

# Revealing reviews: employing Tripadvisor to explore children's experiences at medical museums

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*Today more than 170 medical museums in 29 countries across the globe welcome tourists. Given their long history and increasing popularity, it is surprising that researchers have ignored medical museums, now heralded as must-see dark tourism destinations. This paper explores the experiences of young tourists visiting three such medical museums. To launch this research into medical museums, we chose an untapped data source for child tourism: Tripadvisor reviews. Although Tripadvisor reviews appear frequently in adult tourism literature, they have yet to be used in child tourism research. Using specific exclusion and inclusion criteria, we gathered and analyzed 97 online comments that depicted young tourists' reactions. Qualitative analysis using descriptive coding yielded four themes, from physical illness and disgust to fascination and delight.*

**Keywords:** dark tourism, children, young people, medical museums, Tripadvisor

## 1 INTRODUCTION

Medical museums began to appear in the middle of the nineteenth century as facilities to enhance medical education. Curators lined the shelves with carefully labeled glass jars of diseased body parts floating in liquid alongside surgical instruments and skulls. In nearby cases they displayed human skeletons malformed by injury or disease. However, as technology, demand for space, maintenance costs and changes in pedagogy emerged, some medical schools shut down their medical museums (Marreez/Willems 2015). Others shifted their focus to welcome not only medical students but also the general public, creating a new kind of tourist attraction. In fact, some medical museums have now built new facilities to accommodate the influx of tourism visitors (e.g., Museum of the History of Medicine in Padua).

As tourism interest grew into the industry segment now known as dark tourism, medical museums emerged as dark tourism 'must-see' destinations. Today more than 170 medical museums in 29 countries scattered across the globe welcome tourists (Wikipedia 2023). As evidence of their popularity among tourists, travel bloggers worldwide write about medical museums (Davidson 2021). CNN published a

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ranking of the ‘Ten Weirdest Medical Museums in the World’ (Pirolli 2014), and a curious viewer can easily find multiple YouTube videos on medical museums. Given their long history, it is surprising that dark tourism researchers have ignored medical museums.

Medical museum curators now recognize that children are a major market (Horder 2003). To engage these younger tourists, medical museums have created specialized programs, such as the Human Body Experience tour at the National Museum of Health and Medicine (2023) designed for children in kindergarten to third grade. The Mütter Museum staff wrote a special picture book for children titled *The Mütter Museum: A Junior Guide’s Tour of America’s Coolest Medical Museum* (Dhody 2020). This book depicts a child tour guide romping through the museum as the dead exhibitions come to life and greet him. This museum’s education staff also launched after-school programs, Saturday children’s space programs and even home programs during the pandemic (The College of Physicians of Philadelphia 2020).

Although children often travel to medical museums, we found no published observations of their visits. That oversight is especially noteworthy because these museums graphically portray suffering and death. However, children’s understanding of death is not equivalent to that of adults and continues to develop across childhood and adolescence (Kerr et al. 2021; Cotton/Range 1990; Croom/Rajanikanth 2023; Kenyon 2001). Therefore, medical museum displays, especially those showcasing dead infants and children, have the potential to elicit strong and confusing reactions in young visitors.

For decades scholars have largely ignored young tourists’ experiences (Kerr et al. 2021; Graburn 1983; Poria/Timothy 2014; Shiraani et al. 2021; Small 2008). Several barriers explain why young tourists are overlooked in the literature. First, tourism researchers may not have specialized training in child research methods. For example, researchers may not have the skills to prepare a survey or interview suitable for a young child. A second barrier arises when researchers face human subject protections specific for children, including child abuse clearances. Although these clearances are familiar to those working with children day-to-day, they may seem inaccessible to those who are not familiar with child work (Poria/Timothy 2014; Price 2023). Lastly, tourism researchers may not have partnerships with child-serving organizations such as schools. Without these partnerships, it is difficult to access child participants and gain parental consent for their participation (Kerr et al. 2023a). Consequently, data sources applicable to young tourists have not evolved and advanced as they have within adult tourism (Kerr et al. 2023b).

For example, Tripadvisor comments frequently appear in adult tourism literature (Alexander et al. 2018; Bornarel et al. 2021; Çakar 2018; Carter 2016; Decrop et al. 2020; Ferguson et al. 2015; Ooi/Munar 2013; Soltani-Nejad et al. 2022). Yet there are no studies using Tripadvisor reviews in the child tourism literature. With over 988 million travel reviews covering nearly 8 million businesses, Tripadvisor calls itself ‘the world’s largest travel guidance platform’ (Tripadvisor 2022). As discussed in a Tripadvisor study conducted by Alexander et al. (2018), Tripadvisor reviews benefit qualitative analysis because they are unobtrusive measures of reviewers’ accounts of their museum experiences. As Carter (2016: 235) noted: ‘Reviews, posted on Tripadvisor ... constitute narrative appraisals of tourist sites, that is, visitor-authored stories about places’. Vasquez refers to these as ‘small stories’ about visitors’ experiences (Vásquez 2021).

Interestingly, child-related topics appear often in Tripadvisor reviews. In their study of Tripadvisor reviews of London museums, Alexander et al. (2018: 3) reported that

nearly half of the posted comments mentioned children. They went on to explain that ‘Tripadvisor reviews provide very useful sources of information that could be added to museum evaluation toolboxes’. Yet despite their reported usefulness, no studies have analyzed Tripadvisor comments to understand young tourists’ experiences.

Accordingly, our study analyzed Tripadvisor reviews to document young tourists’ reactions (i.e., thoughts, feelings, behaviors) at three medical museums. This study extends qualitative tourism research in two directions. First, we explored a destination previously overlooked by tourism researchers: medical museums. Second, we adopted a data source used in adult tourism research but never used in child tourism research: analysis of Tripadvisor reviews. We first offer a brief review of the literature on children and dark tourism to contextualize our study.

## 2 REVIEW OF THE LITERATURE

This section offers an overview of dark tourism and children’s involvement in it. The term dark tourism refers to destinations of or associated with death and ‘difficult heritage’ (Hartmann 2014; Lennon/Foley 2000; Stone 2006, 2012; Stone et al. 2018). Until recently, dark tourism research focused exclusively on adults. Popular theories about those who visit dark tourist sites fail to account for the experiences of children for three reasons (Kerr et al. 2021).

First, children lack a mature understanding of death. To have a mature understanding of death, children must first grasp five cognitive concepts: universality, finality, non-functionality, inevitability and causality. Universality refers to the idea that all living creatures eventually die (Speece/Brent 1984), a concept that children may initially learn from observing plants and animals – not humans. Finality (or irreversibility) conveys the notion that after death, a living thing cannot come back to life (Rosengren et al. 2013). Before fully understanding this, children may believe that dead people can be revived because make-believe characters sometimes are. Non-functionality describes the inability of the dead to engage in functions such as speaking, hearing and thinking. Without grasping this concept, young children may, for example, attempt to converse with mummies or taxidermy displays. Inevitability is an understanding that death is unavoidable. Children who lack this understanding may visit memorial sites commemorating the dead and suggest ways to liberate them from the clutches of death. Causality refers to the causes of death, such as illness, accidents or intentional acts of violence. Children without a mature understanding of causality may have difficulty comprehending why people die. Scholars often refer to a sixth concept, personal mortality, which is the realization that one’s own death is inevitable and unavoidable (Bianucci et al. 2015). Adolescents’ awareness of their own mortality can potentially trigger death anxiety (Croom et al. 2018).

The second difference between children and adults visiting dark tourism sites is their agency in choosing destinations. While adults choose their destinations, children typically do not. Studies have shown that parents and teachers choose where children travel (Burns/Keller 2023; Dale/Ritchie 2020). As Walter (2009: 53) observed, ‘children find themselves being taken to battlefields by teachers and parents, just as children in this and other cultures find themselves being taken to church or temple’.

The third difference between adults and children is how they explore once they arrive at a site. Young children typically explore through movement, touch and play. Stevens and Frank (2015) watched a young child jumping on and off rocks at the National AIDS Memorial, while Roche and Quinn (2017) watched young

tourists play on battlefields where soldiers died. Bored or confused, children may turn to play or misbehavior, thereby eliciting the disapproval of adults around them. As documented in the study by Cui et al. (2019), analysis of visitor comments at the Memorial of the Victims of the Nanjing Massacre, some adult visitors criticized young tourists' actions as annoying, disruptive and disrespectful. A mere photograph of young children climbing on a War Memorial drew harsh criticism from online commentators (Price/Kerr 2018).

In summary, we need child-centered research at dark tourism sites if we are to understand their experiences, feelings and behaviors. To that end, we explored medical museums, which raise uniquely intriguing questions as they elicit children's responses to death, disease and injury of other children.

### 3 METHODS

We first looked at Tripadvisor reviews for every medical museum. We selected our sample based on four criteria: (1) museums that welcome young tourists; (2) museums that had at least ten reviews; (3) museums that qualified as dark tourism destinations based on exhibits; and (4) museums with exhibits that depicted recognizable babies and children (i.e., actual versus facsimile human body parts).

To identify and gather these comments, we used keyword search terms to sort through the reviews on each museum's Tripadvisor page. Identifying these search terms was a challenging and iterative process. If search terms are too narrow, one does not view all the relevant comments. For example, our initial search did not yield many comments until we incrementally expanded the search to include these words: kid, kids, child, children, school, high schoolers, elementary, high school, preschool, son, daughter, grandson, granddaughter, teen, niece, nephew and year-old.

Also important was the requirement that a reviewer overheard or observed the young tourist's emotional expression, behavior, reaction or a statement directly related to their visit. We excluded reviews that did not describe actual children observed during the reviewer's visit (e.g., 'children would not like it here'; 'this place would be too scary for children'). This exclusion was an attempt to ensure that adults had actually witnessed the children's visits. To ensure trustworthiness of the final dataset, we took one more step. Following the search, both reviewers re-read each review and determined whether its inclusion was appropriate. The Tripadvisor site was checked weekly for new reviews posted with any keywords that met the criteria.

As a result of these data collection steps, we identified 97 reviews from three museums: the Mütter Museum of the College of Physicians of Philadelphia (Philadelphia, Pennsylvania), the National Museum of Health and Medicine (Silver Spring, Maryland) and the Siriraj Medical Museum (Bangkok, Thailand). To strengthen the credibility of our findings through triangulation (Lincoln/Guba 1985), we examined comments left at all three medical museums. We turn now to a description of each museum.

### 4 MÜTTER MUSEUM

The Mütter Museum, which welcomes approximately 130,000 visitors per year, is located at the oldest private medical society in the United States, the College of Physicians of Philadelphia (College of Physicians of Philadelphia 2022). There are

no minimum age requirements for entrance to this attraction, which vividly showcases two floors of grim collections of human skeletons, shrunken heads, organ specimens, mummified remains and dry and wet formed fetuses. These exhibits appear close together along narrow aisles, so young tourists stand within inches of each artifact. The top floor of the museum includes *The Soap Lady* exhibit. This is the first exhibit that children encounter. This mummified corpse was naturally preserved through the process of saponification.

As children step away from *The Soap Lady*, they turn to face *The Hyrtl Skull Collection*, which contains 139 human skulls arranged in neat rows and enclosed in a large wooden display. Each skull in the display is inscribed with comments of their age, country of origin and cause of death. As children head down to the lower floor, they come upon a large glass display containing three adult human skeletons, including a 7'6" tall male, a 5'3" tall male and a 3'6" tall female.

Across the room children see *The Cast and Livers of Chang and Eng Bunker*. The conjoined twins' death cast is displayed alongside a wet specimen of their livers. Nearby children are invited to open multiple drawers of objects pulled from humans. Children then walk into a room where they are surrounded by shelves of fetuses floating in formaldehyde.

The Mütter Museum was chosen for analysis as it met all our criteria. First, the Mütter Museum openly welcomes children. As previously mentioned, they have even crafted a picture book for children which introduces them to the contents in the museum. The contents within the Mütter Museum can also be characterized as a dark tourism site because all of their exhibits are associated with death and human suffering. Lastly, many exhibits within the museum include actual bodies of babies (i.e., fetuses floating in formaldehyde jars).

## 5 NATIONAL MUSEUM OF HEALTH AND MEDICINE

The National Museum of Health and Medicine (NMHM), located in Silver Spring, Maryland, was established in 1862 (during the Civil War) by the US Army Surgeon General. The NMHM, formally known as the Army Medical Museum, was originally used as a facility for 'Washington specimens documenting wounds, surgeries, illnesses and deaths' (Wilson 2015: 17) to assist military medical research. Collections in the NMHM include anatomical and pathological specimens, such as a row of eight skeletons mounted on stands and arranged by age, ranging from two fetal months to birth. Bowen-Murphy (2013: 779) described this exhibit: 'Although ostensibly displayed to show change over time, these fetal and child skeletons come close to the carnivalesque displays common in the nineteenth century'. Young tourists confront a conjoined twin specimen preserved in alcohol and a Trichobezoar, or human hairball, removed from a 12-year-old girl who compulsively ate her hair for 6 years.

The National Museum of Health and Medicine also met all our criteria. First, they have various programs directed towards school-grade children. For example, one of their programs, titled the Human Body Experience, is designed for children from kindergarten to third grade. This program allows children to interact with the museum contents and learn all about the human body (National Museum of Health and Medicine 2023). The NMHM qualifies as a dark tourism exhibit as many of its exhibits contain medical oddities related to death and human suffering. The museum also contains various displays of actual children's body parts (i.e., displays of child skeletons) (Dingfelder 2019).

## 6 SIRIRAJ MEDICAL MUSEUM

Nicknamed the 'Museum of Death', the Siriraj Medical Museum (Bangkok, Thailand) occupies buildings that once housed Thailand's oldest hospital. This museum is open to the public and serves as an educational asset for medical students in Thailand. Its website states that its collections are 'proper for children' (Siriraj Medical Museum 2016). The museum complex consists of seven small medical museums: Siriraj Bimuksthan Museum, Ellis Pathological Museum, Congdon Anatomical Museum, Songkran Niyomsan Forensic Medicine Museum, Parasitological Museum, Touch Museum in Honor of Queen Mother Sirikit and Sood Sangvichien Prehistoric Museum Laboratory.

Young visitors see exhibits of medical equipment and tools as well as anatomical and clinical specimens, including artifacts and archives relating to the history of medicine in Thailand. Attracting young tourists' attention are babies affected by genetic disorders, parasite-ridden human organs, the preserved bodies of accident victims and dissected human bodies and skeletons. Particularly disturbing is the upright body of a child murderer who ate his young victims (Jindawattanachok 2016).

The Siriraj Medical Museum met all our criteria. First, the museum welcomes children, including school groups. The Siriraj Medical Museum qualifies as a dark tourism destination as it contains many contents that are associated with death. As Ting (2022: 75) described it, at the Siriraj Medical Museum 'diseased and damaged organs, murder, death, illness and disease abound'. Additionally, the museum contains many displays of actual babies. For example, the contents of the Congdon Anatomical section of the Siriraj Museum showcase the anatomical structures of human organ systems. This section of the museum also showcases various types of births.

## 7 DATA ANALYSIS

First, we independently read all of the reviews. We uploaded all reviews into Dedoose, a qualitative data analysis computer program. Next, we uploaded descriptive codes from our prior work with children at dark tourism sites. For example, primary codes included emotions, physical reactions, behavior and evaluative comments. For each primary code, we also had subcodes. For example, emotion subcodes included sad, angry, scared, disgusted and happy. We then conducted line by line coding (Saldaña 2016). To do this coding, the senior author and an outside coder independently applied code to each review. As we coded, we also recorded researcher memos to capture our observations (Charmaz/Mitchell 2001; Saldaña 2016). For example, this is where we would suggest a new code or comment on something that was surprising or noteworthy.

We then calculated our inter-coder agreement after the first coding round, discussed our discrepancies and memos and refined our coding scheme to include new codes unique to medical museum settings, such as 'becoming physically ill'. We then independently re-coded the comments before calculating our final inter-coder agreement of 0.92 (Cohen's kappa).

To identify themes, we first charted code co-occurrence, then independently searched for categories. Each of us identified categories as well as illustrative excerpts from each medical museum. We then compared our categories, discussed our discrepancies and came to consensus on a final set of themes. Finally, to verify our findings we followed guidance set forth by Lincoln and Guba (1985). We peer-reviewed our

analyses with three colleagues not familiar with the data or subject matter. Based on their feedback, we finalized a list of four themes, to which we now turn.

## 8 FINDINGS

In total we coded 97 comments, which revealed four themes. What follows is a summary of each theme with verbatim quotes to illustrate each one.

### 8.1 Grossed out

These reviews highlight the disturbing and unpleasant experiences of some children. Some comments stressed being ‘grossed out’ by specific exhibits. For example, one reviewer wrote, ‘I went into this thinking that my 13- and 17-year-old boys would really enjoy it. Despite their fascination with zombies and gore, they were both totally grossed out by the experience. My 13-year-old told me that ‘it is the ones with skin on that bother me’. Meaning, it was not the skeletons or the skulls that lined the walls, it was not the displays of old medical equipment that looked like torture devices, it was not even the jar full of kidney stones that were a problem. What bothered him was the deformed or splayed open babies in jars, the ‘Soap Lady’ and the shrunken heads (Reviewer 2, Mütter Museum). This comment suggests that it was the realism of the exhibits that distressed the young visitors. By age thirteen, young people are well aware of death and cannot escape the fact that the dead are on exhibit.

These comments also show that the museum exhibits repulsed some children. Some reviewers expressed that children were traumatized by the medical oddities, and others simply state that they were grossed out. For example, Reviewer 1 voiced that their son ‘refuses to set foot [in] there again’, and Reviewer 3 stated that the younger children thought that the museum was gross.

### 8.2 Fascinated by the oddities

Some children respond to macabre exhibits at dark tourism sites with excitement and interest and enjoy the experience of this kind of exposure (Divaker 2020; Divaker/Kerr 2023; Kerr 2023; Walter 2004a) as the Tripadvisor comments in this section highlight. These children responded with fascination, intrigue and excitement. Some children’s reactions were mild while others were more intense. For example, the comment from Reviewer 7 simply states that their children found the contents to be ‘cool’. On the other hand, Reviewer 11 observes a more intense response as they describe children ‘shrieking excitedly at all the gory exhibitions’.

Children appeared to be cognitively engaged as evident by asking questions and reading the explanatory texts. For example, Reviewer 5 stated that, ‘My daughter was simply fascinated and kept asking me questions about what things were ... and she didn’t even know she was learning’. Reviewer 6 went on to say, ‘My kids (ages 3-9) had a blast reading about and seeing all the strange abnormalities that can occur. There isn’t a better science lesson out there!! We enjoyed every bit of the wonders of these odd items’. The daughter of Reviewer 9 shifted her reaction after she left the museum, ‘... my 13 year-old was shocked, disgusted, fascinated but educated by these displays. She did not have nightmares as she threatened but decided against a future career as a doctor. Oops. Later as she digested what she had seen she asked excellent questions’.

### 8.3 Overwhelmed

These comments describe young tourists' physical and emotional distress. As the comments reveal some children developed physical symptoms. Reviewer 15 had to leave the museum when their son became overwhelmed: 'My son just got too hot and uncomfortable we had to cut out early. The babies in the jars did not help either I don't think'. Reviewer 17 also cut short their visit: '... my 14 year-old son went pale and started to feel sick. I was happy to accompany him to sit outside'.

The fetuses in jars elicited fear in some children. For example, the daughter of Reviewer 14 was not able to endure the exhibit: '... my 11 year-old daughter was cowering in the corner, hugging her knees to her chest, and rocking back and forth while repeating affirmations of health and safety. I think the fetuses in the jars put her over the edge'. Another reviewer commented after they witnessed young children's emotional reactions: '... I saw 2 of them. One kept crying; another was holding on to her father for dear life while up in his arms'.

### 8.4 Advice for other visitors

These reviews offer suggestions or cautions, often recognizing the emotional impact of the exhibits. While commenting on their own children's experiences, they also offered advice to other adults. Some reviews warned against bringing small children. For example, Reviewer 18 recommended which exhibits to avoid:

we braved this museum with our 9 and 6 year old. After seeing all the exhibits, it was the final room (down the stairs) that got to them ... Bottom line, if you have kids 10 or over, they should be fine. Under that, I would prep them in advance. Use your judgement but if there's a chance the kids won't like it, but you still want to give it a shot, leave the bottom floor for the end of your visit after thoroughly exploring the top.

Two reviewers at the Siriraj Medical Museum advised their fellow travelers to consider the destination but cautioned against bringing those who are hesitant:

I took my 14 year-old daughter and she most definitely learnt a great deal. Definitely don't visit if you are squeamish as the exhibits are not models! Will visit again when next in Bangkok (Reviewer 20, Siriraj Medical Museum).

Not for the faint-hearted ... I thought I'd a stronger stomach but was a little taken aback when I saw all the babies. My husband and 3-year old found it really interesting (my 7-year old takes after me in the sensitivity stakes!!). Great place to go rather than just the typical tourist attractions, so I would recommend it... (Reviewer 21, Siriraj Medical Museum).

## 9 DISCUSSION

Our first research aim was to explore the question: How do young tourists respond when confronted with exhibits featuring instantly recognizable body parts and remains, including those of other children? Surprisingly, dark tourism research has ignored this question. However, scholars have documented children's evolving understanding of death (Hunter/Smith 2008; Nguyen/Rosengren 2004; Rosengren et al. 2013). For example, young children do not possess a comprehensive understanding

of death concepts, such as non-functionality (i.e., the dead cannot engage in actions) and irreversibility (i.e., the dead cannot come back to life). Therefore, it is not surprising that reviewers reported a range of child reactions in the medical museums. For example, a 3-year-old may not have recognized that the bodies floating in jars were actual dead babies.

Around the age of five years children begin to ask ‘what’ questions about death and dying. As children mature, they are more curious about ‘why’ (Croom/Rajanikanth 2023). They begin to ponder different causes of death, including disease and injury, as evidenced in the older youths’ fascination with malformed specimens (e.g., ‘My kids (ages 3-9) had a blast reading about and seeing all the strange abnormalities that can occur’).

Young people also learn about human anatomy in their school curriculum. Yet for some this comprehension may come with a cost: feeling sick or overwhelmed at the sight of body parts. As Israfilova and Khoo-Lattimore (2018) observed, even though teenage tourists have an intellectual grasp of death and dying, they may not have the emotional maturity to cope with these realities (e.g., ‘My 13 year old son will tell you it was grossest place we every took him and he is still traumatized :) ... my son refuses to set foot there again’). These reactions prompted visitors to warn other parents.

Why might medical exhibits in particular overwhelm some children? Recalling her conversation with two National Museum of Health and Medicine curators, Bowen-Murphy (2013: 776) explained:

Objects with a presence effect, they say, activate a visceral, emotional, or sensual experience in the viewer. They emphasize that bodies or biological specimens and medical tools have an innate amount of ‘presence’ because visitors can easily understand a body, or a tool used to bend, break, or spread the body.

This ‘presence effect’ may help us understand why some children became ill or emotionally overwhelmed.

In contrast, other young tourists were ‘grossed out’ yet fascinated. This observation echoes a young tourist’s comment recorded by Walter in his 2004 study of *Körperwelten/Body Worlds*: ‘[The exhibit] is very educational but there should be more blood and gutsy stuff it is not very scary or evoling [sic]’ (Walter 2004b: 619). Kerr (2023: 145) labeled this fascination with scary objects as ‘recreational horror ... dark tourism encounters which inspire, or intend to inspire both positive and negative affect (for example, fear and joy, terror and thrill, anxiety or excitement)’.

In addition to revealing children’s experiences at medical museums, the online reviews shed light on adults’ reactions to young tourists. For example, we encountered adults commenting on children’s perceived misbehavior. Research has shown that adults have definitive norms for how children should behave when confronted with death and dying at museums and memorials (Price/Kerr 2018; Kerr et al. 2021; Kerr et al. 2023c; Cui et al. 2020). Analyzing adults’ online commentary is one way to document those views. We also got a glimpse of adults’ interactions with children (e.g., ‘My daughter was simply facinated and kept asking me questions about what things were ... and she didn’t even know she was learning’).

Moreover, the reviews spoke to whether adults prepared children for their visits (e.g., ‘My kids have been exposed to medical things - we have a few doctors in the family ... Bottom line, if you have kids 10 or over, they should be fine. Under that, I would prep them in advance’). Preparation has been documented as a notable influence on children’s experiences at other dark tourism sites (Kerr et al. 2021; Dockett 2023; Marsh 2023; Wagner 2023; Wittig 2023).

The second research goal was to explore the use of Tripadvisor comments as a data source. Using Tripadvisor to analyze visitor reviews served various purposes in our study. The comments were easily accessible, contained direct observations and narratives of children's experiences and included reviewers' advice to other visitors as well as warnings about each site. Tripadvisor reviews do not require human subject research approval because they do not require human interactions. Instead, the researcher gathers and analyzes what is considered public information left behind by reviewers. Posting reviews publicly removes the expectation of privacy (Moreno et al. 2013). Nevertheless, we followed the practice of other researchers and removed reviewer names and identifying information (Ferguson et al. 2015).

## 10 LIMITATIONS

As in any first-time study, one identifies limitations to be addressed in future investigations. The first limitation is that Tripadvisor comments may reflect subjective recollections that were not recorded by trained observers. These descriptions of children's experiences may not reflect all the facts and instead contain personal recollections. Similarly, online-generated comments do not allow verification of observations or a way for researchers to engage with follow-up inquiries. Online comments did not allow us to verify observations or ask young tourists themselves about their experiences (Björk/Kauppinen-Räisänen 2012; Ferguson et al. 2015). As previously mentioned, Tripadvisor's value for child tourism research is a first step prior to more focused studies based on themes found in the comments.

The second limitation is the credibility of each review collected from Tripadvisor. Burgess et al. (2009) studied the credibility of user-generated content websites and suggested that many reviews posted online 'can be trusted because they are real experiences by real people who are independent but can also be seen as untrustworthy because the content that is posted may be faked by someone with a vested interest'. However, despite these limitations, the comments did enable us to extend child dark tourism research into a new setting, medical museums.

## 11 CONCLUSION

As shown in this study, the Tripadvisor reviews did reveal interesting information about children's experiences at three different medical museums. Therefore, Tripadvisor reviews could benefit tourism researchers, especially those not yet familiar with children or child research methods. As an introduction to children's tourism experiences, studying Tripadvisor reviews would not require such researchers to undergo additional training or human protection protocols. For example, an introductory course in tourism research methods could invite students to explore young tourists' experiences through an analysis of Tripadvisor comments or comments posted on another online platform. This assignment would introduce tourism students to studying children's tourism experiences without violating human subject safeguards or requiring time-consuming and specialized training. More advanced researchers interested in developing a line of inquiry at particular sites can use Tripadvisor as a starting point and then move into more specialized measures. For example, studying Tripadvisor comments could help a research team identify behaviors they should

observe when they go to a site. These medical museum Tripadvisor comments revealed several potential research paths:

- Why are some children drawn to the exhibits, while others are repulsed? Does age play a role? Does prior school curriculum influence children's understanding or appreciation of exhibits?
- At what age are children aware that the exhibits depict dead individuals? Does this awareness influence their emotional reactions? Does this awareness alter the questions they ask adults?
- If given the opportunity to write their own comments about their visit, what would children say? How can museums best capture these comments? How would these comments align with those of their parents?
- Can adults alter children's reactions through their conversations? Can medical museums create sample questions or conversation starters that make the experience more enjoyable for children?

Why do Tripadvisor reviews matter not just in dark tourism but in child tourism more generally? Past research has ignored Tripadvisor's considerable influence on young tourists' itineraries. As mentioned earlier, Tripadvisor calls itself 'the world's largest travel guidance platform' and is used by the general public extensively. Therefore, reviews on Tripadvisor undoubtedly alter parental decisions about where their children travel. Moreover, educators select destinations for school trips, and their pupils have little agency in choosing these destinations (Burns/Keller 2023; Dale/Ritchie 2020). Our own informal interviews with educators suggest that they consult Tripadvisor when planning educational excursions. Lastly, online reviews may influence how destination managers, tour guides and curators arrange young visitors' experiences.

In summary, Tripadvisor has undoubtedly influenced child tourism for many years. Yet no one has documented Tripadvisor's contributions to decisions about where young tourists should visit and what they see when they arrive. We urgently need research to examine Tripadvisor's impact on young tourists' itineraries.

As the reviews indicate, medical museums offer a unique space for future investigations to reveal young tourists' understanding of death, disease and injury. As Cui et al. noted in their 2020 study of the Nanjing Massacre museum, 'An important element of dark tourism sites are the voices that are heard or privileged and those that remain silent and open to contestation, particularly when various interactions occur during the consumption of dark tourism experiences (Fennell/Przeclawski 2003; Kelman 1997)' (1494). This first-ever study of children's tourism experiences using Tripadvisor reviews reveals a new data source to shed light on children's encounters with death, disease and human suffering.

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