

# **Paediatric Health Survey** in Romania





# PAEDIATRIC HEALTH SURVEY IN ROMANIA

# CRISTINA OANA MĂRGINEAN, ANISOARA POP University of Medicine and Pharmacy of Tîrgu Mures TÎRGU MUREŞ, ROMANIA

marginean.oana@gmail.com

# **ABSTRACT**

The current paper presents an overview of the Romanian medical health system in general and of the pediatric health system in particular, with statistics pertaining to health insurance and education, i.e. syllabus and envisaged competences in paediatric undergraduate, graduate and continuing medical education.

# 1. Introduction

# 1 The Romanian Health System

#### 1.1 Introduction

In 1999 Romania started to implement the Bismark system of social health insurance, as most EU Member States (Germany, Austria, Belgium, France, Luxembourg, the Netherlands) characterized by collection of health insurance premiums into a single fund, called the National Fund for health insurance (NFHI) consisting of:

- revenue from compulsory contributions for health insurance, supplemented by subsidies from the state budget,
- amounts from other sources (donations, sponsorships, bank interest, property exploitation of health insurance houses).
- amounts transferred from the revenues of the Ministry of Health.

Since 2014, the clawback was introduced, requiring pharmaceutical market players to contribute to the public health system with an amount determined on the basis of the turnover obtained on public NFHI funding in order to allow health insurance bodies to partially recover granted amounts in a reimbursement system.

The defining elements of the health insurance system in Romania are:

- NFHI administration is carried out by the National Health Insurance House;
- insured parties undertake to pay a contribution according to the taxable income;
- insurance contribution is fixed as a percentage on the income and not by individual risks of insured persons;
- all insured persons benefit from a similar package of basic services on contract basis;
- NFHI does not exclude the existence of private insurance.

In 2015 the health insurance scheme covered 87% of the population, a percentage that corresponds to 17,191,563 persons registered on family physicians' lists, of the total 19,759,96 registered inhabitants according to data released by the National Statistics Institute on 31 December 2015.

Employees represent the largest category of insured people, i.e. 34.04%, followed by pensioners and children, i.e. 26.82% and 22.24% (Fig. 1).





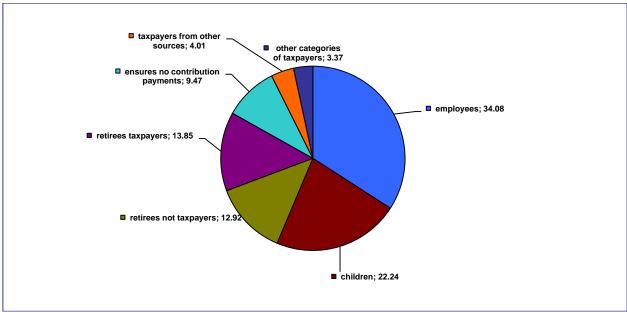


Fig. 1. Structure of insured categories of Romanians including children

With reference to expenses, NIHF provided funding for about 68% of the health services, while the Ministry of Health allocated 11%, the rest of funding being provided by patients (Fig. 2).

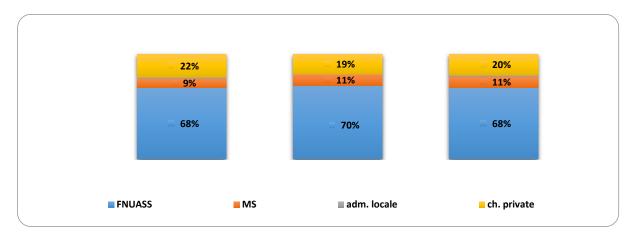


Fig. nr. 2. Health-related expenses according to source (% of total) Source: CNAS, M.F.P., Mind Research & Rating

The approved budget credits in 2015 versus payments from the National Fund for Health Insurance is presented below (Table I):



Table I Budgetary expenses for 2015

	Budget (thousand EURO)	Payments (thousand EURO)	Performance
Total expenses of which:	5,211,440	5,196,873	99,72%
1. Health expenses:	4,884,720	4,870,203	99,70%
Pharmaceutical products, sanitary materials and medical devices	2,056,135	2,053,905	99,89%
Outpatient medical services	660,370	657,578	99,58%
Pre-hospital emergency and sanitary transport	7,908	7,866	99,47%
Medical services in hospitals (bed units)	1,997,890	1,996,484	99,93%
Home care	12,803	12,736	99,48%
Medical services according to international documents	92,106	92,106	100,00%
Payments in previous years, recuperated in the current year	0	5,443	-
Fund administration expenses	57,507	54,926	95,51%
2. Social security expenses	326,720	326,670	99,98%

The data above demonstrate a hypertrophy of the hospital care which has one of the highest rates of health care expenses (40.99%) within the health insurance system. In contrast, outpatient services represent 13.50% of the total cost of health expenditure, of which 50% (1,503,342 thousand RON) are the primary medical care costs, the rest are clinical, laboratory, dental medicine outpatient care and recovery.

Optimization of this imbalance requires urgent action to ensure greater coverage of the health needs of the population with services from the system base, i.e. community support services, assistance services provided by the family physician and the outpatient clinic). These services must be capable of responding to the main needs related to acute episodes of illness and monitoring of patients with major chronic diseases (diabetes, hypertension, Chronic Obstructive Pulmonary Disease), so that hospital services should be resorted to only in circumstances requiring advanced complexity services.

This view, supported by the implementation since 2014 of a new package of health services aiming to apply conditions related to evidence-based medicine and provision of cost-effective services at the bottom of the system, is the top challenge of the social health insurance system in Romania.

#### 1.2. Public Paediatric Services

Public pediatric health services in Romania are free. Thus, children and young people up to the age of 26, if they are enrolled in the education system (i.e. pupils, students or apprentices) and if they have no income, benefit from free hospital admission and therapy. Young people aged up to 26 who come from the child protection system, have no income from employment or do not benefit from social security are exempt from payment of health insurance contribution.

Insured mothers of children up to the age of 2 or of a child with handicap up to the age of 3 and mothers raising a handicapped child aged 3-7 years, benefit from paid leave from the state budget or state social insurance budget.

There are also national health programs which are directly coordinated by the Ministry of Health. Some of them are addressed to the Mother and child and provide special funds for screening, drug therapy and dietary management of conditions such as phenylketonuria, hypothyroidism, prevention, diagnosis and treatment of malabsorption syndromes, chronic hepatitis, cystic fibrosis, asthma, congenital or acquired immunodeficiency, dystrophy treatment, surfactant therapy, etc. In addition, there are programs coordinated by the National House of Health that provide prophylactic curative treatment of haemophilia in children, malignancies (including immunophenotyping for diagnosis of acute leukemia in children, etc.).



# 1.3 Demographic data in Romania

The number of live births in 2015 was 187,372 (185 006 with residency in Romania and 2366 abroad) versus185 322 live births in 2014 marking a sharp decline compared to 1989 when there were 369 544 live births. The number of deaths in 2015 was 260,997 deaths (254 791 deaths in 2014), a more pronounced increase compared to 1989 (247 306 deaths). The main causes of death in 2015 were represented by: cardiovascular diseases (153 849 deaths), cancer (51 288 deaths), respiratory diseases (14992 deaths), digestive (14374 deaths) and accidents (9730 deaths).

The number of deaths of patients under 1 year fell to 1,493 deaths in 2015 compared to 1,634 deaths in 2014. In 1989 the number of deaths of patients < 1 year was 9,940.

Abortions were 378.3 cases per 1,000 live births versus 400.6 cases/1000 live births in 2014, with 0.4 abortions for a live birth. In 1989 there were 0.5 abortions/a live birth (522.5% live births).

The number of maternal deaths from complications of pregnancy, delivery and post-partum was 28 in 2015 compared to 24 maternal deaths in 2014, whereas the otal days of sick leave for the care of sick children was 24.802 days/2015.

# 2. Paediatric Courses – University of Tirgu Mures

The University of Medicine and Pharmacy of Tg. Mures has a total number of 5500 students in full-time undergraduate and Master programmes plus doctoral students and residents, of which about 50 residents in Paediatrics (10 per year in a 5 year-rotation programme), and about 500 teaching staff of which 51 PhD coordinators including Pediatrics. Over 60 postgraduate courses take place every year, with 4 (in 2016) in pediatrics and neonatology. The University works in cooperation with Mures Clinical Emergency Hospital (over 3500 beds), most doctors having both academic and clinical appointments. This medical-educational tandem facilitates students' acquisition of practical skills during practical instruction and clinical internships while anchoring and substantiating medical research.

The international dimension of the university is given by the General Medicine and Dental Medicine programmes offering full-time tuition in English with students coming to study from European (Italy, Belgium, Germany, France, England, Greece) and world countries (Africa, Asia, USA).

Pediatrics [6] is taught to all undergraduate students in Medicine and Dental Medicine during the 5th (penultimate) year and Puericulture in the 4th year of their formal medical education according to an internationally benchmarked curriculum. These students can also choose to enrol in the optional course in Neonatology whereas Nursing students study the Pediatrics-related course: Mother and Newborn care. Every year, about 70 undergraduate medical students in different stages of their medical education perform summer practice in the Pediatrics Clinic I of Tirgu Mures Clinical Hospital. These students form part of the target group of the current project.

Department M4 of the University of Medicine and Pharmacy Tirgu Mures (clinical medical sciences) includes 4 Paediatric Disciplines with a total of 24 teaching staff which will represent part of the target group of the project: Pediatrics I (7 teaching staff: 1 professor, 3 lecturers, 3 assistant professors), Pediatrics II (7 teachers: 1 associate professor, 3 lecturers, 3 assistant professors), Pediatrics III (6 teachers: 1 professor, 1 associate professor, 2 lecturers, 2 assistant professors), Pediatrics IV (4 teachers: 1 associate professor, 1 lecturer, 2 assistant professors). The teaching staff are involved in Pediatrics lectures, practical applications and clinical stages and have published course-books, workbooks and online resources that are made available through the university virtual learning platform

About 10 new graduates pursue residency in pediatrics, with a total of about 50 residents (also project target group), rotating in the pediatrics scheme. The teaching staff have basic training, PhD and post-doctoral studies, professional skills and competences in paediatrics, are published authors of books, course-books and research papers and have presentations at international and national scientific events. They are members in national and international societies of paediatrics as well as organizers of workshops and international symposia (e.g. the 11th National Congress of Paediatrics with international participation, Sept.25-28, 2013).

Undergraduate and resident students are provided with a compressive, theoretical but also practical, patientcentred medical education. Within this context, formation of life-long soft-skills that the project proposes would represent the added value for providing excellent paediatric care, maintaining productive relationships with parents, and enhancing patient and physician satisfaction.





# 2.1 Undergraduate pediatric education - the case of the University of Medicine and Pharmacy of Tirgu Mures

Paediatrics is taught in years 4-6 through three main subjects:

**2.1.1 Puericulture** – 4<sup>th</sup> year (14 hours course + 15 hours internship)

# Syllabus:

- Introduction in childcare. Growth and Development
- The newborn: Newborn at term. The postmature newborn. The newborn with low weight at birth (SGA - small for gestational age).
- The newborn with large weight for the gestational age (LGA large for gestational age macrosoma). The premature newborn
- Immunizations. The immunization schedule for children in Romania. Nutrition principles.
- Infant and toddler's nutrition
- Nutrition with milk formulas. The premature infant's nutrition.
- Nutrition of small children, pre-school children and teenagers. Acute diarrheal disease (ADD) in infants and toddlers.

#### Specific skills acquired

- Taking history, performing complete clinical examination of the newborn and child
- Carrying out maneuvers for infant and toddler care (bathing, swaddling, immunizations,
- Establishing an adequate food scheme according to age
- Making a baby diversification scheme
- Establishing child psychomotor development stages
- Calculation of anthropometric parameters

#### Transversal competences:

- Acquire oral and written communication skills with both mother and pediatric patient
- Carry out a project, by performing responsibly tasks specific for a team role
- Execution of projects under coordination for solving specific pediatric problems, with correct assessment of the workload, available resources, time and risk required to complete the task, in conditions of applying the rules of conduct and professional ethics in the field, as well as rules of safety and health at work.

# **2.1.2 Paediatrics** – 5<sup>th</sup> year (42 hours course + 105 hours internship)

#### **Syllabus**

- Fever in children. Sepsis. Infant respiratory pathology: diseases of the upper airways;
- Respiratory pathology: cough in children; baby otomastoiditis; epiglottitis and laryngeal croup in children; acute bronchiolitis;
- Respiratory pathology: bacterial pneumonia; interstitial pneumonia; pneumopathies treatment; asthma
- Cardiovascular Pathology: congenital heart diseases; endocardiomiopathies; pericarditis; heart
- Diseases of the digestive tract: Specifics of acute infectious diarrheal disease in children. Noninfectious acute diarrheal disese, acute dehydration syndrome, recurrent abdominal pain, malabsorption syndrome (celiac disease, cystic fibrosis, food intolerances), gastroesophageal reflux, gastritis and ulcers in children
- Deficiency diseases: rickets, iron deficiency anaemia; protein-energy malnutrition.
- Vascular collagen diseases: juvenile rheumatoid arthritis; Kawasaki disease in children.
- Renal and urinary disorders: urinary tract infections, acute diffuse glomerulonephritis; nephrotic syndrome;





- Bleeding diatheses: Schönlein-Henoch purpura; immune thrombocytopenic purpura; haemophilia
- Pediatric Oncology: leukemia; abdominal masses (Wilms tumor, neuroblastoma); Hodgkin and non-Hodgkin lymphoma;
- Pathology of the nervous system: convulsions; child epilepsy, Intracranial hypertension syndrome in children
- Metabolism and nutrition diseases: diabetes mellitus. Headaches in children

#### Acquired abilities:

- History taking, performing full clinical examination of a pediatric patient
- Carrying out basic manoeuvres for child diagnosis
- Formulating a positive and differential diagnosis in pediatrics
- Establishing an individualized pediatric therapy
- Pediatric case presentation
- Planning adequate complementary examinations in pediatric pathology
- Acquiring oral and written communication skills with both mother and pediatric patient
- Carry out a project, performing specific tasks responsibly in a team role
- Execution of projects under coordination for solving specific pediatric problems, with correct assessment of the workload, available resources, time and risk required to complete the task, in conditions of applying the rules of conduct and professional ethics in the field, as well as rules of safety and health at work

# 2.1.3 Neonatology – 6<sup>th</sup> year (14 hours course + 15 hours internship)

# **Syllabus**

- History of Neonatology. The importance of Neonatology in modern medicine. The role of technology in Neonatology screening.
- Physiological adaptation to extrauterine life. The algorithm of neonatal resuscitation. Initial steps of neonatal resuscitation. Positive pressure ventilation. Chest compressions. Intubation. Medication. Special situations. Ethical Issues. Post resuscitation monitoring
- Perinatal asphyxia and fetal distress. Hypoxic-ischemic encephalopathy, stabilization, therapeutic principles. Obstetrical trauma. Intracranial hemorrhage. Neonatal seizures.
- Respiratory distress in the neonatal period. Respiratory distress syndrome (RDS), Transient neonatal tachypnea (TTN), Meconium aspiration syndrome (MAS). Congenital pneumonia.
- Neonatal jaundice. Physiological and pathological jaundice. Izoimmunization hemolytic jaundice in Rh and ABO system. Therapeutic principles in neonatal jaundice.
- Perinatal infections. TORCH syndrome. Neonatal group B streptococcal infections. Septicemia and meningitis.
- Oxygen drug or toxic? Monitoring. Modalities of oxygen administration. Chronic pulmonary disease. Retinopathy of prematurity.

#### Acquired abilities and competences:

- Identifying the need for initiating neonatal resuscitation.
- Designing and implementing an appropriate therapeutic plan after newborn assessment.
- Accurate evaluation of the disease risk or the context of illness appearance in a category of high-risk neonates, followed by selection and application of appropriate prophylaxis.
- Tackling health/disease problems in terms of particularities of prematurity, directly related to these special conditions
- Initiation and development of scientific research and/or training in neonatology.
- fulfillment in terms of efficiency and effectiveness of managerial tasks required by the organization of neonatal intensive care.





# 2.1.4 Paediatric Semiology – 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> year (14 hours course)

#### Syllabus:

- Cough, dyspnea; wheezing; cyanosis; stridor; hemoptysis
- Anorexia; vomiting; diarrhea; hepatomegaly; splenomegaly; jaundice; constipation
- Dysuria; hematuria; proteinuria; urinary frequency; Anuria
- Anemic syndrome; Lymphoproliferative syndrome; hemorrhagic syndrome
- Acute fever; prolonged febrile syndrome; fever and rash
- Assessment of pain in children; myalgia; arthralgia; chest pain; recurrent abdominal pain; back pain; headache; weeping baby
- Tumor masses in children

Our university began an extensive process of student-centred and competence-based curriculum reform for the students' better integration in health services. To this purpose, emphasis is on teaching integrated courses, CBL (case based learning), TBL (team based learning) as well as courses in communication skills. Evaluation is both summative and formative.

# 2.2 Residency in paediatrics

The aim of paediatrics residency programme is to form highly competent paediatricians by exposure to a large spectrum of child patients (infants to teenagers) and diverse medical, psychological and surgical conditions, in order to form their cognitive and technical skills for progressively independent paediatric practice.

The curriculum is based on a number of 200 hours/year (lectures, seminars, case presentations) plus 40-50 hours of individual study. Training is quantified in credits (CFU), 1 credit = 25 hours of training. Of the total amount of time, teaching covers 20-30%, the remaining 70-80%, being dedicated to practical activities and individual study. Training is monitored in the log-book, together with credits for stage assessments, activity in research programs, participation in scientific meetings and continuing education. Programme tracks:

- General Paediatrics 2 years and 1 month Child and adolescent Psychiatry 3 months, Diabetes: 2 months, Peumology: 2 months, Paediatric neurology: 3 months, Paediatric Oncology-hematology: 3 months, General Echo: 3 months, Genetics: 2 months 2 weeks., Dermatology: 2 months.
- Neonatology 6 months, infectious diseases: 6 months, Paediatric surgery and othopedy: 2 2.
- Bioetics: ½ month (20 hours) for practical activities and individual study [7].

#### 2.3 Continuing Medical Education

Continuing medical education includes graduate courses, participation in workshops, national and international congresses, summer schools organized under the patronage of the Romanian Society of Pediatrics (2 editions / year, duration of one week and 40 hours of lectures and practical activities according to a rotation scheme of pathologies), physicians receiving credits of continuing medical education.

The University of Medicine and Pharmacy has organized the following post-graduate courses in the field of paediatrics in the last 3 years:

- 1. Paediatric syndromes Renal, haematologic and neonatal pathology
- Paediatric syndromes Digestive and respiratory pathology
  Updates in paediatric pathology
- 4. Updates in child nutrition
- 5. Pediatric emergencies

# 3. Paediatric Services

Statistics on the health care units in Romania at the end of 2014 show the existence of the following:





367 public hospitals,

10 Policlinics. 187 dispensaries.

330 outpatient hospital-integrated clinics

2 TB sanatoriums 2 preventoria

7758 public and private pharmacies

The number of hospital beds at the end of 2015 was: 125,482. Of these, there were

7,491 beds for pediatrics, 366 pediatric TBC pneumology 1,077 pediatric surgery, 279 pediatric recovery, 45 chronic paediatrics 3,230 neonatology

879 premature neonatology [5].

#### 3.1 Private Paediatric Services

In Romania, private pediatric services began to develop especially after 2000. Private practices, pediatric clinics and private hospitals were founded, especially in traditional university centers like Bucharest (with the most significant growth ), Cluj Napoca, Timisoara, Craiova, Iasi, Targu Mures, but also in other cities (Brasov, Sibiu, Constanta, etc.). There is no clear official update of the number of private pediatric units, the number of pediatric beds or consultations and outcomes, in Romania.

To conclude, increase of the quality of health care is a primary objective of healthcare providers and is reflected in the increase of patient satisfaction with the received healthcare services, while identifying and meeting their needs, demands, and expectations from the health system. Quality medical education and training likely to optimze paediatric health practice is just one aspect that is expected to contribute to meeting these desiderata.

#### **BIBLIOGRAPHY**

- 1. Titlul VIII Asigurări sociale de sănătate Legea nr. 95/2006 privind reforma în domeniul sănătății, republicată, cu modificările și completările ulterioare;
- 2. Hotărârea Guvernului nr. 1028 / 2014 privind aprobarea Strategiei naționale de sănătate 2014 2020 și a Planului de acțiuni pe perioada 2014 - 2020 pentru implementarea Strategiei naționale http://www.ms.ro/upload/Anexa%201%20-%20Strategia%20Nationala%20de%20Sanatate%202014-2020.pdf
- 3. Raportul de activitate al Casei Naţionale de Asigurări de Sănătate în anul 2015 http://www.cnas.ro/media/pageFiles/RAPORT%20ACTIVITATE%202015.pdf;
- 4. Sinteza rapoartelor de audit financiar asupra contului de execuție a bugetului Fondului Național Unic de Asigurări Sociale de Sănătate pentru anul 2014 la Casa Națională de Asigurări de Sănătate, 2015 http://www.curteadeconturi.ro/Publicatii/SINTEZA\_cont\_gen\_exec\_bug\_2014.pdf

5.UNITĂTI - PATURI, Ministerul Sănătății, Administrația Locală și Academia Română 2015, Institutul Național de Sănătate Publică - Centrul Național de Statistică și Informatică în Sănătate Publică, 2016

6.https://www.umftgm.ro/facultatea-de-medicina/departamente-si-discipline/m4-clinice-medicale/pediatriei/colectivul-disciplinei.html

7.http://www.emedic.ro/Rezidentiat/CURRICULUM-DE-PREGATIRE-IN-SPECIALITATEA-PEDIATRIE.htm





# 2. MATERIAL AND METHOD

This empirical research is part of the Softisped project, which aims to improve pediatric students' soft skills in order to increase the performance and adaptability of paediatric services to the needs and expectations of children and families as well as the trainers' ability to build these skills through innovative methods and strategies.

The medical curriculum does not focus on the soft skills. According to the literature, medical educators lack experience in developing soft skills in pre-service and resident students in paediatrics. As such, "soft skills may be the biggest challenge for the medical education" (Dwyer, Canadian Journal of Surgery, 2014).

The aim of the current research is to identify the expectations of four groups of populations: pediatric patients, parents/relatives, paediatricians, and health care staff in terms of communication, transparency, hospital environment, time management, intercultural issues. Starting from these needs, the most important soft skills for paediatricians will be identified and will be matched with the best teaching and learning methods and strategies. Guidelines and materials for training the trainers will be elaborated in order to use these methods and develop future paediatricians' soft skills.

The survey findings will, therefore, eventually conduct to improvements of paediatric education and services by improving communication with children patients and their families, implementing ludic activities, interaction with children through games, storytelling designed to distract, soothe, and help kids surmount fear of the doctor and deal with pain, stress and anxiety associated with hospital stays.

In the long run the results on softskills will impact the adequate formation of paediatric specialists by improving medical education in terms of cognitive skills and practical soft skills abilities (Soft Skills May Be the Biggest Challenge in Medical Education, Dwyer, Canadian Journal of Surgery, 2014).

The study uses questionnaires to find out the attitudes and expectations as well as the main challenges and problems that may be encountered by the following target groups: paediatricians, parents (relatives), health care staff, and paediatric patients in different European countries (Romania, Hungary, Italy, Germany, Spain) in terms of:

- 1. Communication, interaction and empathy, ability to explain the child's illness, treatment, building mutual trust and respect
- 2. Transparency in communicating information about disease and therapy
- 3. Organization of the hospital environment (dimension of rooms, privacy, television, toys, pictures), services during hospitalization
- 4. Time management
- 5. Intercultural issues (language barriers, dealing with different beliefs and values)

Questionnaires were translated and administered in the national languages.

#### **Participants**

In each country the questionnaires were administered to:

- 25 paediatricians
- 25 parents/tutors/relatives
- 25 health care staff
- 25 patients

#### Inclusion criteria:

- Paediatricians: paediatricians in a hospital setting or specialists working with children (i.e. intensive care, psychiatry, neurology)
- Parents/tutors/relatives of the surveyed patients
- Health care staff: working in paediatric units
- Paediatric patients: with ages of 5-14 years of age and acute or chronic conditions.

#### Criteria for purposive sampling are:





Age, i.e. 5-14 years

Conditions: chronic or acute

#### **Procedure**

Partners from Spain, Italy, Germany, Romania, Hungary, agreed to collaborate on the study by signing the contract. Researchers were asked to find out relevant evaluation criteria and scales for the study. Participants in the study were selected according to the sampling criteria and approached by the researchers who obtained written informed consent to participate. The study was submitted to relevant ethics committees in each country and followed all rules of research governance as appropriate and required. All the data were collected and interpreted, maintaining strict anonymity of the participants in the survey. For transparency and feedback to the participants, as well as improvement of the softskills education and practice which is the ultimate goal of the project, survey results are published in e-book format in all the project languages (Spanish, Italian, German, Romanian, Hungarian).

Children who were offered the opportunity to participate in our clinical research were asked their opinion and they gave their permission to proceed.

#### Background of researchers

The researcher group involved a paediatrician, communication/ethics specialist/lecturer, and resident in the field of paediatrics. They had appropriate experience and expertise as well as communication skills to adapt to the very sensitive field of paediatric patients and their parents in obtaining their answers in the most adequate, carefree and atraumatic but also relevant manner.

#### Organisation

The following researchers have agreed to lead the researchers team in each country and be in charge of national data collection The supervisor in each country was responsible for selecting participants: paediatricians, parents/tutors/relatives, children and healthcare staff involved with children, to include in the survey:

Prof. Oana Marginean, PhD, Paediatrics Clinic 2, University Emergency Hospital of Tirgu Mures, University of Medicine and Pharmacy of Tirgu Mures, Romania

Prof. Martin Fischer, PhD, Ludwig-Maximillian Universitat, Munchen, Germany

Sabrina Grigolo, Health coordinator with a degree in Pedagogy and clinical tutor for the Nursing Training Programme, Azienda Sanitaria Locale, TO3, Torino, Italy

Benjamín Herreros Ruiz Valdepeñas, principal investigator and Emanuele Valenti, project manager, deputy director of the Instituto de Ética Clínica Francisco Vallés, Hospital Universitario Fundacion Alcorcon, Spain

Dr. Andras Gabor, Filab, Associate Professor of Information Systems, Corvinus University of Budapest, **Hungary** 

We performed a prospective study in order to analyze the expectations of the four main actors of the paediatric health services: doctors, paediatric patients and their parents, and health care staff, by filling in ad hoc questionnaires, and following interview guidelines. A number of 30 questionnaires were filled in and each area was subsequently analyzed.

All the parameters presented below were obtained through the questionnaires applied to pediatricians, child patients, parents/relatives and health care staff.





# 3. RESULTS AND DISCUSSION

The surveyed child patients were predominantly boys (57%) versus only 43% girls, whereas the distribution on the three age ranges was: 12-14 years (47%), 5-7 years (33%) and 8-11 years (20%) (fig. 3,4)

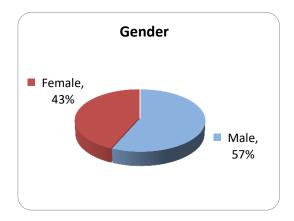


Fig. 3. Gender distribution of the surveyed child patients

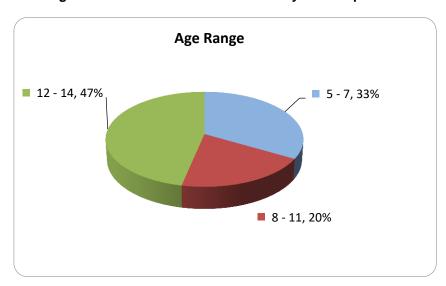


Fig. 4. Age distribution of the surveyed child patients

Duration of the disease of the surveyed children ranged between one to three years in 47% of the cases and between 4 to 8 years in 33% of the cases, with only 7% of the patients having a longer length of the disease (fig. 5).



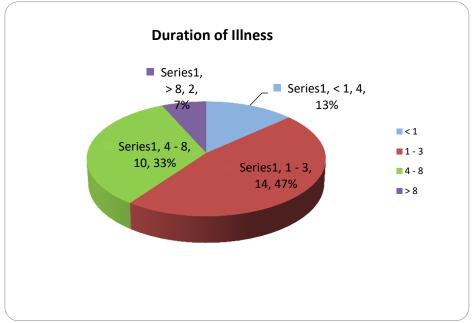


Fig. 4. Duration of illness of the surveyed children

All pediatricians who responded to the questionnaires were females with ages over 45 years (63%), with 37% of them with ages between 36-45 years, and a work experience of over 15 years in 63% of the cases, whereas 37% had a work experience between 5 and 10 years, all pediatricians working in the same context and participating to training courses (fig. 6, fig. 7).

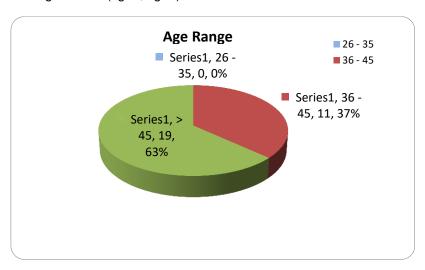


Fig. 6. Age ranges of doctors involved in the study



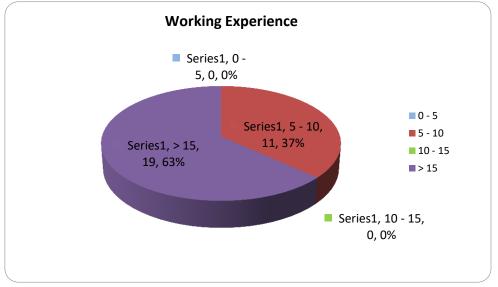


Fig. 7. Working experience of doctors involved in the study

Health care staff who participated in the study were mostly over 45 years (67%) (fig. 8) and a work experience of over 15 years in 67% of the cases (fig.9)

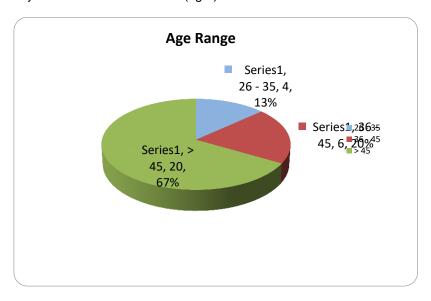


Fig. 8. Age ranges of health care staff



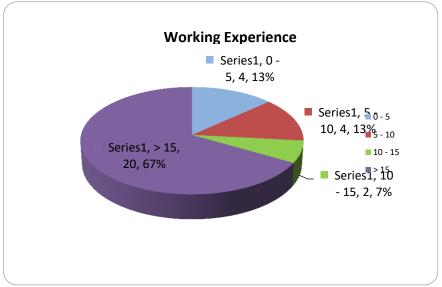


Fig. 9. Working experience of health care staff

Parents and relatives who participated in the study were mostly women (81%), most of them with ages between 36-45 years (53%) (fig 10 and 11). Duration of the disease of the patient whose relatives filled in the questionnaires was of 1-3 years in 47% of the cases and in 33% for those with 4-8 years duration of the illness (fig 12).

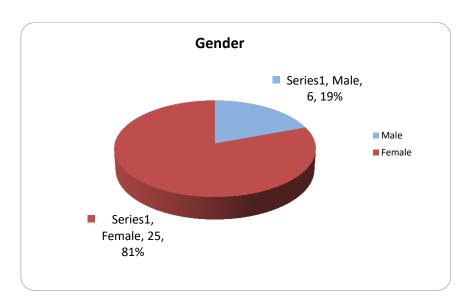


Fig. 10. Gender distribution of surveyed relatives



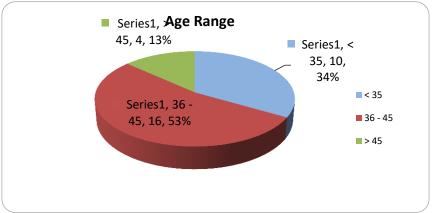


Fig. 11. Age ranges of surveyed relatives

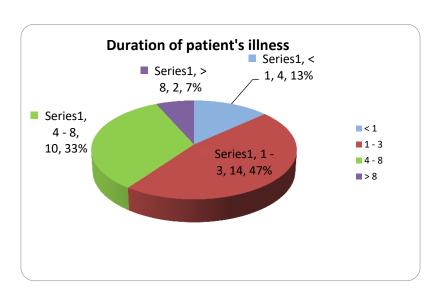


Fig. 12. Duration of patients' illness according to surveyed relatives

# 3.1 COMMUNICATION

Different studies support the assumption that the **child's role in medical communication** has been insufficiently explored and studied. Even when the patient is a child, the focus of research is usually doctor-parent, rather than doctor and child, the child being given little attention <sup>1</sup> Even if the triadic nature of pediatric patient interactions would require more time, the child's preferences and values should be solicited and accepted in addition to those of the parents.

There is a moral and ethical obligation to discuss health and illness with the child patient, which is supported by a number of United Kingdom<sup>2</sup>, Canadian<sup>4</sup>, and US<sup>5</sup> laws, policies, and court decisions (eg, *Bellotti vs* 

<sup>&</sup>lt;sup>4</sup> Canadian Paediatric Society, Bioethics Committee. Treatment decisions regarding infants, children and adolescents. *Paediatr Child Health*. 2004;9 (2):99–103



<sup>&</sup>lt;sup>1</sup> Doctor-parent-child communication. <u>Social Science & Medicine</u> 52(6):839-51 · April 2001 A (re)view of the literature (PDF ...https://www.researchgate.net/.../12096746\_Aug 11, 2016

<sup>&</sup>lt;sup>2</sup> British Medical Association. *Consent, Rights and Choices in Health Care for Children and Young People*. London, England: BMJ Books; 2001

<sup>&</sup>lt;sup>3</sup> United Kingdom Parliament Act 1989. Children Act of 1989 (c. 41). Available at:www.opsi.gov.uk/acts/acts1989/Ukpga 19890041 en 1.htm. Accessed May 6, 2007



Baird, 443 US 622 [1979] $^6$ ), indicating an expectation that children will be active participants in their care  $^7$ . In many cases, even parents mistakenly think that not informing the child is best. Some professionals argue that paternalistic decisions (primarily on the part of the family) to withhold "harmful" information from the child can be justified<sup>8</sup>. This position is not supported in the literature that examines the child's preference for information<sup>9</sup> 10,11 12 One of the most striking was Bluebond-Langner'slandmark study of terminally ill children<sup>13</sup>, indicating that children as young as 3 years of age were aware of their diagnosis and prognosis without ever having been told by an adult. The researcher found that adult avoidance of disclosure and denial of difficult information led the child to feel abandoned and unloved. 14 The importance of the child possessing effective health communication skills becomes evident when trying to assess and treat a child's subjective symptom, including pain. In the absence of the child's input, it is difficult to understand the nature and severity of the pain; by using whatever information they have, children will continually try to make sense of their situations.

An incomplete ability to understand does not justify a lack of discussion with a child who desires involvement in his or her care and decision making.

Children need to have usable information, to be given choices (including their desired level of involvement), and to be asked their opinion, even when their decision will not be determinative 15

#### 3.1. COMMUNICATION WITH PAEDIATRIC PATIENTS

# 3.1.1. Doctor's support to the patient

The support offered by the doctors to paediatric patients was evaluated with a score of 4.9 by the patients themselves, having a similar perception by the patients' parents/relatives (i.e. also 4.9 - fig. 13, fig. 16). Doctors' perception regarding this communication was rated with a maximum of 5.0, which represents the strongest point in the communication section, but only with a score of 4.8 by the health care staff which is a more reserved perspective regarding the doctors' support to the patient (fig. 15).

#### 3.1.2. Respect in the hospital

Being in the hospital may be a humbling experience, therefore respect is the key to maintaining dignity. Respect for the patient was rated as being extremely good, all patients offering the maximum score (5) at this item (fig. 13).

Respect offered by the patients to the doctors was evaluated with a score of 4.2 by the doctors, lower than the respect offered by the doctors to the patients (fig. 14). Respect offered by the patients to the health care staff was 4.6 score as perceived by the health care staff and a score of 5 by the relatives (fig.16)

<sup>&</sup>lt;sup>15</sup>American Academy of Pediatrics, Committee on Bioethics. Informed consent, parental permission, and assent in pediatric practices. Pediatrics.1995;95 (2):314-317



<sup>&</sup>lt;sup>5</sup> Holder AR. The minor's consent to treatment. In: Legal Issues in Pediatric and Adolescent Medicine. New Haven, CT: Yale University Press;1985:123–145

Bellotti vs Baird, 443 US 622 (1979)

Doig C, Burgess E. Withholding life-sustaining treatment: are adolescents competent to make these decisions? CMAJ.2002;162 (11):1585-1588

<sup>&</sup>lt;sup>8</sup>Lantos JD. Should we always tell children the truth? *Perspect Biol Med*.1996;40 (1):78–92

<sup>&</sup>lt;sup>9</sup> Young B, Dixon-Woods M, Windridge KC, Heney D. Managing communication with young people who have a potentially life threatening chronic illness: qualitative study of patients and parents. *BMJ*.2003;326 (7384):305–309 McCabe MA. Involving children and adolescents in medical decision-making: developmental and clinical

considerations. J Pediatr Psychol.1996;21 (4):505-516

<sup>&</sup>lt;sup>11</sup> Waechter EH. Children's awareness of fatal illness. Am J Nurs. 1971;71 (6):1168–1172.

<sup>&</sup>lt;sup>12</sup> Van derFeen JR, Jellinek MS. Consultation to end-of-life treatment decisions in children. In: Steinberg MD, Youngner SJ, eds. *End-of-Life Decisions: A Psychosocial Perspective*. Washington, DC: American Psychiatric Press;1998:137–177

Bluebond-Langner M. The Private Worlds of Dying Children. Princeton, NJ: Princeton University Press; 1978

<sup>14</sup> http://pediatrics.aappublications.org/content/121/5/e1441



#### 3.1.3. Support offered by the medical team

Support can be quantified in different ways. From the point of view of softskills, support can imply a friendly welcome and help with orientation in the clinic, a warm guidance throughout the course of care, thus reducing patient and parent stress.

Patients perceive the support offered by the medical team as very good - 5, which is similar to the respect offered to patients (fig.13). Doctors, however, estimated that the support offered to patients by the medical team is hardly ideal, which is reflected in their score of 4.4 (fig. 14). Health care staff and relatives offered a similar score, i.e 4.9 (fig. 15 and 16 for this item).

# 3.1.4. Making appointments for check-ups

Availability for making appointments for check-ups was evaluated with 4.2 by paediatric patients, the lowest, weakest point in the communication with children (fig. 13). This result may be due to the doctor's overload and job involvement as well as the bureaucratic system in Romania, resulting in insufficient time for the doctor. This is compensated by residents and health care staff who take over this responsibility from the doctor. An electronic system for computerized appointments and check-ups would be extremely useful (fig. 14) and would save precious time for the doctors. This aspect was evaluated by the health care staff by 4.2 scores, similar to the paediatric patients and by the relatives with 4.4 scores (fig. 15, fig. 16)

# 3.1.5. Doctor's availability

Access to care and wait for an appointment or lack of the doctor's availability can be a patient and parent's main frustration. For the item Doctor's availability, pediatric patients scored only 4.5, which is higher than the previous item making appointment for check-ups, but lower than the score for support and respect granted to patients (fig. 13). Doctors evaluated their availability by only 3.9, their time being hardly sufficient (fig. 14) Doctor's availability was given a 4.4 score by both the health care staff and the children's parents and relatives (fig. 15, fig. 16).

#### 3.1.6. Quality of the patient's life

Hospitals are far more than places where diseases are diagnosed and treated. At the core of every process is the care of patients who are physically and often psychologically vulnerable, and separated from the comfort of their families and daily lives. Therefore, the quality of their life is essential for their swift recovery. Patients rated the quality of their lives in hospital as 4.4, similar to their parents'/relatives' (fig. 16) rating and almost similar with the doctor's availability (fig. 13) whereas the doctors rated the patients' lives with 4.6 (fig. 14). The health care staff gave a 4.8 score to this variable (fig. 15)

#### 3.1.7. Follow-up information

The follow-up information was seen as critical by the doctors, i.e. a score of 3.8 (fig. 14), followed by the patients with 4.3 (fig. 13), health care staff – 4.4 (fig. 15) and relatives – 4.5 (fig. 16).

The lowest general average score for communication was given by the doctors: 3.8, lower than the average communication score offered by the child patients. This result is due to the difficult chronic conditions, consecutive psychologic problems, doctors not having enough time to deal with all these problems, besides their other commitments (students, courses, many patients, administrative bureaucracy) (fig. 14).

The health care staff general average for communication was 4.6, similar with the health care staff and the patients' average. For the patients, the average score of 4.6 is acceptable, given their chronic conditions, long hospitalizations and invalidating diseases (malignancies, chronic inflammatory conditions, malabsorption syndromes, chronic renal pathologies, rheumatic diseases) (fig. 13).



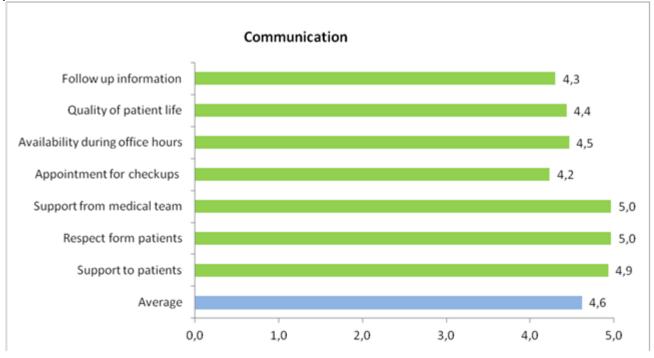


Fig. 13. Communication - the patients' perspective

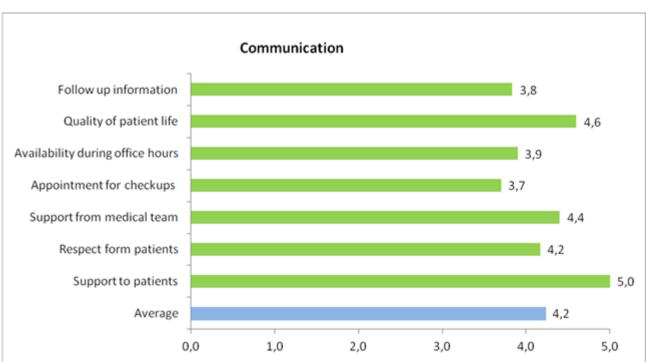


Fig. 14. Communication - the doctors' perspective



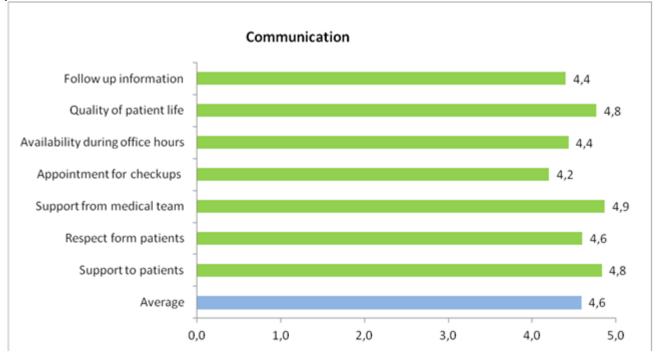


Fig. 15. Communication - the health care staff perspective

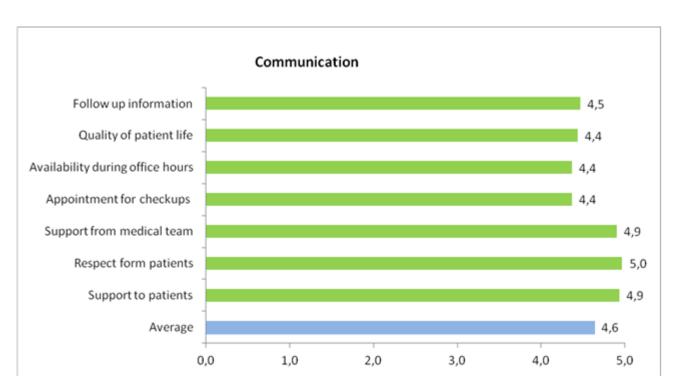


Fig. 16. Communication - the parents/relatives' perspective

Anova test for the 7 communication items did not render any statistically significant differences between the averages of the four population groups surveyed (fig. 17).





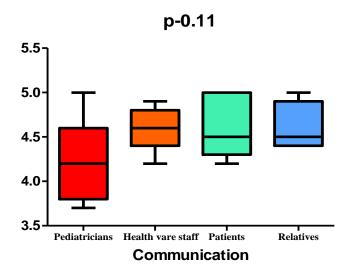


Fig. 17. Anova test for communication items

#### 3.2 TRANSPARENCY

#### 3.2.1 Other doctors' involvement

Other doctors' involvement was evaluated with 4.3 by pediatric patients and their parents/relatives (fig. 18, 21). However, the health care staff considered that other doctors' involvement was lower, which resulted in a 3.3 score, and lowest by pediatricians: 3.1 – the lowest aspect for Transparency (fig. 19, 20)

#### 3.2.2 Patients' complaints

Patients may complain for different reasons: something that went wrong, a painful experience, lack of information, dissatisfaction with care <sup>16</sup>. Their complaints may represent a stressful experience for the doctors and the staff. However, it has been estimated that 23% of complaints can be solved by a sincere apology, and 34% by an explanation of the circumstances surrounding the event in question 17. Handling complaints and grievances is an important aspect of patient-centred care and it offers opportunities for quality improvement. Response to patients' complaints was estimated as fair and good by the patients and staff (4.8) (Fig. 18,20) and a little better by doctors and parents (4.9) (Fig. 19, 21). If staff is trained to listen effectively, employ a pro-active approach, and manage children's and family expectations, small problems can be solved before they escalate.

#### 3.2.3 Information to patients

The amount of quality of information offered to patients was rated with a score of 4.8 by patients, health care staff and parents (Fig. 18, 20, 21), whereas doctors considered that this could be improved and their score was a little lower 4.5 scores. (Fig. 19)

Victorian Office of the Health Services Commissioner. Annual Report 2008: 18-9: www.health.vic.gov.au/hsc/downloads/annrep08.pdf.



<sup>&</sup>lt;sup>16</sup> http://www.avant.org.au/uploadedFiles/Content/resources/member/risk-200912-dealing-with-patient-complaints.pdf



Doctors may have considered besides the information provided about the patient and course of treatment to other type of information that should be available to patients when they are admitted to hospital: patients' rights and responsibilities while in hospital, information about what to bring to hospital, for a certain test or as an outpatient, visiting hours, access to health records - all these in an easy to remember way such as through leaflets and videos rather than notices on the hospital walls.

#### 3.2.4 Courtesy and respect

Investigators have found that doctors-in-training are unlikely to introduce themselves fully to hospitalized patients or sit down to talk to them eye-to-eye, despite research suggesting that courteous bedside manners improve medical recovery along with patient satisfaction. A report on the research, published in the Journal of Hospital Medicine 18, considers that some simple adjustments to intern communications would make the whole experience of a hospital stay better.

The courtesy and respect score ranged between 4.8 in the case of doctors and health care staff (Fig. 19, 20), 4.9 by paediatric patients (fig. 18) and a maximum by the parents and family (fig 21).

#### 3.2.5 Information about care

Children as well as their parents rated information about care with 4.7 (Fig. 18, 21), whereas the staff considered this to be better (4.0) (Fig. 20) and the doctors to be maximum (Fig. 19), which implies that the provided information is complete and appropriate and it corresponds with the degree of patients' understanding and the type of their disease.

# 3.2.6 Privacy

Privacy goes hand in hand with dignity and respect and it may refer to silence, possibility to carry out hygiene (the bed pan, the toilet), lack of odors. Conditions of privacy where parents can play with their children whereas families can spend some quiet moments with each other, are essential.

Privacy was perceived differently by the four categories of surveyed populations, which means that different people may have different privacy habits. Privacy scores ranged between 4.5 from the doctors (Fig. 19) through 4.6 as evaluated by patients (Fig. 18) and health care staff (fig. 20) and 4.7 in the parents' opinion (Fig. 21).

#### 3.2.7 Written communication

The item written communication acquired only 4.4 scores from the patients (fig.18) versus the 4.5 score from the doctors, which is critical (fig.19), a 4.8 score from the health care staff (fig. 20) and parents/relatives: 4.5 (fig.21). The quality of written communication therefore ranges from 4.4 scores - patients < doctors and parents/relatives 4.5 < to 4.8 - health care staff.

The general average score that children offered for Transparency was 4.6 - which is acceptable considering the patients with chronic conditions, long periods of hospitalization, the doctor being extremely busy and involved in the scheme of management and wellbeing of the patient, which require adequate, careful supervision and attention. (fig. 18)

The general average score that pediatricians offered for Transparency was 4.5 - lower than the children's Transparency score (fig. 19)

The general average Transparency score of the health care staff was 4.6, similar to the children's score (fig

The general average Transparency score of the parents and relatives was 4.7, the highest score, better than the score of all the other actors involved in the survey. (fig. 21)

<sup>&</sup>lt;sup>18</sup> Common courtesy lacking among doctors in training http://www.hopkinsmedicine.org/news/media/releases/common courtesy lacking among doctors in training





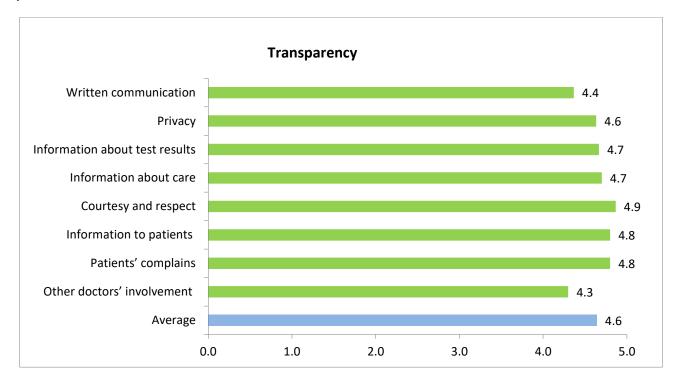


Fig. 18. Transparency - paediatric patients' perspective

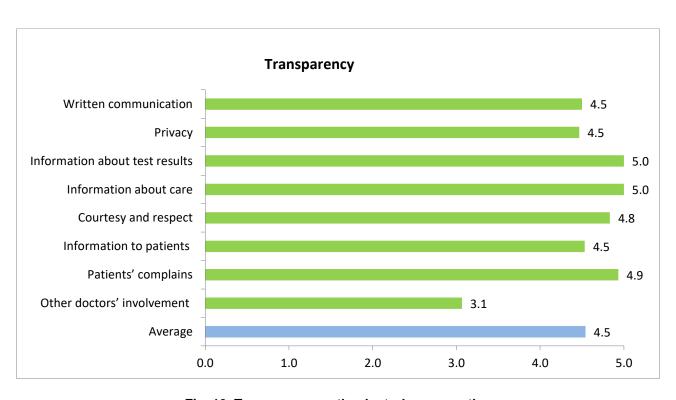


Fig. 19. Transparency – the doctor's perspective



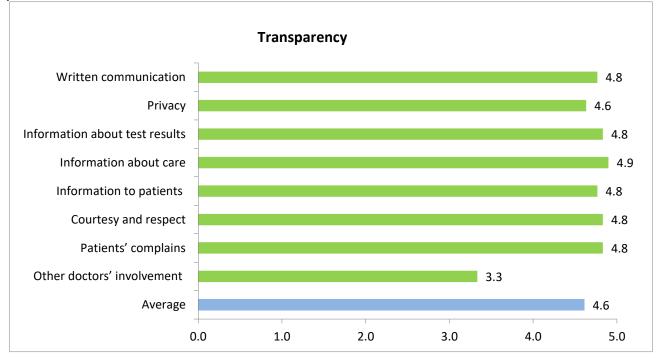


Fig. 20. Transparency - health care staff's perspective

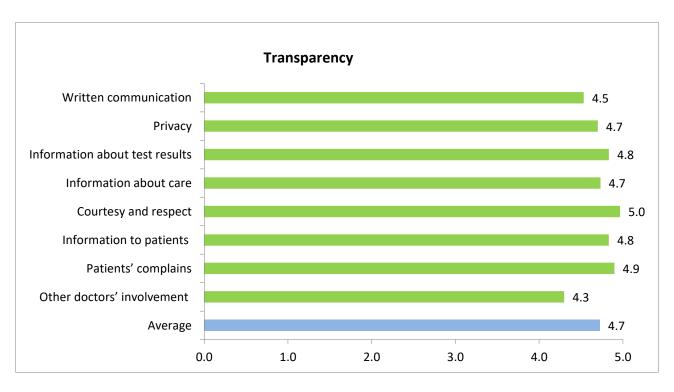


Fig. 21. Transparency – the parents/relatives' perspective

Anova Test for the 7 items of transparency did not turn any significant differences among the averages of the 4 surveyed population groups. (fig. 22).





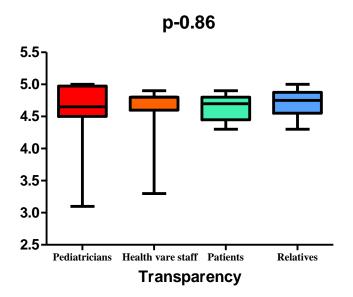


Fig. 22. Anova test for transparency

#### 3.3 HOSPITAL ENVIRONMENT

# 3.3.1 Hospital's appearance

Hospital appearance shows certain problems linked with aspect and facilities that are offered, considering the fact that this is a public hospital. Patients assessed hospital appearance by a score of 3.9 (fig. 23) health care staff 3.7 (fig. 25), parents/relatives 3.6 (fig. 26) and doctors offered the lowest score: 3.3 (fig. 24), their expectations being the highest as far as the hospital appearance is concerned.

#### 3.3.2 Hospital's convenience

Hospital conveniences may include a wide range of facilities that are offered such as free wi-fi, laundry, traveling-on-wheels store, games: Medbuddies (= a program that pairs a volunteer medical or nursing student with an inpatient 19), activity centers (= procedure-free zones, where celebrations, arts, crafts, music, games that are matched to the child's developmental needs), bedside music<sup>20</sup>, etc.

It is significant that patients evaluated hospital convenience by a score of 3.6, higher than the doctor's (fig. 23), the latter's score being the lowest, i.e. 3.2 (fig.24), which underlines the pediatricians' dissatisfaction with the hospital conveniences and their desire for improvement. Health care staff and parents/relatives offered a similar score, i.e. 3.6 (fig. 25, 26)

The **children's** general average for hospital environment was 3.8, the lowest of all the items under survey, which is explained through the type of hospital, a public institution which is subfinanced, where the quality of medical services is stressed rather than the facilities, which need further future optimization (fig. 23).

The **doctor's** general average score for the item Hospital environment was even lower, i.e. 3.3, pediatricians being dissatisfied with the children's hospital conditions that have to be optimized (fig. 24) as it is them who feel responsible for the children's stay, an aspect which they think that needs to be somehow compensated.

<sup>&</sup>lt;sup>20</sup> http://www.mottchildren.org/mott-patient-visitor-guide/art-cart



<sup>&</sup>lt;sup>19</sup> http://www.mottchildren.org/mott-patient-visitor-guide/amenities



The health care staff average for Hospital environment was identical with the children's evaluation: i.e. 3.7 (fig. 25), whereas parents/relatives' score was somewhere in between: 3.6 (fig. 26), higher than the doctors' but lower than their children's.

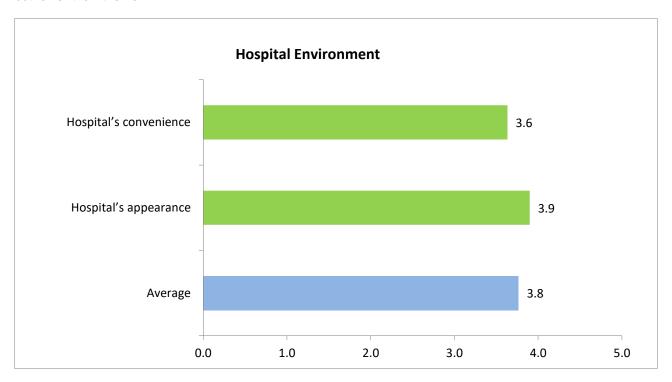


Fig. 23. Hospital environment from the patients' perspective

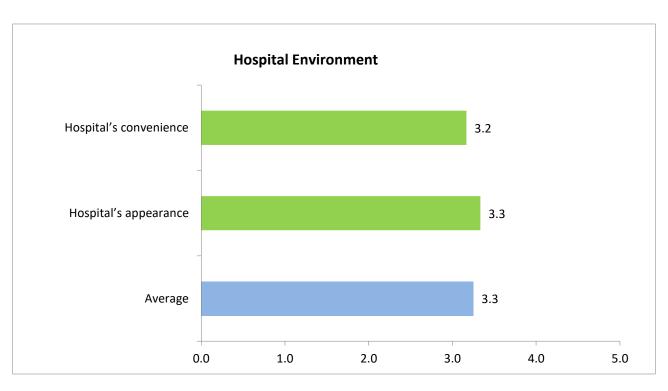


Fig. 24. Hospital environment from the paediatricians' perspective





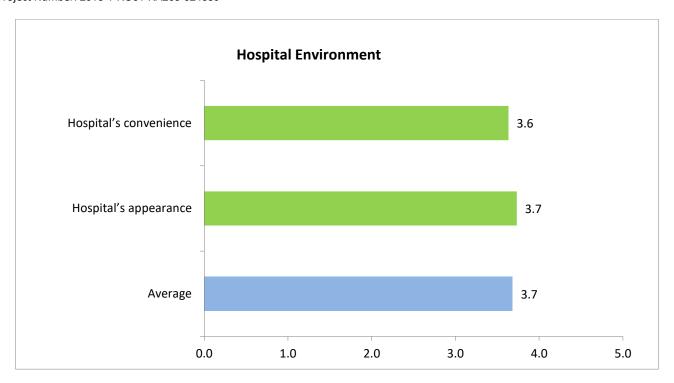


Fig. 25. Hospital environment from the health care staff's perspective

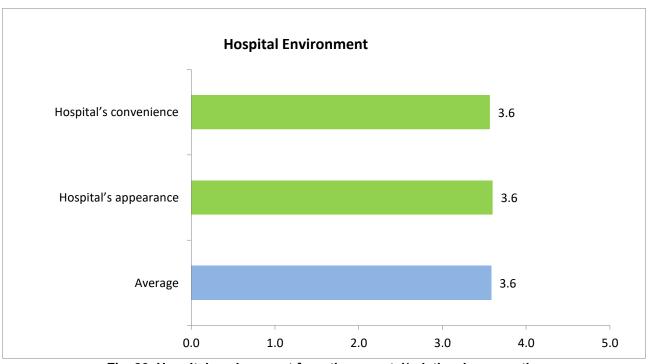


Fig. 26. Hospital environment from the parents'/relatives' perspective

Anova test for the hospital environment did not render statistically significant differences among the averages of the four population groups under survey (fig. 27).



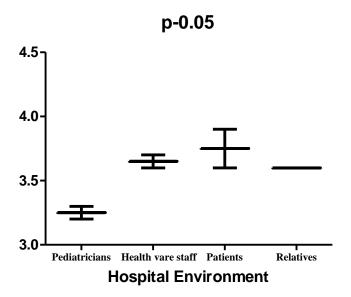


Fig. 27. Anova test for hospital environment

# 3.4 INTERCULTURAL ISSUES

#### 3.4.1 Behaviour towards patients (action)

The physician's behavior towards the patients as action was qualified as being very good, close to maximum, 4.9 score and by health care staff (fig. 28 and fig. 30), with 5 score by physicians (fig. 29) and with only 4.7 score by relative (fig. 31).

#### 3.4.2 Behaviour towards patients (treatment)

The pediatricians' behaviour towards patients in terms of treatment applied was evaluated as close to maximum (4.9) by patients and relatives (fig. 28, fig. 31) and with 4.8 scores by doctors and health care staff (fig. 29, fig. 30).

Moreover, the general average at the item intercultural issues (including behaviour towards patients in terms of action/attitude) was similar and almost maximum 4.9 scores for all the surveyed populations (children fig. 28, doctors, health care staff and parents/relatives - fig. 29, 30, 31), which demonstrates that the medical process (communication, diagnosis, treatment) is not influenced by intercultural issues.



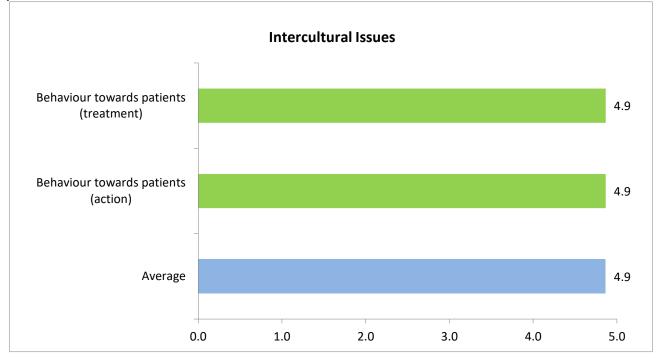


Fig. 28. Intercultural issues - children's perspective

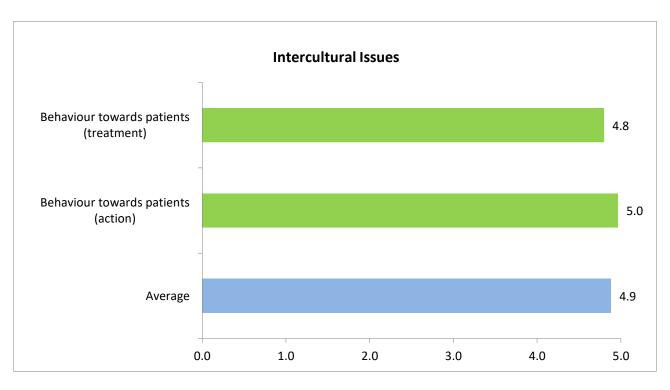


Fig. 29. Intercultural issues - doctors' perceptions



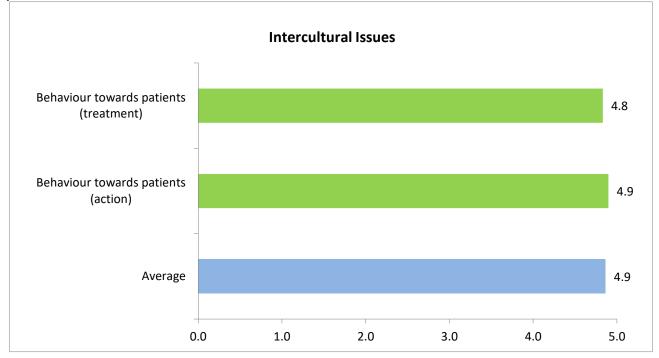


Fig. 30. Intercultural issues - health care staff perception

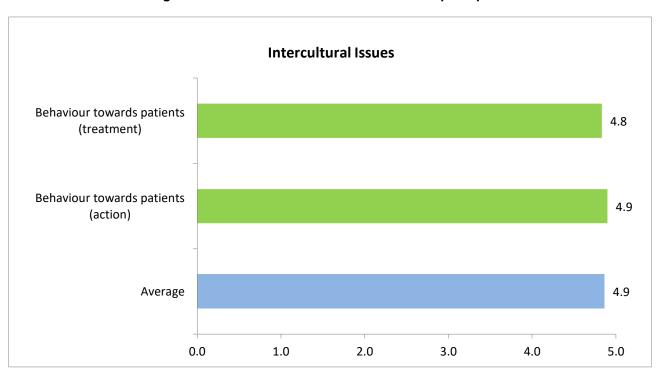


Fig. nr. 31. Intercultural issues - parents/relatives' perception

Anova test for the intercultural issues did not render any statistically significant averages among the four surveyed populations: paediatricians, health care staff, patients, parents/relatives (fig. 32).



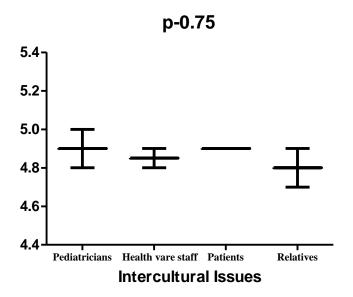


Fig. 32. Anova test for intercultural issues

#### 3.5 TIME MANAGEMENT

#### 3.5.1 Time with the patient

The amount of time spent with the patient was evaluated by a score of 4.4 by paediatric patients (fig. 33) whereas the health care staff (i.e. 4.5, fig. 34), doctors and parents/relatives considered this to be higher (i.e. 4.6) (fig. 34, fig.36), still not ideal.

#### 3.5.2 Doctors' availability

Doctor's availability was rated by children by 4.1 (fig.33), the doctor's office being closed during the weekend.

Doctors also considered that their availability to patients, parents/relatives is hardly sufficient, i.e. 4.3 scores (fig. 34), whereas health care staff rated it with 4.0 (fig. 35), lower than that of the children's (4.1) and the parents/relatives, i.e. 4.2 (fig. 36)

#### 3.5.3 Doctors' waiting list

Patients are frustrated to wait on a list or in the waiting room. The doctor's waiting list obtained the following scores in ascending order: doctor's 3.4 - they perceived the waiting lists to be too long (fig. 34), parents/relatives 3.7 (fig. 36), patients 3.9 (fig. 33) and health care staff 4.1 (fig.35).

#### 3.5.4 Reaction to urgent calls

In terms of reactions to urgent calls the scores offered by the four categories of surveyed populations were: parents/relatives 4.1 (fig. 36) < patients 4.2 (fig. 33), followed by doctors 4.3 (fig. 34) and health care staff 4.6 (fig. 35).

# 3.2.5 Waiting time in the paediatrician's office

The waiting time in the paediatrician's office is perceived as follows:

Patients: 3.8 < doctors 4 < parents/relatives and health care staff 4.2 (fig. 33, 34, 36, 35).

The general average for the item **Time management** was:

In the patients' perception it had a score of 4.1 which reflects a deficiency in time management, time which the patients waste with waiting lists and which conduct to a latency in their diagnosis and





treatment. Time management is therefore optimizable in terms of waiting lists (scheduling) and an easier access to the paediatrician (fig. 33).

The doctor's general average for time management was similar to that of the patients, i.e. 4.1 scores (fig. 34).

Parents/relatives had a slightly better perception of the time management, i.e. 4.2 scores and the health care staff appreciation was 4.3 scores. (fig. 36, fig. 35)

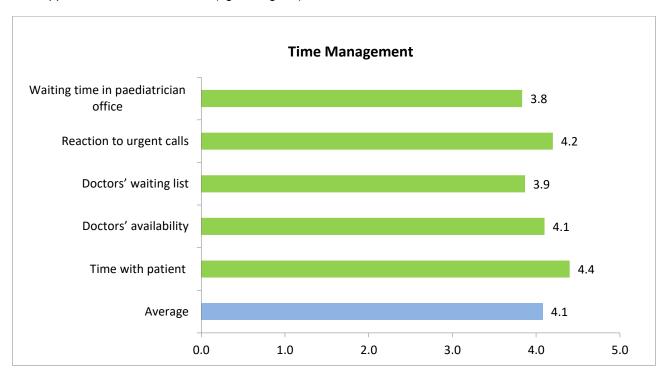


Fig. 33. Time management in the patients' perception

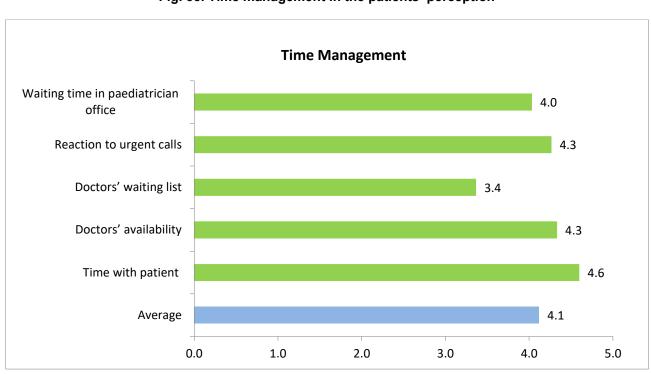




Fig. 34. Time management in the doctors' perception

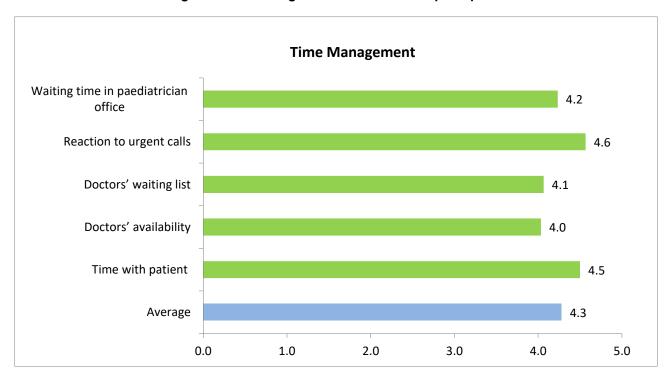


Fig. 35. Time management in the health care staff's perception

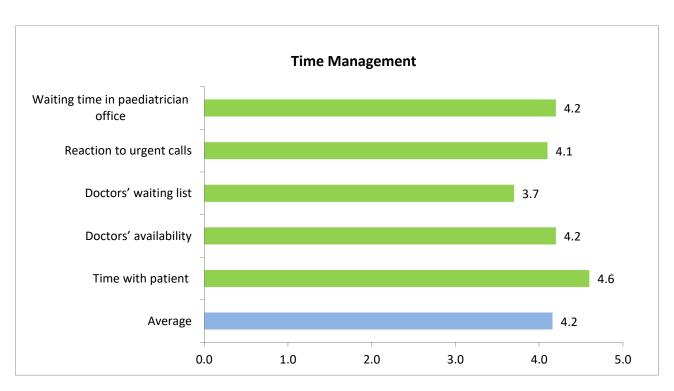


Fig. 36. Time management in the parents/relatives' perception



Anova test for the time management items did not render statistically significant correlations among the averages of the four surveyed populations (fig. 37).

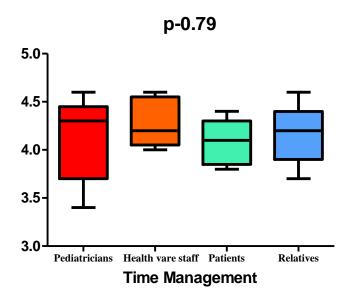


Fig. 37. Anova test for time management

#### 4. Conclusion

The Health Sector has a huge impact on both society and economic environments, in the European Union it employs almost 10% of the total workforce and corresponds to almost 9% of the gross domestic product (GDP). Healthcare workers - especially medical specialists - need many years of training before they are fully qualified. Higher education system provides students of medicine with high standards of cognitive and practical abilities in the field, but transversal skills are becoming also a crucial prerequisite for enhanced performance in health care. The need to deal with intercultural societies, the increasing attention to patientoriented services, require for more transparent interaction with patients, and therefore additional training and development of the Medical staff transversal skills.

Such skills are essential in error prevention, interpersonal and parental interaction and communication, and are key in offering painless treatment in paediatric care.

Common mistakes reported to the Health Service Ombudsman are in fact related to communication and interpersonal behaviours and interaction and the problem is statistically higher in paediatric practice. On the other hand, good clinical communication skills correlate with improved health care outcomes and this is for obvious reasons even more important in Paediatrics.

The Health Commission's Young Patient Survey of 2014 showed that many children were unhappy with the way healthcare professionals in hospital related to them. Children are more vulnerable to medical errors than adults. Although very few people can judge the quality of a doctor's from the medical point of view, most families make judgements on success or failure based on soft skills: good communication can play a significant part in avoiding complaints and malpractice.

Positive transversal skills can, therefore, make the difference between good and excellent health services, creating a safer congenial and supportive environment for the paediatric patients and their families. Effective communication can increase diagnostic accuracy, improve patient understanding and information retention, enhance patient satisfaction, increase adherence to treatment, and improve health outcomes (Teaching and learning consultation skills for paediatric practice, Howells, Davies, Silverman, 2015).

The current survey has studied the expectations of four categories of populations: patients, doctors,





parents and health care staff with reference to paediatric services. The results represent their views and will form the basis for customizing a set of major soft skills that would have an impact on the studies variables. These skills will be than paired with specific teaching (IO1) and learning strategies (IO2) that can be implemented in a systematic way for future generations of paediatricians.

Partners in the SoftisPed Project shared the need of equipping undergraduate students of paediatrics with the tools for effective communication via specific teaching whilst on clinical placement and promote Soft skills for paediatricians as part of the curriculum.

Through the envisaged results, the project will:

- contribute to developing coordinated, systematic application of soft-skills training to paediatrics (e.g. well evidenced in industry, business, and dental medicine where development of soft skills are already of prime concern), the majority of practicing physicians reporting they have received no formal training in this respect.
- will optimize doctor/child/parent communication as good communication can play a significant part in avoiding complaints and malpractice claims. Good communication is good medicine. It enhances patients' understanding and adherence to therapy, and has a therapeutic effect. If the parents do not understand the disease and treatment issues well, they may not adhere to therapy, resulting in poor outcomes.
- The project intends to find new solutions that improve communication between children/families and paediatricians, and other health care personnel in the quality of health care and in the satisfaction of patients and their families with paediatric care

The general average for communication was rated by the doctors with 3.8 and by the children, health care staff and parents/relatives with 4.6. We consider that there is space for improvement of the doctor/patient communication is optimizable and it can be performed through further training and hands-on practical communication courses specific for the paediatric field.

The general average for Transparency ranged between 4.5 and 4.7 considering that we had patients with chronic conditions and long hospitalization periods and the doctor who is extremely busy and involved in the patients' therapy needs to manage time efficiently. Psychologic support and adequate counselling should be offered to paediatric patients.

The general average for the item **Hospital environment** was the lowest ranging from 3.3 to 3.8, which calls forth an adequate financing and modernization of Romanian hospital premises, which can only be compensated by a deeper involvement of the doctors and health care staff, at the detriment of the time amount they have to offer to their patients.

The general average for intercultural issues was almost maximum (4.9) and did not fluctuate among the four groups of participants in the survey, which demonstrates that the medical process (communication, diagnosis, and treatment) is not influenced by intercultural issues (fig. 38).

In terms of time management, the general average ranges between 4.1 - 4.3, which demonstrates that this is optimizable as far as time spent by patients while on the waiting lists and hence a latency in their diagnosis. It is obvious that a better time management seen as easy access to the doctor and shorter-term waiting lists for access to hospital services, are necessary.



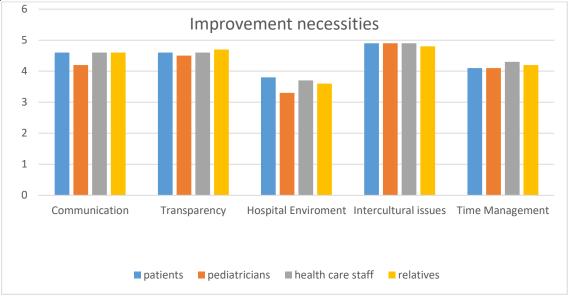


Fig. 38. Improvement necessities

#### To conclude:

- Most critical aspects that need to be improved as viewed by all four groups of participants: hospital environment < time management < communication < transparency < intercultural issues
- Paediatricians consider that communication is in need of improvement followed by transparency, patients do not make any distinction between the importance of the two items.
- If generally parents/relatives have rather similar opinions with their children for the five items, parents seem to need more transparency than their children and they seem a little less sensitive than their children to the hospital environment.
- From the point of view of the health care providers, the health care staff that communication, hospital environment and time management should be improved to a larger extent than doctors.

#### REFERENCES

Integrated management childhood the World Health illness Organisation, http://www.who.int/maternal\_child\_adolescent/topics/child/imci/en/, 2003 http://www.who.int/maternal child adolescent/documents/9241545860/en/

Muzamil Shabana Ejaz1, Aneela Ahmed2, S.M. Inkisar Ali, Communication skills of doctors in a paediatric department, their perceptions and practices, vol. 26, no. 2, 2010, Pakistan Journal of Medical Sciences, http://www.pjms.com.pk/issues/aprjun2010/abstract/article26.html

Purvis JM. Engaging with younger patients; AAOS Now; http://www.aaos.org/news/aaosnow/clinical 2.asp AAOS Now 2009;3(6).

Bendapudi NM, Berry LL, Frey KA, Parish JT, Rayburn WL. Patients perspectives of ideal physician behaviours: Mayo Clinic Proc. 2006;81(3):338-344

Harringron NG, Norling GR, Witte FM, Taylor J, Andrews JE. The effects of communication skills training on paediatricians and parents communication during "sick child" visit. Health Communication 2007;211(2):105-





114

Mehta NP. Communication skills - Talking to parents; Indian Paediatrics; 2008;45;300-304.

Riley AW. Evidence that school aged children can self report on their health Ambul Pediatrics 2004;4(suppl 4): 371-376.

Kerse N, Buetow S, Mainous AG III, Young G, Loster G, Arroll B. Physician/patient relationship and medication compliance a primary care investigation. Ann Fam Med 2004;2(5):455-461.

Levetown M. Committee on Biothics; Technical Report; communicating with children and families: From every day interactions to skill in Conveying distressing information. Published on line May 1, 2008; Paediatrics; 2008;121(5):e1441-e1460 (Doi: 101542/10,1542/ Peds 2008-0565

Kemper KJ, Foy JM, Wissow L, Shore S. Enhancing communication skills for paediatric visits through on-line training using video demonstration; BMC Med Edu 2008;8:8.

Siddiqui. 1 Ibrahim Al-Alaiyan, Moath Al-Abdulsalam, Khawar Alofisan, Saleh Hussain, and Mohammad H. Al-Qahtani<sup>2</sup> Communication skills in pediatric training program: National-based survey of residents' perspectives in Saudi Arabia, Journal of Family and community Medicine, v.23(1); Jan-

Siobhan Sharkey, Claire Lloyd, Richard Tomlinson, Eleanor Thomas, Alice Martin, Stuart Logan, Christopher Morris, Communicating with disabled children when inpatients: barriers and facilitators identified by parents and professionals in a qualitative study. Health Expect. 2016 Jun; 19(3): 738-750. Published online 2014 Aug 24. doi: 10.1111/hex.12254

Jennifer Bell, Michelle Condren Communication Strategies for Empowering and Protecting Children J Pediatr Pharmacol Ther. 2016 Mar-Apr; 21(2): 176–184. doi: 10.5863/1551-6776-21.2.176PMCID: PMC4869776

Patricia Cahill, Alexia Papageorgiou, Video analysis of communication in paediatric consultations in primary care. Br J Gen Pract. 2007 Nov 1; 57(544): 866-871. doi: 10.3399/096016407782317838, PMCID: PMC2169310

Kirsten Lykke, Pia Christensen, Susanne Reventlow, GPs' strategies in exploring the preschool child's wellbeing in the paediatric consultation, BMC Fam Pract. 2013; 14: 177. Published online 2013 Nov 21. doi: 10.1186/1471-2296-14-177, PMCID: PMC3870995

Patricia Cahill, Alexia Papageorgiou, Triadic communication in the primary care paediatric consultation: a review of the literature

Br J Gen Pract. 2007 Nov 1; 57(544): 904-911. doi: 10.3399/096016407782317892

Debra Nestel, Sharon Taylor, Quentin Spender, Evaluation of an inter-professional workshop to develop a psychosocial assessment and child-centred communication training programme for paediatricians in training, BMC Med Educ. 2004; 4: 25. Published online 2004 Nov 21. doi: 10.1186/1472-6920-4-25

J Apley, Listening and talking to patients. V: Communicating with children. Br Med J. 1980 Oct 25; 281(6248): 1116–1117.

Christine Eiser, No pain, no gain? Integrating QoL assessment in paediatrics, Arch Dis Child. 2007 May; 92(5): 379-380. doi: 10.1136/adc.2006.112409

Anne Weissenstein, Alexandra Straeter, Gloria Villalon, Elisabeth Luchter, Stefan Bittmann Parent satisfaction with a pediatric practice in Germany: A questionnaire-based study, Ital J Pediatr. 2011; 37: 31. Published online 2011 Jul 5. doi: 10.1186/1824-7288-37-31

Sara L. Toomey, Alan M. Zaslavsky, Marc N. Elliott, Patricia M. Gallagher, Floyd J. Fowler, Jr, David J. Klein, Shanna Shulman, Jessica Ratner, Caitriona McGovern, Jessica L. LeBlanc, Mark A. Schuster, The





Development of a Pediatric Inpatient Experience of Care Measure: Child HCAHPS® Pediatrics, Author manuscript; available in PMC 2016 Sep 26.Published in final edited form as: Pediatrics. 2015 Aug; 136(2): 360-369. Published online 2015 Jul 20. doi: 10.1542/peds.2015-0966

Robin Philipp, Ernst Philipp, Lucy Pendered, Colin Barnard, Michael Hall Can children's paintings of their doctors be interpreted? J R Coll Gen Pract. 1986 Jul; 36(288): 325-327.

R. Howells, T. Lopez, Better communication with children and parents, Paediatr Child Health (Oxford), 18 (8) (2008), pp. 381-385

M.A. Zolaly, Satisfaction of parents of paediatric patients with physicians' communication skills in Almadinah Almunawwarah, Kingdom of Saudi Arabia, J Taibah Univ Med Sci, 7 (1) (2012), pp. 29-34 Taibah University

M.R. DiMatteo, The role of effective communication with children and their families in fostering adherence to pediatric regimens, Patient Educ Couns, 55 (3) (2004), pp. 339-344

W. Levinson, C.S. Lesser, R.M. Epstein, Developing physician communication skills for patient-centered care, Health Aff, 29 (7) (2010), pp. 1310-1318

Marcia Levetown, Communicating With Children and Families: From Everyday Interactions to Skill in Conveying Distressing Information, Pediatrics, May 2008, **VOLUME** 121 http://pediatrics.aappublications.org/content/121/5/e1441#ref-200

Flores G, Abreu M, Schwartz I, Hill M. The importance of language and culture in pediatric care: case studies from the Latino community. J Pediatr.2000;137 (6):842-848

National Center for Cultural Competence, Georgetown University, Center for Child and Human Development. A Guide for Advancing Family-Centered Care and Culturally and Linguistically Competent Care. Available a t:www11.georgetown.edu/research/gucchd/nccc/documents/fcclcguide.pdf. Accessed May 7, 2007

Field MJ, Behrman RE. Table B. 5. Minor consent for certain conditions/disorders. In: Field MJ, Behrman RE, eds. Ethical Conduct of Clinical Research Involving Children. Washington, DC: National Academies Press; 2004:354 . Available at: www.nap.edu/books/0309091810/html/354.html. Accessed May 6, 2007

Hobgood C, Tamayo-Sarver JH, Elms A, Weiner B. Parental preferences for error disclosure, reporting, and legal action after medical error in the care of their children. Pediatrics.2005;116(6):1276-1286

Maguire P, Pitceathly C. Key communication skills and how to acquire them. BMJ.2002;325(7366):697-700

Rosenbaum ME, Ferguson KJ, Lobas JG. Teaching medical students and residents skills for delivering bad news: a review of strategies. Acad Med.2004;79 (2):107-117

Heller KS, Solomon MZ. Continuity of care and caring: what matters most to parents of children with lifethreatening conditions. J Pediatr Nurs.2005;20 (5):335-346

Stille CJ, Primack WA, Savageau JA. Generalist-subspecialist communication for children with chronic conditions: a regional physician survey. Pediatrics.2003;112 (6 pt 1):1314-1320

Canadian Paediatric Society, Bioethics Committee. Treatment decisions regarding infants, children and adolescents. Paediatr Child Health.2004;9 (2):99-103

Lask B. Talking with children. Br J Hosp Med. 1992;47 (9):688-690

Field MJ, Behrman RE. Table B. 2. Age of majority. In: Field MJ, Behrman RE, eds. Ethical Conduct of Clinical Research Involving Children. Washington, DC: National Academies Press; 2004:342. Available at: www.nap.edu/openbook/0309091810/html/342.html. Accessed May 6, 2007





Field MJ, Behrman RE. Table B. 3. Emancipation conditions. In: Field MJ, Behrman RE, eds. Ethical Conduct of Clinical Research Involving Children. Washington, DC: National Academies Press;2004:344. Available at: www.nap.edu/openbook/0309091810/html/344.html. Accessed May 6, 2007

Field MJ, Behrman RE. Table B. 4. Mature minor provisions. In: Field MJ, Behrman RE, eds. Ethical Conduct of Clinical Research Involving Children. Washington, DC: National Academies Press;2004:347 . Available at: www.nap.edu/books/0309091810/html/347.html. Accessed May 6, 2007

National Research Council. Protecting Participants and Facilitating Social and Behavioral Science Press; 2003. Research. Washington, DC: National Academies Available at:www.nap.edu/books/0309088526/html/1.html. Accessed May 8, 2007