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Storytelling in Focus Group Discussions: A Narrative Approach to Phenomena With Temporal Dimensions in Medical Education Research

Sofie Gjessing¹, Jette Kolding Kristensen¹, and Torsten Risør²,³

Abstract
People can express experiences, opinions, and perspectives in stories. In a story, the experiences can be relived and discovered independently of time and place. In medical education, it is a fundamental premise that time progresses, and it is within this temporal space that students learn, acquire competencies, and form identity. It is also within this space that much qualitative research is conducted. However, qualitative examinations at one point in time will result in only a snapshot of a dynamic phenomenon that evolves over time. Existing approaches to qualitative research are often inadequate to accommodate this dynamic development without applying a time- and cost-consuming design such as longitudinal investigations. The purpose of this paper is to present storytelling as a useful research approach to include temporal dimensions in cross-sectional qualitative data collection. We describe the background for the approach, argue for its use, and provide a practical example of storytelling with the use of a fictional character in online focus group discussions to explore a dynamic phenomenon in medical education research. Overall, storytelling offers a narrative approach to qualitative research that allows the researcher to explore phenomena across time and space. The approach has the advantage that it can be used in different formats both oral and written, digital or physical.

Keywords
Storytelling, Narrative Research, Narrative Inquiry, Focus Groups, Medical Education

Introduction
Stories can reveal something important about a person’s lived experience of particular events. Thus, one can relive and discover the experiences through the telling of a story about them. These stories can include meanings and beliefs that would not otherwise be part of a general description. This also concerns a story’s spatial and temporal context, which can help understand complex phenomena (Mattingly & Lawlor, 2000).

In this paper, we draw upon examples from our research on medical learners’ specialty choice process. Medical training extends over many years and in that time medical learners are known to change their priorities, competencies, and even sense of identity (Cruess et al., 2015; Querido et al., 2016). Consequently, choosing a medical specialty is described as a dynamic process that changes along with medical education (Pfarrwaller et al., 2017). As part of the development of a questionnaire intending to measure specialty orientations of medical trainees during medical education, we set out to qualitatively explore the understanding of the specialty choice process in a Danish context. However, we were initially

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challenged by medical specialists talking about experiences back in time: “Everything during my PhD and afterward was about gynecology, and I ended up in general practice”, while medical learners shared intentions that might not be realized in the future: “I want to be a pediatrician, but if it is not accomplished when I am 37 or 42 years, then I will become a general practitioner”. To investigate the specialty choice process through time, we needed an approach that enabled us as researchers to include participant perspectives from both past, present, and future.

In medical education research, longitudinal qualitative research is an example of a research approach suitable for exploring a phenomenon’s temporal dimension (Balmer & Richards, 2017). However, investigating a research topic over time is challenging to new and upcoming medical education researchers (Bordage, 2007). In Denmark, the average duration of undergraduate medical training is 7.7 years and the time frame from graduation to specialist registration was 10.6 years in 2017 (Danish Health Authority, 2019). This makes longitudinal qualitative studies on long-term outcomes on for instance learning, evaluation on the acquisition of knowledge and skills, or studies on career choice both time- and cost-consuming (Thomson & Holland, 2003), which might be a reason for the overweight of cross-sectional studies seen in medical education research today. Still, including the temporal perspective in medical education is important to strengthen the stability, validity, and reliability of the research findings.

With this paper, we will present storytelling as a methodological approach to include temporal dimensions in cross-sectional qualitative data collection in medical education research. We aim to do this by giving a brief introduction to the issues that temporality in qualitative research can cause with medical education serving as an illustrative example. We will then provide the historical and theoretical background for storytelling as an approach and argue for the importance of epistemological considerations when investigating phenomena with temporal dimensions. The potential of the methodological approach’s ability to include temporality will be demonstrated with a practical example of storytelling in a qualitative investigation of the specialty choice process.

**Temporality in Qualitative Research**

The research context in this paper is medical education, and it will be used throughout this paper as an example, however, temporality exists in many different contexts. As expressed by Clift et al. (2021), temporal issues are not isolated to any one discipline but integral to the qualitative inquiry. According to Clift and colleagues, time entails a range of decisions researchers must take before, under, and after data collection (Clift et al., 2021). The long journey that future medical specialists travel – from entering medical school to holding the specialist registration – consequently leads to considerations on the affection of time on studies in medical education research. Thus, both setting, context, and participants are subject to change just like the knowledge, competencies, attitudes, and skills of the individuals naturally will evolve. In our study, a general practitioner explains “There are many kinds of [specialty] rejection processes and since selection processes and sorting processes. These processes will be influenced by the people you meet and the culture you soak in. Environments that are nice and fun, where someone asks you: ‘Would you like to do a research project?’, and before looking around, you have become an endocrinologist. We should know that every single day can make a difference in the specialty choice [process] of the people we meet. That’s how it is: we can do something on a random Thursday that makes another person reject or choose our specialty.”

Therefore, as highlighted in a recent study on longitudinal qualitative research in medical education, knowing the dynamic lived experience is particularly relevant due to the prolonged training required to enter the medical profession (Balmer et al., 2021). The following section will briefly visit and reflect on the theme of temporality in qualitative research.

**What is the Issue With Time?**

According to Sandelowski (1999), temporality and therefore also temporal concerns exist in the different qualitative research disciplines, in key paradigms of inquiry for qualitative research, and within qualitative methods themselves. Thus, time in qualitative research can be both an analytic variable and an object of study (Sandelowski, 1999). One can argue that qualitative researchers need to pay attention to time when the phenomenon of interest is situated in a temporal context. However, Randall and Phoenix highlight that time is integral to qualitative interviews since personal stories are not only shaped by cultural narrative resources but also by time:

> Our memories of the past are recalled amidst present agendas and present concerns, and always in the light of what we anticipate in the future. And since both – our experience of the past and our perception of the future – are continually changing, ‘the past’ is a moving target. Moreover, our interpretation of it can hinge intensely on the context in which we recall it (Randall & Phoenix, 2009)

Also, the participants in qualitative research are subject to change. In medical education, students form specialty preferences and make choices about future careers while they transform from young laypersons before medical school to physicians and adults in the multifaceted and dynamic process of professional identity formation (PIF) (Holden et al., 2012; Monrouxe, 2010; Ortiz-Paredes et al., 2022; Wong & Trollope-Kumar, 2014). The same applies to PIF in other professions, for example, nursing, where the formation of professional identity begins before undertaking nursing education and continues throughout the nursing career (Johnson et al., 2012). From a broader perspective, occupational identity development has been described as a lifelong process of
constructing, shaping, and reshaping the self as a worker influenced by a variety of individual and contextual factors, as well as their interaction (Skorikov & Vondracek, 2011). According to Kielhofner (2002), ‘occupational identity reflects accumulated life experiences that are organized into an understanding of who one has been and a sense of desired and possible direction for one’s future’ (Kielhofner, 2002).

From Still Photo to Movie in Motion: Methodological Approaches to Temporality in Qualitative Research

When we as researchers investigate a dynamic phenomenon, meaning that it changes over time, without including its temporal context, we will portray a static picture. If we want to study it as a movie in motion, we must also record it that way. Methods often used for the data collection on dynamic phenomena include but are not limited to, purposive sampling, retrospective, and multiple interviews (longitudinal design) (Polkinghorne, 2005; Sandelowski, 1999). Using purposive sampling to investigate phenomena with temporal dimensions in qualitative research will often involve sampling of individuals at different stages of medical education or with different seniority. Data collection in such situations will consist of different individuals’ experiences of the phenomenon instead of the same individual’s experience at different points in time. An example comes from a study on how identities are constructed by experienced nurses in their narratives of patient safety encounters with trainee doctors, purposive sampling was used to recruit nurses with (different) experiences of working alongside trainee doctors in clinical practice (Samuriwo et al., 2021). The experienced nurses offered a series of longitudinal narratives in cross-sectional one-to-one interviews, in which they made reference to encountering the same individual at different points in time. This provided researchers with an illustration of the fluidity in how identities as a dynamic phenomenon are accessed and enacted during dyadic interactions. A retrospective design, however, allows the researcher to collect retrospective data at one focal point in time (Singh & Alberti, 2021), but the longer the time perspective, the greater the risk of recall bias and/or memory retrieval problems. Life history studies are examples of this type of research that rely on the retrieval of long-term memories, thus implying a risk of affecting the credibility of data (Brannen, 2013; Bremner, 2020). In longitudinal qualitative research, the same individuals participate over extended periods with the aim of understanding their lived experiences as they unfold through time (Balmer et al., 2021). Unfortunately, this approach requires a long-time commitment from both researchers and participants that can be difficult to provide (Thomson & Holland, 2003). The next chapter moves on to consider narrative inquiry for including temporal dimensions in research due to its ability to provide a holistic picture of the phenomenon being investigated (Mensinga, 2009).

Once Upon A Time

Telling stories has been a fundamental characteristic of humankind since the ancestors of modern humans began to tell stories around the fire pit. Thus, stories have been told across cultures around the world, the Egyptian Westcar Papyrus from between 2000 and 1300 B.C. being the first written record of storytelling. Later in history, Plato used stories and storytelling as a method of pedagogy (Trott, 2012). In modern history, storytelling has also been used as a tool for teaching both children and adults since it is described to be beneficial in an educational setting (Haven, 2007). The use of story structure can thereby make the content relevant to the learner by activating the learners’ prior knowledge of stories. The familiarity with story structure including characters and events provides the learner opportunities to create meaning and memory even if the content is unfamiliar to the learner (Haven, 2007). Furthermore, storytelling in educational settings can increase motivation and enthusiasm for learning. In the field of qualitative health research, storytelling has also been suggested as a tool to increase engagement from participants in focus groups (Colucci, 2007). To conclude, storytelling offers an opportunity to produce meaningful data in research practice today (Bailey & Tilley, 2002; Palacios et al., 2015), and it can adopt various formats including digital video production, virtual reality, reflective writing, or oral storytelling (Ingram, 2021; Moreau et al., 2018; Olson et al., 2021).

Fluidity of Experiences Anchored in the Past, Present, and Future

In 1990, Connelly and Clandinin described the narrative inquiry approach in educational research and stated that the study of narrative is “the study of the ways humans experience the world” (Connelly & Clandinin, 1990). Connelly and Clandinin later developed a three-dimensional space narrative structure approach based on the philosopher John Dewey’s theory that the terms personal, social, temporal, and situation are important in describing the characteristics of an experience (Connelly & Clandinin, 1990; Dewey, 1938; Moen, 2006). Thus, the three-dimensional space narrative structure consists of Interaction (personal and social); Temporality (past, present, and future); and Situation (place) (Clandinin & Connelly, 2000; Clandinin et al., 2017). The temporal dimension allows the researcher to explore both the storyteller’s remembered, current and possible experiences (Wang & Geale, 2015). Although this concerns the analysis of stories and not the data collection itself, it emphasizes that the narrative is a fundamental, human way of giving meaning to experiences that exist in both past, present, and future (Bleakley, 2005; Caine et al., 2013; Garro et al., 2000; Reeves et al., 2013). Moving from social sciences to health research, attention has also been paid to the use of the narrative approach in the field of medical education research, where the relationship-based methodology has been suggested to study the nature of peoples’
experiences and is also known to be particularly appropriate for researching experiences through time (Bleichley, 2005; Clandinin et al., 2017). Yet, several attention points have been raised to the use in medical education research including the starting point for the inquiry and the engagement of the participants (Clandinin et al., 2017). Furthermore, the term “narrative” is often used interchangeably with “story” and without precision (Garro et al., 2000). A narrative, however, can be defined as predominantly factual whereas stories are reflective and creative, often revealing something important about the human condition (Haigh & Hardy, 2011). The opportunity to discover and relive the experiences through told stories - even in creative forms - makes storytelling suitable for data generation on phenomena with temporal dimensions (Mattingly & Lawlor, 2000; Mensinga, 2009).

**Let the Story Be Told**

Overall, storytelling is considered a type of narrative research that involves knowledge production and the shaping of experience (Bleichley, 2005). It has traveled from being a well-established generic educational strategy in organizational learning to also gaining ground in healthcare education. A development currently accelerated by the advances in technology (Haigh & Hardy, 2011; Moreau et al., 2018). However, even though narrative research methods are being increasingly used in medical and clinical education, the narrative approach has mostly been used for narrative-based medicine as a pedagogic education tool (Milota et al., 2019; Moreau et al., 2018). A recent review found that digital storytelling, defined as combining stand-alone and first-person narratives with multimedia, positively enhanced self-reported learning among health professionals (Moreau et al., 2018). Healthcare today is increasingly focused on evidence-based medicine and practice, and it is within this context the role of storytelling has previously been explored and promoted as a learning tool (Gray, 2009; Greenhalgh, 1999; Regehr, 2004). Besides facilitating participant activation, storytelling also has the advantage that it can be easier for the participants to touch upon sensitive topics because their attitudes, knowledge, and experiences primarily will be expressed with the story instead of having to expose themselves (Owens et al., 2018). This is supported by the findings in a recent systematic review on storytelling as a research tool used to explore insights and either inform an intervention or to serve as an intervention itself in public health (McCall et al., 2021). On the one hand, storytelling allows the researcher to elucidate and analyze the socially constructed narratives that are revealed during focus group interviews. On the other hand, a potential limitation of the approach is the participants’ divergent narratives. This, however, can be accommodated by a skillful facilitator and the use of a fictive story (Grant, 2011; Kankainen et al., 2012).

**Example of the Use of Storytelling in Medical Education Research**

In a study of reasons behind medical specialty choice, we designed an explorative qualitative study to investigate how medical learners and medical specialists conceptualized and described the specialty choice process in a Danish context. Nearly 30 years ago, one of the first theoretical models of medical students’ specialty choice was proposed by Bland and colleagues suggesting that specialty choice is essentially a match between one’s perception of a specialty’s characteristics and one’s values and needs (Bland et al., 1995). The model was updated in 2016 by Querido et al. (Querido et al., 2016), who supported the understanding, but also underlined that the model based on literature reviews fails to provide knowledge on the process of choosing a specialty. Therefore, Querido et al. suggested that medical specialty choice should be examined at various stages of medical education to obtain a full understanding of the decision-making process. Today, medical specialty choice is known as a dynamic process that evolves throughout medical education, and, as a consequence, more recent conceptual models of specialty choice also include temporal dimensions (Bennett & Phillips, 2010; Pfarrwall et al., 2017).

**Methodological Approach**

Considering the dynamic nature of the phenomenon of interest, we applied storytelling as a methodological approach to include the temporal dimension in our qualitative data collection. Our interest was to understand the specialty choice process through storytelling rather than personal experiences, and, therefore, we chose to conduct focus group discussions to help the participants explore and clarify their shared views and perceptions about the specialty choice process through social interaction (Kitzinger, 1995).

Seven synchronous video-based online focus groups lasting 84–94 minutes were conducted in March, April, and May 2021. The online format was initially chosen due to the COVID-19 restrictions at the time, however, it allowed us to use the opportunities of digitalization in the design and conduction of the study (Boland et al., 2021; Gray et al., 2020). The 27 participants consisted of a strategic sample of medical students, junior doctors, and general practitioners (see Table 1) who were recruited by identifying individuals who either underwent or had an interest in medical education and inviting them to participate. To ensure participation of fourth, fifth, or sixth-year medical students from all Danish medical schools, the study was also promoted by teachers at the medical schools and in social media groups. Medical students were in general hard to reach, and recruitment was, therefore, supplemented with snowball sampling for this group. Since we were interested in the temporal dimension of the specialty choice process, we chose a homogenous composition of the focus groups regarding participants’ professional stage.
(medical students, junior doctors, or specialists). In Denmark, the curriculum differs between the four medical schools, so to avoid the discussions being centered on the differences in the undergraduate curriculum, we chose a homogenous geographical composition of medical students in the focus groups. Danish postgraduate education, however, is regulated at a national level and, therefore, junior doctors and specialists from different geographies were represented in those focus groups. We conducted the discussions in groups of three to six participants with use of the web-based conference tool Zoom as it has previously been proven suitable for qualitative data collection (Archibald et al., 2019; Lobe et al., 2020) and allowed the participants to watch both the moderator, her shared screen, and the other participants at the same time.

Prior to the focus group discussions, we had defined the time frame for the participants’ storytelling. Thus, we suggested medical school matriculation as the beginning of the medical specialty choice process during medical education, and we regarded the registration as a specialist as the end of the process. Using this, we established the time perspective in which medical specialty choice takes place, which allowed us to define stages (events) that medical learners experience such as their transition from medical student to newly graduated physician (see Figure 1) (Wijnen-Meijer et al., 2013). The definition of a time frame and events provided the participants with a story structure that served to promote narrative thinking during the discussions (Brannen, 2013; Kim, 2016). We decided to use a fictional character as the focus of the discussion to increase engagement, avoid self-exposure, and facilitate vivid storytelling instead of general descriptions of personal experiences (Mattingly & Lawlor, 2000; Owens et al., 2018).

At the beginning of the focus groups, the participants were introduced to the character ‘Anne’, a 21 year-old female, who intended to study medicine. They were also provided with Table 1. Demographics of Focus Group Participants.

<table>
<thead>
<tr>
<th>Focus group</th>
<th>No.</th>
<th>Sex</th>
<th>Age (years)</th>
<th>Professional stage</th>
<th>Place of residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (junior doctors 1)</td>
<td>1</td>
<td>Female</td>
<td>30</td>
<td>Junior doctor</td>
<td>Central Denmark Region</td>
</tr>
<tr>
<td>2</td>
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<td>41</td>
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<tr>
<td>3</td>
<td>3</td>
<td>Female</td>
<td>29</td>
<td>Junior doctor</td>
<td>North Denmark Region</td>
</tr>
<tr>
<td>2 (medical specialists)</td>
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<td>Male</td>
<td>66</td>
<td>General practitioner</td>
<td>Central Denmark Region</td>
</tr>
<tr>
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<td>2</td>
<td>Male</td>
<td>61</td>
<td>General practitioner</td>
<td>South Denmark Region</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Female</td>
<td>45</td>
<td>General practitioner</td>
<td>Capital Region of Denmark</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>Female</td>
<td>51</td>
<td>General practitioner</td>
<td>Region Zealand</td>
</tr>
<tr>
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<td>5</td>
<td>Male</td>
<td>47</td>
<td>General practitioner</td>
<td>Central Denmark Region</td>
</tr>
<tr>
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<td>6</td>
<td>Male</td>
<td>43</td>
<td>General practitioner</td>
<td>North Denmark Region</td>
</tr>
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<td>3 (medical school 1)</td>
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<td>23</td>
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<td>North Denmark Region</td>
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<tr>
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<td>2</td>
<td>Male</td>
<td>26</td>
<td>Medical student (6th year)</td>
<td>North Denmark Region</td>
</tr>
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<tr>
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<td>Medical student (6th year)</td>
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</tr>
<tr>
<td>4 (medical school 2)</td>
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<td>25</td>
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<td>Male</td>
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<td>Medical student (6th year)</td>
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</tr>
<tr>
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<td>5 (medical school 3)</td>
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</tr>
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<td>2</td>
<td>Male</td>
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<tr>
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<td>3</td>
<td>Female</td>
<td>28</td>
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<tr>
<td>6 (junior doctors 2)</td>
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<td>Female</td>
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<td>Junior doctor</td>
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<td>3</td>
<td>Female</td>
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<tr>
<td>4</td>
<td>4</td>
<td>Female</td>
<td>29</td>
<td>Junior doctor</td>
<td>North Denmark Region</td>
</tr>
<tr>
<td>7 (medical school 4)</td>
<td>1</td>
<td>Female</td>
<td>25</td>
<td>Medical student (4th year)</td>
<td>Central Denmark Region</td>
</tr>
<tr>
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<td>2</td>
<td>Female</td>
<td>26</td>
<td>Medical student (4th year)</td>
<td>Central Denmark Region</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Female</td>
<td>27</td>
<td>Medical student (5th year)</td>
<td>Central Denmark Region</td>
</tr>
</tbody>
</table>

Figure 1. Stages of medical education in Denmark.
background information about ‘Anne’ such as her parents’ work, hometown location, and size of location. The participants were then encouraged to tell the story of the character’s way to specialization based on their knowledge and experiences with the medical specialty choice process. We used projective techniques to increase engagement in the online focus groups and to stimulate further thoughts about the specialty choice process (Comi et al., 2014). Visual stimuli were shown on the participants’ screen consisting of a board with an illustration of a university, a hospital, a private home, and a private practice. We used an association approach, where the buildings reflected the predefined events being medical school, specialist training, and family formation. The participants could freely choose which building to enter next, which led to new visual stimuli consisting of photographs related to the chosen context, e.g., a lecture hall at the university, a hospital room, a general practitioner’s office, and a living room in a private home (situation associations). Therefore, the progression of the discussions was also determined by the participants’ narrations. The moderator was still supported by a storyboard with questions about the predefined events that allowed her to stimulate and facilitate the storytelling. On occasions where participants did not let the character progress to other events by themselves, they were encouraged to choose a new visualization referring to a new event (forced association approach). The focus groups were both audio- and video-recorded and transcribed verbatim. The data set was pseudonymized and analyzed using a purely inductive approach to reflexive thematic analysis due to the flexibility of the method and its ability to summarize across data sets (Kiger & Varpio, 2020). The identified themes and subthemes were condensed into summaries (Braun & Clarke, 2006, 2021), and these were entered in a time-ordered matrix arranging the data into chronological order referring to the previously defined stages of medical education (Miles & Huberman, 1994; Nadin & Cassell, 2004). Relevant quotes were finally identified and subsequently translated from Danish to English by the principal investigator. Under Danish law, ethical approval was not required for data collection in this study. Written consent was obtained from all participants after they had been informed about the study.

Findings

Storytelling provided a flexible approach to data collection in which the interaction between the participants allowed us to include experiences across time and space. We found that the participants projected themselves into the experiences of the main character Anne in the story by sharing their perspectives on the specialty choice process. For instance, participants shared reflections upon the character’s development of specialty preference over time in the light of the character’s father being a general practitioner:

Her thoughts may be different ten years from now, and life changes rapidly over those ten years that she studies. She will change from being a student with no strings attached and no family to having the whole package. [First] she thinks that now she should go out and become anything but general practitioner, but I could imagine that in the end, she will return to what feels known and comfortable in some way.

-Junior doctor (Mary)

Participants also shared reflections that went beyond their own experiences and enabled them to explore perspectives both retro- and prospectively in the same interview:

I have not considered [specialties] that I have not experienced in clerkships, which makes me think; if I had not been there for eight weeks, then I would probably not have considered it as seriously as I maybe did. Or do.

-Junior doctor (Jane)

Furthermore, we found that the participants engaged actively with the story by, for instance, hypothetically changing the background of the character and discussing what impact that would have on medical specialty choice in the specific situation.

It might be that those who chose the medical school in [a rural area] are those who already see themselves as general practitioners in [a rural area] or those who are not afraid of choosing it. Whereas, if you are already from [a capital city], then you think: this urban life is nice. Then the geography of the university will influence your [specialty] choice.

-General practitioner (Jasper)

A general practice resident also reflected upon the potential opportunities as a medical doctor in an urban context compared to a rural one:

If you have studied at [the university in a capital city], then you are more inclined to a career in the medical industry for instance, because the medical industry is situated there, and you might also want to stay in [the capital city] after graduation…

-Junior doctor (Carol)

Lastly, participants engaged in active, vivid storytelling instead of providing only general descriptions. These narrative reflections through time enabled us as researchers to gain knowledge of the dynamics of the specialty choice process:

So, I was very interested in science, and I would actually have studied molecular biology. However, it discouraged me that I didn’t know what the final job would be like. I liked that medical studies give you a title. I have also changed my opinion about [the field of] medicine during my studies, it is much more the human
[perspectives to be included across time in the data production applied to the focus groups because it allows experiences and activation or because of the digital format. Storytelling was the data collection due to its ability to increase participant example above, storytelling was not chosen as an approach to suf premise to medical education research that researchers are not study design. However, temporality may be a fundamental porality of medical education also has implications for the assumptions is central to the research task to critically engage with collection strategies, but, more importantly, it should address the philosophical beliefs that determine the nature of the research design. By asking participants to make the story of the specialty choice process, it allowed us researchers to include temporality – and even context - in the research design.

Conclusion
With this paper, we wish to raise attention to the potential challenges of temporality in medical education research and suggest a methodology that enables qualitative researchers to investigate phenomena that evolve over time. We have provided the background of storytelling and argued for its use in qualitative research. Storytelling is an approach that researchers can apply when epistemological considerations suggest a need to include temporal contexts in qualitative data collection.

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Declaration of Conflicting Interests
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We found that the participants built upon each other’s perspectives and experiences when engaging in the storytelling, which allowed the discussion to become a social interaction instead of a personal narrative. It resulted in a nuanced understanding of the specialty choice process over time.

Applying Storytelling to Qualitative Data Collection
So far, we have focused on the background from where storytelling as a research approach was derived and provided guidance towards the application in medical education research. In the following, we will move on to the epistemological considerations behind the application of storytelling.

Medical education is characterized by a dynamic development that progresses over time. It is within this diverse context that medical education research is conducted, and research methodology is applied. In 2010, Bunniss and Kelly argued that research methodology is not simply about data collection strategies, but, more importantly, it should address the philosophical beliefs that determine the nature of the research design. They claim that awareness of such underlying assumptions is central to the research task to critically engage with findings (Bunniss & Kelly, 2010). Likewise, the temporality of medical education also has implications for the study design. However, temporality may be a fundamental premise to medical education research that researchers are not sufficiently aware of and thus they fail to articulate it. In the example above, storytelling was not chosen as an approach to the data collection due to its ability to increase participant activation or because of the digital format. Storytelling was applied to the focus groups because it allows experiences and perspectives to be included across time in the data production (Palacios et al., 2015). Once temporality is identified in the field of interest, the research study should be designed to include it, which is also supported by findings in a recent method study on qualitative longitudinal research (Audulv et al., 2022).

In this paper, we have reviewed different approaches to the process of data collection including purposive sampling, retrospection, and longitudinal design. These designs, however, do not allow data from the same participants to be collected simultaneously in both past, present, and future times. In the example above, we framed the narrative arc by defining the character (medical student) and events (stages during medical education) in the design phase. Storytelling then offered an approach to the data collection that allowed Anne’s experiences to be explored at various stages of medical education and professional development in the same interview. By asking participants to make the story of the specialty choice process, it allowed us researchers to include temporality – and even context - in the research design.

A junior doctor also revealed the dynamic nature of considerations and priorities from matriculation to university graduation:

[Anne] doesn’t know what the job after graduation is really about. It is not revealed until you work as a locum doctor or work after graduation. Thoughts like ‘what are the working hours like?’ and ‘where will you live geographically?’ are far ahead. It doesn’t come until you are in the final years of medical school, and you keep thinking about what type of doctor you should be. Then it becomes tangible. You actually don’t know what postgraduate training is about when you enter medical school and you really don’t know how [medical education] is structured at that time.

-Junior doctor (Eva)

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[aspect] and the contact you can have with other people that interests me today.

-Medical student (Amanda)

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Conclusion
With this paper, we wish to raise attention to the potential challenges of temporality in medical education research and suggest a methodology that enables qualitative researchers to investigate phenomena that evolve over time. We have provided the background of storytelling and argued for its use in qualitative research. Storytelling is an approach that researchers can apply when epistemological considerations suggest a need to include temporal contexts in qualitative data collection.

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