Medicine*, 18(6), 645–653.
- Hardy, C., Maguire, S., Power, M., & Tsoukas, H. (2020). Organizing Risk: Organization and Management Theory for the Risk Society. *Academy of Management Annals*, 14(2), 1032–1066.
- Härter, M., Buchholz, A., Nicolai, J., Reuter, K., Komarahadi, F., Kriston, L., Kallinowski, B., Eich, W., & Bieber, C. (2015). Shared Decision Making and the Use of Decision Aids. *Deutsches Ärzteblatt Online*.
- Haschke, C., Grote Westrick, M., & Schwenk, U. (2018). SPOTLIGHT Gesundheit: Gesundheitsinfos Wer sucht, der findet – Patienten mit Dr. Google zufrieden. <https://www.bertelsmannstiftung.de/de/publikationen/publikation/did/spotlight-gesundheit-gesundheitsinfos>
- IfD Allensbach (Ed.). (2019). AWA 2019. IfD Allensbach (Allensbacher Markt- und Werbeträgeranalyse). <https://www.ifd-allensbach.de/awa/medien/printmedien.html#c1112>
- IVW. (2020). Apotheken-Umschau Komb A+B (mtl)—Wort & Bild Verlag Konradshöhe GmbH & Co. KG (Baierbrunn) (IVW-Nr.: 4010101212). Informationsgesellschaft zur Feststellung der Verbreitung von Werbeträgern e.V. <https://www.ivw.eu/aw/print/qa/titel/2219>
- Kahneman, D., & Tversky, A. (1984). Choices, values, and frames. *American Psychologist*, 39(4), 341–350.
- Kettler, S., Bromme, R., & Stadler, M. (2011, June 6). Dr. Google – geschätzter Kollege? Die Rolle des Internets in der Arzt-Patient-Interaktion—Online ZFA. <https://www.online-zfa.de/archiv/ausgabe/artikel/zfa-6-2009/46778-103238-zfa20090254-dr-google-geschaetzter-kollegedie-rolle-des-internets-in-der-arzt-pat/>
- Klemperer, D. (2015, October 2). Patientenbeteiligung zur Verbesserung der Versorgungsqualität. *Deutsches Ärzteblatt*. <https://www.aerzteblatt.de/archiv/172306/Patientenbeteiligung-zur-Verbesserung-der-Versorgungsqualitaet>
- Lakoff, G., & Johnson, M. (2003). *Metaphors we live by*. University of Chicago Press.
- LA-MED. (2017). LA-MED API-Studie 2017. <https://la-med.de/studien/api-studie/api-ergebnisse/>
- LA-MED. (2019). LA-MED API-Studie 2019. <https://la-med.de/studien/api-studie/api-ergebnisse/>
- Légaré, F., Brière, N., Stacey, D., Lacroix, G., Desroches, S., Dumont, S., Fraser, K. D., Rivest, L.-P., Durand, P. J., Turcotte, S., Taljaard, M., Bourassa, H., Roy, L., & Painchaud Guérard, G. (2016). Implementing shared decision-making in interprofessional home care teams (the IPSDM-SW study): Protocol for a stepped wedge cluster randomised trial. *BMJ Open*, 6(11), e014023.
- Levin, I. P., Schneider, S. L., & Gaeth, G. J. (1998). All Frames Are Not Created Equal: A Typology and Critical Analysis of Framing Effects. *Organizational Behavior and Human Decision Processes*, 76(2), 149–188.
- Levy, Y., & J. Ellis, T. (2006). A Systems Approach to Conduct an Effective Literature Review in Support of Information Systems Research. *Informing Science: The International Journal of an Emerging Transdiscipline*, 9, 181–212.
- Mandelblatt, J., Kreling, B., Figueiredo, M., & Feng, S. (2006). What is the impact of shared decision making on treatment and outcomes for older women with breast cancer? *Journal of Clinical Oncology : Official Journal of the American Society of Clinical Oncology*, 24(30), 4908–4913.
- Manecke, G. R., Asemota, A., & Michard, F. (2014). Tackling the economic burden of postsurgical complications: Would perioperative goal-directed fluid therapy help? *Critical Care*, 18(5), 566.
- Marmelo, F., Rocha, V., & Moreira-Gonçalves, D. (2018). The impact of prehabilitation on post-surgical complications in patients undergoing non-urgent cardiovascular surgical intervention: Systematic review and meta-analysis. *European Journal of Preventive Cardiology*, 25(4), 404–417.

- Matthes, J., & Kohring, M. (2008). The content analysis of media frames: Toward improving reliability and validity. *Journal of Communication*, 58(2), 258–279. psych.
- Maule, J., & Villejoubert, G. (2007). What lies beneath: Reframing framing effects. *Thinking & Reasoning*, 13(1), 25–44.
- Makoul, G., & Clayman, M. L. (2006). An integrative model of shared decision making in medical encounters. *Patient Education and Counseling*, 60(3), 301–312.
- Montori, V. M., Kunneman, M., & Brito, J. P. (2017). Shared Decision Making and Improving Health Care: The Answer Is Not In. *JAMA*, 318(7), 617.
- Moumjid, N., Gafni, A., Brémond, A., & Carrère, M.-O. (2007). Shared Decision Making in the Medical Encounter: Are We All Talking about the Same Thing? *Medical Decision Making*, 27(5), 539–546.
- Mühlbacher, A. (2017, September 4). Ökonomisierung: Ohne Patientenpräferenzen kein sinnvoller Wettbewerb. *Deutsches Ärzteblatt*. <https://www.aerzteblatt.de/archiv/193227/Oekonomisierung-Ohne-Patientenpraeferenzen-kein-sinnvoller-Wettbewerb>
- Murthy, S., Hepner, D. L., Cooper, Z., Bader, A. M., & Neuman, M. D. (2015). Controversies in anaesthesia for noncardiac surgery in older adults. *British Journal of Anaesthesia*, 115, ii15–ii25.
- Muth, C., Blom, J. W., Smith, S. M., Johnell, K., Gonzalez-Gonzalez, A. I., Nguyen, T. S., Brueckle, M. - S., Cesari, M., Tinetti, M. E., & Valderas, J. M. (2018). Evidence supporting the best clinical management of patients with multimorbidity and polypharmacy: A systematic guideline review and expert consensus. *Journal of Internal Medicine*, joim.12842.
- O'Donnell, D., Ní Shé, É., McCarthy, M., Thornton, S., Doran, T., Smith, F., O'Brien, B., Milton, J., Savin, B., Donnellan, A., Callan, E., McAuliffe, E., Gray, S., Carey, T., Boyle, N., O'Brien, M., Patton, A., Bailey, J., O'Shea, D., & Cooney Marie, T. (2019). Enabling public, patient and practitioner involvement in co-designing frailty pathways in the acute care setting. *BMC Health Services Research*, 19(1), 797.
- Parsons, T. (1994). *Aktor, Situation und normative Muster: Ein Essay zur Theorie sozialen Handelns* (2nd ed.). Suhrkamp.
- Pfannstiel, M. A., Da-Cruz, P., & Rederer, E. (Eds.). (2020). *Digitale Transformation von Dienstleistungen im Gesundheitswesen VII: Impulse für die Pharmaindustrie*. Springer Fachmedien Wiesbaden.
- Phelps, R., Fisher, K., & Ellis, A. (2007). *Organizing and Managing Your Research*. SAGE Publications, Ltd.
- Pilnick, A., & Zayts, O. (2016). Advice, authority and autonomy in shared decision-making in antenatal screening: The importance of context. *Sociology of Health & Illness*, 38(3), 343–359.
- Requarth, J. A. (2015). Informed Consent Challenges in Frail, Delirious, Demented, and Do-Not-Resuscitate Adult Patients. *Journal of Vascular and Interventional Radiology*, 26(11), 1647–1651.
- Rijken, M., Lette, M., Baan, C. A., & de Bruin, S. R. (2019). Assigning a Prominent Role to “The Patient Experience” in Assessing the Quality of Integrated Care for Populations with Multiple Chronic Conditions. *International Journal of Integrated Care*, 19(3), 19.
- Scheufele, B. (2003). *Frames - Framing - Framing-Effekte: Theoretische und methodische Grundlegung des Framing-Ansatzes sowie empirische Befunde zur Nachrichtenproduktion* (1. Auflage, Softcover reprint of the hardcover 1st edition). Westdeutscher Verlag.
- Selman, L. E., Bristowe, K., Higginson, I. J., & Murtagh, F. E. M. (2019). The views and experiences of older people with conservatively managed renal failure: A qualitative study of communication, information and decision-making. *BMC Nephrology*, 20(1), 38.
- Siminoff, L. A., & Step, M. M. (2005). A communication model of shared decision making: Accounting for cancer treatment decisions. *Health Psychology*, 24(4, Suppl), S99–S105.
- Simon, M. (2015, February 6). Lobbyismus in der Gesundheitspolitik | bpb. [bpb.de. https://www.bpb.de/politik/innenpolitik/gesundheitspolitik/200658/lobbyismus-in-der-gesundheitspolitik](https://www.bpb.de/politik/innenpolitik/gesundheitspolitik/200658/lobbyismus-in-der-gesundheitspolitik)
- Snow, D. A., Rochford Jr., E. B., Worden, S. K., & Benford, R. D. (1986). Frame alignment processes, microbilitation, and movement participation. *American Sociological Review*, 51(4), 464–481. sih.

- Star, S. L., & Ruhleder, K. (1996). Steps Toward an Ecology of Infrastructure: Design and Access for Large Information Spaces. *Information Systems Research*, 7(1), 111–134.
- van de Pol, M. H. J., Fluit, C. R. M. G., Lagro, J., Slaats, Y., Olde Rikkert, M. G. M., & Lagro-Janssen, A. L. M. (2017). Shared decision making with frail older patients: Proposed teaching framework and practice recommendations. *Gerontology & Geriatrics Education*, 38(4), 482–495.
- van der Zwaard, B. C., Stein, C. E., Bootsma, J. E. M., van Geffen, H. J. A. A., Douw, C. M., & Keijsers, C. J. P. W. (2019). Fewer patients undergo surgery when adding a comprehensive geriatric assessment in older patients with a hip fracture. *Archives of Orthopaedic and Trauma Surgery*.
- Van Gorp, B. (2007). The constructionist approach to framing: Bringing culture back in. *Journal of Communication*, 57(1), 60–78.
- Vonlanthen, R., Slankamenac, K., Breitenstein, S., Puhan, M. A., Muller, M. K., Hahnloser, D., Hauri, D., Graf, R., & Clavien, P.-A. (2011). The impact of complications on costs of major surgical procedures: A cost analysis of 1200 patients. *Annals of Surgery*, 254(6), 907–913.
- Vucicevic, D., Honoris, L., Raia, F., & Deng, M. (2018). Current indications for transplantation: Stratification of severe heart failure and shared decision-making. *Annals of Cardiothoracic Surgery*, 7(1), 56–66.
- Webster, J., & Watson, R. T. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly*.
- Wessel, L., Gersch, M., & Harloff, E. (2017). Talking Past Each Other: A Discursive Approach to the Formation of Societal-Level Information Pathologies in the Context of the Electronic Health Card in Germany. *Business & Information Systems Engineering*, 59(1), 23–40.
- Woltmann, E. M., & Whitley, R. (2010). Shared decision making in public mental health care: Perspectives from consumers living with severe mental illness. *Psychiatric Rehabilitation Journal*, 34(1), 29–36.
- Zisman-Ilani, Y., Roth, R. M., & Mistler, L. A. (2021). Time to Support Extensive Implementation of Shared Decision Making in Psychiatry. *JAMA Psychiatry*.