EDITORIAL

Founding paediatric intensive care in Greece: An interview with Dr John Papadatos, the first paediatric intensivist in Greece at the 'P. & A. Kyriakou' Children's Hospital

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acting in accordance to human virtues (τὰ δὲ κατὰ τὰς ἀρετὰς γινόμενα)

Aristotle

Abstract. According to Dr John Papadatos, the first paediatric intensivist and paediatric intensive care unit (PICU) clinical director in Greece, the operation of the first Greek PICU commenced in January, 1986 and was located at the 'P. & A. Kyriakou' Children's Hospital in Athens, Greece. After having devoted 35 years to the PICU, he feels content with the development of paediatric intensive care in his country, Greece, where today there are six PICUs and four intermediate units under the national health system. Dr Papadatos earnestly believes that paediatric intensive care is really fascinating as intensivists deal with all branches of paediatrics, including infections, septicaemia, cancer, neurosurgery, accidents, poisoning and cardiology. Dr Papadatos values teamwork and effective communication with parents as the key factors to success in intensive care. He also believes that the PICU is an excellent school for general paediatricians, infectious diseases specialists and future paediatric virologists on paediatric viral infectious diseases.

Introduction

Paediatric intensive care has been developed as a distinct subspecialty in order to meet the needs for advanced post-operative management and supportive care for complex medical conditions. During the 1930s to 1940s, adult intensive care units (ICUs) were established to battle the polio epidemic with 'iron-lung' negative-pressure ventilators (1). A number of affected children had been hospitalized in those units. In the same era, neonatal ICUs developed along with ventilation techniques and the use of surfactant to offer care and to improve the survival of premature infants. Advances in paediatric surgery and particularly in congenital heart surgery increased the request for improved post-operative management in dedicated paediatric ICUs (PICUs).

The aforementioned led to the first multidisciplinary PICU, which was established by Goran Haglund in 1955 at the Children's Hospital of Goteborg in Sweden and consisted of seven acute and five step-down beds. The next recorded PICU was developed in Stockholm in 1961 by the anaesthesiologist, Hans Feychting. PICUs at the Hospital St. Vincent de Paul in Paris in 1963, the Royal Children's Hospital of Melbourne in Australia and the 'Alder Hey' Children's Hospital in Liverpool in the UK in 1964 followed. John Downes initiated the first recorded PICU in the US at the Children's Hospital of Philadelphia in 1967 (2). Over the following years, hundreds of PICUs were established in university institutions, children's hospitals and community hospitals, worldwide. Randolph *et al* (3) identified 306 general PICUs only in the US in 1995 and 349 in 2001. The first multidisciplinary PICU in Greece was developed in 1986 by Dr John Papadatos in collaboration with Dr Tassos Hatzis at the 'P. & A. Kyriakou' Children's Hospital in Athens.

Dr John Papadatos (Fig. 1) is an excellent scientist and a devoted physician. After graduating from the University of Athens School of Medicine in 1976 and completing his specialty in paediatrics at the 'P. & A. Kyriakou' Children's Hospital in 1981, he moved to the UK in order to follow paediatric critical and intensive care, a subspecialty absolutely unknown in Greece.

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Four years later he decided to return to Athens and established the first PICU in the country. This was a really difficult task; he had to care for critically ill children along with educating physicians, nurses, physiotherapists and the other staff. His knowledge and experience from abroad in combination with his strong character and his devotion to work contributed to his success. Recently, he retired after 35 years of continuous presence in PICU, leaving a well-organized unit, numerous exceptionally trained physicians and thousands of children and parents, who feel grateful for having been his patients.

In the context of the '7th Workshop on Paediatric Virology', which was held virtually on December 20, 2021, Dr John Papadatos was awarded by the Institute of Paediatric Virology with the '2021 George N. Papanicolaou Humanitarian Award' for his contribution to founding paediatric intensive care in Greece. This award is the highest distinction of the Institute of Paediatric Virology (4), which is based on the island of Euboea (Greece), and is given to scientists with outstanding offer and dedication to medicine, science and humanity.

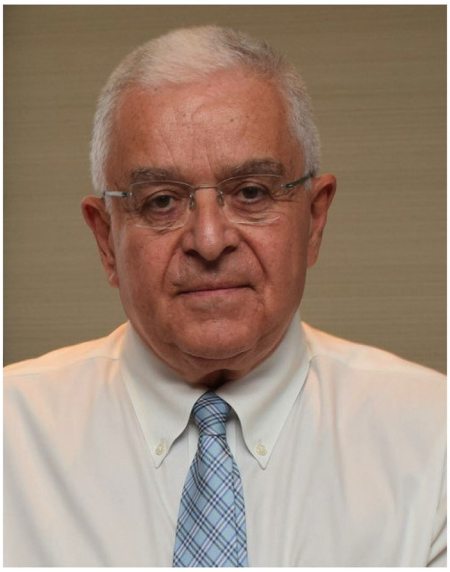

Figure 1. Dr John Papadatos, former clinical director and paediatric intensivist at the 'P.& A. Kyriakou' Children's Hospital in Athens, Greece, founder of paediatric intensive care in Greece.

Questions and answers

Question: Dr John Papadatos, you were the first who established the function of PICU in Greece. Could you talk to us about your first steps in this difficult field?
Answer: In 1985, while I was working in the PICU in Newcastle, UK, the director of 'P. & A. Kyriakou' Children's Hospital in Athens, Mrs. Mariola Fragkaki, called me and asked if I was willing to return to Greece and initiate a PICU at the hospital. A PICU at that time was not existing in Greece. Although I had been offered a position in Canada, I decided to return to my country and start the first PICU, in collaboration with my colleague Dr Tassos Hatzis, who had been trained in France. We worked hard, since there was no space, no technological equipment and no trained staff. Organizing the unit took almost a whole year. In January, 1986, the first PICU in Greece started operating.

Question: Being a paediatrician, was it your first choice? How did you decide to specialize in intensive care medicine? At your time, sub-specialization in medicine was not common.
Answer: Initially, I was orientated to paediatric gastroenterology. In the early 1980s, when I was a trainee in paediatrics, I witnessed the death of two children during their hospitalization in the general paediatric ward: A boy with Down syndrome and a young girl with status asthmaticus. It shocked me to the point of changing my choice from gastroenterology to intensive care medicine.

Question: During these years, before the operation of the first PICU, what was happening if a child was critically ill and needed intensive care?
Answer: Critically ill children were transferred to adult ICUs, mostly to the one at 'Sotiria' General Hospital, where Dr Magriotis was trying to manage these children next to 60,70,80 years old patients. Naturally, it was not the right place for young patients. Some children survived; others died.

Question: Most of us experience stress, anxiety and an absence of self-confidence, when we begin in a new working environment. It should be exceedingly difficult starting something new and unknown in a country like Greece, as it was 35 years ago. Which were the main problems you had to deal with?
Answer: The operation of the PICU might have started in January 1986, but during the following 8 months, Dr Hatzis and I worked continually in the hospital, in order to educate young doctors, nurses, physiotherapists, even cleaners, on how to write prescriptions and adequately follow doctors' orders, give injections, monitor vital signs, treat young patients and inform the parents. Everything from scratch. After a period of 8 months, the trainee doctors, paediatricians and paediatric anaesthesiologists were finally able to run the unit for short periods of time without our supervision.

Question: A major problem in our line of work is giving parental information. Upon admission, parents are usually upset and cannot comprehend practicalities or medical terms. The announcement of a diagnosis with a poor prognosis causes anxiety and various reactions. In addition, after staying for a long time in the PICU many parents get familiar with personnel and require special treatment. On the other side, the staff often disengage from parental worries and emotions while in the line of duty. How do you handle these situations? How well educated are paediatric intensivists in interacting with parents?
Answer: Honestly, at the beginning of my career, I lacked both the optimum approach to announce bad news to the parents as well as the way to process or approach death or dying. I received a particularly good training in Newcastle, UK, where I practiced for four years, and feel extremely grateful for it. I joined the consultants while they talked to the parents and observed their approach. I learned a lot from them. When I returned to Greece, I trained young doctors and nurses in informing and managing the parents. In my opinion, the key factor in intensive care is honest and effective communication. It is a teamwork. We must communicate with each other,

acknowledge our mistakes and fears, improve ourselves and have an honest relationship with parents. We should talk to them often; they want to know what happens behind closed doors. We must make them aware of our worries and our effort to keep their children alive. Even when time is of essence, we should leave the PICU for a minute and let them know how their child is doing. Parents are part of our team; we should never forget this. It is crucial to work with them, not against them. Effective communication is the key factor to success in intensive care. Most of the cases that end in court are caused due to a lack of communication. During my 35 years in the PICU, I have never had a single court case.

Question: Most people feel wrecked, when their child is hospitalized in the PICU. How do you deal with your emotions? Have you ever been influenced on a personal level?
Answer: Everyone has a different mechanism to deal with emotions. Honestly, I do not know how, but leaving the hospital (at the evening or late at night) and getting into the car, I turn off a switch. I listen to music and at home I never talk about patients or problems, that I have to manage in the PICU. Of course, when my colleagues call me at three in the morning, my family is alarmed and want to know what happened but my answer is always 'a child is ill, but he will overcome it, so don't worry'. It is not easy. There are many health care professionals, who cannot deal with these situations and carry their emotions home, affecting their families. Their suffering makes it difficult for them to succeed in the PICU.

Question: In many PICUs a psychologist is a member of the team. It is believed that their presence is of utmost importance both for personnel and the patients. Do you agree with this opinion?
Answer: I think it is important to share our feelings, our stress, our frustration, with a psychologist or a psychiatrist. During my 35 years in the PICU at the 'P. & A. Kyriakou' Children's Hospital in Athens, we regularly held meetings with paediatric psychologists and psychiatrists. In those meetings everyone - doctors and nurses - were equal parts of the team and had the opportunity to express their feelings, especially when something unpleasant had happened and we were devastated. But I believe it is essential that the psychologist or psychiatric professionals, who are engaged in these meetings, should be adequately trained in dealing with situations like these.

Question: In PICUs in Greece, parents are not allowed to stay with their children. They are visiting them twice a day, usually for an hour and if there is a new admission or an emergency, they should leave earlier. On the other hand, an increasing trend favouring the parental presence even during cardiopulmonary resuscitation is emerging in many countries. What is your opinion on this?
Answer: Although we tried to establish free visiting hours in our PICU, we came up against doctors' and nurses' reluctance. Having the parents in the unit continuously, was not something they agreed on. In Boston (MA, USA), parents can visit their children in the PICU whenever they want, they can even sleep next to them with only a curtain isolating them from the other patients. In that way, they can follow everything that is happening to their child in the PICU. I agree that parents should visit their children whenever they want. And if there is a major procedure or an emergency, we should ask them to step out and return later. In 'P. & A. Kyriakou' Children's Hospital both the neonatal and paediatric ICUs have specific visiting hours. In my opinion, this time is far from enough. After all, it is their child in there.

Question: Two years ago, you retired from the PICU at the 'P. & A. Kyriakou' Children's Hospital. What are your feelings at the end of this unique journey? What is your prediction about the future of PICU in Greece?
Answer: After all these years, I have to admit that I feel content with what I have achieved. In total, twelve doctors have been enabled to acquire training abroad, in different fields. Trained in Canada, USA, UK, France and Austria, they were educated in different fields, such as paediatric cardiology, infections, trauma, respiratory systems' support and nutrition. Today, some of them are consultants in PICUs in Athens, Heraklion and Patras, as they had excellent qualifications by state-of-the-art paediatric centres in Greece and abroad. Today, there are six PICUs and four intermediate units in Greece - in Athens, Thessaloniki, Heraklion and Patras. I hope that health care professionals will be interested in training and initiate PICUs in Alexandroupolis and Ioannina, too, as equally distributed units in the Greek region are more than essential. If an acute and severe case emerges, it needs to be treated immediately. Waiting for six, eight or ten hours to be transferred to a PICU could result in losing the patient.

Question: What was your most difficult moment at PICU?
Answer: Well, it was not the search of a difficult diagnosis or the establishment of a painful treatment, as it was the communication with people who had a different and complicated mindset. During these 35 years in 'P. & A. Kyriakou' Children's Hospital we had to deal with different core value systems and mentalities. Bridging that gap was the most difficult but also challenging aspect.

Question: What is 'PNOE' and what is its contribution in paediatric intensive care in Greece?
Answer: In 1991 'PNOE' (Friends of Children in Intensive Care Unit) was founded. It was a great opportunity to apply the knowledge and experience I accumulated while working in the UK, in similar foundations, which helped children with epilepsy, disabilities, cystic fibrosis and other chronic conditions. PNOE helps all neonatal and paediatric units in Greece - a total of 32 neonatal and paediatric ICUs - only in state hospitals, by providing technical equipment, special drugs, mediating when specialized blood tests must be send abroad, paying for parents' accommodation when needed, paying for funeral services and similar practicalities.

Question: What would be your advice to young paediatricians, who are abroad and think of returning to Greece?
Answer: I would definitely encourage them to return to Greece. We need young people to come back, with up-to-date knowledge and a new mentality. The only obstacle is low medical salaries compared to other countries.

Question: What advice would you give to our colleagues, who are interested in being subspecialized in paediatric intensive care?
Answer: In my opinion, paediatric intensive care is extremely fascinating as paediatric intensivists deal with all aspects of paediatrics, such as infections, septicaemia, cancer, neurosurgery, accidents, poisoning and cardiology. There is always something new, something different in the PICU. And when we have the appropriate technical equipment, we can often perform miracles!

Question: PICU requires dedication. But how difficult is the combination of dedication to work with a successful personal life?
Answer: This is a difficult task. Sometimes my wife and I were heading to dinner or a trip and I had to return to the hospital for an emergency. To be honest, I am afraid I have deprived my family of 'together' time. I can recall several times having been on an island for holidays, and having to fly back to Athens because of an emergency in the PICU. I do not regret it, though; I just hope that they will forgive me. My wife has always been and still is very supportive. She is dedicated to our family and she deserves honours.

Question: What is the most significant human virtue?
Answer: Love.

Question: Which is your favourite ancient Greek quote? Who is your favourite ancient Greek philosopher?
Answer: It is a quote from 'Nicomachean Ethics' written by Aristotle in 350 B.C., highlighting the value of practicing human virtues in real life as a habit rather than approaching them only theoretically. According to Aristotle, 'acting in accordance to human virtues requires knowledge, secondly the power of personal choice and thirdly - and most important - the strength to repeatedly act according to human virtues' (τὰ δὲ κατὰ τὰς ἀρετὰς γινόμενα οὐκ ἐὰν αὐτά πως ἔχῃ, δικαίως ἢ σωφρόνως πράττεται, ἀλλὰ καὶ ἐὰν ὁ πράττων πῶς ἔχων πράττῃ, πρῶτον μὲν ἐὰν εἰδώς, ἔπειτ' ἐὰν προαιρούμενος, καὶ προαιρούμενος δι' αὐτά, τὸ δὲ τρίτον ἐὰν καὶ βεβαίως καὶ ἀμετακινήτως ἔχων πράττῃ) (5). As doctors, we must have of course medical knowledge. But what is more essential, and this should be further evaluated in modern medical educational modules, is our will to act and even more importantly our strength to continuously act according to human virtues. We have to repeatedly practice our science in all of our little patients, without any discrimination or limitation or hesitancy. The exact phrase that Aristotle uses is 'surely and unchangeably' (βεβαίως καὶ ἀμετακινήτως). Aristotle is my favourite ancient Greek philosopher.

Question: In 2019, a group of young paediatricians in cooperation with paediatric infectious diseases specialists organized a scientific institute - the Institute of Paediatric Virology, https://paediatricvirology.org - believing that medical education on viral infections, which are responsible for significant morbidity in childhood, deserves more attention. Do you agree with this principal aim of our institute? What would be your advice to us?
Answer: I absolutely agree! New study groups improve knowledge and regenerate the way of thinking. This is essential in science. I fully support any initiative, in any field of science. New doctors have to ameliorate, improve and be able to do research, not only work as physicians. They should go abroad, acquire knowledge, meet with people with different perspectives and connect, exchange knowledge and experience. Interaction is essential. This is my advice to any young doctor. Regarding paediatric virology, I strongly believe that this field of paediatrics should and will be developed in the following years. I believe that your project on paediatric virology as a new paediatric subspecialisation, is definitely innovative and will be an immense contribution to medical education and practice in the future. Clinical experience in the PICU is significant for general paediatricians, paediatric infectious diseases specialists and future paediatric virologists. PICU is an excellent school for all trainees on paediatric viral infectious diseases and should definitely be included in your proposed module on paediatric virology.

Question: Dr John Papadatos, it was a great honour talking with you. Apart from a great doctor and clinical director of the PICU at the 'P. & A. Kyriakou' Children's Hospital for 35 years, you also are a wonderful person. You always give us inspiration and we really feel so proud that we had the chance to work with you! Thank you so much.

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