

**CAROL DAVILA UNIVERSITY OF MEDICINE AND PHARMACY
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**- HABILITATION THESIS ABSTRACT -
PAEDIATRICS FROM BENCH TO BEDSIDE AND
BEYOND BY TAILORED COMMUNICATION**

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- Habilitation thesis abstract -

Paediatrics from bench to bedside and beyond by tailored communication

From zero to hero and finally to Nero... This brief statement from dr Neville Calleja from Malta presented at ESCAIDE 2022 meeting in Stockholm is probably the reflection of thoughts of many physicians in the frontline of COVID-19 pandemic effort. Many of us were surprised by the huge tsunami of emotions and the volume of news circulating in scientific papers and in social media. WHO labelled this phenomenon as infodemic, to provide a more rigorous perception of the self-perpetuated process.

In an environment where distrust, polarisation and politization of communication has generated an even wider gap between HCW (healthcare workers) and patients as before the Social Media era I had in mind to generate a tool that can facilitate the forgotten chemistry of dialogue.

Titles like "Do you trust the medical profession?" are present for years in media [in 23rd January 2018 Dhruv Khullar is signing a memorable paper in The New York Times that anticipates the ill fortune of HCW-patient relation during these last years, stating "mistrust in the medical profession – particularly during emergencies like epidemics – can have deadly consequences"]. The erosion of communication has been evident in developed countries like US where confidence in medical leaders declined from more than 75% in 1966 to only 34% in 2018. And this was before SARS-CoV-2 pandemic!

Trust in each other and in institutions is vital for our social, mental and economic well-being. Applied to health-related behaviour a study (Thom DH, Hall MA, Pawlson LG – Measuring Patients Trust in Physicians when assessing quality of care. Health Affairs 2004;23(4):124) has proven that nearly two-thirds of patients with high levels of trust always take their medications but only 14% of those with low levels of trust do.

So, I've realized that children's healthcare in a country with a high emotional burden where 74% of people confronted with various health-related issues are going to address first Dr Google and only after this approach their GP, needs a change of paradigm.

My research in Paediatrics was focused on parental perspective when addressing health related aspects of diagnosis or treatment in children. I've built since 2017 a new communication tool "Spitalul Virtual pentru Copii" - SVC (a registered trade-mark) that is a Facebook page with educational and research purposes. Currently close to 290.000 people are following SVC and many posts have emerged in conventional media or in published research.

Data of parental behaviour, attitudes and perception has been documented in several published papers in last years or in national or international conference presentations [Miron VD, Toma AR, Filimon C, Bar G, Craiu M. Optional Vaccines in Children-Knowledge, Attitudes, and Practices in Romanian Parents. *Vaccines (Basel)*. 2022;10(3); Guta A, Craiu M Study on Parental Perception and Approach regarding Community Aquired pneumonia in Preschool Children from Romania. *RJP* 2018;LXVII(2):91-8]. And they had a significant impact in buiding confidence and interpersonal communication in our hospital. In INSMC Emergency Department tailored approach was implemented and outcame is obvious – from 17.000 patients per year we had a constant increase in the last decade to more than 66.000 patients in 2022.

Research in many other pediatric areas captured my interest. Probably the most important two of these areas are Paediatric Resuscitation and Emergencies and Respiratory diseases in children.

Since 1999 our team in INSMC is providing PALS [Paediatric Advanced Life Support] courses and more than 50 classes with more than 1200 physicians have graduated these modules. Data and knowledge in resuscitation area was implemented both in teaching and research.

Resuscitation Course for medical students in the Unified Curriculum of UMFCD was elaborated by myself as unique author - *Curs de Pediatrie pentru Studenti*, coordonator: Doina Anca Plesca, Editura Universitara „Carol Davila”, București, 2017, ISBN 978-973-708-952-6. Another chapter on resuscitation is Capitolul 15 Resuscitarea la Copil - *Tratat de Pediatrie sub redacția Florea Iordachescu* Editura ALL 2019 ISBN 978-606-587-550-0.

My reaserch was presented at ERC [European Resuscitation Council conference] and included in several publications including my PhD Thesis (Mihai Craiu, Mihai Iordachescu, Dragos Predescu, Ioana Alina Anca – Abordul intraosos in practica pediatrica; consideratii asupra metodei si prezentare de caz – *Jurnalul Roman de Resuscitare* 2003;2:65-70 and Craiu M, Iordachescu M, Stan I, Cochino AV, Avram P, Ciomartan T, Brezan F – Alternative Intraosseous infussion technique via spinal needle, valuable tool for paediatric resuscitation – *Resuscitation* 2010;81(2) S1-S114: S76).

Asthma research and applied science is for years in my mind and daily routine. Probably because I myself am an asthma patient and can resonate with all emotions and issues related to real-life asthma challenges. Since my certification as respiratory diseases specialist I had a special foscus on severe asthma and new tailored treatment for these patients. I was involved as Principal Investigator in several conventional research projects for asthma pediatric patients

like the VESTRI study (Stempel DA, Szeffler SJ, Pedersen S, Zeiger RS, Yeakey AM, Lee LA, et al. Safety of Adding Salmeterol to Fluticasone Propionate in Children with Asthma. *N Engl J Med.* 2016;375(9):840-9.) and many others.

In the new era of personalized medicine I was involved in the European study PERMEABLE (Santos-Valente E, Buntrock-Dopke H, Abou Taam R, Arasi S, Bakirtas A, Lozano Blasco J, et al. Biologicals in childhood severe asthma: the European PERMEABLE survey on the status quo. *ERJ Open Res.* 2021;7(3).) or in the dupilumab VOYAGE study (Bacharier LB, Maspero JF, Katelaris CH, Fiocchi AG, Gagnon R, de Mir I, et al. Dupilumab in Children with Uncontrolled Moderate-to-Severe Asthma. *N Engl J Med.* 2021;385(24):2230-40.).

All these efforts were recognized by peers and I was elected as President of Romanian Pediatric Respiratory Society of SRP and nominated as head of the Technical commission of Paediatric Respiratory Diseases of Health Minister from Romania in 2019.

For the near future I plan to grow along with my enthusiastic colleagues in a recognized team that promotes a special communication approach to parental perceptions and beliefs implementing the new perspectives of Artificial Intelligence tools in our endeavour.

And I hope that clinical research and daily routine of caring for children will help to regain the forgotten chemistry of communication between HCW and their patients, for mutual fulfilment.