



Helping children feel they are not alone in the ER is a key part of child-friendly emergency care.

讓孩子在急診室裡知道自己不是孤身一人，是兒童友善急診照護的重要一環

難以兼顧的事

在急診室裡，當孩子開始哭的時候，他們身旁的父母往往也跟著慌了。時任陽明交大附設醫院陳彥如護理師與護理學系陳紀雯教授長期關注孩子在急診室裡的經歷，她們不只一次聽到家長不知不覺對孩子說出「忍一忍就過去啦」、「有這麼可怕嗎？」，或帶著嚴厲口吻的「再哭就怎麼樣怎麼樣」。之所以會這樣說，是因為那個當下，家長自己也不知道該怎麼辦。

Finding a difficult balance

When a child starts crying in the emergency room, their parents may begin to panic as well. Yen-Ju Chen, a nurse who worked at National Yang Ming Chiao Tung University Hospital, and Professor Chi-Wen Chen from the Department of Nursing spent years studying children's experiences in the ER. Time and again, they overheard the children's parents say things like, "Come on, it'll be over soon," "Is it really that scary?" or, in a sharper tone, threaten some kind of punishment if the crying doesn't stop. Whether they thought about what they were saying or not, Prof. Chen says the reason parents say these things comes down to a simple truth. In that moment, they do not know what to do.



看見急診的小小身影： 護理老師的溫柔改革 TOWARD A CHILD-FRIENDLY EMERGENCY DEPARTMENT

文／顏廷恩 · 圖／陳彥如護理師提供、秘書處

By Ting En Yen

Image courtesy of Yen-Ju Chen and the Secretariat

陳老師說，孩子不是大人的縮影。去到急診，大人通常清楚每個步驟背後的目的，即便如此，心裡還是有一塊地方懸著，等著醫師說出診斷，確認這次到底是大事還是小事。對大人來說已經如此，對年幼的孩子來說，整件事從頭到尾都是茫然的。

進了急診，孩子面對的是陌生的環境、陌生的醫護人員，以及接踵而來的各種處置。孩子沒有辦法用邏輯告訴自己接下來會發生什麼，他們活在當下這一秒的感受裡。當醫護人員準備處置，他感受到的不是「這是為了讓我好起來」，而只是有什麼東西要來了，他不要，於是開始哭泣，原本節奏就快的急診，也因此變得更加緊繃。

Prof. Chen is quick to point out that children are not just smaller versions of adults. When adults go to the ER, they generally understand the purpose behind each step of the process. Even with that knowledge, there is still an undercurrent of anxiety while waiting for the doctor's diagnosis, wondering whether their symptoms are signaling something serious. If that is how adults feel, a young child would most likely find the entire experience bewildering from start to finish.

Once inside the ER, children are confronted with an unfamiliar environment, unfamiliar medical staff, and a rapid stream of procedures coming one after another. They have no way to logically reason through what's about to happen next. They will live the experience entirely in the present, deeply feeling each moment. When medical staff prepare to carry out a procedure, the child does not think "this is to help me get better." All they sense is that something is coming, something they don't want,



Professor Chi-Wen Chen (left) and ER nurse Yen-Ju Chen (right)
陳紀雯教授（左）與陳彥如護理師（右）

陪同的家屬接著開始慌張，護理師與醫師須有效率地完成處置，每個人都很緊繃。因此陳老師與彥如護理師開始思考，這樣的過程有沒有可能變得不一樣。

彥如護理師曾擔任急診室資深護理師。她說，急診現場最難有餘裕去做的，是那些讓孩子知道自己不是孤身一人的舉動，例如在等待時給予陪伴。但是

and so they start to cry. An ER that is already running at a hectic pace becomes even more strained as a result.

Family members begin to panic, while nurses and doctors must work quickly and efficiently to complete treatment. Everyone is tense. In moments like these, Prof. Chen and Yen-Ju began to wonder whether the experience could be modified so it unfolds differently.

Yen-Ju previously served as a senior ER nurse. She says that in the emergency room, the hardest thing to make space for is the

Once the child puts on a VR headset, they enter a virtual environment. The IV procedure continues as usual, while their attention is transported elsewhere.

孩子戴上頭戴式 VR 裝置，進入一個虛擬的環境。打點滴的流程照常進行，此時孩子的注意力已經被帶到另一個場景裡



在人力吃緊的急診現場，醫護人員需要先確保檢查和處置能按部就班完成，能留給孩子的陪伴時間，其實一直很有限。

急診可以怎麼更兒童友善

那有沒有方法，在目前人力有限的現實裡，還是能讓這個過程對孩子來說不那麼難熬？彥如護理師與研究團隊想到了一個方式：虛擬實境 (VR)。他們讓接受打點滴的七到十二歲孩子戴上頭戴式 VR 裝置，進入一個虛擬的環境，如搭乘雲霄飛車，探索太空，或漫遊野生動物園。打點滴的流程照常進行，此時孩子的注意力已經被帶到另一個場景裡。

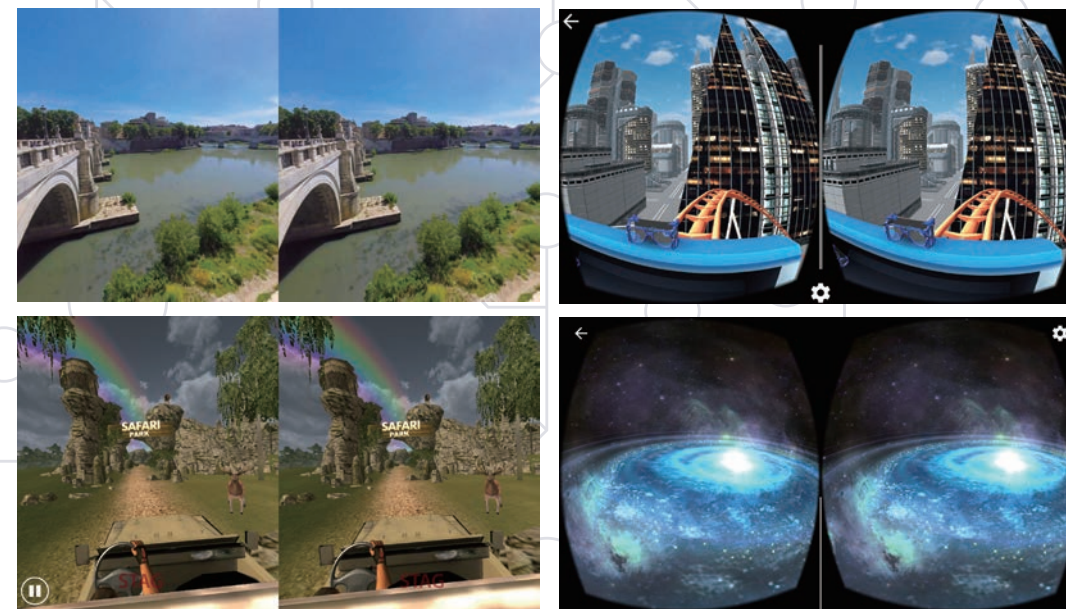
戴上 VR 之後，不管原本是哭鬧的，還是強忍著害怕不說出口的孩子，恐懼和疼痛都減輕了，家長和護理師都感覺得出來，完成打點滴所需的時間也縮短了。彥如護理師也指出，在臨床現場，如果孩子哭鬧抵抗，往往需要兩名以上的護理師協助安撫、約束，才能完成點滴的施打。但戴上 VR 裝置之後，孩子比較不需要被人約束，反而更配合。這讓研究

small acts of care that let a child know they are not alone, such as keeping them company while they wait. However, in an ER stretched thin on staff, medical personnel must first ensure that examinations and treatments are carried out properly and in order. As a result, the time they have to spare for simply staying with an anxious child is often very limited.

Making the ER a friendlier place for children

This situation raises an important question; given the reality of limited staffing, is there a way to make the experience less grueling for children? When considering how to answer this question, the team landed on an intriguing idea, virtual reality (VR). Children between the ages of seven and twelve wore a VR headset while receiving an IV, immersing themselves in virtual environments, whether riding a roller coaster, exploring outer space, or going on a safari. The IV procedure continued as usual, but the child's attention had been transported somewhere else entirely.

Once the headset was in place, children's fear and pain eased. Whether the children were previously crying and resisting or silently keeping their fear to themselves, the procedures went smoother with the VR headset. Both parents and nurses could notice the difference, and the time it took to complete the IV insertion shortened as well. Yen-Ju also noted that in clinical practice, when a child cries and resists, it often takes two or more nurses to help calm them down and hold them still before the IV can be placed. With the VR headset, however, children needed far less physical restraint and were noticeably more cooperative.



團隊意識到，VR 裝置或許能在人力吃緊的急診現場裡，成為一個真正實用的幫手。

要讓急診對孩子友善，還有沒有更多方法呢？彥如護理師與研究團隊訪談了北部與中部醫學中心的急診護理師，了解孩子在急診裡實際面臨的困難與需求。受訪的護理師提到，孩子常在被緊急送來急診後，家長匆忙之間沒帶齊日常用品，臨時連尿布或換洗衣物都難以取得。急診裡可用的輪椅多半是成人規格，對年紀還小的孩子來說，規格往往不太合適。

另有護理師坦言，自己經常在數張病床之間來回奔波，不停歇地為來急診的孩子做處置，幾乎沒有時間停下來與他們互動。也有人說，有時孩子帶著外傷來到急診時，身上的傷勢和家長描述的原因會對

This made the research team realize that VR could be a genuinely practical asset in an understaffed ER.

But what other steps could make the ER more child-friendly? Yen-Ju and the research team interviewed ER nurses at medical centers in northern and central Taiwan, gathering firsthand accounts of the real-life challenges children face in the ER and what they actually need. The nurses mentioned that when children are rushed to the ER, parents often leave home in such a hurry that they do not bring basic supplies, leaving them scrambling to find something as simple as a diaper or a change of clothes. In addition, the wheelchairs in most ERs are sized for adults, making them a poor fit for young children.

Some nurses also mentioned that while on duty, they must continually run between multiple beds, moving from one procedure to the next without a break, leaving almost no time to stop and interact with their young patients. Others shared that when children arrive with physical injuries, the nature of those injuries sometimes does not line up with the explanation parents give, and the children rarely speak up about what happened.

不上，而孩子本身往往很少開口說出發生過什麼事，護理師得在很短的時間裡，一邊完成評估處置，一邊判斷是否可能涉及家暴。

接著，研究團隊攜手專家討論，將兒童友善急診照護歸納為六大面向：及時安撫與支持、情緒照護、第一線照護安全、緊急應變、人力支援與治療效率，並篩出 37 個指標。指標內容包括在急診室附近設置販賣機，販售兒童與家長所需的生活必需品、提供兒童專用的輪椅、在處置前主動向孩子與家長說明接下來的流程；護理師主動辨識孩子的傷勢是否可能涉及兒虐，啟動評估與通報機制；面對有自傷傾向的青少年，則要協助清除周圍可能造成傷害的物品，安排他們待在護理站附近。

Nurses are left with a very narrow window to complete their assessments and procedures while simultaneously trying to determine whether the injuries might point to abuse.

The research team then worked alongside experts to organize child-friendly ER care into six key dimensions: timely comfort, emotional care, frontline safety, emergency response, human resources support, and treatment efficiency, and identified 37 indicators. These include placing vending machines near the ER stocked with essentials for children and parents, providing child-sized wheelchairs, and proactively walking both children and parents through what to expect before any procedure begins. Nurses also assess whether a child's injuries may be related to abuse, initiating further evaluation and reporting protocols when warranted. For adolescents showing signs of self-harm, it is crucial for nurses to remove nearby objects that could cause injury and place them in a spot close to the nursing station.

These 37 indicators were compiled into a checklist to demonstrate what quality, child-centered ER care should look like,



A designated reading area offers a place for children to read while they wait.

候診時，閱讀區為孩子提供可使用的閱讀空間

A playroom offers children a place to play.
院內設置遊戲室，提供孩子活動場域

這 37 個指標，成為一份列出兒童友善急診應該具備哪些照護重點的清單，讓醫院和護理師知道可以往哪個方向調整，也能作為未來訂定標準時的參考。研究團隊把這 37 個指標整理成一份「兒童友善急診評估量表」，幫助醫院和護理師找出兒童急診照護的強項與進步空間，作為之後規劃改善策略和政策的依據。

微小但重要的舉動

這些準則正在逐步實踐，還有一些，值得等待被創造出來。彥如護理師說，如果可以，她想提供每個進急診的孩子一套盾牌和劍。劍是給孩子拿的，可以即時翻譯他的想法和情緒，讓護理師和家長知道他現在到底怎麼了、他需要什麼，因為很多孩子還沒辦法把這些清楚說出來。

盾牌的部分，孩子只要舉起來，就能啟動友善照護模式，讓他感覺到自己是被保護的；盾牌裡還結合 AI，可以偵測孩子的情緒狀態，即時調整環境的燈光和噪音，讓那個空間對孩子來說不那麼可怕。

giving hospitals and nurses a concrete direction for improvement and a reference point for setting future standards. The research team then utilized the checklist to develop a child-friendly emergency department assessment scale. This tool is designed to help hospitals and nurses identify both their strengths and their areas for growth in pediatric ER care, and it can serve as a foundation for planning better strategies and policies going forward.

Small acts, lasting impacts

Some of the measures outlined in the checklist are gradually being put into practice, while others still need to be created. If she could, Yen-Ju says, she would give every child who walks into the ER a sword and a shield. The sword is for the child to wield, translating their thoughts and emotions in real time and allowing nurses and parents to understand exactly how they feel and what they need, because many children simply do not yet have the words to express themselves clearly.

As for the shield, a child would need only to lift it to activate a "gentle care mode," helping them feel safe and protected. The shield Yen-Ju imagines would also incorporate AI capable of detecting the child's emotional state and adjusting the room's lighting and noise levels in real time, making the space feel a little less frightening.

Meanwhile, research has already confirmed that VR does not delay medical procedures, and Prof. Chen hopes to see it incorporated more broadly in pediatric care. Listening to Prof.

另一方面，研究已經證實 VR 裝置不會耽誤處置時間，陳老師也期望有機會把它用在孩子的照護上。當陳老師和彥如護理師跟我們分享如何打造兒童友善急診環境時，那種專注的神情和眼裡的光，讓人很清楚地感受到，在工作量始終很大的急診現場，醫護人員也在思考，怎麼讓孩子少一點害怕、多一點被好好照顧的感覺。

「孩子一進急診，第一個接觸他的人非常重要，」彥如護理師告訴我們，「說話的語氣、眼神，甚至只是蹲下來，把視線降到跟孩子一樣的高度，都會讓孩子感覺不一樣。」不管孩子多小、聽不聽得懂，她都會在做任何處置前先開口說明，孩子也許還不明白，但家長聽見後可以一起協助配合。

陳老師提到，這些微小的舉動背後只有一件事：把孩子當作一個人。「即使急診很忙，也可以用簡單、他聽得懂的方式向他說明，這部分很重要。」這些事，聽起來不複雜，卻都回應著同一個問題：當需要醫療協助的人在醫院裡，不知道接下來會發生什麼時，我們可以為他做什麼，讓他得到更好的照顧。在臺灣的急診室裡，已有許多醫護人員為這件事身體力行，而且從未停下。■

Chen and Yen-Ju describe what it takes to build a child-friendly ER, the focused look in their eyes and the quiet enthusiasm in their voices make it unmistakably clear that even in an ER that never stops being demanding, the people working there are thinking about how to help children feel a little less afraid and a little more cared for.

"The first person a child encounters when they enter the ER matters enormously," Yen-Ju told us. "The tone of their voice, eye contact, and even just crouching down to meet them at eye level will all make a major difference in how a child feels." No matter how young the child is or whether they can fully understand, she always takes a moment to explain what she is about to do before any procedure. The child may not grasp what she describes, but hearing it also helps the parents know what is coming so they can support the process alongside the medical team.

Prof. Chen put it simply. Behind all these small gestures lies a single idea, treating the child as a person. "Even when the ER is busy, you can still explain things in plain language that they can understand. That part matters." Although none of these ideas sound complicated, they all point to one thing: when someone in need of medical care is in a hospital and does not know what will happen next, there are many things that we can do to help them feel better cared for. In Taiwan's emergency rooms, healthcare workers have long been putting these ideas into practice, and the new research findings will give them even more tools to work with.



In Taiwan, healthcare workers are working to make emergency care more child-friendly.

在臺灣，醫護人員持續為打造兒童友善急診環境付諸行動

