

# With Children in Mind ...

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Industrial design is meant to improve the design of mass produced objects and by doing so to contribute to improve the users' quality of life. The designer's challenge is to balance functionality, aesthetic appeal and ease of use to create a successful market product.

This industrial design thesis presents a **pediatric examination table**. Within the context of the new trends for healthcare design, it looks forward to contributing to the pediatric healthcare quality with an innovative product. Thus its design criteria must respond in both physical and emotional terms, to the users' needs and especially to their dreams. The pediatric examination table must be functional, aesthetically appealing, mechanically simple, and economic. And it can't just happen to be for children it must be **designed with children in mind.**

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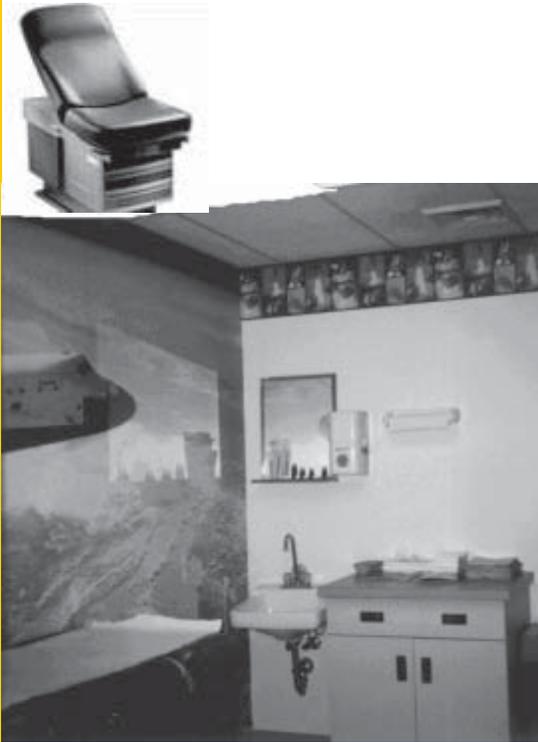
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## A path for pediatric care product design

**“... new trends in pediatric design occupy a somewhat paradoxical position. There are no clear “new directions” to report in pediatric care design. Perhaps this is because the world of childhood naturally invites daring fantasy and innovation. ...”<sup>1</sup>**



Have you ever wondered how miserable a sick child feels? She only wants to be at home and be hugged to feel secure. Yet, she needs to see a doctor. Imagine then her feelings when she enters the examination room at the pediatrician’s office. Many years ago, even inside a routine pediatric exam room, caregivers used to wear intimidating white robes all the time. This is not usually the case today. Pediatricians do their best to make children feel comfortable and so do their nurses, dressed in lively colors. But the typical environment doesn’t help; the pediatric exam room environment still is very intimidating to children.

**In terms of product design, this thesis aims to improve the typical pediatric environment in a way that would contribute to the children’s comfort during the routine pediatric examination.**

During the last two decades the concept of healthcare quality has changed and new trends regarding the healthcare design have been established. To offer quality healthcare means to bring comfort to the patients, along with the best medical treatment. It is well known that minimizing the patients’ stress level is essential for their medical treatment. For pediatric patients as sensitive and intuitive children, this is particularly important. “The enlightened children’s

hospital does more than meet a child’s medical needs. It creates an environment that addresses physical, social, developmental and emotional needs”<sup>2</sup>. However, these successful design efforts involve a particular architect or interior designer, working for a specific project. In most of the cases it is a hospital project, and even when it is a medical office building project, only the reception and waiting areas are considered. The pediatric exam room rarely benefits from a specific design by a particular designer, and the equipment found in the majority of them is the same that furnishes the typical exam room for adults. Indeed, apart from the wallpaper or some baby animals’ pictures, the pediatric exam room is not different from any other exam room. There are at least two explanations. First, what mainly counts within an exam room environment is its clinical equipment: the exam table, the cabinets, the lavatory, etc, which in general are selected by the physician from a manufacturers’ catalog. Second, most physicians fear that a design addressing the patients’ comfort needs would compromise the exam room’s clinical functionality. Particularly, pediatricians believe that a child-centered design is about fuzzy toys and cozy cushions that would end up disturbing the medical procedure. This belief is expected considering the state of most pediatric care rooms. **Although pediatricians realize that the typical environment plays against their efforts to make**

the children feel at ease, they select the equipment prioritizing clinical efficiency criteria above the patient's age and emotions. And unfortunately the market offers only equipment that is functional, yet gray, cold, and intimidating.

But, change is always a constant in the healthcare environment. And while caregivers aim for quality, product manufacturers are looking for innovative and cost-effective products that meet the needs and exceed the expectations of the users. **Therefore, this industrial design thesis project develops a pediatric examination table, based on a new design concept as the logical result of its research process.**

The Pediatric Examination Table (PET) is an object of industrial production. It would probably be the main component for a pediatric equipment line commercialized through catalog sales. It is suitable for any pediatric exam room regardless of its architectural design. Physicians would use the PET for the routine pediatric exam, the procedure that takes place for example inside the pediatric exam room at the pediatrician's office, as opposed to any emergency procedure or long-term medical treatment.

The PET is designed to be functional, to respond to the clinical needs and, to meet

maintenance and durability criteria. But, furthermore, it is specifically designed for children. So it not only considers the children's ergonomics and safety but also it addresses their emotional needs.

Its unusual form made of warm plastic material with bright colors helps the PET to become a familiar piece of equipment for the children. Children would perceive the PET in a similar way as they perceive components of their bedroom, classroom or playground. That is to say, any of their familiar environments, and even the pediatrician's waiting room where they have been playing before entering the exam room.

A change in the pediatric room environment brought up by well-designed equipment is desirable as far as it contributes to quality in pediatric healthcare. In other words, it assures functionality and facilitates the medical procedure by addressing the patients' emotional needs. This PET aims at not only serving the pediatric professionals in a successful manner but also at making the pediatric patients comfortable and secure, rather than stressed or intimidated.



**“...abandon the first approach that comes to mind”**

Michael Micalko «The art of the genius»

Children enjoy equipment of pediatric waiting rooms Ritter 307 and Proposed PET in the sitting position