EPA-UNEPSA SCIENTIFIC ACTIVITY (2016)

Editorial series of EPA-UNEPSA, the European Paediatric Association, Union of National European Paediatric Societies and Associations

Paediatric Health Reports 2017
Volume 1, March 2017

UNION OF NATIONAL EUROPEAN PAEDIATRIC SOCIETIES AND ASSOCIATIONS (EPA-UNEPSA)

EPA-UNEPSA SCIENTIFIC ACTIVITY (2016)

A collection of articles dedicated to child health promotion and care published by EPA-UNEPSA in 2016.

Editors:

Jochen H.H. Ehrich - Chairman, Scientific Advisory Board, EPA-UNEPSA
Leyla Namazova-Baranova - President, EPA-UNEPSA
Massimo Pettoello-Mantovani - Vice-President, EPA-UNEPSA

© **EPA-UNEPSA Series**
"EPA-UNEPSA Scientific Activity (2016)"

Published in 2017 by EPA-UNEPSA Editions. Headquarter, Allt. Center, Zimmerstraße 69, D-10117, Berlin, Germany
Graphics and Layout: ZEROUNO by Alessandro Tellini
info@zerounoprojects.it, Via Croce di Sarna, 57 52010 Croce di Sarna (AR), Italy

INTRODUCTION

The European Paediatric Association-Union of National Paediatric Societies and Associations (EPA-UNEPSA) complies with the strategy of building bridges between and among medical and non-medical experts.

The aim of EPA is to educate without being limited by boundaries, across country borders, while respecting national idiosyncrasies.
In recent years EPA-UNEPSA has brought 50 European national paediatric associations and societies closer together to stimulate "learning across borders" and to start the debate on different issues of child health care ranging from psychological to medical, legal and economic topics.

Furthermore EPA-UNEPSA expanded on planning, performing and publishing studies on child health care services in Europe.
Last but not least EPA attracted not only paediatricians but also other experts in child health care who were willing to be actively involved in projects aiming at improving child health care on a European level.
The aims of the European Paediatric Association are to improve the health of children and young people in Europe, and to improve the quality of health care services for children and their families in Europe.

The articles which are included in this e-book deal with a great variety of topics reflecting current discussions and controversies, idiosyncrasies and standards, gasp and bridges as well as challenges and achievements.
With respect to the enormous benefit of successful communication between professionals we have chosen to make most of our previous publications available to as many pediatricians as possible.

EPA-UNEPSA has to broaden its intellectual basis by creating a multidisciplinary society to avoid fragmentation of paediatrics, and to allow to tackle the legal, economic and organisational challenges of child health care in Europe. Last but not least EPA-UNEPSA constantly works to put the children and young people into the centre of its activities.

Enjoy reading the articles and please do not hesitate to contact the EPA-UNEPSA Scientific Advisory Board by sending your questions and comments to the articles. Our motto is "starting the debate".

Leyla Namazova-Baranova
Massimo Pettoello-Mantovani
Jochen H.H. Ehrich
EPA-UNEPSA Executive Committee

INDEX

Pag. 23 **Overview of Habilitation and Rehabilitation for Children and Adolescents in Europe**
Reinhold Kerbl, MD[1,2]*, Wolfgang Sperl, MD, PhD*[3]*, Hans Michael Strassburg, MD*[4]*, Massimo Pettoello-Mantovani, MD*[5,6]*,and Jochen Ehrich, MD, DCMT*[5,7]

The Journal of Pediatrics 2016; 172(3):233-235

Pag. 28 **Foster Care: A Fragile Reality Needing Social Attention, and Economic Investments**

Pietro Ferrara, MD[1,2,3]*, Giovanni Corsello, MD*[1,4,5]*, Annamaria Sbordone, MD*[3]*, Luigi Nigri, MD*[4,6]*, Jochen Ehrich, MD, DCMT*[4,7]*, and Massimo Pettoello-Mantovani, MD, PhD*[1,4,8]
The Journal of Pediatrics 2016; 173(2):270-271

Pag. 31 **Impact of Distressing Media Imagery on Children**

Pietro Ferrara, MD[1,2,3]*, Giovanni Corsello, MD*[1,4,5]*, Francesca Ianniello, MD*[2]*, Annamaria Sbordone, MD*[3]*, Jochen Ehrich, MD, DCMT*[5,6]*, and Massimo Pettoello-Mantovani, MD, PhD*[1,5,7]

The Journal of Pediatrics 2016; 174(2):275-276

Pag. 34 **Vaccine Hesitancy and Refusal**

E. David G. McIntosh, MBBS, MPH, LLM, PhD[1]*, Jan Janda, MD*[2,3]*, Jochen H. H. Ehrich, MD, DCMT*[3,4]*, Massimo Pettoello-Mantovani, MD, PhD*[3,5]*, and Eli Somekh, MD*[3,6,7]

The Journal of Pediatrics 2016; 175(3):248-250

Pag. 37 **The Role of Pediatricians in Caring for the Well-Being of Children Living in New Types of Families**

Pietro Ferrara, MD[1,2,3]*, Giovanni Corsello, MD*[1,4,5]*, Annamaria Sbordone, MD*[3]*, Costanza Cutrona, MD*[3]*, Jochen Ehrich, MD, DCMT*[4,6]*, and Massimo Pettoello-Mantovani, MD, PhD*[1,4,7]

The Journal of Pediatrics 2016; 176(3):226-228

Pag. 41 **Views of the Presidents of National European Pediatric Societies on Evolving Challenges of Child Health Care**
Jochen H.H. Ehrich, MD, DCMT[1,2]*, and Massimo Pettoello-Mantovani, MD*[1,3]

The Journal of Pediatrics 2016; 177(3):336-337

EUROPEAN PAEDIATRIC ASSOCIATION (EPA / UNEPSA)
EUROPEAN PAEDIATRIC ASSOCIATION PAGES

The "Invisible Children": Uncertain Future of Unaccompanied Minor Migrants in Europe

Pietro Ferrara, MD[1,2,3], Giovanni Corsello, MD[1,4,5], Annamaria Sbordone, MD[3], Luigi Nigri, MD[4,6], Olga Caporale, MD[3], Jochen Ehrich, MD, DCMT[4,7], and Massimo Pettoello-Mantovani, MD, PhD[1,4,8]

Over the last few years, several countries of the European Union (EU) have dealt with increasing numbers of unaccompanied minor migrants, mainly originating from countries experiencing armed conflicts and oppression, or abuses of human rights. These children, also defined as "separated children,"[1] are under 18 years of age, are outside their home country, apart from their parents or their previous legal or customary primary caregiver, and are traveling to Europe typically to escape conditions of serious deprivation or exploitation.[1]

These children are fragile, whether physically, intellectually, or socially. They lack the care and protection of their caregivers, and may be easily exposed to abuse and neglect. Because of their particular helpless condition, the unaccompanied minor migrants are at serious risk to be further deprived of their rights, and to become de facto "invisible" to the authorities, to the public health services, and in general to the public opinion. Furthermore, when they arrive at a destination, or during their journey through Europe, many children often vanish. The full dimension of such phenomenon that further hits the unaccompanied minors along their European migration routes currently is unknown. However, the intense migration that has affected the south Mediterranean borders of the EU over the last 10 years has allowed the collection of sufficient data to raise the high concern of several European pediatric societies about the "invisible" condition of the unaccompanied migrant minors traveling through Europe, including the phenomenon of the vanishing children.

The aim of this article is to raise awareness of the "invisible children," particularly in those countries that only recently have experienced a mass migration of populations from different endangered parts of the world.

The Case of Children Traveling to the Mediterranean Southern Sea Borders of EU

During the first 6 months of 2015, more than 106 000 children had asked for asylum to the EU.[2] The number of unaccompanied migrant children entering the EU was increasing. During the last 10 years and until recently, the sea coasts of Italy and Greece represented the main southern border gate for migration to Europe. Particularly in Italy, although there were 5821 unaccompanied minors in December 2012, their number progressively rose to 6319 (>8.4%) and 10 536 (>31.7%) in 2013 and 2014, respectively (**Table**; available at www.jpeds.com). The majority of minor migrants were from Egypt, Albania, Gambia, Somalia, and from other unidentified regions of North and Central Africa; a smaller number was from the Middle East. Most of them are 16- to 17-year-old males (95.4% males vs 4.6% females), and 60% of them were first hosted in hospitality centers for migrants, concentrated in 4 regions (Sicily, Lazio, Lombardy, and Puglia).[3] The latest available data emphasized the arrival of 9699 separated children in Italy during the period January to August 2015 (94.9% males and 5.1% females). Of them, 91.7% are 15 to 17 years old, 7.8% are 7 to 14 years of age, and 0.5% are <6 years of age.[4]

Alarming data about the destiny of many of these children have been reported by the Italian Ministry of Labor and Social Policies.[4] In fact, one-third of the unaccompanied minors had been lost to follow-up. The report published in September 2015 states that from the year 2012 increasing numbers of unaccompanied children had vanished after their arrival in Italy (**Table**). For instance, during the limited period January to August 2015, of the total number of 9699 unaccompanied children, 5588 (57.6%) had disappeared after their first registration at entry in the country.[4] It was speculated that these children may fall victim of kidnapping, trafficking, illegal labor, sexual exploitation, or prostitution. Most notably, the percentage of female children who vanished yearly was higher than the male percentage. According to a report by "Terre des hommes," up to 50% of the unaccompanied female minors vanish yearly.[5]

In Greece, according to data provided by the local Ministry of Public Order and Citizen Protection and the Ministry of Labor, in 2013, a total of 3122 unaccompanied minors were arrested by the police, 453 applied for asylum and

EU	European Union

From the [1]Italian Society of Pediatrics (SIP), Italy; [2]Institute of Pediatrics, Catholic University Medical School; [3]Campus Bio-Medico University Medical School, Rome, Italy; [4]European Pediatric Association-Union of National European Pediatric Societies and Associations (EPA-UNEPSA), Berlin, Germany; [5]Institute of Pediatrics, University of Palermo, Palermo, Italy; [6]Italian Federation of Pediatricians (FIMP), Italy; [7]Children's Hospital, Hannover Medical School, Hannover, Germany; and [8]Institute of Pediatrics and Residency program, University of Foggia, Foggia, Italy

The authors declare no conflicts of interest.

http://dx.doi.org/10.1016/j.jpeds.2015.10.060

1150 were placed in safe accommodation centers; the destiny of the remaining 1519 is not known. Reflecting the rising number of new arrivals in this country, in 2014 there have been 2004 housing requests, 349 of which could not be satisfied, and in June 2015 alone, 4270 children landed on the Greek Islands, 86 of them unaccompanied.[6,7]

However, the phenomenon of the unaccompanied migrant minors also has expanded to different parts of Europe, as new migratory routes to the north of Europe have recently emerged. For instance, official data indicate that during the period 2010 to 2012, in the UK 4240 unaccompanied children claimed asylum, and over the same period only 585 former unaccompanied children departed or were removed (13.8% of the number of arrivals over the same period).[8] The report by the UK government concludes that the gap implies that the majority of former unaccompanied children remain in the UK with an undetermined or unlawful status.[8]

In Germany, which currently is one of the main final destinations for migrants, the number of unaccompanied minors who have lodged an asylum application in 2008 was 763, rising to 2486 in 2013, an increase of 325% in just 5 years.[9] Following the increase of the migration waves directed toward the north of Europe through new land routes, by the end of the year 2014, 147 000 refugee children lived in Germany, of whom 17 000 were unaccompanied.[10]

The South EU Countries as a Migratory Bridge to the North EU Countries

The children, often unaccompanied, leave their home countries and family looking for a better future and new opportunities, often escaping wars, hunger, natural disasters, human rights violations, and poverty. Some of them are just looking for protection in the EU, and others pass through the southern borders of EU heading to different destinations within the Union. Therefore, the statistical representation of minors who do not enter the asylum procedure in EU is frequently difficult and unclear, as a larger number of children consider the South European countries of first entry only a transit station to their final EU destination, rendering them "invisible" to the authorities.

At their first entry in an EU country, the unaccompanied children who are intercepted by the local authorities normally undergo identification procedures and are placed in safe environments, such as children's home and foster care, or admitted into integration and education programs. Initially, the basic needs are provided by emergency care and assistance facilities, until new and long-term solutions are found. These may include reunification with family, custody by foster families, and admission to foster care facilities or community-based care.[10,11] However, according to the "Save the Children" organization, several hundred unaccompanied children who entered the South European countries were stuck for weeks or months in inadequate facilities, experiencing modest social conditions, and lacking a proper protection.[12] The standards of the facilities hosting the children are often poor and unable to provide sufficient standards of social protection, and many children prefer to escape or to continue their journey north. In both cases, they disappear from government shelters and become exposed to a variety of risks.

Furthermore, many of these children also need to work in order to send money to their families or to repay the debt they incurred on their journey to Europe. Therefore, they tend to accept any kind work, even when such work is illegal, dangerous, and underpaid, and often become victims of sexual exploitation, forced labor, prostitution, and forced to perform illegal jobs.[13]

Unaccompanied Migrant Children's Rights

Unaccompanied migrant minors have the same rights as national children, and are legally protected by the Convention on the Rights of the Child signed by a multiplicity of United Nations member nations, including all EU countries.[14,15] All separated children have the right to be clothed, fed, and accommodated, and to receive proper health care, to be educated, and to be informed in a language they understand. Overall, they must be given the opportunity to thrive and to achieve their full potentials.[1,16] However, the local full implementation of the Convention seems to represent a major issue for the signees.

Furthermore, in accordance to the directions of the United Nations High Commissioner for Refugees, it is important that all caregivers working in contact with unaccompanied migrant children receive appropriate information and training in order for them to provide proper assistance to this particular group of children.[16]

Conclusions

Reaching destinations in Europe has become dangerous for unaccompanied children. These migrant minors tend to avoid official protection programs and may abandon the government shelters. Their particularly weak social condition renders them often "invisible" to the authorities and bureaucracy and unknown to public opinion. These socially fragile children are exposed to exploitation, violence, abuse, neglect, and to the alarming phenomenon of vanishing. The European Pediatric Association–Union of National European Pediatric Societies and Associations would like to raise the awareness of the pediatric community on this matter because the national societies of pediatrics may play a significant role in helping to contain the negative outcomes of this phenomenon by activating dedicated task forces. ■

Reprint requests: Pietro Ferrara, MD, Institute of Pediatrics, Catholic University Medical School, Largo A. Gemelli, 8-00168 Rome, Italy. E-mail: pferrara@rm.unicatt.it; p.ferrara@unicampus.it

References available at www.jpeds.com

References

1. Separated Children in Europe Programme. Statement of good practice, 4th revised edition, http://www.separated-children-europe-programme.org. Accessed October 10, 2015.
2. UNICEF. [Plauso all'Europa, ma ora azioni concrete]. http://www.unicef.it/doc/6422/unicef-plauso-a-europa-ma-ora-azioni-concrete.htm. Accessed October 10, 2015.
3. Ministero del Lavoro e delle Politiche sociali. [I MINORI STRANIERI NON ACCOMPAGNATI (MSNA) IN ITALIA REPORT DI MONITORAGGIO] – April 30, 2015. www.lavoro.gov.it. Accessed October 10, 2015.
4. Ministero del Lavoro e delle Politiche sociali. [REPORT NAZIONALE MINORI STRANIERI NON ACCOMPAGNATI] Dated September 2015. www.lavoro.gov.it. Accessed October 10, 2015.
5. [Terre des Hommes] – Report 2015. http://www.terredeshommes.org/wp-content/uploads/2014/09/First-Psychosocial-Guide-for-Operators-involved-in-the-reception-of-Unaccompanied-Foreign-Minors.pdf. Accessed October 10, 2015.
6. JRS Europe. Greece: detention of unaccompanied children. http://www.detention-in-europe.org/index.php?option=com_content&task=view&id=257. Accessed February 10, 2015.
7. University of Oxford, Faculty of Law. Report. Unaccompanied Minors in Greece: Passing on the Responsibility. https://www.law.ox.ac.uk/research-subject-groups/centre-criminology/centreborder-criminologies/blog/2014/12/unaccompanied. Accessed October 10, 2015.
8. Office of the Children's Commissioner. "What's going to happen tomorrow?" Unaccompanied children refused asylum. London: Office of the Children's Commissioner. OCC London Editor. 2014.
9. German Federal Office for Migration and Refugees. Unaccompanied minors in Germany. http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/EU-CX-15_FACTSHEET_28SEPT2015_V2.PDF. Accessed October 14, 2015.
10. Save the Children. European Refugee Crisis. Fact sheet, Germany. https://www.bamf.de/SharedDocs/Anlagen/EN/Publikationen/EMN/Nationale-Studien-WorkingPaper/emn-wp60-minderjaehrige-in-deutschland.html. Accessed October 10, 2015.
11. United Nations International Children's Emergency Fund. Interagency Guiding Principles on unaccompanied and separated children. www.unicef.org. Accessed October 10, 2015.
12. Save the children. Protecting children on the move. www.savethechildren.it. Accessed October 10, 2015.
13. Save the Children. Immigration, unaccompanied minors. http://www.savethechildren.it/informati/comunicati/immigrazione_minori_non_accompagnati_save_the_children_da_2_mesi_il_governo_blocca_la_nuova_legge_su_accoglienza_e_protezione? Accessed October 10, 2015.
14. The Guardian. Migration and Development. Thousands of African Child migrants feared in thrall to Italian traffickers. http://www.theguardian.com/global-development/2014/oct/17/African-child-migrants-italian-traffickers-forced-labour-sexual-exploitation. Accessed October 14, 2015.
15. Convention on the Rights of the Child, New York, 20 November 1989. http://www.ohchr.org/en/professionalinterest/pages/crc.aspx. Accessed October 10, 2015.
16. United Nations High Commissioner for Refugees. UNHCR. UNHCR Guidelines on Determining the Best Interests of the Child. http://www.unhcr-centraleurope.org/pdf/who-we-help/children/unhcr-guidelines-on-the-best-interest-of-the-child.html. Accessed October 14, 2015.

Table. Unaccompanied minor migrants and vanished unaccompanied minor migrants registered in Italy over the period 2012-2015

Period	Total unaccompanied minor migrants	Vanished unaccompanied minor migrants
2012 (Jan-Dec)	5821	1754 (30.1%)
2013 (Jan-Dec)	6319	2142 (33.9%)
2014 (Jan-Dec)	10 536	3707 (35.2%)
2015 (Jan-Sept)	9699	5588 (57.6%)

How to Train Families to Cope with Lifelong Health Problems?

Gundula Ernst, PhD[1], Karin Lange, PhD[1], Ruediger Szczepanski, MD[2], Doris Staab, MD[3], Jochen Ehrich, MD[4,5], and Katarzyna Zinken, PhD[1]

A significant proportion of children and adolescents in industrialized countries suffer from chronic health problems requiring special care. The diagnosis of a long-term disease brings about a dramatic change in the life of families with increased requirements for disease management. This often leads to more stress, anxiety, and depression, as well as reduced health-related quality of life (hrQoL) and impaired everyday life for the whole family. The quality of medical and psychosocial care after diagnosis is crucial for the future course of disease.

The main challenge of pediatric health education is transforming medical theory into daily practice. Standards of health care after the diagnosis of a long-term disease differs dramatically across Europe. Taking the example of children with type 1 diabetes, the time spent with a diabetes educator after the diagnosis during in-patient care varies widely.[1] After the onset of diabetes, German children and adolescents together with their parents receive 2 weeks of individualized education and psychological treatment from a multidisciplinary diabetes team affiliated with the hospital. In the United Kingdom, families go home after 2 days of in-patient care and education, equipped with a pile of brochures and a telephone number that they can call with diabetes management queries. Testimonials from patients and their parents collected within the European-Certified Diabetes Educator Course project show that parents of children with type 1 diabetes in the United Kingdom gain knowledge mostly from other parents and from online parent forums.[1] Both sources have great value for families. Whereas a multidisciplinary team provides a robust basis for diabetes management, there is no doubt that much can be learned from other parents. Recent comparison studies of national registries have shown clear differences in the quality of diabetes control across countries[2]; for example, the average hemoglobin A1c value for children and adolescence with type 1 diabetes was 7.9 in Germany, 8.5 in the US, and 9 in the United Kingdom. The prevalence of diabetes ketoacidosis was lowest in the German and Austrian registry. It is known from the Diabetes Control and Complications Trial that a lower hemoglobin A1c value substantially reduces the risk of late complications.[3]

Standard diabetes care in Germany incorporates ongoing long-term health education. All children and adolescents with type 1 diabetes, as well as their parents, receive family-oriented education, often delivered in small group sessions, as an integral aspect of long-term care, with the goal of improving their self-management skills in dealing with the disease. Self-management means engaging in health-promoting activities, including medically managing the condition, maintaining and creating meaningful life roles, as well as dealing with the emotions entailed with a chronic condition.[4]

Self-management education guides parents and children in becoming experts in their disease.[4] It imparts age-appropriate knowledge and skills on how to manage the disease. Furthermore, the family receives psychological support in dealing with stress and sorrows, resulting from living with a chronic condition. The sharing of personal experiences within the group of professionals and patients provides an opportunity to master coping. Such programs lead to better self-management and hrQoL, improve physical health (eg, lung function, hemoglobin A1c value), and reduce school absences and hospital admissions due to acute complications.[5-9] Family-oriented patient education programs also improve long-term prognosis and promote age-appropriate psychosocial development in children. Effective health education aims to enable children with a chronic condition to have a lifestyle similar to their peers.

Patient health education is incorporated into the therapeutic guidelines in many countries. For example, the International Society for Pediatric and Adolescent Diabetes guidelines for type 1 diabetes recommend ongoing education as an integral aspect of long-term treatment. Some European countries, including Austria, Slovenia, Germany, and Sweden, have incorporated structured education in their guidelines; however, many other European countries could do more in this respect.[10] Similarly, the Global Initiative for Asthma has published international evidence-based guidelines for asthma treatment. Although detailed instructions and structured procedures for medical care are available for children with more common disorders such as asthma, there is a paucity of resources for less common disorders, such as cystic fibrosis, phenylketonuria, and primary immunodeficiency. Patients

hrQoL	Health-related quality of life
ModuS	Modulares Schulungsprogramm fuer chronisch kranke Kinder und deren Familien

From the [1]Department of Medical Psychology, Hannover Medical School, Hannover, Germany; [2]Children's Hospital, Osnabrueck, Germany; [3]Department of Pediatric Pulmonology and Immunology, Charité–Universitätsmedizin Berlin; [4]European Paediatric Association, Union of National European Paediatric Societies and Associations, Berlin, Germany; and [5]Children's Hospital, Hannover Medical School, Hannover, Germany

The authors declare no conflicts of interest.

http://dx.doi.org/10.1016/j.jpeds.2015.11.057

with rare diseases must be treated by experts who practice far away from their homes. They may have limited contact with other patients, and evidence-based guidelines for treatment may be missing. Much effort has been expended to develop structures and programs for these patients, but in the majority of the rare diseases, they are lacking.

Learning from Others: Development of the ModuS Program

To close the gap between expert knowledge on one side and parents' health beliefs on the other side, multidisciplinary groups–including pediatricians, psychologists, patient trainers, dieticians, and sport therapists active in patient education for more common diseases–joined forces in 2008. To develop the cross-diagnosis education system known as Modulares Schulungsprogramm fuer chronisch kranke Kinder und deren Familien (Modular Education Program for Chronically Ill Children and Their Families; ModuS), these groups analyzed the existing training programs for asthma, diabetes, atopic eczema, and obesity to identify common content areas and effective methods.[11] Educational modules were developed for 7 topics, including 4 generic topics that can be applied across several diseases and 3 disease-specific topics that depend on specific indications (**Table I**; available at www.jpeds.com).

Disease-specific modules deliver knowledge and skills relevant to the basic therapy and management of acute complications of the particular disease. Generic modules deal with themes relevant for all group-based education programs (eg, team building, future planning) and for all chronic childhood diseases (eg, coping with anxiety and stress, questions of upbringing, therapy motivation, social integration). These aspects are nearly the same for all families with a chronically ill child regardless of the disease. For each generic module, detailed learning targets and teaching recommendations were formulated.[11]

The disease-specific modules were designed and combined with the generic modules for 8 diseases (**Table II**; available at www.jpeds.com). The new programs underwent a quality assurance process, involving evaluation and auditing in different settings across Germany. A total of 1075 family members participated in these programs. The families rated the ModuS program positively, and parents and children demonstrated significant increases in disease-specific knowledge and hrQoL after training.[12]

Boundaries and Limitations of Qualified Patient Health Education

Traditional doctor–patient communication is a crucial barrier to effective health education. Health education supports patient autonomy and responsibility, guiding patients in becoming experts in their own disease; however, it can be successful only when promoted by health care professionals. Another barrier to adequate health competence of families arises from the small number of patients with rare diseases per health center. The majority of health centers do not have the resources (eg, knowledge, budget) or sufficient numbers of affected patients to provide effective and rare-disease tailored education.

The ModuS Group sought new ways to deal with these challenges. In all centers, local health care professionals were supported by a traveling trainer team consisting of an experienced psychologist and a study nurse. Local centers were responsible for disease-specific modules, and the traveling team was responsible for the generic modules, psychosocial topics, and group dynamics. Due to the lack of sufficient numbers of patients suffering from primary immunodeficiency at single pediatric centers, multiple centers joined forces for a patient education course. In another case, the metabolic care unit for patients with phenylketonuria cooperated with the phenylketonuria patient support group. The patient education course was conducted at the support group's annual meeting.

The greatest obstacle to implementing educational programs into practice is funding. German health insurance reimburses only programs that are structured, quality assured, and evaluated. Therefore, ModuS defines cross-diagnosis quality standards and incorporates a modular trainer education curriculum. The basis for this is the existing standards for more common diseases (eg, diabetes, asthma). At present, health insurance coverage for outpatient education is still provided on a case-by-case basis. In contrast, for asthma and diabetes, funding for education is already in place. The aim of the ModuS group is to include the rare disease educational programs into the established funding structure of the German health system.

Initiating the Debate

Well-structured patient education can be offered for less common and rare diseases as well. It is possible to adapt the modules for respective indications and settings easily. Programs for further indications and cross-diagnosis themes (eg, transition of youth, supporting healthy siblings) are currently under development (**Table II**). The willingness to learn from others and to act across borders is a prerequisite for the success of these programs.

We are well aware that primary pediatric care has the first priority in countries with limited resources. Nonetheless, we believe that a modular structure for patient and trainer education can be successfully introduced in all countries if the healthcare decision makers accept the role of patient-oriented health education. In the long term, effective patient education during childhood will improve the health status of adults and also reduce patient and health care service-driven costs.

Details of the program are available at www.kompetenznetz-patientenschulung.de. ■

Reprint requests: Dr Gundula Ernst, PhD, Department of Medical Psychology, Hannover Medical School, Carl Neuberg Str 1, 30625 Hannover, Germany. E-mail: ernst.gundula@mh-hannover.de

References available at www.jpeds.com

References

1. Zinken KM, Webster E, Lange K. A first Europe-wide certified diabetes educator course: what stops us from taking action? Diabetologie und Stoffwechsel 2015;10(S 01), P141, http://dx.doi.org/101055/s-005-29070 (in German).
2. Maahs D, Hermann J, Holman N, Foster N, Kapellen T, Allgrove J, et al. Rates of diabetic ketoacidosis: international comparison with 49,859 pediatric patients with type 1 diabetes from England, Wales, the US, Austria and Germany. Diabetes Care 2015;38:1876-82.
3. Diabetes Control and Complications Trial Research Group. Effect of intensive diabetes treatment on the development and progression of long-term complications in adolescents with insulin-dependent diabetes mellitus: diabetes control and complications trial. J Pediatr 1994;125:177-8.
4. Lorig K, Holman H. Self-management education: history, definition, outcomes, and mechanisms. Ann Behav Med 2003;26:1-7.
5. Boyd M, Lasserson TJ, McKean MC, Gibson PG, Ducharme FM, Haby M. Interventions for educating children who are at risk of asthma-related emergency department attendance. Cochrane Database Syst Rev 2009;CD001290.
6. Coffmann JM, Cabana MD, Halpin A, Yelin EH. Effects of asthma education on children's use of acute care service: a meta-analysis. Pediatrics 2008;121:575-86.
7. Guevara J, Wolf F, Grum C, Clark N. Effects of educational interventions for self-management of asthma in children and adolescents: systematic review and meta-analysis. BMJ 2003;326:1308-9.
8. Couch R, Jetha M, Dryden DM. Diabetes education for children with type 1 diabetes mellitus and their families. Rockville (MD): Agency for Healthcare Research and Quality; 2008.
9. Ersser SJ, Latter S, Sibley A, Satherley PA, Welbourne J. Psychological and educational interventions for atopic eczema in children. Cochrane Database Syst Rev 2007;CD004054.
10. Danne T, Aschemeier B, Perfetti R, the SWEET group. SWEET: where are we heading with international type 1 diabetes registries? Pediatr Diabetes 2012;13:1-4.
11. Ernst G, Szczepanski R. ModuS modular education program for children and adolescents with chronic disease and their families (in German). Lengerich (Germany): Pabst; 2015.
12. Menrath I, Ernst G, Staab D, Lange K, Thyen U, Szczepanski R. Is the modular patient education program ModuS effective in treating children with asthma and their families? Monatsschr Kinderheilkd 2013;161(S 2):261 (in German).

Table I. Modules of the ModuS education program for chronic diseases in childhood

Module	Content and learning targets
0. Planning and preparation	Help and tips for planning and organizing education courses
I. Introduction and getting acquainted	Greeting, getting to know the participants and their needs → engendering trust
II. Motivating explanation of the disease, treatment, and prognosis	Medical principles, influences on the origin and course of the disease → understanding needs and complications
III. Competences and motivation for the basic therapy	Medicinal and nonmedicinal basic therapy, deployment of treatment/resources → motivation for long-term treatment
IV. Competences for the regulation and avoidance of acute crises	Trigger, warning signals, getting on with deterioration → ability to self-monitor and react to changes
V. Coping with the disease in the family	Dealing every day with the disease, social aspects → coping with the disease
VI. Completion	Consolidation of course content, goals, and future planning → strengthening implementation motivation

☐ Generic module ▨ Disease-specific module.

Table II. ModuS patient education programs for families with a chronically ill child

Evaluated	Under development
Bronchial asthma	Rheumatism
Chronic bowel disease	Multiple sclerosis
Chronic functional abdominal pain	Tuberous sclerosis complex
Cystic fibrosis	Premature infants (for parents)
Incontinence	Transition (cross-diagnosis)
Nephrotic syndrome	Supporting siblings (cross-diagnosis)
Phenylketonuria	
Primary immunodeficiency	

EPA

Pettoello-Mantovani *et al. Italian Journal of Pediatrics* (2016) 42:18
DOI 10.1186/s13052-016-0231-1

Italian Journal of Pediatrics

COMMENTARY

Open Access

Integrating and rationalizing public healthcare services as a source of cost containment in times of economic crises

Massimo Pettoello-Mantovani[1,2*], Leyla Namazova-Baranova[2,3] and Jochen Ehrich[2,4]

Abstract

Background: Serious concern has been raised about the sustainability of public health care systems of European Nations and ultimately about the health of European citizens, as a result of the economic crisis that has distressed Europe since 2008. The severe economic crisis of the Euro zone, which is still afflicting Europe in 2016, has in fact threatened to equally impact public health services of nations presenting either a weak or a strong domestic growth.

Comments: On behalf of the European Paediatric Association, the Union of National European Societies and Associations, the authors of the Commentary debates the relationship between the effects of economic instability and health, through the report on an article recently published in the Italian Journal of Pediatrics, which emphasized the importance of integrating existing public health care services, otherwise independently provided by public hospitals, and Primary Care Paediatric networks. The interconnections between the effects of economic instability and health are briefly commented, following the observation that these two factors are not yet fully understood, and that the definition of proper solutions to be applied in circumstances, where health is negatively impacted by periods of economic distress, is still open for discussion.
Furthermore it is noted that the pressure to “deliver more for less” often seems to be the driving force forging the political strategic decisions in the area of pediatric healthcare, rather than social, cultural, and economic sensitivity and competences. Thus, the delivery of appropriate pediatric healthcare seems not to be related exclusively to motivations aimed to the benefit of children, but more often to other intervening factors, including economic, and political rationales.

Conclusions: The conclusions emphasize that local European experiences suggest that positive and cost effective healthcare programs are possible, and they could serve as a model in the development of effective cross-border regional program, not weakening the quality of services provided to children.

Keywords: Public healthcare, Economy, Cost containment, Pediatrics, Children

Background

Serious concern has been raised about the sustainability of public health care systems of European Nations and ultimately about the health of European citizens, as a result of the economic crisis that has distressed Europe since 2008 [1]. The severe economic crisis of the Euro zone, which is still afflicting Europe in 2016, has in fact threatened to equally impact public health services of nations presenting either a weak or a strong domestic growth [1].

Although the relationship between the effects of economic instability and health has been the subject of a decades-long research engaging experts since the beginning of the last century, the interconnections between these two factors are not yet fully understood. The definition of problem solving solutions to be applied in circumstances where health is negatively impacted by periods of economic distress is still open for discussion [1–3].

---

* Correspondence: massimo.pettoellomantovani@unifg.it
[1] Institute of Pediatrics, University of Foggia, Via Pinto, 1, Foggia 71100, Italy
[2] European Paediatric Association, the Union of National European Paediatric Societies and Associations (EPA-UNEPSA), Berlin, Germany
Full list of author information is available at the end of the article

The article recently published by Nigri et al. in the Italian Journal of Pediatrics [4] offers a substantially new and stimulating contribution to such an open debate, which is of great importance for the European public healthcare services. In fact, this paper describes the Pediatric Ambulatory Consulting Service (PACS) project, developed by an Italian regional Public Health Centers network, in response to the current general situation of economic distress. PACS integrates existing public health care services, otherwise independently provided by public hospitals and Primary Care Paediatric networks, with the purpose to establishing innovative yet efficient managerial solutions able to rationalize the resources, and not weakening the quality of services provided to the pediatric population. In brief it consists in a pediatric ambulatory consulting service, active in hospitals and providing a screening of the clinical conditions of outpatients <18 years old, before they access the Emergency Room (ER) Departments. The key question raised by the article is whether already existing local public health services can be further integrated in a cost-effective manner, while optimizing the efficiency and quality of the services offered to the population.

The impact of globalization and economic changes on social and healthcare systems: need of innovative solutions

The well-known phenomena related to globalization have characterized economy and impacted social systems around the world during the last thirty years [5]. According to the International Monetary Fund [6], the volume of world trade has expanded by five-fold over a 30 years period from 1985 and 2015, and a progressive financial integration has characterized the last three decades. By the time of the 2008 crisis, global capital flows were more than threefold their level in 1995. Then, virtually all Nations faced the need to adapt their internal socio-economic structure, including public heath, to the new global context [7].

As emphasized by the Managing Director of the International Monetary Fund, Ms Christine Lagarde, in a recent speech delivered at the US Chamber of Commerce, in a world of increasing economic interconnections, the challenges are greater, but so too are the opportunities [7]. We may borrow such notion to adapt it to the matter of developing proper cost-effective public health programs at European level. The aim would be alleviating the increasing costs that have afflicted the various governments in such a sensitive area for the management of their local National budgets as public health.

Based on the principles enunciated by Mrs. Lagarde, a number of possible solutions could be conceived and explored. This would test the will of the single Nations and their administrators to develop cost effective solutions, while ensuring that the aim of balancing the budget would not affect basic quality standards for public health.

To such regard, the experiences related to successful projects and programs developed in several local European realities, as in the case of PACS [1], could be usefully taken in consideration and studied in order to evaluate whether they could be exported and re-proposed in different economic settings at European transnational level, while properly adapting to different social and cultural contexts. This approach could be considered the reverse of the original concept of "glocalization", a portmanteau of globalization and localization. In fact, as first described in the late 1980s in articles published by Japanese economists in the Harvard Business Review [8], the concept of glocalization typically implicates that a product or a service is specifically adapted to each locality or culture in which it is sold or proposed. In our case, instead of "localizing the global" the proposed process would be to "globalize the local", by using and adapting local programs of public health which have proved to be successful, as models to be re-proposed in different, yet comparable socio-economic contexts. The PACS program, developed locally in Italy, may in fact represent a good example of effective socio-economic and cost-effective local programs, which could be taken into consideration to be exported if properly adapted at European continental level.

The data in the article of Nigri et al. report a mean saving of 110.160 Euro per 1000 hospitalizations during 2014, based on 18 % reduction of hospitalizations. Therefore showing the economic effectiveness of PACS and suggesting that such project could be taken into consideration as a model to be further developed in different geographic areas in Italy and possibly beyond its National borders. The working hypothesis that local programs of public health could be expanded at continental level is supported by the existence of public health programs which have been active within the European context during the recent years [9]. To such regard the cross-border care programs represent an example of effective existing plans that have been activated at local level within trans frontier collaborative structures, well-known under the label of Euroregios [10], with the aim to rationalize and possibly reduce the economic burden of public health among European nations.

Conclusions

Europe has been defined as a giant "natural laboratory" for health systems, and a great chance for countries to learn reciprocally [11]. In fact, the health systems of Europe currently represent the greatest collective commitment to health anywhere in the world. However, while nations are all trying to do similar things in the area of healthcare management, they do it in very different ways, often resisting to cooperative proposals and to learning across borders [11]. In this respect, any successful local project which has proven to be cost-effective [1] should be taken into consideration by policy-makers and should be further studied with a continental perspective, including the economic, legal and social implications, in order to assess whether and in case to what extent they could become part of future cross-border collaboration plans on Euregio level.

Healthcare significantly impacts the annual budget of the European nations. Furthermore there is an urgent need for efficient solutions to allow implementation of high cost innovative technology and medication. Great efforts have been made by national European pediatric societies to contrast local decisions taken by legislators that would have negatively impacted child healthcare. Such local efforts have been strongly supported by the European Paediatric Association, the Union of National European Pediatric Societies and Associations (EPA-UNESA) which represent its member national pediatric societies at European and at the International Pediatric Association-IPA level.

The pressure to "deliver more health for less money" often seems to be the main driving force forging the political strategic decisions in the area of pediatric healthcare, instead of promoting social, cultural, and economic sensitivity and competence. Thus, the delivery of appropriate pediatric healthcare seems not to be related exclusively to motivations aimed at the benefit of children, but more often at other intervening factors including mere economic and political rationale [12]. Local experiences such as the one reported by the PACS project [1], suggest that positive and cost effective healthcare programs are possible and that PACS could serve as a new model in the development of effective programs in other European nations.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

MPM, LN and JE have made substantial contributions to conception and design, acquisition, analysis and interpretation of data; They have been all involved in drafting the manuscript or revising it critically for important intellectual content and gave their final approval of the version to be published; MPM, LN and JE agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy and integrity of the work are appropriately investigated and resolved. All authors read and approved the final manuscript.

Author details

[1]Institute of Pediatrics, University of Foggia, Via Pinto, 1, Foggia 71100, Italy. [2]European Paediatric Association, the Union of National European Paediatric Societies and Associations (EPA-UNEPSA), Berlin, Germany. [3]Federal State Budgetary Institution "Scientific Centre of Children's Health" Moscow, Russian Federation, Moscow, Russia. [4]Children's Hospital, Hannover Medical School, Hannover, Germany.

Received: 6 February 2016 Accepted: 16 February 2016

References

1. Reeves A, McKee M, Basu S, Stuckler D. The political economy of austerity and healthcare: Cross-national analysis of expenditure changes in 27 European nations 1995–2011. Health Policy. 2014;115(1):1–8.
2. Obstfeld M, Rogoff K. Global imbalances and the financial crisis: products of common causes. Federal Reserve Bank of San Francisco. Asia Economic Policy Conference; Federal Reserve Bank (FRB) Editor. Santa Barbara,CA, USA. 2009
3. Karanikolos M, Mladovsky P, Cylus J, Thomson S, Basu S, Stuckler D, et al. Financial crisis, austerity, and health in Europe. Lancet. 2013;381(9874):1323–31.
4. Nigri L, Piazzolla R, Giardino I, Pettoello-Mantovani M, Abbinante M, Gorgoni G. The pediatric ambulatory consulting service (PACS) program. IJP: A role for family paediatricians in the hospital Emergency Rooms; 2016.
5. Stigliz J. Why globalization fails? Conversation with Joseph Stiglitz: January 4, 2013. (www.youtube.com/watch?v=sV7bRLtDr3E, accessed August 18, 2014)
6. International Monetary Fund, Annual Reports to the Executive Board. World Economic Outlook Reports. www.imf.org/external/pubs/ft/ar (accessed November 6, 2014)
7. Lagarde C. The interconnected Global Economy: challenges and opportunities for the US and the world. U.S. Chamber of Commerce, September 19, 2013. Washington,US. www.imf.org/external/np/speeches/2013/091913.htm (accessed August 15, 2014)
8. Chanchal KS. Emerging Dimensions of Decentralisation. Debate in the Age of Globalisation. Indian J Fed Stud. 2009;19(1):47–65.
9. Salzer-Muhar U, Pollak A, Aufricht C, Ehrich J, Lenton S. European challenges: cross-border care for children. J Pediatrics. 2012;161(3):574–6
10. Brand H, Hollederer A, Wolf U, Brand A. Cross-border health activities in the Euroregios: good practice for better health. Health Policy. 2007;86(2–3):245–54.
11. Wismar M, Palm W, Figueras J, Ernst K, van Ginneken E. Cross-border health care in the European Union. Mapping and analysing practices and policies. European Observatory on Health Systems and Policies. Observatory Studies Series n.22. World Health Organization Ed. 2011
12. Pettoello-Mantovani M, Ehrich J, Romondia A, Nigri L, Pettoello-Mantovani L, Giardino I. Diversity and differences of postgraduate training in general and subspecialty pediatrics in the European Union. J Pediatr. 2014;165(2):424–426.e2.

EUROPEAN PAEDIATRIC ASSOCIATION (EPA / UNEPSA)

EUROPEAN PAEDIATRIC ASSOCIATION PAGES

European Young Pediatricians Association: Laying the Foundations for Collaboration, Integration, and Networking among Pediatricians of the Future

Sebastian Gray, MD[1], Roberto Raschetti, MD[2], Ömer Faruk Beşer, MD[3], Pinar Urenden Elicin, MD[3], Salvatore Aversa, MD[2], Gizem Pamuk, MD[3], Mine Ozdil, MD[3], Paola Berlese, MD[2], Manuel Ferreira-Magalhães, MD[4], Martin Magner, MD[5], Ancuta Ignat, MD[6], Vasile Valeriu Lupu, MD[6], Borbala Zsigmond, MD[7], Harachuhi Ghazaryan, MD[8], Sofia Rosenbaum, MD[9], Matthieu Bendavid, MD[10], Maxime Bacquet, MD[10], Norbi Varga, MD[8], David James, MD[1], Andrea Bon, MD[2], and Davide Vecchio, MD[2]

Across Europe, most countries have pediatric societies, committees, or equivalent. Within these societies or standing as separate entities, young groups have evolved. Residents or trainees within pediatrics have collaborated to form communities of practice, a group of like-minded individuals sharing a common interest—child health. However, the young pediatricians active as part of the European national societies or in independent scientific aggregations still have a marginal role, and their voice is, in general, hardly heard. Furthermore, young pediatricians traditionally also had a minimal role in national pediatric conferences and contributed very little to the program committees, although this trend seems to be reversing due to a different collaborative attitude by the national societies and their boards. Excellence, innovation, and improvement occur in every country. Our aim was to make the sharing of such work across Europe seamless.

The European Young Pediatricians' Association Initiative

The European Young Pediatricians' Association Initiative (EURYPA) was developed following a combined conference between the Italian and Turkish young pediatric societies promoted under the auspices of the European Pediatric Association-Union of National European Societies and Associations (EPA-UNEPSA) and both the Italian (SIP – Società Italiana di Pediatria) and Turkish (TPK – Türk Pediatri Kurumu) Pediatric Societies. The groundswell and momentum following this has led to Europe-wide engagement and interaction. Leading members of each nation's society were contacted to attend or nominate colleagues with particular international interests. Representatives then met at the 12th Italian National Residents Conference (Osservatorio Nazionale Specializzandi Pediatria (ONSP)/National Observatory for Trainees and Young Pediatricians) that was held in Padua, October 1-3, 2015, in order to determine structure, function, and aims of this new initiative.

The overall aim of EURYPA is to better the health of European children and young people through networking, education, training, research, and sharing of opportunities across the European pediatric residents, trainees, and young pediatricians. Those eligible to join will include all doctors in pediatric or subspecialty pediatric training or those within 5 years of certification/qualification.

To achieve its goals, EURYPA works in cooperation and collaboration with the EPA-UNEPSA. EPA-UNEPSA advocates for young pediatricians and supports EURYPA, which also has been welcomed to become part of the General Assembly of EPA-UNEPSA, joining its work and projects as an Affiliated Member.

EURYPA, a Laboratory Aimed at Developing Joint Solutions to Shared Challenges

One of the first things that became apparent was the varying training modalities and requirements across Europe. The vast majority of countries adopt systems with a 5-year resident program leading to a qualification as pediatrician. Armenia currently has the shortest training program (3 years), and the UK has the longest with its competency-based training usually lasting 8 years. However, following Greenaway's Shape of Training review,[1] the UK may soon switch to a more European system, and Armenian trainees are keen to extend their training program.

EPA-UNEPSA	European Pediatric Association-Union of National European Societies and Associations
EURYPA	European Young Pediatricians' Association Initiative

From the [1]Royal College of Pediatrics and Child Health Trainee Committee, United Kingdom; [2]National Observatory for Trainees and Young Pediatricians, Italy; [3]Turkish Young Pediatricians Association, Turkey; [4]Residents Committee, Portuguese Pediatric Society, Portugal; [5]Residents Committee, Czech Pediatric Society, Czech Republic; [6]Romanian Society of Pediatrics, Romania; [7]Residents Committee, Hungarian Society of Pediatrics, Hungary; [8]Armenian Young Pediatric Association, Armenia; [9]Residents Committee, Danish Society of Pediatrics, Denmark; and [10]French Young Pediatrician Association, France

The authors declare no conflicts of interest.

http://dx.doi.org/10.1016/j.jpeds.2015.12.013

Entry requirements and competition to attain Resident places or training numbers also varied. In Denmark, a PhD is a prerequisite to entry. In many other countries, pediatrics is considered highly competitive. However, in countries where there has been a drive for consultant-led 24-hour care, competition ratios have decreased.

There also are discrepancies between the structures of training programs. In Romania, the 5-year program is very prescriptive with shorter placements as brief as 2 weeks (eg, bioethics). Most countries utilize an exam at the end of the training period—the colloquial “exit exam.” Italian residents have annual exams throughout the program. In the UK, attempts have been made by the Royal College of Paediatrics and Child Health to rebrand workplace-based assessments as supervised learning events. The recommendation is to perform one of these every 2 weeks.

When working internationally, language and terminology become important and present a challenge to effective communication. Terms that are used commonly in each country mean different things across Europe. For example, community pediatrics in the UK involve the holistic care of children with disorders for development. In contrast, many countries view community pediatricians as general practitioners for children.

The consideration that all pediatric training across Europe should be homogenous stimulates debate. Varying health care systems, cultures, economies, geographical considerations, and many other factors make this impossible. In Turkey, service provision periods are required, interspersed with dedicated training. In Armenia, competition for working in the capital far exceeds working elsewhere, leading to a quality gradient between intranational areas. In many respects, quality gradients occur in every country, every region, and even within every hospital. It was agreed that even though homogeneity would make transition of young pediatricians across Europe easier, this was beyond the scope and desire of EURYPA.

Diversities as an Opportunity, Not a Limitation

The diversity within Europe is what makes EURYPA fascinating and exciting. The standing of doctors in societies seems to be in direct correlation with the utilization of a paternalistic healthcare system. Traditional systems, whereby doctors make the decisions unilaterally for the patients’ benefit, will seem antiquated for much of Europe. However, empowered with Internet search engines, parents of Western and Northern Europe have predetermined diagnoses and treatment plans. Relaying the reasons for which you might disagree in a way that maintains respect and trust is the communication panacea. The daily challenges vary and the most resource-limited nations would argue a parental disagreement dwarfs in comparison with resource distribution decision-making. Defensive medicine does not put patient health as the number one priority. The fear of missing things and of legal action lead to over-investigation and potential iatrogenic complications.

Pediatric doctors in training have a sense of pride in what they do. They strive to get better. They strive to make a difference. They lack the arrogance to resist change; in fact, they push for change. Nevertheless, there is a sense of patriotism that needs to be acknowledged. Collaborative efforts rarely work on the basis of unilateral altruism. EURYPA’s biggest challenge will be to ensure that its existence remains mutually beneficial for all parties—a win win situation for everybody. For example, in the case of technological advancement, developments need to be shared while ensuring that lower resource nations are not excluded. Likewise, venue locations for congresses and meetings could dictate which nations will be able to participate based on finances alone.

Junior doctors are part of the foundations of health care systems; without them the systems would collapse. Senior doctors recognize this and have been extremely supportive of this initiative. Collaborative work with the EPA-UNEPSA[2] and other European and International societies will symbiotically better child health both in Europe and across the world.

In recent times, Europe has been accused of being slow to adapt to the changing trends of morbidity and mortality.[3] Wolfe et al drew attention to European Union-funded research networks and inventories to avoid duplication (for example, Global Research in Paediatric (GRiP)-network of excellence, available at: http://www.grip-network.org and the inventory of child health research, available at: http://www.childhealthresearch.eu). Although initiatives exist within some countries (eg, available at: http://www.projectmatch.org in the UK) whereby prospective researchers can find projects of interest and vice versa, there is no European-wide equivalent. If the widespread duplication of research could be reduced and become more focussed utilizing an international pool of enthusiastic young pediatricians, medical advancement would accelerate. Multinational networking would allow more collaborative work, larger studies, and clearer answers on a shorter time scale.

Conclusions

The development of EURYPA relies on input from all its constituents. All parents want their offspring to become happy and successful. Barriers will need to be broken down and obstacles overcome. Doctors working with children have passion, commitment, and drive. Each one wants better health for his/her patients. Raising awareness of EURYPA, sharing good practice, education, research opportunities, and providing the network structure to drive improvement faster will achieve this.

The first EURYPA Congress was held in Istanbul, Turkey, December 1-4, 2015. With nurturing and hard work, we want EURYPA to be pandemic; we hope it will become the community of practice for all European doctors in training and young pediatricians. Individually, we can make a difference but together we can change the world. ■

Reprint requests: Sebastian Gray, MD, Royal College of Paediatrics and Child Health Trainee Committee (RCPCH TC),University Hospital Southampton, UK. E-mail: sebastiangray@hotmail.com

References available at www.jpeds.com

References

1. Greenaway D. Securing the future of excellent patient care: final report of the independent review led by Professor David Greenaway. Shape of Training review. October 29, 2013.
2. Ehrich JHH, Pettoello-Mantovani M, Rubino A. Thirty-six years of the European Pediatric Association-Union of National European Societies and Associations (EPA-UNEPSA). J Pediatr 2012;161:374-5.
3. Wolfe I, Thompson M, Gill P, Tamburlini G, Blair M, van den Bruel A, et al. Health services for children in Western Europe. Lancet 2013;381:1224-34.

Nigri *et al. Italian Journal of Pediatrics* (2016) 42:19
DOI 10.1186/s13052-016-0230-2

Italian Journal of Pediatrics

LETTER TO THE EDITOR Open Access

The Paediatric Ambulatory Consulting Service (PACS) program: a role for family pediatricians in the hospital emergency rooms

Luigi Nigri[1,2,3], Ruggiero Piazzolla[1,2,3], Massimo Pettoello-Mantovani[2,3*], Ida Giardino[3], Micaela Abbinante[4] and Giovanni Gorgoni[5]

Abstract

This paper describes the Paediatric Ambulatory Consulting Service (PACS) project, developed by ASL-BT (Azienda Sanitaria Locale, Barletta-Andria-Trani), an Italian regional Public Health Centers network, in response to the current global situation of economic distress.
PACS consist in integrating existing public health care services that are independently provided by hospitals and the Primary Care Paediatrics network. It has been developed with the aim to establish innovative yet efficient managerial solutions able to rationalize the resources not weakening the quality of services provided to the population.

Keywords: Hospitalization, Economics

Correspondence/Findings

This paper describes the Paediatric Ambulatory Consulting Service (PACS) project. PACS was developed in 2014 in the Italian Region of Puglia, as a result of a close co-operation between the ASL-BT, a *State Local Health Centers* network (LHC) [1], and the Italian Federation of Paediatricians (Federazione Italiana Medici Pediatri, FIMP) in response to the current general situation of economic distress. Both ASL-BT and FIMP are part of the Regional post-graduate medical education network, and collaborate with the Residency Program in Paediatrics (RPP) of the University of Foggia.

PACS integrates existing public health care services, otherwise independently provided by public hospitals and Primary Care Paediatric networks. The PACS program, operated by family pediatricians working for the State network of Family Paediatrics, consists in a pediatric ambulatory consulting service, active in hospitals and providing a screening of the clinical conditions of outpatients <18 years old, before they access the Emergency Room (ER) Departments. PACS is active during the week-ends (Saturday-Sunday) and festivities, which in the Italian healthcare system are not covered by the public health services, that are usually provided by the Family Paediatrics only during the weekdays (Monday-Friday).

In Italy, like in other nations with similar public health systems, a massive turnout of patients is faced by hospital's ERs, when the family doctors rest in accordance to their standard work contract agreements. Paediatric ER departments are usually active in Italy only in few large hospitals throughout the Nation, and in the remaining hospitals, pediatricians are generally not included in the ERs teams. Such situation depending mostly upon the need of containing the health care costs.

Typically, children are referred by the ER directly to the correspondent hospital Paediatric Units, even for cases showing not serious medical conditions, usually classified as "white" codes [2], and it often generates an

---

* Correspondence: massimo.pettoellomantovani@unifg.it
[2]European Paediatric Association, Union of National European Paediatric Societies and Associations (EPA-UNEPSA), Allt. center, Zimmerstraße 69, D-10117 Berlin, Germany
[3]Residency Program in Pediatrics and Pediatric Research Center, University of Foggia, Via Pinto, 1 (71100) Foggia, Italy
Full list of author information is available at the end of the article

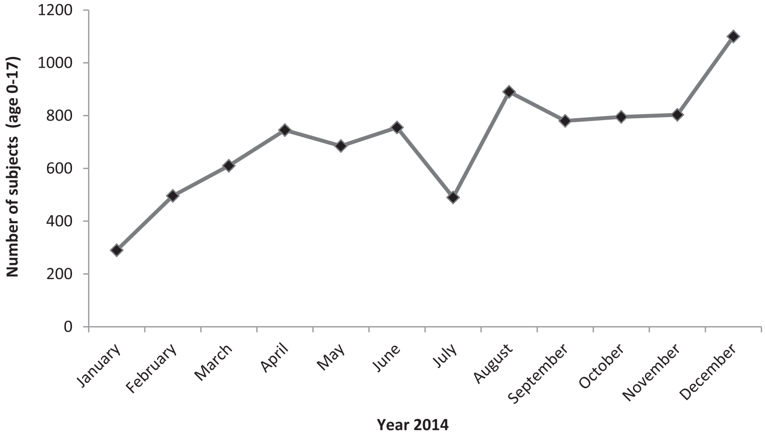

Fig. 1 Monthly distribution of accesses to the PACS room services during the year 2014. Monthly distribution of the 8439 accesses (<18 years of age) to the PACS room services in the 5 hospitals of ASL-BT participating to the PACS program during the year 2014

incorrect hospitalization of children. This common situation represents a heavy burden for the hospital administration, due to the high mean daily unit cost of the pediatric hospitalization, usually related to the regional Diagnosis Related Groups (DRG) price list [3].

Therefore, PACS program provides a first clinical assessment and care for subjects <18 years old whose tutors claim the existence of a pathologic condition when turning out to the hospital ER Departments. The patients classified as “white codes” and “green codes” [2] are cared in the PACS room service and only the patients classified as “yellow” and “red codes” are forwarded to ER for further assistance, which may include hospitalization depending on the clinical conditions.

The rotations of pediatricians in PACS include eight hours working periods, divided in two daily segments. Typically, 9 am to 12 pm, and 4-7 pm.

Findings

During 2014 the PACS program covered a total of 3.300 h of medical service, involving all the 5 provincial public hospitals managed by the ASL-BT. The total population resident in the BAT province and served by the ASL-BT in 2014 was 392.446 [4] of which 76.563 (19.5 %) was <18 years of age. The total admissions to the PACS service rooms during a 12 months period has been 8.439, including multiple admission (Fig. 1).

The mean age of patients <18 years old cared for in the PACS rooms was between 3.39 and 4.41, and 80.05 % of them were <6 years old (Fig. 2). Figure 3 summarizes the twelve more frequent medical conditions observed in children upon their admission to the hospital PACS rooms.

During 2014 the total admissions to the ER departments was reduced by 14 %. In particular, the total cases registered

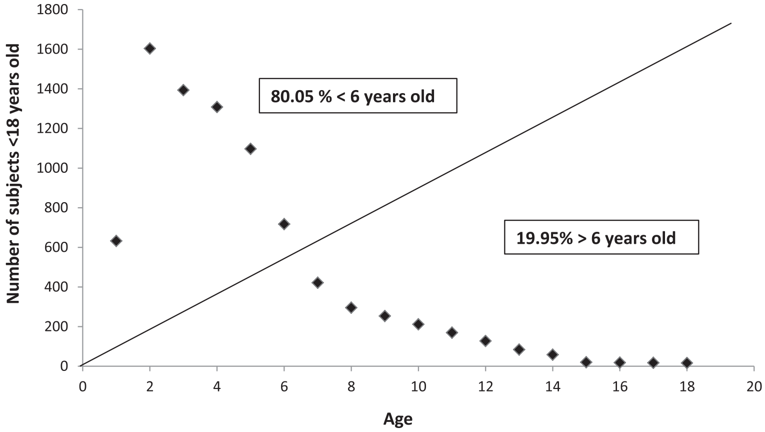

Fig. 2 Age of subjects <18 years old admitted to the PACS rooms during 2014. Age of subjects <18 years old admitted to the PACS rooms of the 5 ASL-BT hospitals participating to the PACS program during 2014

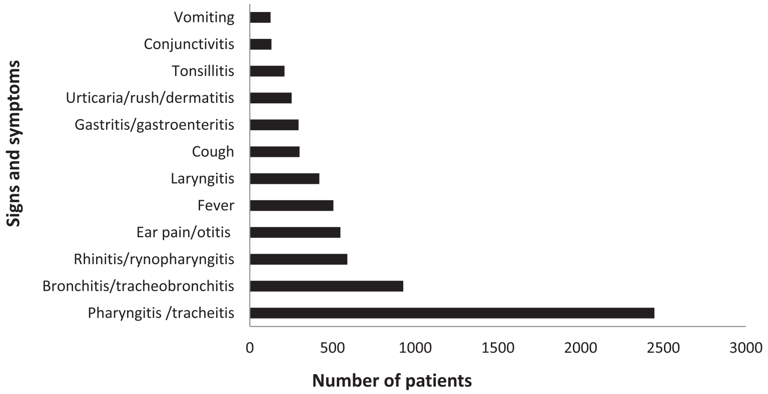

Fig. 3 Main signs and symptoms showed by 80 % of the patients admitted to the hospital PACS room services. Main signs and symptoms shown by 80 % (6756) of the 8439 subjects <18 years old admitted to the PACS room services of five hospital participating to the PACS program during the year 2014. The remaining 20 % (1683) presented various different minor symptoms

as white and green codes in the ER Departments of the five hospitals included in PACS program were reduced by 54 %, and the number of subjects <18 year of age, hospitalized after their initial admission as white and green codes was significantly reduced by 18 % ($p < 0.001$) compared to the previous year (2013).

Finally, the PACS program has generated a significant cost containment in hospitalization costs. In fact, considering that the reported mean daily unit cost of hospitalization in Italy [5] is Euro 612/day, the saving based on a 18 % reduction of admissions generated by the SCAP program has been 110.160,00 euro/1000 hospitalizations/year. Taken together the findings reported suggest PACS to be a positive and cost effective healthcare program. PACS may be considered at national and international level as a useful model for planning future health care programs, aimed at establishing innovative yet efficient managerial solutions able to rationalize the resources not weakening the quality of services provided to the population

Competing interests
The authors declare that they have no competing interests.

Authors' contributions
LN, MPM, RP, IG, GG have made substantial contributions to conception and design, or acquisition of data; LN, MPM, RP, IG, MA, GG have made substantial contributions to analysis and interpretation of data; LN, MPM, RP, IG, MA, GG have been involved in drafting the manuscript or revising it critically for important intellectual content and gave their final approval of the version to be published; LN, MPM, RP, IG, MA, GG agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy and integrity of the work are appropriately investigated and resolved. All authors read and approved the final manuscript.

Author details
[1]Federazione Italiana Medici Pediatri (FIMP), Via Parigi, 11 (00185) Rome, Italy. [2]European Paediatric Association, Union of National European Paediatric Societies and Associations (EPA-UNEPSA), Allt. center, Zimmerstraße 69, D-10117 Berlin, Germany. [3]Residency Program in Pediatrics and Pediatric Research Center, University of Foggia, Via Pinto, 1 (71100) Foggia, Italy. [4]Azienda Sanitaria Locale, Barletta-Andria-Trani (BT), Via Fornaci, 201 (70031) Andria, Italy. [5]Puglia Region. Department of Health, Social Welfare and Sport, Via Gentile, 52 (70126) Bari, Italy.

Received: 29 January 2016 Accepted: 16 February 2016

References
1. State and Territorial health Departments. The US government's official web portal. http:/1.usa.gov/17zwbKH (accessed 23 January, 2015).
2. Mace SE, Mayer TA. Triage In: Pediatric Emergency Medicine. 2008; Chapter 155, pag. 1087-1096. Edited by:Jill M.Baren, Steven G.Rothrock, John A. Brennan, and Lance Brown. ISBN:978-1-4160-0087-7. Saunders Elsevier, 1600 John F.Kennedy Blvd., Ste 1800, Philadelphia, PA19103-2899.
3. Mathauera I, Wittenbecherb F. Hospital payment systems based on diagnosis-related groups: experiences in low- and middle-income countries. Bull World Health Organ. 2013;91:746–756A.
4. IStat.Italian census. http://dati.istat.it/Index.aspx?DataSetCode=DCIS_POPRES1. (accessed 23January, 2015).
5. Ministero della Salute. Italy. www.salute.gov.it (accessed 23January, 2015).

Overview of Habilitation and Rehabilitation for Children and Adolescents in Europe

Reinhold Kerbl, MD[1,2], Wolfgang Sperl, MD, PhD[3], Hans Michael Strassburg, MD[4], Massimo Pettoello-Mantovani, MD[5,6], and Jochen Ehrich, MD, DCMT[5,7]

According to the World Health Organization, "rehabilitation [of people with disabilities] is a process aimed at enabling them to reach and maintain their optimal physical, sensory, intellectual, psychological and social functional levels. Rehabilitation provides disabled people with the tools they need to attain independence and self-determination."[1] The World Health Organization's Website illustrates this definition with a photo showing a child in a wheelchair; however, the spectrum of rehabilitation goes far beyond neurologic disabilities and includes virtually all organ systems with or without neurologic comorbidities. Unfortunately, these other indications for rehabilitative care are sparsely mentioned in the relevant literature dealing with rehabilitation of children.

In Europe, the tradition and degree of pediatric rehabilitation vary widely. Although some countries, such as Germany, have widely adopted trends of the 1980s to establish pediatric rehabilitation as an separate field or even discipline,[2] other countries have not felt the need to do so, and consider rehabilitation a responsibility of hospitals or other already existing health care providers.

Some uncertainty also remains as to which children and adolescents actually are candidates for rehabilitation. Some national regulations consider rehabilitation a measure to "restore the ability to work" (thus excluding children by definition) or distinguish between inborn and acquired disabilities/diseases, providing rehabilitation only for the latter.[3-6]

Although it is common to provide rehabilitation for adults after myocardial infarction, stroke, neurosurgical and orthopedic interventions, and for adults with rheumatic and other chronic diseases, this does not hold true for children. Whether children and adolescents receive appropriate rehabilitative measures currently depends on national/regional regulations and, to some extent, on the individual commitment of doctors and other health professionals.

Pediatric Rehabilitation as Part of Children's Rights to Health

Approximately 10% of all infants are at risk for developmental disabilities, and 1% of all children have severe persistent handicaps. According to the United Nations Convention on the Rights of the Child, Article 6, these children have the right "to survive and develop healthily."[7] Article 23 states that "children who have any kind of disability have the right to special care and support…so that they can live full and independent lives."[3] Thus, although the term "rehabilitation" is used only in Article 39 (Rehabilitation of Child Victims), the United Nations Convention clearly expresses that children should have access to rehabilitative measures in the event of relevant underlying health problems.[1,2,8]

EU	European Union
SPC	Social Pediatric Center

The Fields of Habilitation and Rehabilitation

Discussions regarding "habilitation" of children with congenital or hereditary diseases and "rehabilitation" of children and adolescents with acquired diseases occur mostly in connection with neurologic disabilities. However, many other organ disorders represent indications for rehabilitative interventions.[2,9-11] Disability is extremely diverse. Table I (available at www.jpeds.com) displays potential fields of rehabilitation and some typical diseases. Habilitation and rehabilitation are cross-sectoral activities and may be provided by health professionals in conjunction with specialists in education, employment, social welfare, and other areas.

Neurologic Rehabilitation: The Multiphase Model

Neurologic rehabilitation in children and adolescents plays a pivotal role in the field of pediatric rehabilitation[12] and involves acquired brain and spinal cord injury, hypoxia of the central nervous system, inflammatory diseases, epilepsy, muscular diseases, vascular processes, and central nervous system tumors. Management of acute brain injury has 4 phases (Table II; available at www.jpeds.com); after initial stabilization at the pediatric intensive care unit, a continuous

From the [1]Department of Pediatrics and Adolescent Medicine, General Hospital Hochsteiermark/Leoben, Leoben, Austria; [2]Politische Kindermedizin, Austria; [3]Department of Pediatrics, Paracelsus Medical University, Salzburg, Austria; [4]University Children's Hospital, Wuerzburg, Germany; [5]European Paediatric Association, Berlin, Germany; [6]Institute of Pediatrics, University of Foggia, Foggia, Italy; and [7]Children's Hospital, Hannover Medical School, Hannover, Germany

The authors declare no conflict of interest.

0022-3476/$ - see front matter.
http://dx.doi.org/10.1016/j.jpeds.2015.12.078

and increasing rehabilitation process is initiated, with a transitional process from intensive, intermediate care to full rehabilitation of the stable patient.[13] Long-term neurologic rehabilitation in children requires a multidisciplinary and interdisciplinary approach that includes neuropediatricians, physiotherapists, occupational therapists, speech therapists, psychologists, social workers, orthopedic surgeons, and orthopedic equipment technicians.

Social Pediatrics and Rehabilitation in Children with Vision, Hearing, Mental, Motor, and Skeletal Disabilities in Different European Union Settings

Significant differences exist among European Union (EU) countries in the conceptual approach to social pediatrics and rehabilitation for children, reflecting the original differences in the organizational structures of the various public healthcare systems. For instance, since 1989, Social Pediatric Centers (SPCs) and their responsibilities have been defined by German law (§119 Soziales Gesetzbuch, SGB/Social Legislation), and every primary care pediatrician in Germany can refer patients with visual, hearing, mental, motor, or skeletal disabilities to a licensed SPC for further diagnosis and therapy.[14] The costs are covered by health insurance.[14] Today, there are 145 certified SPCs throughout Germany. Owing to the federal organization of health care in the 16 German regions, the spectrum of diseases qualifying for care in regional SPCs has expanded differently, from neurologic indications to metabolic and other disorders. Approximately 1% of 12 million children are enrolled in one of these SPCs on an outpatient basis, receiving multidisciplinary therapy by pediatricians, psychologists, physiotherapists, speech therapists, occupational therapists, and social workers, frequently in collaboration with other specialists (eg, orthopedic surgeons, geneticists, psychiatrists). SPCs are often located in the vicinity of children's hospitals to provide easy access and allow for efficient collaboration.

In Germany, children with a more complicated disease course may be referred for a 4- to 6-week inpatient stay to 1 of the 46 pediatric rehabilitation centers located throughout the country.[15] Most of these centers specialize in few subspecialties to guarantee high-quality treatment. In 2014, 10% of all admitted children were admitted by 1 of the 420 children's hospitals to shorten their hospital stay (eg, transfer of preterm infants according to §43 Abs. 2 SGB V). The transfer from pediatric to adult rehabilitation social medical centers (Sozialmedizinische Zentren für Erwachsene mit Behinderung) is regulated by §119c V SGB.

In Austria, a long process of national planning has recently resulted in the assignment of 343 pediatric beds for rehabilitation, covering all organ disorders as well as mental health.[9] At present, an agreement is being developed regarding: (1) how many centers should provide pediatric (re)habilitation; (2) which indications should be combined in a specific center; and (3) where these centers should be located. Ideally, approximately 4 pediatric rehabilitation centers should be spread throughout the country, preferably in the vicinity of a children's hospital, providing therapy in patients' neighborhood whenever possible. Owing to the small patient numbers for some indications (eg, hemato-oncology, rheumatology), only one center may be assigned to guarantee an appropriate quality of subspecialty care.

In the Italian pediatric population, the overall prevalence of disability requiring rehabilitation care is 10% (conditions of intermediate severity 2.5%; multiple, severe, and complex conditions with limitation of autonomy 0.5%).[16] The Italian government issued national guidelines for rehabilitation in children in 2011 and established a network of rehabilitation services dedicated to children. Specialized departments are based mainly in large children's hospitals and in a limited number of pediatric units in general hospitals. Rehabilitation services for children are provided by regional public health care centers. Family pediatricians are trained to interact with these centers. In addition, several private rehabilitation centers are active throughout Italy. The costs of care in public and private rehabilitation centers are covered by the national tax-based health system.

At present, the aforementioned countries—Germany, Austria, and Italy—are lacking data on the clinical and cost benefits of investing in neurobehavioral rehabilitation in children and adolescents, in contrast to adults.[17]

Pretransplantation and Posttransplantation Rehabilitation

Physical and mental disability may accompany all stages of organ failure and transplantation. Preserving functional ability and quality of life in the pretransplantation and posttransplantation phases of care in children is a complex task. In nephrology, for instance, there is no general contraindication regarding renal transplantation in children with disabilities, such as trisomy 21.[18] In one study, one-third of young European adults starting renal replacement therapy during childhood had one or more disabilities,[19] and 44% were unemployed, many still living with their parents. The major factors influencing employment were the presence of disabilities, lack of education, method of treatment, underlying primary disease, and geographical factors.[20] We conclude that rehabilitative care should start during chronic kidney disease stages IV and V and continue during dialysis and throughout the acute and postacute transplantation phases. Adequate health education, intensive communication with caregivers, and participation of children in decision making to the greatest degree possible will empower patients and reduce costs originating from preventable late complications.

Two rehabilitation centers in the German-speaking EU countries offer repeat pretransplantation and posttransplantation rehabilitation, with each cycle lasting a minimum of 3 weeks. Young patients may be accompanied by their complete family. Adolescents are treated in absence of family members to train autonomy. Targets of patient care are increased physical strength and improved self-confidence, social competence, and adherence to treatment. Families learn from families, and adolescents learn from adolescents (peer group effects), while being guided by experienced experts and living in a relaxed surrounding.

The idea is for pediatricians to offer salutogenesis and empowerment during their 3-week-long daily 24-hour service. Special training is provided on transferring health information into self-management and health competence. The evaluation and monitoring of the success of rehabilitative measure includes medical, psychological, pedagogic, social, and nutritional aspects of the patients' life conditions.

Postgraduate Training in Pediatric Physical and Rehabilitation Medicine

Pediatric rehabilitation is not an accredited subspecialty in all European countries. A study by the European Paediatric Association found that rehabilitation was recognized as a subspecialty in child healthcare in only 3 European countries.[21] Although this pediatric specialization in rehabilitation is already accredited in some European countries (eg, Sweden, Hungary, Georgia), it is developing in others (eg, Austria and Germany). In Italy, specific training for pediatricians includes participation in adult residency courses.

Frequently, rehabilitation is either considered as part of the "acute phase" treatment or— in cases of chronic diseases and permanent disorders—as continued respite care to be provided in the patient's neighborhood by already existing professionals. In these countries, the special needs of children requiring rehabilitative measures seem to be similarly neglected as the "window of opportunity" to achieve the best possible treatment result in a certain stage of the disease.

The Cost-Benefit Ratio

Thus far, no good controlled studies have compared the costs of rehabilitative measures against the savings accrued through improved prognosis resulting from timely intervention. Taking into account that early transfer of patients from hospital to rehabilitation centers may reduce costs for hospitals, and that early rehabilitation leads to better prognosis, shorter and lower disease burden, better health education, improved life quality, less invalidity, and fewer secondary problems, the cost-benefit ratio should at least be balanced. Nevertheless, this assumption needs to be validated through prospective controlled high-quality studies.

Why Implement Pediatric Rehabilitation Centers?

Many European countries have established intensive inpatient rehabilitation programs for adult patients. For many reasons, including rare diseases, neuronal plasticity, developing organs and organism, and long remaining life span, pediatric rehabilitation differs from adult rehabilitation and thus requires its own approach (**Table III**; available at www.jpeds.com). Rehabilitation for children and adolescents should become as self-evident as it has become for adults. It also should be offered in centers dedicated to this young age group, and should enroll the patient's family whenever possible. Although common standards should be elaborated to ensure high quality, each country should check its own possibilities and facilities for providing pediatric rehabilitation to the most compromised children and adolescents.

Conclusions

Research on pediatric rehabilitative care is essential for providing proper policies, programs, guidelines, and allocation of resources.[22] The lack of evidence-based data comparing different national health care systems is a significant barrier to decision making in the various European countries. To address this problem, pediatricians and other health professionals need to collect experiential and evidence-based data on the quality of rehabilitative care throughout Europe. ■

Reprint requests: Professor Reinhold Kerbl, MD, Department of Pediatrics and Adolescent Medicine, General Hospital Hochsteiermark/Leoben, Vordernbergerstrasse 42, A-8700 Leoben, Austria. E-mail: Reinhold.Kerbl@kages.at

References available at www.jpeds.com

References

1. World Health Organization. Health topics: rehabilitation. http://www.who.int/topics/rehabilitation/en/. Accessed December 12, 2015.
2. Burkett KW. Trends in pediatric rehabilitation. Nurs Clin North Am 1989;24:239-55.
3. Sperl W, Nemeth C, Fueloep G, Koller I, Vavrik K, Bernert G, et al. Rehabilitation für Kinder und Jugendliche in Oesterreich. Stand der Dinge und ein Blick über die Grenzen. Monatsschr Kinderheilkd 2011;159:618-26.
4. Allgemeines Sozialversicherungsgesetz fuer Oesterreich (ASVG). https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10008147. Accessed January 19, 2016.
5. Legge 5 febbraio 1992, n. 104. Law for care, social integration and rights of individuals with disabilities. Gazzetta Ufficiale, Serie Generale n.39 del 17-2-1992 - Suppl. Ordinario n. 30. http://www.gazzettaufficiale.it/eli/id/1992/02/17/092G0108/sg. Accessed January 20, 2016.
6. European disability strategy (2010-2020). UEur-Lex, Summaries of EU legislation: http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=URISERV:em0047&from=IT. Accessed January 20, 2016.
7. UNICEF Fact Sheet: A summary of the rights under the Convention of the Rights of the Child. http://www.unicef.org/crc/files/Rights_overview.pdf. Accessed December 12, 2015.
8. UNICEF Convention on the Rights of the Child. http://www.unicef.org/crc/. Accessed December 12, 2015.
9. Nemeth C, Fueloep G. Rehabilitation von Kindern und Jugendlichen in Oesterreich. http://www.goeg.at/cxdata/media/download/berichte/Kinderreha_2010.pdf. Accessed December 12, 2015.
10. Duffner U, Sauter S, Bergstrasser E, Brandis M, Niemeyer C. Oncologic after-care: a patient-oriented concept. Basic diagnostic plan for pediatric oncology patients. Klin Padiatr 1995;207:193-203 (in German).
11. Goldstein SL. Acute kidney injury in children: prevention, treatment and rehabilitation. Contrib Nephrol 2011;174:163-72.
12. Martinuzzi A, Salghetti A, Betto S, Russo E, Leonardi M, Raggi A, et al. The International Classification of Functioning Disability and Health, version for children and youth as a roadmap for projecting and programming rehabilitation in a neuropaediatric hospital unit. J Rehabil Med 2010;42:49-55.
13. Schupp W, Ackermann H. Konzept der Behandlungs- und Rehabilitationskette nach Schlaganfall (Neurologisches Phasenmodell). Z Allg Med 2000;76:173-7.
14. Oepen J. Rehabilitation für Kinder und Jugendliche. In: Bode H, Strassburg HM, Hollmann H, eds. Sozialpaediatrie in der Praxis. Munich, Germany: Elsevier; 2013. p. 531-50.
15. Deutsche Gesellschaft für Sozialpaediatrie und Jugendmedizin e.V. - Sozialpaediatrische Zentren. http://www.dgspj.de/institution/sozialpaediatrische-zentren/. Accessed December 12, 2015.
16. Sereni F. L'Assistenza al bambino con disabilità e malattie croniche. Prospet Pediatr 2012;42:185-91.
17. Oddy M, da Silva RS. The clinical and cost benefits of investing in neurobehavioural rehabilitation: a multi-centre study. Brain Inj 2013;27:1500-7.
18. Ehrich JHH. Renal transplantation in children with Down syndrome. Pediatr Transplant 1998;2:182-4.
19. Rizzoni G, Ehrich JHH, Broyer M, Brunner FP, Brynger H, Fassbinder W, et al. Rehabilitation of young adults during renal replacement therapy in Europe, part 1: the presence of disabilities. Nephrol Dial Transplant 1992;7:573-8.
20. Ehrich JHH, Rizzoni G, Broyer M, Brunner FP, Brynger H, Fassbinder W, et al. Rehabilitation of young adults during renal replacement therapy in Europe, part 2: schooling, employment, and social situation. Nephrol Dial Transplant 1992;7:579-86.
21. Ehrich JHH, Kerbl R, Pettoello-Mantovani M, Lenton S. Opening the debate on pediatric subspecialties and specialist centers: opportunities for better care or risks of care fragmentation? J Pediatr 2015;167:1177-8.
22. Whitney R, Hilton CL. Intervention effectiveness for children and youth. Am J Occup Ther 2013;67:e154-65.

E

P

A

Table I. Selected indications for pediatric rehabilitation

Field of rehabilitation	Typical indications
Cardiovascular system	Heart failure, cardiomyopathies, post-cardiac surgery
Hemato-oncology	All kinds of malignancies and severe hematological diseases
Metabolic disorders	Inborn metabolic disorders (eg, phenylketonuria), diabetes mellitus, severe obesity
Mental health	Severe eating disorders, depression, psychosocial disorders
Pediatric neurology	Intraventricular hemorrhage, encephalitis, brain injury, near-drowning, brain infarction, neurodegenerative disorders, muscular disorders
Posttransplantation	Organ transplantation
Pulmonology	Severe asthma, cystic fibrosis

Table II. Phases of pediatric neurorehabilitation

Phase	Pathways
Phase I	Early rehabilitation during intensive care
Phase II	Immediate rehabilitation during intermediate care (vital parameters are stable, no artificial ventilation), followed by transfer of the child to an acute neurorehabilitation ward (ideally within the same hospital)
Phase III	Follow-up neurorehabilitation in a specialized rehabilitation center after the child exhibits a stable clinical condition. Phase III may be repeated at intervals after the child has gone through phase IV
Phase IV	Neurorehabilitation in an ambulatory setting close to the family home

Table III. Benefits for affected children, their families, and their caregivers during treatment in pediatric rehabilitation centers

Category	Benefits
Children	Provision of specific medical care (eg, adherence to treatment, eating, self-care) and salutogenic care (eg, schooling, social integration, sports, day planning, problem solving, training of autonomy, vocational training)
Families	Provision of short-term, temporary relief to caregivers; strategies for coping with difficult situations, avoiding mental burnout, improving social integration, restoring "normalcy" to family life
Onsite multidisciplinary team of caregivers	Cooperation and problem solving in a team setting; mutual psychosocial support; evaluation, assessment, and adaptation of guidelines to new needs; feedback of information on communication skills; development of new "receptors" for "small signals" of patients; interactive analysis of consent-building strategies
Visiting pediatric specialists	Pediatric subspecialists may be offered the chance to join the rehabilitation center for a short (2-3 weeks) training course to experience new ways of identifying their interaction with the patient during their round-the-clock service. They may develop new sensors for their own and their patients' feelings. They may learn more about their patients than they could learn if seeing them only during inpatient or outpatient hospital care. A transplantation pediatrician asked how he felt after participating in such training replied: "Our patients are living, but not as we pediatricians know it. Even more importantly, I myself have developed new sensors to appreciate the role of salutogenesis during rehabilitation."

Foster Care: A Fragile Reality Needing Social Attention, and Economic Investments

Pietro Ferrara, MD[1,2,3], Giovanni Corsello, MD[1,4,5], Annamaria Sbordone, MD[3], Luigi Nigri, MD[4,6], Jochen Ehrich, MD, DCMT[4,7], and Massimo Pettoello-Mantovani, MD, PhD[1,4,8]

Children living in foster care belong to a vulnerable child population that is afflicted by a wide range of acute and chronic psychosocial, mental, and even physical health conditions requiring multidisciplinary care services.[1] Because of the complexity of their nature, such care services must be specific and cannot simply be integrated into standard services of the general pediatric population. There are other vulnerable child populations, such as children belonging to families living in poverty,[1] needing also special social, psychological, and medical attention; some of them may become candidates for foster care programs. The organizational profile of services for vulnerable children should include special healthcare assistance provided by specialized personnel.[2]

The combination of psychosocial, medical, and educational care usually leads to immediate and long-term extra cost, which may pay out only decades later.[3] This social and economic investment may be regarded by economists as being hardly affordable, especially during recession periods.[4] However, we strongly believe that there are alternatives allowing adequate care even in times of economic turmoil.[4] The aim of this report is to raise the awareness of the pediatric community and the public opinion toward the importance of investing in health programs offering adequate protection, prevention, and provision of care for orphan, abandoned, maltreated, and neglected children.

From Orphanages to Foster Care

During the early 20th century, the problem of abandoned, neglected, and socially violated children had reached alarming dimensions. Private and public orphanages were established in order to contain this phenomenon. However, orphanages had shown to be an insufficient and inadequate institutional solution for children needing social protection. Increasing evidence emerged that orphanages were the worst possible care option for children.[5] During the late 20th century, in the majority of European countries, orphanages were progressively deinstitutionalized and closed, after a significant number of scandals involving the coercion of birth parents and abuse of orphans had surfaced.[6]

Currently, traditional orphanages are no longer a part of the adoption process in the majority of the European countries. However, although they are no longer a common finding in Europe, state-funded orphanages and similar institutions are reported to still be active in some European countries. For instance, there are approximately 10 active orphanages in Albania, each one having 12-40 residing children.[7] It has been reported recently that Lithuania has the highest number of orphaned children in Northern Europe (over 4000), distributed in 105 institutions, about 40 of them hosting more than 60 children each.[8] In Romania, although a revision of the welfare system is in progress with the aim to reduce the flow of infants into orphanages, currently nearly 100 000 children are included in the child protection system, and as of 2011, 10 833 orphaned children were reported to be hosted in 256 large institutions.[9] Therefore, even though orphanages are generally considered to be an obsolete form of service for abandoned or neglected children, such type of institutions have survived for reasons that are not acceptable.

During the last few decades, foster care and accelerated adoption programs have emerged as an important form of protection for children whose rights are abused. This is considered to be an efficient support for the reintegration of orphans, neglected, and violated children in society.

Foster Care

Foster care is typically defined as a form of social protection for orphaned, abandoned, and maltreated children outside the birth family that provides placement and care in a foster family or, alternatively, in equivalent community-centered settings.[10] The placement in foster care occurs for several reasons, including poverty, abandonment, neglect, abuse, drug use by biological parents, parental psychopathology, and family breakdown. It is time-limited and offers different options of permanent placement. The best long-term solution, when possible, will be the reunification of children with their biological parents. It is also possible to convert the foster home into a legal and permanent guardianship or adoption, or to relocate the child into a different legally permanent family.[11]

From the [1]Italian Society of Pediatrics (SIP), Italy; [2]Institute of Pediatrics, Catholic University Medical School; [3]Campus Bio-Medico University Medical School, Rome, Italy; [4]European Pediatric Association-Union of National European Pediatric Societies and Associations (EPA-UNEPSA), Berlin, Germany; [5]Institute of Pediatrics, University of Palermo, Palermo, Italy; [6]Italian Federation of Pediatricians (FIMP), Italy; [7]Children's Hospital, Hannover Medical School, Hannover, Germany; and [8]Institute of Pediatrics and Residency program, University of Foggia, Foggia, Italy

The authors declare no conflicts of interest.

0022-3476/$ - see front matter. © 2016 Published by Elsevier Inc.
http://dx.doi.org/10.1016/j.jpeds.2016.02.036

In countries where foster care is part of the legal and social system, children, regardless of their age or their cultural, social, and religious background, may live without a narrow limitation of time in foster care settings, generally, until they reach the legal adult age (which may differ from country to country). In summary, the foster care settings shelter children in need within a safe, hygienic, socially stable, and protective environment, avoiding also social exclusion. However, foster care should be considered a transitional form of welfare for minors awaiting reintegration into their biological families or adoption.

Differences of Foster Care between Europe and the US

Increasing numbers of children are admitted to foster care in the US and in Europe[12]; however, substantial differences exist in the outcome of foster care programs. The US Department of Health and Human Services reported that in 2010 there were 408 425 children in foster care. Of 254 114 children who left foster care in that year, 51% were reunited with parents or other caretakers, 21% were adopted, 11% had become autonomous adults, 8% went to live with other relatives, 6% went to live with a guardian, and 3% had other outcomes.[10] In 2013, a total of 402 378 children were hosted in foster care; the average time spent in care was 13.5 months. Of these, 53% had a goal of reunification with parents, and 24% had a goal of adoption.[10]

In Europe, approximately 1 million children are hosted in foster care. However, the figures varied significantly among countries, and data collection was obviously not an easy task because definitions of foster care and procedures for data collection were often different.[13] In 2015 in Italy, 28 449 children lived outside their biological family, 14 194 of these in "residential homes" and 14 255 with foster parents,[14] with an estimated cost of about €170/day/child.[15] In the absence of unifying European regulations and laws in this field, substantial differences existed in the structure and organization of foster care among the 21 Italian administratively independent regions, and consequentially in the collection of data. In fact, the foster care system was managed by each region autonomously, not responding to any centralized network at the local and European level.[14]

Similar circumstances also were reported from Germany, where the regulatory regime for foster care is also considered to be unsatisfactory.[16] In fact, there are currently no universally recognized standards for foster care services in Germany. For this reason, local agencies vary considerably in terms of their principles, operation, and staffing, because no government agency exists that could establish and implement unifying standards.[16,17] For instance, in some local agency, one professional is responsible for 25 foster children, and, in others, the responsibility includes up to 140 minors. Furthermore, although an agency is committed to finding separate placements for siblings, there may be others actively working to keep them together. For the last 20 years, an ongoing controversy continues to exist as to whether foster families should see themselves as replacing the child's birth family or complementing it. Such a long-lasting debate seems to have polarized, yet crowded almost all the service agencies operating in this field.[16,17]

The majority of European countries are afflicted by similar conditions. In fact, different cultural and legal issues, reflecting the reality of a substantial diversity among the European countries, have also negatively impacted the efforts of legislators to find adequate and shared solutions ensuring proper care for children in need for social protection. For instance, in some legal system many of the abandoned children are technically classified not to be orphans if their parents are traceable, and, therefore, they are not granted social protection and access to state programs.

In summary, although the admissions in foster care are generally expanding in European countries (eg, Czech Republic, Latvia, and Lithuania having seen an increase in the number of children living in institutions during recent years),[10,13] the foster care system in Europe is exposed to inadequate management and insufficient funding.

Conclusions

A proper and rational administration of foster care is desirable, and efforts should be made in supporting the reintegration of children into their biological families or in finding new permanent homes, following the principle that children should be placed in foster care only when necessary, and for a time as short as possible.

Following the values of the United Nations Convention on the Rights of the Child, European countries and particularly the European Union should make further efforts to rationalize and regulate the organization of foster care, in order to protect the rights of the abandoned and socially neglected children, preventing the transmission of disadvantages across generations. The European Paediatric Association/Union of National European Pediatric Societies and Associations (EPA-UNEPSA) is fully committed in supporting the national European societies of pediatrics, as they may play an important role in prompting legislators at local and European level to build a unified vision and guidelines for foster care. ■

Reprint requests: Pietro Ferrara, MD, Institute of Pediatrics, Catholic University Medical School, Largo A. Gemelli, 8-00168 Rome, Italy. E-mail: p.ferrara@unicampus.it (P.F.)

References available at www.jpeds.com

References

1. American Academy of Pediatrics, District II, New York State. Task Force on Health Care for Children in Foster Care. Fostering health: Health care for children and adolescents in foster care. 2nd ed. Lake Success, NY: American Academy of Pediatrics; 2005. p. 1-186.
2. Ringeisen H, Casanueva C, Urato M, Cross TS. Special health care needs among children in the child welfare system. Pediatrics 2008; 122:e232-41.
3. Gerber-Grote A, Lenton S, Amelung V, Pettoello-Mantovani M, Ehrich J. Starting the debate on the role of health economics to support child friendly health care in Europe. J Pediatr 2015;167: 944-5.e2.
4. Ortiz I, Chai J, Cummins M, UNICEF policy and practice. Identifying fiscal space options for social and economic development for children and poor households in 184 countries. UNICEF social and economic policy working paper. New York: UNICEF; 2011.
5. Csáky C. Keeping Children Out of Harmful Institutions. Why we should be investing in family-based care. London: Save the Children; 2009.
6. Tennessee Department of Human Services. Report to Governor Gordon Browning on the Shelby County branch Tennessee children's home society. Nashville, TN: State of Tennessee, Dept. of Public Welfare; 1951.
7. Adoptionworx, international adoption agency. Albania's Children. http://www.adoptionworx.com/photo.html. Accessed January 25, 2016.
8. Utrikesdepartementet. Mänskliga rättigheter i Litauen 2007. http://www.manskligarattigheter.se/dynamaster/file_archive/080314/5c08d4415225dfc8695e0f535fbfe168/Litauen.pdf. Accessed January 25, 2016.
9. Romanian Orphans Ministries. The Orphans of Romania. http://www.romanianorphanministries.com/the-orphans-of-romania/. Accessed January 25, 2016.
10. Child Welfare Information Gateway. Foster Care. https://www.childwelfare.gov/topics/outofhome/foster-care/. Accessed January 25, 2016.
11. Dorsey S, Farmer E, Barth RP, Greene K, Reid J, Landsverk J. Current status and evidence based of training for foster and treatment foster parents. Child Youth Serv Rev 2008;30:1403-16.
12. United Nations General Assembly. Report: "Calling for a focus on strengthening family care and providing appropriate alternative care for children in the 2014. UNGA resolution on the rights of the child". http://africanchildinfo.net/index.php?option=com_sobi2&sobi2Task=sobi2Details&sobi2Id=1285. Accessed January 27, 2016.
13. Eurochild. Children in alternative care. National Surveys-2nd Edition. Bruxelles, www.eurochild.org. Accessed January 27, 2016.
14. Italian Ministry of Labor, Social Affairs. Report: Quaderni della ricerca sociale 31-Affidamenti familiari e collocamenti in comunità al 31.12.2012. Italia: Ministero del Lavoro delle Politiche Sociali; 2014, www.lavoro.gov.it. Accessed January 27, 2016.
15. Falaschi F, Berliri LV. Dossier Costi Standard Comunità di accoglienza, http://www.condicio.it/allegati/165/COSTI_STANDARD_Case_famiglia.pdf; 2015. Accessed January 27, 2016.
16. Wolf K. Promoting the positive development of foster children: establishing research in Germany. Adoption & Fostering 2012;36:40-51. http://www.thefreelibrary.com/Promoting+the+positive+development+of+foster+children%3A+establishing...-a0289722953. Accessed January 27, 2016.
17. O'Halloran K. The politics of adoption. International perspective on law, policy, and practice. New York: Springer; 2015.

Impact of Distressing Media Imagery on Children

Pietro Ferrara, MD[1,2,3], Giovanni Corsello, MD[1,4,5], Francesca Ianniello, MD[2], Annamaria Sbordone, MD[3],
Jochen Ehrich, MD, DCMT[5,6], and Massimo Pettoello-Mantovani, MD, PhD[1,5,7]

Worldwide, many children are exposed, either directly or indirectly, to violence and traumatic images and news on a daily basis. The media publish updates, videos, and images of traumatic events, which may play a role in causing emotional and psychological distress in young people, especially in those who cannot discuss it with their family. Following the terrorist attacks of September 11, 2001, in the US, a study revealed that young children had developed acute stress reactions and post-traumatic stress disorder (PTSD) from cumulative exposure to media coverage of the event, even though the attacks did not involve anyone they knew personally.[1] Further studies have shown that the terrorist attack at the 2013 Boston Marathon precipitated PTSD symptoms in children and adolescents, emphasizing a likely correlation between media exposure and sympathetic nervous system reactivity predicting the onset of PTSD symptoms (**Table**; available at www.jpeds.com).[2]

Children are particularly fragile and vulnerable to the impact of traumatic events or their mediated representation because they lack the skills and experience in the management of difficult information. Children have different concepts of health and disaster than adults and institutions, depending mainly on their cognitive, emotional, social, psychological, and physical development.[3] If left alone with threatening messages, children are less able to fully understand the information to which they had been exposed. Therefore, they may fail to integrate the external data into their psychological schema of coping strategies.[1,2] Children usually count on caregivers to deal with stressors, and they want to be reassured by receiving plausible explanations for upsetting or unfamiliar events.[4,5]

Thus, it is important for caregivers to be trained in anticipating the proper response to children's questions, how to best adapt it to each case, and the appropriate manner to discuss with them the origin and nature of their fears and emotions. Our goal is to emphasize the important role that pediatricians, and particularly family pediatricians, may play in recognizing initial symptoms of stress disorder following exposures of children to violent imagery proposed by media.

PTSD	Post-traumatic stress disorder

Direct and Mediated Impact of Distressing Events

Children are subjected daily to the direct and indirect impact of a spectrum of distressing events. The number of natural disasters has increased worldwide during the past 20 years, endangering more than 1 billion children.[5] Furthermore, the United Nations Children's Emergency Fund reported that, in 2014, about 230 million children were living in regions affected by armed conflict, therefore being directly exposed to the impact of violence.[6] However, the indirect impact of distressing events is of no less importance. Protecting children from disturbing news has become a complicated, yet essential, responsibility for all caregivers, including pediatricians.[1] Following the Space Shuttle Challenger disaster of 1968 and the Oklahoma City bombing of 1995, the impact of mediated representation of traumatic events on children and their consequences was studied in middle school and high school students.[7,8] These studies analyzed the onset of PTSD symptoms in children indirectly exposed to such negative events. Those individuals who watched the initial images broadcasted in the news and who first showed to be the most emotionally involved with the tragedy tended to have the strongest symptoms in the weeks after the exposure to the events.[7,9]

European children have been repeatedly exposed to media images of African migrants dying when crossing the Mediterranean Sea in an effort to reach Europe. According to the United Nations Refugee Agency, more than 300 000 refugees and migrants have used the dangerous sea route across the Mediterranean Sea in fragile ships, and several thousands are estimated to have died in 2015.[10] All European media outlets have extensively covered this phenomenon and have shown suffering families, exhausted and traumatized migrants, and dead corpses, like the one of a little boy who was stranded on a beach.[11] The impact of the intensive media coverage of such negative events on the general population and on children in particular has

From the [1]Italian Society of Pediatrics (SIP), Italy; [2]Institute of Pediatrics, Catholic University Medical School; [3]Campus Bio-Medico University Medical School, Rome, Italy; [4]Institute of Pediatrics, University of Palermo, Palermo, Italy; [5]European Pediatric Association-Union of National European Pediatric Societies and Associations (EPA-UNEPSA), Berlin, Germany; [6]Children's Hospital, Hannover Medical School, Hannover, Germany; and [7]Institute of Pediatrics and Residency program, University of Foggia, Foggia, Italy

The authors declare no conflicts of interest.

http://dx.doi.org/10.1016/j.jpeds.2016.03.075

not yet been sufficiently studied. Our own observations concerning children come to the conclusion that the fast transmission of information on national and international disasters will confront local institutions such as schools and hospitals with the challenges to offer adequate protection, help, and coping strategies. This also means preparing children for the unavoidable repeated television and media coverage, which may intensify and perpetuate fear, panic, and despair. Many children witness media images without adult supervision and potentially re-experience a trauma each time it is indirectly lived. Unfortunately, the advisable presence of a supervisor is not always a guarantee for the protection of children because multiple reproductions of negative events by media may also create anxiety in caregivers, impairing their ability to comfort children. In summary, the training of pediatricians in dealing with any kind of traumatic circumstances should be formally included in postgraduate training curricula.

Children's Resilience and Coping with Distressing Imagery

Children's reactions to distressing events presented by media differ according to individual and external factors,[12] including age, previous experiences, and developmental level. Many children may not develop any psychological or psychiatric conditions, whereas others will experience distress that decreases with time. However, a significant number of minors will experience long-lasting effects, like academic failure, PTSD, depression, anxiety, bereavement, and behavioral problems.[5,13]

Children may react to the media flow of stressful images and information by developing resilience and coping strategies that are based on their individual ability to resist, absorb, accommodate to, and recover from the effects of a threat in a timely and efficient manner. Resilience in children is not an inherited general behavior. It may be learned by individual and variable key factors such as the existence of at least 1 stable and committed relationship with a supportive relative or caregiver. These relationships provide the personalized responsiveness, framework, and protection that buffer children from developmental disruption. The foundation of resilience lies in the combination of supportive relationships, adaptive skill-building, and positive experiences, which enable children to develop positive and self-protective skills. Children who are able to develop effective defensive strategies in the face of serious threats typically have a resistance to adversity coupled with strong relationships with important adult figures in their life. Resilience is, therefore, the result of a combination of essential protective factors because individual characteristics and social environments separately are unlikely to ensure positive and effective outcomes for children who experience prolonged periods of afflicting stress. The interaction between the individual child and his/her environment creates the ability to cope with adversity and to overcome threats, as emphasized by recent studies.[14] However, it must be taken into account that children who have shown resilience in response to a specific adversity may not necessarily show the same resilience to other different forms of stress.

Learning to cope with manageable threats is important for the development of resilience in children. Thus, pediatricians must be trained in understanding the complexity of teaching resilience to children, which will allowing them to become better equipped when coping with life's obstacles and hardships, both physically and mentally.

Supportive Strategies

Children can be supported in the management of distressing events by implementing simple measures such as minimizing the exposure to media, especially in the case of younger children. Providing children's questions with honest answers, enriched with elements of hope, reassuring them about the protective role of their families and their personal safety, and keeping them socially active while implementing their normal routines, are simple, effective, yet intuitive supportive strategies to apply to the successful management of traumatic events. Adolescents have a greater ability to understand the real impact of disastrous events on their lives; therefore, they would particularly benefit from discussing their emotions, feelings, or doubts with caregivers. The school system may also play an important role in helping children facing distressing events by monitoring the status of their mood and their reactions, thus identifying children who need special assistance.

Conclusions

Media frenzy for troubling events is somehow unavoidable and it can turn out to be dangerous for children's emotional and psychological life. The mass mediated representation of violence, as well as threatening or upsetting news, are capable of weakening their sense of safety, often with negative consequences of clinical relevance.[13]

All pediatricians and family pediatricians should be aware of the significant role they can play in preventing harm and detecting initial signs and symptoms of distress caused by negative imagery. The risk and danger for children to watch indirectly any type of violence in the various media should be explained to the family during pediatric consultations. In children with psycho-mental disorders such as depression, anxiety, acute stress disorders, and substance abuse, the possibility of the media-induced PTSD must be excluded.[15] Pediatricians should also play a key role in training resilience of their young patients by raising the awareness of families about the importance of positive intra-family relations and a supportive environment. ■

Reprint requests: Pietro Ferrara, MD, Institute of Pediatrics, Catholic University Medical School, Largo A. Gemelli, 8-00168 Rome, Italy. E-mail: p.ferrara@unicampus.it or pferrara@rm.unicatt.it

References available at www.jpeds.com

References

1. Hilt R. Terrorism and disasters in the news: how to help kids cope. Pediatr Ann 2013;42:226.
2. Busso DS, McLaughlin KA, Sheridan MA. Media exposure and sympathetic nervous system reactivity predict ptsd symptoms after the Boston marathon bombings. Depress Anxiety 2014;31:551-8.
3. Damm L, Leiss U, Habeler U, Ehrich J. Improving care through better communication: continuing the debate. J Pediatr 2015;167:501-2.
4. Pfefferbaum B, Noffsinger MA, Wind LH, Allen JR. Children's coping in the context of disasters and terrorism. J Loss Trauma 2014;9:78-97.
5. Chrisman AK, Dougherty JG. Mass trauma: disasters, terrorism, and war. Child Adolesc Psychiatr Clin N Am 2014;23:257-79.
6. UNICEF: Children and emergencies in 2014. Facts and Figures. www.unicef.org/media/files/UNICEF_Children_and_Emergencies_2014_fact_sheet.pdf. Accessed March 19, 2016.
7. Terr LC, Bloch DA, Michel BA, Shi H, Reinhardt JA, Metayer S. Children's symptoms in the wake of Challenger: a field study of distant-traumatic effects and an outline of related conditions. Am J Psychiatry 1999;156:1536-44.
8. Pfefferbaum B, Nixon SJ, Krug RS, Tivis RD, Moore VL, Brown JM, et al. Clinical needs assessment of middle and high school students following the 1995 Oklahoma City bombing. Am J Psychiatry 1999; 156:1069-74.
9. Otto MW, Henin A, Hirshfeld-Becker DR, Pollack MH, Biederman J, Rosenbaum JF. Post-traumatic stress disorder symptoms following media exposure to tragic events: impact of 9/11 on children at risk for anxiety disorders. J Anxiety Disord 2007;21:888-902.
10. United Nation Refugee Agency. UNHCR. Crossings of Mediterranean Sea exceed 300 000, including 200 000 to Greece. http://www.unhcr.org/55e06a5b6.html. Accessed March 19, 2016.
11. The Guardian. Shocking images of drowned Syrian boy show tragic plight of refugees. http://www.theguardian.com/world/2015/sep/02/shocking-image-of-drowned-syrian-boy-shows-tragic-plight-of-refugees. Accessed March 22, 2016.
12. McCord J. Violence and childhood in the inner city. New York, NY: Cambridge University Press; 1997.
13. Pfefferbaum B, Newman E, Nelson SD. Mental health interventions for children exposed to disasters and terrorism. J Child Adolesc Psychopharmacol 2014;24:24-31.
14. Shonkoff JP, Richmond JB, Levitt P, Boyce WT, Cameron J, Duncan GJ, et al. Early experiences can alter gene expression and affect long-term development. Cambrige, MA: Center on Developing Child, Harvard University; 2010. http://developingchild.harvard.edu/wp-content/uploads/2010/05/Early-Experiences-Can-Alter-Gene-Expression-and-Affect-Long-Term-Development.pdf. Accessed February 17, 2016.
15. Joshi PT, Adair F, Parr AF, Efron LA. TV coverage of tragedies: what is the impact on children? Indian Pediatr 2008;45:629-34.

Table. Symptoms of acute stress disorder and PTSD in children

Avoidant behaviors
- Intense anxiety or fear of situations that may remind them of the event
- Fear of places and unfamiliar settings
- Withdrawal from family and friends
- School refusal

Derealization disorders and symptoms
- Feeling emotionally numb and disoriented
- Being in a daze, confused
- Inability to remember things or events
- Inability to recall elements of trauma
- Sense of aloofness, detachment

Hyperarousal
- Exaggerated startle and alarming reactions
- Sudden irritability and explosive anger
- Concentration disorders
- Sleeping disorders and difficulty
- Restlessness

Intrusive thoughts
- Flashbacks, characterized by intrusive and vivid memories and images, with strong emotions
- Reliving the event and feeling as if the traumatic occurrence is happening again
- Nightmares and/or disturbing dreams

Vaccine Hesitancy and Refusal

E. David G. McIntosh, MBBS, MPH, LLM, PhD[1], Jan Janda, MD[2,3], Jochen H. H. Ehrich, MD, DCMT[3,4],
Massimo Pettoello-Mantovani, MD, PhD[3,5], and Eli Somekh, MD[3,6,7]

Over the past few years, an increasing number of European pediatricians, particularly primary care pediatricians, are facing the growing threat of vaccine hesitancy and refusal, a sort of a "cultural epidemic," which seems to progressively affect the families of children under their care. In several communities, a growing number of individuals are delaying or refusing available recommended and/or mandatory vaccinations for themselves and their children. Furthermore, vaccination is increasingly perceived as unsafe and unnecessary by a rising number of parents, although it has been widely proven and recognized to be one of the greatest, safest, and most successful public health measures ever adopted.

Pediatricians have a potential major influence on parental vaccine decisions. However, their task is complicated by the complexity of the vaccine hesitancy phenomenon and its multifactorial nature.[1,2] Programs based on physician-targeted communication interventions, designed to reduce vaccine hesitancy in mothers of infants seen by trained physicians and to increase physician confidence in communicating about vaccines, are reported to have failed to reduce maternal vaccine hesitancy or to improve physician self-efficacy.[3]

Our aim is to describe vaccine hesitancy and refusal in an effort to further raise the awareness of pediatricians on this potential threat for their communities, and, in particular, for children under their care.

Definition and Effects of Vaccine Hesitancy and Refusal Phenomenon

Vaccine hesitancy and refusal has developed most likely because of multiple social, cultural, political, and personal converging factors.[1] There is blurring between hesitancy and refusal; inconsistencies also exist in the definition when the problem is mapped in different countries.[4]

The World Health Organization defines vaccine hesitancy and refusal as a delay in acceptance or refusal of vaccines despite availability of vaccination services. Vaccine hesitancy was described to be complex and context specific, varying across time, place, and vaccines, and including factors such as complacency, convenience, and confidence.[5]

According to the World Health Organization, during the recent decade, approximately 1 in 5 children each year globally did not receive routine lifesaving immunizations, and 1.5 million children died of diseases that could have been prevented by vaccines. This represents 17% of all deaths of children less than 5 years of age. However, despite such striking data, several European nations, as well as the US, are faced with a widespread reluctance in accepting the recommended national vaccination programs. Such immunization hesitancy is largely driven by the opinions disseminated by dynamic antivaccine movements, primarily using self-referential blogs and forums, and often reporting uncontrolled or misinterpreted scientific data, which have contributed to lowering the rates of vaccination coverage in various communities. In 2008, a survey reported that 20% of parents from 5 European Union countries expressed doubts about vaccinating their children.[6] The lowering of immunization rates observed in various European countries and the US are likely to have contributed to the several outbreaks of vaccine-preventable diseases that have been observed over the recent years. For instance, during the past 5 years, several countries of the European Union, including Belgium, Bulgaria, France, Italy, Romania, Spain, and recently, Germany, have reported an increase of measles and rubella outbreaks. Furthermore, according to the Department of Health of the European Commission, only one-half of the European Union countries have reached the target of 95% coverage for 2 doses of the measles vaccine, and more than 4000 cases of measles have been reported between July 2014 and July 2015. A similar situation is observed in the US, where lower vaccination rates have been identified as contributing factors to various outbreaks of vaccine-preventable diseases, as in the case of measles in California in 2014 and 2015, where the vast majority of the infected people were unvaccinated, or their vaccination status was unknown.

Measuring vaccine hesitancy is crucial for the appropriate planning of strategies for increasing vaccine coverage and for monitoring. It is also important to monitor the degree and type of hesitancy because these may change temporally. In addition, vaccine hesitancy may be specific to one or some, but not all vaccines. Determination of vaccination coverage is not a reliable tool for the measurement of vaccine hesitancy because it may derive from an access issue.[7] In addition, high

From the [1]Faculty of Medicine, Imperial College, London, United Kingdom; [2]University Children's Hospital, Charles University, Prague, Czech Republic; [3]European Paediatric Association/Union of National European Paediatric Societies and Associations, Berlin, Germany; [4]Children's Hospital, Hannover Medical School, Hannover, Germany; [5]Institute of Pediatrics, University of Foggia, Istituto Di Ricovero e Cura a Carattere Scientifico "Casa Sollievo," Foggia, Italy; [6]Wolfson Medical Center, Holon, Israel; and [7]The Sackler School of Medicine, Tel Aviv, Israel

E.M. is employed by Takeda Vaccines. The other authors declare no conflicts of interest.

0022-3476/$ - see front matter.
http://dx.doi.org/10.1016/j.jpeds.2016.06.006

vaccination coverage rates do not necessarily imply correctly timed vaccinations. The phenomenon of vaccine hesitancy and refusal can be measured using instruments such as the Vaccination Confidence Scale.[8] Experts in the field recognize a continuum between vaccine acceptance and vaccine refusal.[7] Hesitancy and refusal are closely related to vaccination skepticism.

Political and Social Aspects

Different circumstances in Europe have influenced vaccine coverage and rendered Europe prone to vaccine failure and hesitancy. Political conflicts and instability, as well as immigration, have been linked to vaccine hesitancy. For example, concerns have been raised about the suspected use of porcine components in vaccines.[9] Several Central and Eastern European countries have experienced decreasing vaccine uptake and delayed vaccinations following the fall of Soviet Union, and some of these countries experienced outbreaks of vaccine-preventable diseases, such as diphtheria and measles.[10]

Ethics

It is not necessary to delve too far into the past to sense a disinclination to vaccinate, given the widely held false perception that vaccine-preventable diseases are no longer a threat. A reliance (and belief) in herd protection bolsters the perceived rights of parents and other individuals not to vaccinate and for them to rely on others being vaccinated. This is not to argue that it would be “good” for a few cases of subacute sclerosing panencephalitis following measles or congenital rubella to appear, to remind individuals of the dangers. Instead, it would be “bad” because it would signal a belief that the rights of unborn infants and unvaccinated children are less than the rights of others.

Mandatory vaccination has been used in several countries to overcome vaccine hesitancy and refusal. However, it is unclear whether this regulatory measure significantly and durably increases vaccine coverage. The ethics of mandatory vaccination have been questioned, and strategies that raise the financial liabilities of unvaccinated families have been suggested instead.

Consequences

It is now nearly 20 years since the infamous article by Wakefield et al,[11] fraudulently purporting to have shown a link between measles/mumps/rubella vaccine and autism. There are likely to be cohorts, now reaching young adulthood, who are neither vaccinated against these 3 viruses nor exposed naturally. Ironically, their chances of exposure to measles are not negligible because of the high transmissibility of this virus and recurrent measles epidemics.[12] The chance of female members of these cohorts are exposed to the relatively mild rubella virus during pregnancy also is not negligible, although it would be the next generation, those affected by congenital rubella, who would bear the consequences of a past decision not to vaccinate by their grandparents.

The consequences of delayed vaccination should not be overlooked. For example, timely administration of infant pertussis vaccine reduces subsequent pertussis cases, hospitalizations, deaths, and medical costs in infants <1 year of age in the US.[13] The consequences of vaccine hesitancy or refusal, and possible interventions identified to contrast vaccine hesitancy and refusal[14] are shown in **Tables I** and **II** (available at www.jpeds.com).

Conclusions

In terms of numbers of lives saved, vaccination stands among the most effective measures ever accomplished by medical intervention.[15] However, the results achieved by this public health intervention are seriously endangered by the growing phenomena of vaccine hesitancy and refusal. The multifactorial and complex causes of vaccine hesitancy, including the uncompromised demand for the unremitting usage of vaccines, their coincidental temporal relationships to adverse health outcomes, unfamiliarity with vaccine-preventable diseases, and lack of trust in corporations and public health agencies, require a broad range of approaches on the individual, provider, health system, and national levels, which is difficult to properly coordinate and promote. Furthermore, research is certainly needed to identify proper physician communication strategies effective at reducing parental vaccine hesitancy particularly in primary care settings.[2] However, providing continuous information about the importance of vaccinations and the risk of denying their benefits, with special attention to culture-related disbeliefs, seems to represent a fundamental action, useful in responding to the severe public health threat, represented by scientifically unsubstantiated vaccine-hesitant behaviors, amplified by cycles of self-referencing statements, often unreachable by campaigns of explanation, and difficult to be contained by health initiatives. Vaccine hesitancy and refusal should be continuously monitored and studied from medical, psychological, social, political, and ethical aspects, and addressed accordingly to decrease the pervasive effects. ■

Reprint requests: E. David G. McIntosh, MBBS, MPH, LLM, PhD, Faculty of Medicine, Imperial College, Exhibition Rd, London SW7 2AZ, UK. E-mail: e.mcintosh@imperial.ac.uk

References available at www.jpeds.com

References

1. Kestenbaum LA, Feemster KA. Identifying and addressing vaccine hesitancy. Pediatr Ann 2015;44:e71-5.
2. Salmon DA, Dudley MZ, Glanz JM, Omer SB. Vaccine hesitancy: causes, consequences, and a call to action. Am J Prev Med 2015;49(6 Suppl 4):S391-8.
3. Henrikson NB, Opel DJ, Grothaus L, Nelson J, Scrol A, Dunn J, et al. Physician communication training and parental vaccine hesitancy: a randomized trial. Pediatrics 2015;136:70-9.
4. Dube E, Gagnon D, Nickels E, Jeram S, Schuster M. Mapping vaccine hesitancy—country-specific characteristics of a global phenomenon. Vaccine 2014;32:6649-54.
5. World Health Organization. Addressing vaccine hesitancy. http://www.who.int/immunization/programmes_systems/vaccine_hesitancy/en/. Accessed May 22, 2016.
6. Stefanoff P, Mamelund SE, Robinson M, Netterlid E, Tuells J, Bergsaker MA, et al. Tracking parental attitudes on vaccination across European countries: the Vaccine Safety, Attitudes, Training and Communication Project (VACSATC). Vaccine 2010;28:5731-7.
7. Larson HJ, Jarrett C, Eckersberger E, Smith DM, Paterson P. Understanding vaccine hesitancy around vaccines and vaccination from a global perspective: a systematic review of published literature, 2007-2012. Vaccine 2014;32:2150-9.
8. Gilkey MB, Magnus BE, Reiter PL, McRee AL, Dempsey AF, Brewer NT. The Vaccination Confidence Scale: a brief measure of parents' vaccination beliefs. Vaccine 2014;32:6259-65.
9. World Health Organization. Immunization, vaccines, and biologicals. SAGE meeting of October 2014. http://www.who.int/immunization/sage/meetings/2014/october/en/. Accessed May 23, 2016.
10. Akmatov MK, Kretzschmar M, Krämer A, Mikolajczyk RT. Timeliness of vaccination and its effects on fraction of vaccinated population. Vaccine 2008;26:3805-11.
11. Wakefield AJ, Murch SH, Anthony A, Linnell J, Casson DM, Malik M, et al. RETRACTED: Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children. Lancet 1998;351:637-41.
12. Gahr P, DeVries AS, Wallace G, Miller C, Kenyon C, Sweet K, et al. An outbreak of measles in an under vaccinated community. Pediatrics 2014;134:e220-8.
13. Curran D, Terlinden A, Poirrier JE, Masseria C, Krishnarajah G. Vaccine timeliness: a cost analysis of the potential implications of delayed pertussis vaccination in the US. Pediatr Infect Dis J 2016;35:542-7.
14. Greenfield LS, Page LC, Kay M, Li-Vollmer M, Breuner CC, Duchin JS. Strategies for increasing adolescent immunizations in diverse ethnic communities. J Adolesc Health 2015;56(Suppl 5):S47-53.
15. Siminovitch KA. The new immunology. J Reconstr Microsurg 1992;8:121-9.

Table I. Consequences of vaccine hesitancy and refusal

Hesitancy and refusal	Vaccination	Risk	Consequences
Nil	On-time	Low	Good individual and herd protection
Nil (unavoidable)	Delayed	Low	Good individual and herd protection
Mild hesitancy	Delayed	Low	Good individual protection
Moderate hesitancy	Delayed	Moderate	Need for advice and re-education
Refusal	Nil	Moderate	Need for active intervention
Refusal with media and social media activity	Nil – but also negative impact on others	High	Active and urgent rebuttal; public health intervention

Table II. Possible interventions identified to combat vaccine hesitancy and refusal

- Interactive social media tools
- Social marketing
- Use of digital surveillance and mobile apps by public health officials
- Targeting childbearing women and new mothers
- Culturally tailored information for diverse ethnic populations
- A multidisciplinary approach
- Dispelling false contraindications

EUROPEAN PAEDIATRIC ASSOCIATION

The Role of Pediatricians in Caring for the Well-Being of Children Living in New Types of Families

Pietro Ferrara, MD[1,2,3], Giovanni Corsello, MD[1,4,5], Annamaria Sbordone, MD[3], Costanza Cutrona, MD[3],
Jochen Ehrich, MD, DCMT[4,6], and Massimo Pettoello-Mantovani, MD, PhD[1,4,7]

Each person is born into a family characterized by different biological and cultural bonds. Close clan structures developed and persisted in the majority of countries, especially in times and areas of environmental danger, because they can best protect individual family members. On the other hand, clans are based on collectivism and conformism, which are roots of inequality concerning socialization, education, and health care. The long-term success of a clan depends on the number and health of offspring, and thus, the protection and support of children should be at the center of collectivist desires.

Decreasing social and economic insecurity typically leads to the development of individualistic desires of adults, and consequent changes in the structures of families.[1,2] Individuality is an important human and social asset, and a driving force for authenticity and creativity of the mature members of the society. Nonetheless, it should not be forgotten that the rights and well-being of children must always remain at the center of the adult activities to guarantee social success.

The model of two biological parents with 1-4 children, which emerged as the "modern" family in the Western world after the Industrial Revolution,[1,2] has evolved in recent years after remaining relatively stable for many decades under constraints of various social and economic limitations. These changes can be attributed to several factors, including high divorce rates and heterogeneous family structures, that extend beyond biological or conjugal relationship boundaries.[3,4] These factors have been investigated over the years for possible psychological and physical risk factors to child health, which require further attention.

Pediatricians are on the front line of child care and advocacy, and it is their role to promote children's well-being and to help parents raise healthy children, independent of the configuration of their families. This report aims to draw attention to the evolving social scenarios and to emphasize that pediatricians must be trained to coordinate new challenges that may arise from differently configured families, particularly single-parent and same-sex–parent families.

Single-Parent and Same-Sex–Parent Families

Statistics show that the percentage of single-parent families has increased significantly in recent years in the Western world. Forty percent of all children born in the US in 2007 were born to unwed parents,[5] and an identical percentage was recorded in 2012 for the countries of the European Union.[6] However, the "single-parent family" definition has been speculated to be reductive, because the data reported under this classification may mask the possibility that various types of diverse families could be incorporated by this term, including divorced, cohabiting, teenage mother families, single by choice, and lesbian.[7]

The structure of same-sex–parented families is variable, including homosexuals who became parents in the context of a previous heterosexual relationships and those who became parents in the context of a same-sex relationship.[8] Same-sex couples may have children by adoption, foster parenting, or with the use of reproductive technology and surrogacy.[9] Currently, a large number of children are raised by same-sex couples. In 2005, more than 270 000 children in the US were reported to live in households under the care of same-sex couples, and in 2015 more than 120 000 same-sex married couples raised children.[10] In a notable social phenomenon, reported in 2012 by the University of California at Los Angeles Williams Institute, as the overall percentage of same-sex couples raising children declines, those adopting almost doubles. The report[10] attributed this finding to the decrease in parenting by lesbian, gay, bisexual, and transgender (LGBT) individuals who had children at a relatively young age while in a relationship with a different-sex partner. Data from Europe are scarce and mostly fragmented, owing to a substantial and generalized diversity and multiplicity of laws and regulations, which are obstacles to the collection of reliable statistics. These couples and their children are, in general, subjected to legal and social disparities, which certainly have an impact on the well-being of the children.[11]

There is also an ongoing public debate on postulated potential negative impacts of same-sex parenting on children. However, regardless of the outcome of such debates, pediatricians should carefully and plainly interact with the minors' caregivers and focus on promoting optimal physical, mental, and social health and well-being for all infants, children, and adolescents being raised in all families, irrespective of their configuration.

LGBT	Lesbian, gay, bisexual, and transgender

From the [1]Italian Society of Pediatrics, Rome, Italy; [2]Institute of Pediatrics, Catholic University Medical School, Rome, Italy; [3]Campus Bio-Medico University Medical School, Rome, Italy; [4]European Paediatric Association–Union of National European Paediatric Societies and Associations, Berlin, Germany; [5]Institute of Pediatrics, University of Palermo, Palermo, Italy; [6]Children's Hospital, Hannover Medical School, Hannover, Germany; and [7]Institute of Pediatrics, University of Foggia, Istituto di Ricovero e Cura a Carattere Scientifico "Casa Sollievo", Foggia, Italy

The authors declare no conflicts of interest.

http://dx.doi.org10.1016/j.jpeds.2016.06.064

Diversity of Legal and Policy Contexts for Diverse Families and Their Children in Europe and the US

The legal recognition of same-sex marriage and parenthood has been the subject of vigorous public debates worldwide during recent years. Legal and policy contexts for diverse families, including lesbian and gay parents and their children, are remarkably variable in Western countries, creating a significant disparity of rights between states, which particularly impact the well-being of children.

In 2013 in the US, an estimated 8.2 million adults self-identified as LGBT, and 6 million children and adults had an LGBT parent.[12] For instance, considering data from the US and the European Union, almost 14 million children have been born into lesbian families.[13] Among the scarce available data for Europe, the Polish Institute of Psychology National Academy of Science reports that 9% of homosexuals living in Poland were parents in 2014.[14]

In Europe, full joint adoption by same-sex couples is currently permitted in 15 of 51 countries.[15] In Germany, Estonia, and Slovenia, adoption of stepchildren by same-sex couples has been legalized. Furthermore, in Germany, the partner also can adopt the adopted child of his or her partner. A similar institution, called partner-guardianship, exists in Croatia.[15] In Italy, the debate about the legalization of same-sex civil unions and stepchild adoption is currently under consideration by legislators. In the US, adoption by same-sex couples has been permitted in all 50 states since March 2016, when a federal judge granted a preliminary injunction to bar Mississippi from carrying out its law preventing same sex-couples from adopting.

The Open Debate on the Well-Being of Children Raised by Heterosexual Versus Homosexual Couples

Children's psychosocial development is linked both to their relationships with parents and the sociocultural context in which they live.[16] Over the past decades, several studies have focused on a possible causal relationship between parents' sexual orientation and children's emotional, psychosocial, and behavioral development.[17,18] The debate on this topic remains open.[19] Some studies report that the offspring of homosexual parents could face greater difficulties than children of heterosexual parents.[17] According to these studies, these difficulties are linked to instability, emotional upset, secrecy, own sexual preferences, and ideas on marriage and having children. A more consistent number of studies show no significant differences between children raised by same-sex or different-sex families. Their findings indicate that children of homosexual parents are no different from children of heterosexual parents in terms of psychological health; development of sexual and gender identity; sexual orientation; psychiatric, emotional, or behavioral problems; social life; intelligence; self-concept; locus of control; moral judgment; school adjustment; victimization; substance use; and delinquency.[8,9] Furthermore, these studies indicate the risk of sexual abuse to be lower for children living in homosexual families, considering that abusers are often male heterosexuals, and that children of homosexual parents may be more tolerant of diversity,[8] having also normal relationships with peers and adults outside of family members.[9]

Children-focused time is also an important factor implicated in the effects of family structure on children. Studies of parents' attitudes report that parents in same-sex relationships spend more time with and for children than parents in different-sex relationships, and that children of homosexual and heterosexual parents experience approximately 3.5 and 2.5 hours of time investment per day, respectively.[20] However, other studies comparing homosexual and heterosexual parents have shown no differences between the two groups in problem-solving, providing recreation, or encouraging autonomy.[8]

Studies conducted of lesbian mothers are more numerous than those conducted of gay fathers. A comparison of adolescents belonging to lesbian and heterosexual families found no significant differences in internalizing and externalizing problems.[18,21] However, the majority of the studies in this area indicate that several limitations that should be emphasized, including a lack of long-term follow-up and the fact that many studies of same-sex families rely on convenience samples, and that same-sex families may be more selective than other families because the children studied included those from adoption, artificial insemination, or divorce.[20]

Conclusion

As society and culture have progressively changed in Western Europe, different configurations of families have emerged, and the traditional model of parenting has been replaced by new types of family frameworks characterized by different configurations, beliefs, cultural norms, and personal practices.[22] With regard to the results of the studies and their limitations reported above, and the debates still open within the civil society of adults on children growing up in diverse families, it is important to emphasize that children's well-being relies primarily on the parents' competence and sense of security, as well as the presence of social and economic support for the family.[11] Psychological and physical health are not so much based on the gender or the sexual orientation of their parents.

Pediatricians should be trained to play a major role in caring for and supporting the social and developmental well-being of children raised in variously configured families. They should listen to all families and actively work with them to offer support, stability, and security, and to remove prejudices and disparities resulting from the existence of marriage inequalities and the presence or absence of legal parental recognition of infants, children, and adolescents. In particular, pediatricians must assist parents in answering questions related to sexuality and reproduction. The families should seek advice from other caregivers in case of controversies between them and pediatricians who cannot accept the new lifestyles for whatever reason.[8]

The European Paediatric Association–Union of National European Societies and Associations (EPA–UNEPSA) is committed to advocate for infants, children, and adolescents, irrespective of their family configuration, opposing any discrimination of families based on sexual orientation, and collaborating with policy makers and legislators to eradicate any form of interfamily inequality. ■

Reprint requests: Pietro Ferrara, MD, Institute of Pediatrics, Catholic University Medical School, Largo A. Gemelli, 8-00168 Rome, Italy. E-mail: pietro.ferrara@unicatt.it

References available at www.jpeds.com

References

1. Burgess EW. The function of socialization in social evolution. Chicago (IL): University of Chicago Press; 1916.
2. Burgess EW. Aging in western culture. In: Burgess EW, ed. Aging in western societies. Chicago (IL): University of Chicago Press; 1960. p. 3-28.
3. Parsons T. The social structure of the family. In: Anshen RN, ed. The family: its functions and destiny. New York (NY): Harper; 1944. p. 173-201.
4. Popenoe D. American family decline, 1960-1990: a review and appraisal. J Marriage Fam 1993;55:527-55.
5. Waldfogel J, Craigie TA, Brooks-Gunn J. Fragile families and child well-being. Future Child 2010;20:87-112.
6. European Commission. EUROSTAT. Statistics explained. Marriage and birth statistics – new ways of living together in the EU. http://ec.europa.eu/eurostat/statistics-explained/index.php/Marriage_and_birth_statistics_-_new_ways_of_living_together_in_the_EU. Accessed July 7, 2016.
7. Aronson SR, Huston AC. The mother-infant relationship in single, cohabiting, and married families: a case for marriage? J Fam Psychol 2004;18:5-18.
8. Gold MA, Perrin EC, Futterman D, Friedman SB. Children of gay or lesbian parents. Pediatr Rev 1994;15:354-8.
9. Patterson CJ. Children of lesbian and gay parents: psychology, law, and policy. Am Psychol 2009;64:727-36.
10. Gates GJ, Brown TNT. Marriage and same-sex couples after *Obergefell*. Williams Institute, UCLA School of Law. http://williamsinstitute.law.ucla.edu/wp-content/uploads/Marriage-and-Same-sex-Couples-after-Obergefell-November-2015.pdf. Accessed June 2, 2016.
11. American Academy of Pediatrics, Committee on Psychosocial Aspects of Child and Family Health. Promoting the well-being of children whose parents are gay or lesbian. Pediatrics 2013;131:827-30.
12. Gates GJ. LGBT parenting in the United States. Williams Institute, UCLA School of Law. http://williamsinstitute.law.ucla.edu/wp-content/uploads/LGBT-Parenting.pdf. Accessed June 2, 2016.
13. Bos HM, Gartrell NK, van Balen F, Peyser H, Sandfort TG. Children in planned lesbian families: a cross-cultural comparison between the United States and the Netherlands. Am J Orthopsychiatry 2008;78:211-9.
14. New Poland Express. 100,000 gay parents in Poland. http://www.newpolandexpress.pl/polish_news_story-6858-100000_gay_parents_in_poland.php. Accessed June 2, 2016.
15. EUNEWS. Stepchild adoption, ecco come gli omosessuali possono adottare in Europa. http://www.eunews.it/2015/10/22/stepchild-adoption-ecco-come-gli-omosessuali-possono-adottare-europa/43767 [in Italian]. Accessed June 2, 2016.
16. van Rijn-van Gelderen L, Bos HM, Gartrell NK. Dutch adolescents from lesbian-parent families: how do they compare to peers with heterosexual parents and what is the impact of homophobic stigmatization? J Adolesc 2015;40:65-73.
17. Cameron P, Cameron K. Children of homosexual parents report childhood difficulties. Psychol Rep 2002;90:71-82.
18. Golombok S, Perry B, Burston A, Murray C, Mooney-Somers J, Stevens M, et al. Children with lesbian parents: a community study. Dev Psychol 2003;39:20-33.
19. Regnerus M. How different are the adult children of parents who have same-sex relationships? Findings from the New Family Structures Study. Soc Sci Res 2012;41:752-70.
20. Prickett KC, Martin-Storey A, Crosnoe R. A research note on time with children in different- and same-sex two-parent families. Demography 2015;52:905-18.
21. Bos HM, van Balen F, van den Boom DC. Lesbian families and family functioning: an overview. Patient Educ Couns 2005;59:263-75.
22. Farr RH, Patterson CJ. Coparenting among lesbian, gay, and heterosexual couples: associations with adopted children's outcomes. Child Dev 2013;84:1226-40.

Views of the Presidents of National European Pediatric Societies on Evolving Challenges of Child Health Care

Jochen H.H. Ehrich, MD, DCMT[1,2], and Massimo Pettoello-Mantovani, MD[1,3]

To demonstrate the evolving challenges and policies of child health care in Europe, we summarize the conclusions of the delegates at a symposium on diversity of child health care, which took place at the seventh EUROPAEDIATRICS, the biannual congress of European Paediatric Association/Union of National European Paediatric Societies and Associations (EPA/UNEPSA), held in Florence, Italy, 2015. Previous studies of EPA/UNEPSA had focused on diversity of existing national child health service systems across Europe.[1,2] Before EUROPAEDIATRICS 2015, a questionnaire was sent to 49 presidents of national pediatric societies belonging both to European Union (EU) and to European non–EU-member countries. The questionnaire inquired about new challenges of national child health care, as well as positive achievements and unsolved problems of national child health care services. Complete responses to the questionnaire were received from 21 countries and partial responses from another 21 countries. Sixteen responders were invited to present part of their data during the Florence symposium on "diversity of child health care in Europe." The symposium was attended by 56 discussants from 22 countries. The participants identified what they perceived to be the most urgent issues of shared interest for child health care in Europe based on facts, opinions, and policies.

Challenges in Child Care Services and Role of Pediatricians

The poor organization of first-access care for children for nights and weekends was found to be the Achilles heel of primary care, leading to an increased risk of inadequate care by physicians with a lack of training in pediatrics. Second, inadequate referral of young patients to outpatient clinics in children's hospitals was emphasized to be an important vulnerable element of child care, which may lead to unnecessary admissions of patients and further workload for hospital teams. In addition, most European countries reported to lack well-established pathways for a child with common conditions such as earache during out-of-working hours. Thus, it was further emphasized that classic questions like "who, where, when, how, why" would need to be resolved in all those areas—especially rural ones—where an adequate service is not offered during nights and weekends.

EPA/UNEPSA	European Paediatric Association/Union of National European Paediatric Societies and Associations
EU	European Union
GP	General practitioner

Following up on a debate that has engaged experts and policy makers during recent years, a long general discussion developed on who should be responsible for the first access care—equally the pediatrician and the general practitioner (GP), the pediatrician alone, the GP alone, or a multidisciplinary team of different care givers. European experts reported that ongoing discussion on such issues are taking place at government level in many countries, frequently urged by economic constrains and depending by local circumstances. These discussions aim at replacing solo pediatric practices with solo GPs or teams of care givers including pediatricians, GPs, nurse practitioners, social nurses, psychologists, etc, to cope with old and new morbidities in stand-alone community practices or in polyclinics, which may or may not be attached to hospitals. It was agreed that the funding of care givers in these joint services was a problem to be solved in those countries with a health insurance system, and it was also observed that the economic challenge would probably be less critical in countries with a national health system and a fixed salary given by the state to all different care givers.

There was consent among the majority of delegates that more severely ill children should be taken at any time of the day or week directly to the outpatient department of local general hospitals—offering immediate point-of-care diagnostic methods—where they will be initially assessed by a nurse, and then a doctor in postgraduate training (eg, internal medicine) supported by a career grade emergency doctor and a senior physician on call.

Pediatric emergency care generally is synonymous with a telephone call to general emergency services, such as the fire brigade, to summon an ambulance. Ambulance crews vary in their competence managing children, but a seriously ill child will be prioritized for a paramedic service and, if necessary, initial resuscitation can start at arrival on site. Few countries offer a nationwide helicopter emergency service. The child will be taken to the emergency department of a children's hospital or a pediatric unit of a general hospital, where the child will initially be seen by emergency department staff with some pediatric training and, if necessary, an anesthetic team if the child requires resuscitation and ventilation. If the child

---

From the [1]European Paediatric Association/Union of National European Paediatric Societies and Associations (EPA/UNEPSA), Berlin, Germany; [2]Children's Hospital, Hannover Medical School, Hannover, Germany; and [3]Institute of Pediatrics, University of Foggia, IRCCS "Casa Sollievo", Foggia, Italy

The authors declare no conflicts of interest.

0022-3476/$ - see front matter. © 2016 Published by Elsevier Inc.
http://dx.doi.org10.1016/j.jpeds.2016.04.090

requires immediate pediatric intensive care, then a transport team from the local regional intensive care unit may be summoned to transfer the child to intensive care. There was no "one-fits-all solution" for the use of a triage system by telephone service given by specialized nurses or pediatricians. In general, great concern was expressed by European pediatricians about the risk of the vanishing primary care pediatrician as the gate keeper of child health care.

Establishing Comparable Pediatric Postgraduate Education Systems across Europe

In a parallel related symposium held by the European Young Pediatricians' Association during EUROPAEDIATRICS 2015, among the major issues that became apparent was the varying postgraduate training modalities and the discrepancies between the structures of training programs and examinations across Europe.[2-4] It was also emphasized that "entry requirements and competition to attain resident places or training numbers also varied."[3] In some countries, for instance Macedonia, trainees are faced with a state residency program and a private residency program, where they have to pay for their specialization in pediatrics and although working full-time at children's hospitals or polyclinics, they will not receive a salary. Those who do get paid in a state residency program must sign a "loyalty contract," which states that they will remain to work in that specific institution for up to 10 years; otherwise, they are forced to pay back up to 5-fold of the sum of the fee for specialization (up to 60 000 Euro).[5] In addition, young Macedonian doctors disagree with the law that requests mandatory video filming and online streaming of all examinations they perform because they believe that the law breaks their right on privacy.[6]

If the current training programs in Europe fail to attract sufficient numbers of candidates for pediatric care, the alarmingly high mean age of practicing pediatricians will increase further. On the basis of the current number of pediatricians being fully trained annually and those having retired in the same year, 37% of national presidents reported to the EPA survey that their national pediatric workforce will decrease soon to such an extent that both primary pediatric care and highly specialized pediatric care will be endangered. Assuming that the mean duration of a pediatric working life is 30 years, there is an annual need to replace 3.3% of all practicing pediatricians by a young qualified pediatrician to maintain a steady state of pediatric care. This calculation includes to a certain extent factors such as feminization of the workforce, part-time working, early retirement, changing specialties, and immigration. It was concluded that countries with a percentage of newly trained pediatrician less than 2%-3% of all practicing pediatricians (or less than approximately 25 new pediatricians per 1 million child population) will have to rely on migrant pediatricians or on other health care givers (eg, GPs or children's nurses replacing pediatricians). This conclusion has raised considerable concern among pediatricians, which resulted in the following statement: "Pediatric doctors in training have a sense of pride in what they do,"[3] which should be kept in consideration by local legislators. In summary, junior doctors are part of the foundation of child health care systems; without them the systems would collapse.[3]

The Vanishing Pediatric Researcher in Europe

The symposium on diversity also discussed several aspects related to the question of whether the European pediatric scientist is vanishing.[6] Reports from congress participants emphasized that scientific career planning in pediatric research has either not fully developed or is endangered in several European countries. It was observed that particularly since the second part of the past century, pediatric research in Europe has developed at a slower pace compared with other areas of the Western world, as it has been generally and progressively less supported by governments and scarcely funded by private capital. For example, because of symmetrically opposite reasons, the US has grown to become a global leader in biomedical research and discovery, positively impacting child health.[7,8] Furthermore, the wide gap of pediatric research activities between Eastern and Western European countries was emphasized.[9] Even in EU countries, there is a lack of financial support for pediatric research through EU projects such as "Horizon 2020" if compared with research in the elderly population.[10] The participants of EUROPAEDIATRICS 2015 discussed the hypothesis that quality of pediatric research may reflect to a certain extent the quality of clinical care in a given country. It was concluded that pediatric research activities in Europe should take a life course perspective on child development, health and disease, thus aiming at increasing pediatric research activities in different levels. It also was concluded that public health research on child care had been one of the most neglected types of research in Europe, particularly during recent years. The specific role of different pediatric institutions in research activities in child health care is shown in the **Table** (available at www.jpeds.com). Child health research projects should therefore not be categorized as specifically "pediatric." Instead, they should become integrated into long term health care projects involving all age groups.

Conclusions

The delegates of the national European pediatric societies assigned to the Scientific Advisory Board of EPA/UNEPSA the task of summarizing the conclusions that emerged during the plenary discussions. They have also proposed that EPA/UNEPSA should focus on further investigating and analyzing the reasons underlying of the present situation, and on exploring possible solutions to improve the current state of child health care in Europe. ■

Reprint requests: Professor Jochen H. H. Ehrich, MD, DCMT, Children's Hospital, Hannover Medical School, Carl Neuberg Str. 1, Hannover, Germany. E-mail: Ehrich.jochen@mh-hannover.de

References available at www.jpeds.com

Table. The role of different types of pediatricians in research projects

	Type of research			
Type of pediatrician	Basic	Translational	Clinical	Public health
Neonatologists and obstetricians	Yes	Yes	Yes	Yes
Community care pediatricians	None	None	Yes	Yes
Hospital pediatricians	None	Yes	Yes	Yes
Pediatricians in highly specialized centers of competence	Yes	Yes	Yes	Yes

References

1. Ehrich J, Namazova-Baranova L, Pettoello-Mantovani M. Introduction to “Diversity of Child Health Care in Europe: A study of the European Paediatric Association/Union of National European Paediatric Societies and Associations”. J Pediatr 2016;177S:S1-0.
2. Ehrich J, Tenore A, del Torso S, Pettoello-Mantovani M, Lento S, Grossman Z. Diversity of pediatric workforce and education in 2012 in Europe: a need for unifying concepts or accepting enjoyable differences? J Pediatr 2015;167:471-6.
3. Gray S, Raschetti R, Faruk Beser O, Urenden Elicin P, Aversa S, Pamuk G, et al. European Young Pediatricians Association: laying the foundations for collaboration, integration, and networking among pediatricians of the future. J Pediatr 2016;171:324-5.e1.
4. Pettoello-Mantovani M, Ehrich J, Romondia A, Nigri L, Pettoello-Mantovani L, Giardino I. Diversity and differences of postgraduate training in general and subspecialty pediatrics in the European Union. J Pediatr 2014;165:424-6.e2.
5. Ministry of Health, Republic of Macedonia. Documents. http://zdravstvo.gov.mk/wp-content/uploads/2015/10/0-ZAKON-ZA-ZDRAVSTVENATA-ZASHTITA.pdf. Accessed April 11, 2016.
6. Macedonian Medical Residents Organization. Specijalizanti MF- UKIM. https://www.facebook.com/MFspecijalizantiUKIM. Accessed April 11, 2016.
7. Schafer AI. The vanishing physician scientist? Transl Res 2010;155:1-2.
8. Shurin SB, Castle P. United States biomedical research impacting child health and the growth of the national institutes of health funding to pediatric departments and children’s hospitals. J Pediatr 2014;164:1248-9.
9. Friedman A, Ehrich J, Chevalier R, Jones S. A history of the International Pediatric Nephrology Association (IPNA). Pediatr Nephrol 2012;27:695.
10. Galsworthy M, McKee M. Europe’s ‘Horizon 2020’ science funding programme: how is it shaping up? J Health Serv Res Policy 2013;18:182-5.

Working with the Union of National European Pediatric Societies and Associations in “Building Bridges Across Europe”: The Eighth EUROPAEDIATRICS, Bucharest, Romania, June 7-10, 2017

Massimo Pettoello-Mantovani, MD, PhD[1,2], Leyla Namazova-Baranova, MD[1,3], Julije Mestrovic, MD, PhD[1,4], Eli Somekh, MD[1,5], and Jochen Ehrich, MD, DCMT[1,6]

The eighth EUROPAEDIATRICS, the biannual international congress of the European Paediatric Association, Union of European Paediatric Societies and Associations (EPA/UNEPSA), will take place June 7-10, 2017, in Bucharest, Romania. It will be supported by 49 leading national pediatric societies and associations that are members of EPA/UNEPSA.

In recent years, Europe and the entire world have experienced unprecedented economic and social changes that have affected health care services in many countries. The general perspectives that were foreseen at the beginning of the new millennium had to be remodeled to adapt to these new conditions. Pediatric science and health care in Europe and in the rest of the world underwent similar processes.

A different world requires new approaches to and strategies for pediatric science and practice. EUROPAEDIATRICS 2017 provides an opportunity to continue assessing and updating the status of pediatric science and health care in Europe, thus making its countries ready to meet new and often unexpected challenges. In fact, EPA/UNEPSA strongly believes that the eighth EUROPAEDIATRICS will offer a safe place and a sound scientific and ethical basis for discussing new perspectives in various areas of pediatrics, including education, health care, and policy.

EUROPAEDIATRICS reflects the main objective of EPA/UNEPSA to encourage scientific cooperation between the leading not-for-profit national pediatric societies/associations and European pediatricians working in primary, secondary, and tertiary pediatric care to promote child health and comprehensive pediatric care and to strengthen international social responsibility.

EPA/UNEPSA’s Founding Principles of Building Scientific Bridges Across Europe

Founded 41 years ago with the purpose of building scientific bridges between eastern and western Europe, which were then separated by the so-called “iron curtain,”[1] EPA/UNEPSA currently represents 49 national pediatric societies and associations and operates on a nonprofit basis. Its founding beliefs and mission, as well as its original vision, values, and principles remain in place (**Tables I** and **II**; available at www.jpeds.com); however, today new political and socioeconomic crises and catastrophes in Europe are having a negative impact on the health and care of European children. Therefore, the motto of the eighth EUROPAEDIATRICS is “building **new** bridges across Europe.” This entails building and rebuilding bridges across cultures, across the existing national pediatric health care systems, and across medical disciplines and different ways of delivering health education.

Fundamental aspects of EPA/UNEPSA’s role as the leading pan-European union of national pediatric societies and associations are to understand and embrace diversity, and to foster the exchange of information and cooperation among European pediatricians, enabling them to exchange experiences and share best practices in the spirit of international social responsibility. The existing inequalities in the health status of children and adolescents throughout Europe are unacceptable and should be of common concern to all scientific pediatric societies.

Unfortunately, the health of pediatric patients is rather rarely discussed by others than parents and physicians. It may be argued that children and adolescents are the healthiest segment of any country’s population and, thus, their health assessment is of less concern for the health care system compared with the rest of the population. A downside of this seemingly positive circumstance may be that it may provide legislators and administrators with a justifiable reason for reducing investments in child health and child health care systems throughout Europe. This was particularly true during the economic downturn that followed the 2008 worldwide financial turmoil. Unfortunately, the long-term effects of such negative political decisions regarding pediatric health care will be fully apparent only several years from now, and it is easy to predict declines in European children’s health and in the quality of services dedicated to their care.

EPA/UNEPSA	European Paediatric Association, Union of National Paediatric Societies and Associations

From the [1]European Paediatric Association–Union of National European Paediatric Societies and Associations, Berlin, Germany; [2]Clinic of Pediatrics, Scientific Institute for Research and Health Care “Casa Sollievo”, University of Foggia, Foggia, Italy; [3]Federal State Budgetary Institution, Scientific Centre of Children’s Health, Moscow, Russia; [4]Pediatric Intensive Care Unit, Department of Pediatrics, University Hospital of Split, Medical School of Split, Split, Croatia; [5]Pediatric Infectious Diseases Unit, Wolfson Medical Center, Holon and Sackler School of Medicine, Tel Aviv University, Israel; and [6]Children’s Hospital, Hannover Medical School, Hannover, Germany

The authors declare no conflicts of interest.

http://dx.doi.org10.1016/j.jpeds.2016.08.029

Implementing Science, Research, Public Health Care, and Education Throughout Europe

The leading principle pursued by EPA/UNEPSA during its 41 active years has been to promote children's rights to health, equity, and social justice through the implementation of science, research, public health care, and education in the European nations, irrespective of their official political connotation or ideological position on delivering education and health care. We strongly believe that such an approach has contributed positively to the general development of interactions and scientific exchanges among European pediatricians, which has ultimately led to substantial improvements in the quality of pediatric science and practice throughout Europe over the last 3 decades. In fact, the development of a strong culture of international collaboration has been one of the most consistent success stories.

Why Bucharest for EUROPAEDIATRICS?

In a recent review, we triggered a debate about the future of international pediatric congresses and how they can better contribute to the education of pediatricians.[2] EPA/UNEPSA outlined some of the main dilemmas and challenges that must be tackled using innovative strategies for future pediatric congresses. We concluded that key elements of successful congresses include holding more meetings in resource-poor nations and focusing presentations on topics relevant to that nation and also to neighboring countries facing similar medical challenges. Therefore, international congresses and their speakers should engage with the locals at multiple levels, from clinical through policy. Presenting national success stories of child health care services to those pediatricians working in the emerging European countries is a rationale for EPA/UNEPSA planning the EUROPAEDIATRICS 2017 congress in Romania. Holding the event in Bucharest will allow many pediatricians from 23 eastern European countries to attend an international pediatric congress for the first time. Here they can meet with colleagues from other parts of the world and can learn about the past, present, and future of other national child health care services.

For example, the history of Turkish pediatric practice is a good indicator that pediatric care can reach high international standards within less than 25 years, if the organization of child health care is based on a strategy of unlimited communication between all caregivers, fruitful international cooperation, and a consensus of determined decision makers in society. Based on the introduction of the Latin alphabet and the empowerment of women promoted by the president, Kemal Ataturk, in the beginning of the 20th century, as well as on a movement toward increased academic freedom at the end of the century, the discovery of many genetic diseases in Turkey contributed to a better understanding of inherited and other very rare diseases. The close cooperation of Turkish pediatricians with international experts in molecular genetics and pediatrics has allowed the rapid growth of pediatric research. It is also fascinating to observe that the quality of pediatric research reflects the quality of clinical care in Turkey.[3] In summary, the rapid development of good clinical practice in Turkey has been based largely on international cooperation, and many Turkish pediatricians have traveled abroad to learn medical English, new scientific technologies, and other cultures. At the beginning of the 21st century, the Turkish "economic miracle" allowed the introduction of high-tech equipment in both hospitals and laboratories. The achievements of the founding Turkish generation included participation at international congresses, including the Organization of European Congresses of Pediatrics in Istanbul, and the active cooperation of leading Turkish pediatricians with experts in international pediatric societies and associations.

Thus, the new generation of Turkish pediatricians was provided with a solid basis of independent and critical thinking, including the demand for academic freedom to achieve the mission outlined by the pediatric pioneers. If this high standard of culture persists and is not endangered by any limitations to personal and academic freedom, or any restrictions on critical thinking, then the new generation can confidently aim to improve the accuracy of diagnosis, as well as the availability and accessibility of health care, to guarantee equity and efficacy of health care for all Turkish children.

Conclusions

EUROPAEDIATRICS 2017 has the particular potential to identify and address differences in pediatric policy and practice among nations. There is ample evidence to suggest that effective learning depends on active participation rather than passive engagement. The evolution from passive to active learning requires a significant change in thinking and practice by the typical scientific program committees. We believe that the next EUROPAEDIATRICS meeting in Bucharest will offer the opportunity for speakers and participants to develop fruitful professional partnerships. Furthermore, there also is an increasing evidence base regarding the efficacy, efficiency, and overall impact of different teaching and learning methods in health care. Participants from more developed and affluent countries may witness the rapid progress of medical services in low-resource countries and be inspired to develop new services. Finally, this conference also may encourage cooperation among countries in providing cutting-edge medical services for patients. ■

Reprint requests: Massimo Pettoello-Mantovani, MD, PhD, Institute of Pediatrics, University of Foggia, Viale Pinto, 1, 71100 Foggia, Italy. E-mail: mpm@unfig.it or massimo.pettoellomantovani@unifg.it.

References

1. History guide. Lectures on twentieth century Europe. http://www.historyguide.org/europe/churchill.html. Accessed July 25, 2016.
2. Ehrich J, Stengritt D, Jaeger D, Namazova-Baranova L, Pettoello-Mantovani M, Lenton S. The dilemma of International Pediatric Congresses in Europe: starting the debate. J Pediatr 2015;166:504-6.
3. Gur Guven A, Bakkaloglu A, Ehrich J. The history of Turkish pediatric nephrology: founding and success story. Turk Neph Dial Transpl 2013;22:137-47.

Table I. Mission and objectives of the EPA/UNEPSA

Mission

To provide a common platform for all general pediatricians in Europe that can offer the necessary tools to keep up to date and feel empowered to achieve their personal professional endeavors.

Objectives

1. Encouraging scientific cooperation among not-for-profit national pediatric societies/associations in Europe and among European pediatricians working in primary, secondary, and tertiary pediatric care in Europe to promote child health and comprehensive pediatric care.
2. Promoting education of patients, families, and caregivers by translating specialist knowledge to generalists.
3. Promoting research in child health care services in Europe by charitable measures, nonprofit-making projects, and activities of benefit to the public.
4. Improving the quality of pediatric patient care in all European countries, including both member and nonmember states of the European Union, through adequate clinical research and implementation of research into practice. EPA/UNESPA pursues a pan-European approach to reduce differences in child health care and improve the quality of care.
5. Promoting the exchange of national experiences in the various fields of patient care and making national practices and science known to others; obtaining information about pediatrics from national societies and associations, and making it available to EPA/UNEPSA members.
6. Cooperating scientifically with other not-for-profit pediatric associations worldwide, the World Health Organization, the United Nations International Children's Emergency Fund, the World Bank, and other national and international organizations, foundations, and other statutory corporations and institutions operating in the field of public health care.
7. Organizing and arranging educational congresses for its members and meetings of the presidents of European national pediatric societies/associations to develop strategies aimed at improving pediatric education.
8. Implementing policies that promote pediatric health care, and forming ad hoc expert committees to study and make recommendations on important issues of pediatric interest in Europe.
9. Representing European pediatricians in relation to the International Pediatric Association as the sole pediatric organization representing geographic Europe.

Table II. Vision, values, and priorities of the EPA/UNEPSA

Vision

To be internationally perceived as the leading pediatric organization in Europe, representing operative standards for uniting pediatricians internationally and facilitating their joint efforts to work, learn, and grow together.

Values

The core values are based on the following factors:

- High quality in any activity performed
- Long and adequate experience of experts and team members
- A real understanding and knowledge of pediatrics and its impact on society
- Openness and transparency
- Global thinking and outreach
- Exchange of ideas and best practices for continuous development
- Equality across sexes, ages, nationalities, and religions
- Integrity to show respect toward all of those with which EPA/UNEPSA is privileged to work

Priorities

- Encouraging cooperation among national pediatric societies and associations throughout Europe
- Stimulating collaborative pediatric research in Europe
- Improving the quality of pediatric patient care in all European countries
- Promoting the exchange of national experiences in the various fields of patient care
- Cooperating with pediatric associations worldwide, the World Health Organization, and UNICEF
- Organizing congresses and meetings to promote pediatric best practice for the benefit of children
- Representing European pediatricians in relation to the International Pediatric Association

Working with the Union of National European Pediatric Societies and Associations in "Building Bridges Across Europe": The Eighth EUROPAEDIATRICS, Bucharest, Romania, June 7-10, 2017 312.e1

EUROPEAN PAEDIATRIC ASSOCIATION

EUROPEAN PAEDIATRIC ASSOCIATION (EPA / UNEPSA)

Starting the Debate: Rethinking Well-Child Care in Europe

Oskar G. Jenni, MD

Preventive care of children and adolescents is a cornerstone of pediatrics and is provided by the healthcare systems of most European countries.[1,2] Well-child services are frequently linked to immunization schedules and generally include health supervision, surveillance and screening examinations, health advice, and anticipatory guidance. The structure of preventive care for children, however, varies greatly between countries.[2] In nations such as Sweden, the Netherlands, and the United Kingdom, well-child care is offered by interdisciplinary medical groups and public health service centers; in others, including Germany, Switzerland, and Austria, those mainly responsible for preventive care are primary care providers: pediatricians and general practitioners.[2] In fact, regular well-child visits comprise a substantial proportion of pediatric activities in these latter countries, accounting for 26% of all primary care visits and 37% of the total primary care time, according to the Zurich Private Practice study.[3]

Although the health problems of children and the concerns of parents have changed considerably since the introduction of preventive care follow-ups in European pediatrics about 40 years ago, the purposes, schedules, and contents of well-child visits have changed relatively little. Surveillance and screening examinations of physical and developmental abnormalities are still the first priority.[2] In recent decades, many have searched for improved tools for screening of physical, developmental, and behavioral disorders in children during well-child care. Yet, pediatricians often only use their clinical judgment for the screening of health and developmental problems, probably as the result of the many competing demands on their time during well-child visits.[3] The reliability, validity, and practicability of many screening methods are in any case often insufficient. In particular, the "new morbidities" of childhood, including attention deficit/hyperactivity, learning disabilities, language delay, and behavioral abnormalities, are difficult to reliably identify early in life but become highly prevalent as children grow older.[4] A recent study has reported that preventive care should consider information about psychosocial factors, such as parental education and health[5] for the identification of these high-prevalence, low-morbidity disorders rather than direct developmental and behavioral screening.

Shifting Priorities from Child-Centered Screening to Family-Focused Child Care

Given these thoughts, I feel strongly that preventive pediatrics should shift priorities away from the child-centered screening approach to family-focused anticipatory guidance, health advice, counseling, and psychosocial support. In the US, the discrepancies between the traditional screening examinations in pediatric offices and the present-day needs of children and their families have been recognized for quite some time.[6] Consequently, different strategies and tools for redesigning US well-child care have been studied and presented.[7] In contrast, there seem to be few discussions and debates in Europe about how well-child services should be constructed to meet the needs of today's families. This may well be attributable to the large differences between the child healthcare service systems of individual European nations.

In the Zurich Private Practice study, we examined pediatric primary care office visits over 3 consecutive days (3111 consultations, 74% sick-child visits and 26% well-child preventive visits) and found that screening of diseases, abnormalities, and developmental disorders are the main focus of well-child visits. More than 90% of parents, however, had their own agenda for the visit, asked a broad range of questions, and received health advice and anticipatory guidance.[3] Other studies have also indicated that parents seek guidance, advice, and counseling from well-child services.[8] Thus, pediatric well-child visits should be the occasion for providing information about child-rearing, offering anticipatory guidance, addressing areas of concern, providing access to social support, and developing ideas for potential improvements to the lives of children and their families.

Indeed, studies have confirmed that anticipatory guidance and health advice in pediatric care have beneficial effects on children and their families.[9] In a recent article, we summarized the results of 2 Anglo-American review papers and evaluated additional data about the importance and evidence of anticipatory guidance in pediatric practice.[9] For example, studies have shown that children consult emergency departments of pediatric hospitals 60% more often if they do not participate in well-child care.[10] Thus, anticipatory guidance may reduce parents' needs for clinical contact because of less severe concerns.[11] Furthermore, the findings of a meta-analysis show that providing parents with guidance on how to prevent injury at home significantly reduces the risk of accidents (mean risk reduction 18%[12]). A controlled clinical trial reported a correlation between reducing

From the Child Development Center and the Children's Research Center, University Children's Hospital Zurich, Zurich, Switzerland

The author declares no conflicts of interest.

0022-3476/$ - see front matter. © 2016 Elsevier Inc. All rights reserved.
http://dx.doi.org10.1016/j.jpeds.2016.08.082

anticipatory guidance in accident prevention for socially disadvantaged parents with a significantly greater risk of injury.[13] Another example of the success of anticipatory guidance is the Reach out and Read intervention.[14] Recommendations from the pediatrician during well-child visits to read out loud to preschool children has been shown to improve children's language competence.[14] Several studies have reported that delivering books during pediatric well-child visits and explaining the importance of reading aloud together resulted in increased reading (40% of children read more, compared with 16% in the control group) and general improvements in the children's language/speech development.[14-16] Furthermore, 2 controlled trials[17,18] showed that anticipatory guidance about children's sleep behavior and the provision of parental information materials during pediatric screening visits improved children's sleep (36% fewer nocturnal waking in the intervention group compared with controls). Moreover, nutrition counseling in the context of well-child care seems to have a positive influence on children's dietary habits in the long term and counteracts the development of overweight.[19] Consequently, expert panels have requested the implementation of anticipatory dietary guidance in screening visits.[20] Overall, the primary care setting and well-child visits provide a unique opportunity to distribute parenting education and interventions to enhance children's outcome[21] and may reduce nonurgent emergency department visits to pediatric clinics.[10,11]

The challenge remains, however, to put new models into practice. A systematic review in the US has presented strategies for a better preventive care delivery.[7] Coker et al[7] found that group arrangements in well-child visits (ie, groups of 4-6 families with similarly aged children), non–face-to-face formats for health advice and guidance, and including nonmedical professionals in well-child care can improve substantially the effectiveness and efficiency of preventive services.

Conclusions

Parents do the best they can to raise their children, but some are limited by educational, social, or psychological factors. Thus, the promotion and support of parental skills have the potential to substantially improve children's development and behavior. Parent-focused prevention should be moved to the core of pediatric primary care in Europe. To achieve this, the European national pediatric organizations are called to consider new models and interventions and redesign their well-child care processes.[7] Evidence-based guidelines are needed to provide developmental and behavioral health promotion and guidance for well-child care. Improved knowledge in parenting education should become an integral component of pediatric training programs. Notably, putting new models into practice depends on the availability of financial resources, but economic models of child development have expressed that there is a high return on investment when early childhood is supported.[22]

Preventive care in pediatrics offers the great opportunity to help parents do the best they can in raising their children. Thus, the way in which well-child care is delivered should be reconsidered, not only in the US[6] but also in Europe. The time is ripe. ■

Reprint requests: Oskar G. Jenni, MD, Child Development Center, Department of Pediatrics, University Children's Hospital, Steinwiesstrasse 75, CH-8032 Zürich, Switzerland. E-mail: Oskar.Jenni@kispi.uzh.ch

References available at www.jpeds.com

References

1. Helwig H. Harmonisierung der Vorsorgeprogramme in Europa. Sozialpädiatrie 1991;13:686-8.
2. Wieske RC, Nijnuis MG, Carmiggelt BC, Wagenaar-Fischer MM, Boere-Boonekamp MM. Preventive youth health care in 11 European countries: an exploratory analysis. Int J Public Health 2012;57:637-41.
3. Jenni OG, Sennhauser FH. Child health care in Switzerland. J Pediatr 2016;177S:S203-12.
4. Voigt RG, Accardo PJ. Mission impossible? Blaming primary care providers for not identifying the unidentifiable. Pediatrics 2016;138.
5. Nelson BB, Dudovitz RN, Coker TR, Barnert ES, Biely C, Li N, et al. Predictors of poor school readiness in children without developmental delay at age 2. Pediatrics 2016 Aug;138(2). pii: e20154477. doi: 10.1542/peds.2015-4477. Epub 2016 Jul 18.
6. Schor EL. Rethinking well-child care. Pediatrics 2004;114:210-6.
7. Coker TR, Windon A, Moreno C, Schuster MA, Chung PJ. Well-child care clinical practice redesign for young children: a systematic review of strategies and tools. Pediatrics 2013;131(suppl 1):S5-25.
8. Young KT, Davis K, Schoen C, Parker S. Listening to parents. A national survey of parents with young children. Arch Pediatr Adolesc Med 1998;152:255-62.
9. Weber P, Jenni OG. Screening in child health: studies of the efficacy and relevance of preventive care practices. Dtsch Arztebl Int 2012;109:431-5.
10. Hakim RB, Ronsaville DS. Effect of compliance with health supervision guidelines among US infants on emergency department visits. Arch Pediatr Adolesc Med 2002;156:1015-20.
11. Coker TR, Chacon S, Elliott MN, Bruno Y, Chavis T, Biely C, et al. A parent coach model for well-child care among low-income children: a randomized controlled trial. Pediatrics 2016;137:e20153013.
12. Kendrick D, Barlow J, Hampshire A, Stewart-Brown S, Polnay L. Parenting interventions and the prevention of unintentional injuries in childhood: systematic review and meta-analysis. Child Care Health Dev 2008;34:682-95.
13. Simon TD, Phibbs S, Dickinson LM, Kempe A, Steiner JF, Davidson AJ, et al. Less anticipatory guidance is associated with more subsequent injury visits among infants. Ambul Pediatr 2006;6:318-25.
14. Zuckerman B, Khandekar A. Reach Out and Read: evidence based approach to promoting early child development. Curr Opin Pediatr 2010;22:539-44.
15. High PC, LaGasse L, Becker S, Ahlgren I, Gardner A. Literacy promotion in primary care pediatrics: can we make a difference? Pediatrics 2000;105:927-34.
16. Golova N, Alario AJ, Vivier PM, Rodriguez M, High PC. Literacy promotion for Hispanic families in a primary care setting: a randomized, controlled trial. Pediatrics 1999;103:993-7.
17. Minkovitz CS, Hughart N, Strobino D, Scharfstein D, Grason H, Hou W, et al. A practice-based intervention to enhance quality of care in the first 3 years of life: the Healthy Steps for Young Children Program. JAMA 2003;290:3081-91.
18. Adachi Y, Sato C, Nishino N, Ohryoji F, Hayama J, Yamagami T. A brief parental education for shaping sleep habits in 4-month-old infants. Clin Med Res 2009;7:85-92.
19. Köhler S, Sichert-Heller W, Kersting M. Präventive Ernährungsberatung hat messbaren Erfolg. Eine randomisierte, kontrollierte Interventionsstudie zur Ernährung im 1. Lebensjahr. Monatsschr Kinderheilkd 2007;155:53-60.
20. August GP, Caprio S, Fennoy I, Freemark M, Kaufman FR, Lustig RH, et al. Prevention and treatment of pediatric obesity: an endocrine society clinical practice guideline based on expert opinion. J Clin Endocrinol Metab 2008;93:4576-99.
21. Shah R, Kennedy S, Clark MD, Bauer SC, Schwartz A. Primary care-based interventions to promote positive parenting behaviors: a meta-analysis. Pediatrics 2016;137.
22. Heckman JJ. Skill formation and the economics of investing in disadvantaged children. Science 2006;312:1900-2.