SUMMARY

Mental health problems affect worldwide 10-20% of children and adolescents with the same prevalence in both the high-income countries (HICs) and low-and-middle-income countries (LMICs). Hungary has relatively high prevalence (15.8%) of psychiatric conditions in the 4-17 years old population. The failure to address these worldwide problems amounts to an important public health issue in all countries, for the early diagnosis indicates far beyond childhood and adolescence in terms of social and economic development. This study investigated the relevant health policy documents of the Hungarian government of the last 15 years. All programs reflected the actual WHO and European Union documents, thus indicating the growing influence of the international organizations on the domestic health policy. Remarkably, the earlier programs laid much greater emphasis on the municipalities and local governments, but in the last years it was overshadowed by the greater responsibility and stronger role of the state and central government. Summarizing the documents and facing them with the day-to-day practice, there is an obvious gulf of the growing knowledge and the substandard implementation. It is an undeniable fact that the situation of the Hungarian psychiatry worsened definitely since 2006 in terms of capacities of both the in- and outpatient care. Hungary has a long way ahead to transfer the aims of already existing programs in the day-to-day practice.

INTRODUCTION

In the last decade the growing number of Hungarian and international policy documents of High Income Countries (HICs) indicates clearly the rising awareness of the general public, international organizations, national and regional governments, specific professional corporations and civil organizations on the significance of mental health issues and psychiatric care of children and adolescents.

The 2015 share of children (0-14 years) was 26.11% in the world's population (7,347 billion), declining since 1966 (38%). In Hungary, the same proportion fell from 25% (1960) to 15% (2015) [32]. Today, around 1.2 billion adolescents (10-19 years) represent 16% of the world's population. In Hungary their share fell from 16% (1950) to 11% (2010) [33].Actually, nearly one third (2.2 billion) of the world's population are children and adolescents yet their overwhelming majority (90%) is living in low-income and middle-income countries (LMICs) [UNICEF].

Mental health problems affect worldwide 10-20% of children and adolescents. A systematic review of original studies in LMICs indicated the same prevalence of 10-

20%, which is consistent also with values of the high-income-countries (HICs) [1]. Reliability of epidemiological data is fundamental, for these assist policy and decision makers in assessing community needs and allocating resources. However, it must be concerned that epidemiological studies might have indicated misleading data about the prevalence of mental disorders as a result of overdiagnosis in the clinical practice of developed countries [2]. Estimating the real prevalence of mental disorders is particularly challenging because of the different data sources and surveillance methods of pediatric mental disorders. Additionally, cultural differences could have broad implications for estimating the prevalence of mental disorders as well [3].

Neuropsychiatric disorders are a leading cause of health-related disability during the first three decades of life, accounting for 15-30% of the loss of disability-adjusted life-years (DALYs) [4]. Recent data suggest that currently used approaches underestimate the burden of mental illness by more than a third. Thus the global burden of mental illness could account for 32.4% of years lived with disability (YLDs) and 13.0% of disability-adjusted life-years (DALYs) [5]. According to the Global Burden of Disease Study 2010, mental and substance use disorders are among the leading causes of disease burden, being responsible for 7.4% of global DALYs and 22.9% of global YLDs, making them the fifth leading cause of DALYs and the leading cause of YLDs [6].

The Atlas Project of the World Health Organization (WHO) on child and adolescent mental health revealed the real global burden of this medical problem. Around 20% of children and adolescents suffer from mental illnesses that end up in disability. Additionally, 50% of all adult mental disorders may be traced back to the adolescence. There were several gaps identified in resources of child mental health, especially in LMICs concerning human resources, services, training, health economy and policy [7].

The failure to address worldwide mental health problems of children and adolescents in most of the countries amounts to an important public health issue. As substantial part of adults’ mental health conditions sets on in the early years [8] its significance of their early diagnosis indicates far beyond childhood and adolescence in terms of social and economic development [9]. Risk factors of mental conditions are prevalent from the preconception period as there are risks like genetics, unplanned pregnancy, later on maternal prenatal and perinatal physical and mental distress and adolescent parenting. Risk factors specific to the pre-school and school age are problems of physical health and nutritional status, deficiencies in psychosocial and educational environment, of being orphaned and/or raised in child protection facilities, bullying, perceived obesity, academic difficulties, use of tobacco, alcohol, and drugs among others. Adults are endangered by career difficulties, unemployment and further socioeconomic factors. Systematic reviews have also shown that the prevalence of mental health problems of children in LMICs’ resemble those living in HICs [1].

Mental health conditions are less represented in the general morbidity by their invisibility and hiding nature. Thus mental disorders are likely to be underestimated however they are substantially increasing the utilization of health services through interactions of mental and physical conditions. Therefore, health-care systems should be prepared to improve mental health awareness and mental health care while integrating them into social policy, health-system planning, and delivery of primary and secondary health care [10]. Physicians of the primary care play a pivotal role in starting the management of child and adolescent mental health cases. Their main concerns are even in rural and under-serviced areas of developed countries the difficult access to child and adolescent psychiatrists, and need for more systemized and transparent referral processes to other specialists as pediatricians, psychologists, and social workers [11]. Additionally, child and adolescent mental health services interact with several other social systems (education, social care, and criminal justice) which are intensively affected by mental health issues thus have an important role in promoting mental health services [12].
To set up new and develop already existing child and adolescent mental health services, it is essential to understand decision-making procedures of central governments and the intersectorial competition for financial resources, thus there is a need to develop specific economic arguments to gain the attention of policy makers and influence resource allocation [13]. Relevant studies in HICs clearly indicated the long-term and wide range economic consequences of childhood mental health problems not only in terms of education [14] but on adult health and labor market conditions [15]. Strong economic arguments support early investment in disadvantaged children, for early prevention is often more cost-effective than later remediation. Early investments have higher return than those made at later ages as they have many positive effects through both self-productivity and cross-productivity nature of cognition, physical and mental health capabilities [16].

At the beginning of the 2000s, the Atlas of Child and Adolescent Mental Health Resources suggested that governmental child and adolescent mental health policies are rather rare worldwide [17]. The United Nations (UN) resolution on a World Fit for Children endorses the commitment that “every child has the right to develop his or her potential to the maximum extent possible to become physically healthy, mentally alert, socially competent, emotionally sound and ready to learn” [18]. Unfortunately, this declaration was not followed by development of specific policies and/or programs to support the development of child and adolescent mental health services [19].

The World Report on Violence and Health of the WHO [20] indicated that abuse and negligence in the early life years lead later to mental health problems. Following this, the UN adopted in 2007 the Convention on the Rights of Persons with Disability, which includes provisions for those affected by mental illness and intended to affect country-level advocacy for the development of mental health services for children as well and for the humane treatment of those with mental health problems – including children and adolescents [21].

Although political will is indispensable, the other key element to establish and develop child and adolescent mental health policies is the education of the public about the need for such services for the wellbeing of the whole population [22]. Reputable international and professional organizations (The World Psychiatric Association Presidential Program on Child Mental Health, a collaboration between the World Psychiatric Association, WHO, and the International Association for Child and Adolescent Psychiatry and Allied Professions) developed an instrument to support promotion of child and adolescent mental health to develop advocacy programs which could influence the special policies [23].

Based on the bulk of the growing body of knowledge, it is rather strange that major international nongovernmental organizations (NGOs) and agencies (except the WHO) are paying less attention to child and adolescent mental health care. The lack of specific interventions indicates potential long-term negative effects on educational attainment, chronic disability and lost productivity, therefore the primarily preferred broad psychosocial strategies should be coupled with targeted interventions in the mental health systems. Child and adolescent policy development depends not only on the mobilization of financial resources, but also on the mobilization of potential stakeholders [24].

In the USA there was a substantial growth of the child and adolescent mental health services in the last decades, but despite this fact and the positive changes around this issue, only 20% of children and adolescents needing psychiatric treatment received help, thus the relatively scarce services within a fragmented system leave 80% of children and adolescents with psychiatric illness untreated [25]. The authors pointed out that in the future the emphasis for child and adolescent psychiatry should be on
caring for more patients for less money while providing evidence of better clinical outcomes to greatly increasing access to effective treatment for the large number of children who currently receive none. This study articulated the vision of optimized care as "Patients should flow seamlessly from the community into child and adolescent psychiatric services and back, and from one program to another, with evidence of constant care coordination and an emphasis on quality. Available resources should follow patient demand so that we can be responsive to populations and to immediate clinical need" [25].

Speaking about European developments, the deepest roots of child psychiatry could be traced back to the 1800s however it developed separately until the WW2 in the specific countries. The European Society of Child Psychiatrists (ESCAP) was founded 1960 in Paris to support professional collaboration and setting up international networks for global integration. Clinical Centers of Excellence support evidence-based care at national level promote mental health and national health policies to raise public awareness and foster public advocacy related to the mental health of children, adolescents and their families [26].

RESULTS

In order to compare health policy documents of the Hungarian government with worldwide trends of child and adolescents psychiatry we used the analytical approach of governments' programs and position papers of academic circles and scientific medical societies. We analyzed four basic programs of successive governments: 1) National Program of the ‘Decade of Health’ [27], 2) “Our Children Our Treasures” - National Infant and Child Health Program [28], 3) “Semmelweis plan for saving the health system - Revitalization and Treatment” [29], 4) “Healthy Hungary [30]”.

National Program of the “Decade of Health” (2003)

The program was adopted in 2003 by the new Parliament after the 2002 general elections. It was the improved and updated version of the former Public Health Program of the previous government. At the doorstep of the new millennium, this new program emphasized dramatically the very poor health status of the Hungarian population while presenting striking morbidity and mortality statistics. It focused on historic facts of the prior decade after the fall of Communism (1989-1990), concerning the widening economic gulf of social classes and the shock wave of unemployment striking most seriously the male population. For changing these circumstances the government was determined to start a general socio-economic program backed up by all stakeholders of the Hungarian society. Among the primary aims, the program targeted the mental and physical health of children and adolescents, emphasizing the prevention of avoidable mortality and disabilities. Within the young population pre-school and elementary school children were concerned as a special target group of health education and promotion programs.

Mental health prevention was a separate chapter aiming the mental health status of the general population by improving quality of life and health awareness. Empiric knowledge indicated the extremely serious situation yet there were available relatively few reliable data. Suicide was a pre-eminent concern, because before 1994 Hungary was by its 45.9/100,000 rate at the top of the world’s list of the suicide mortality statistics. Although the rate has been decreased by one third in 2002, the program indicated the consumption of alcohol and illegal drugs as a serious problem of adolescents in terms of underlying causes of suicide as one of the leading causes of death in the 16-24 years age group.

Based on these facts, seven key objectives were set for the following 10 years: 1) downsizing general prejudices and misconceptions related to mental illnesses
and mental health disorders, 2) primary prevention of mental disorders by health education and promotion, 3) early detection and treatment of psychiatric disorders by sensitizing primary health care providers, 4) to develop community mental health programs and improving structures and functions of the psychiatric in-patient care, 5) reduction of the suicide rate of children and adolescents at least by 20%, 6) reduction of the general suicide rate to the 20/100,000 level and 7) increasing the number of registered depression patients at least by 30%.

In order to achieve these goals, there were listed the following necessary actions: 1) primary prevention projects focused mainly to the family and school environment, 2) updating the structure and function of mental health facilities, 3) transfer of psychiatric in-patient care to the community psychiatry model, 4) decentralization of out-patient psychiatric care by financial incentives, 5) increasing the number of health personnel, by training of community psychiatric nurses, social workers and rehabilitation experts, 6) supporting local governments for participation in pilot projects, 7) developing psychiatric out-patient units, 8) increase the number of children and adolescent out-patient care units in close collaboration with child protection agencies.

The following chapter discussed the tasks associated with alcohol and drug prevention. While presenting the actual situation, great emphasis was laid on the high prevalence of adolescents’ alcohol consumption, its early initiation and the increase of illegal drug use in younger ages. Against this background, one of the most important objectives was to reduce the early initiation of alcohol consumption and the use of illegal drugs as well.

“Our Children Our Treasures” - National Infant and Child Health Program (2005)

This program was issued by the government in close collaboration with national health institutes, university departments and NGOs. The preamble quoted as motto the WHO slogan „Children are our investment in tomorrow’s society”. According to the UN declaration on the International Convention on Children’s Rights, children were classified as persons under 18 years including infants and all adolescents of school age. As a global priority, the WHO has prepared a document on „Strategic directions for improving the health and development of children and adolescents” in accordance with the UN poverty reduction, human resources development and sustainable social and economic development program.

In 2003, the 53rd session of the WHO Regional Committee for Europe declared the children’s and adolescents’ health and health promotion as a highest priority and in September 2005 the document of the European Strategy for Child and Adolescent Health and Development was discussed and approved [35,36]. The Hungarian program was based essentially on these recommendations followed by a special program for infants and pre-school children. The long-term program considered the period from the conception to 18 years as a firm base of later physical and mental capacities, disease prevention and health promotion. Maternal and child health care service is a particular and unique part of the Hungarian health care system, run by district based specially trained and licensed nurses.

The program was supported by detailed statistical analyses nevertheless it was clearly indicated that all available data of children morbidity provided by the National Statistical Data Collection Program raised substantial questions about their reliability. Parallel epidemiological studies highlighted that 2 out of 10 children had some kind of emotional and behavioral problems, or frequent psychosomatic complaints (typically headache, abdominal and stomach pain), further signs of tiredness and anxiety. Aggressive behavior was found in 18-28%, and 16% of children were diagnosed with deviant behavioral disorders. The growing concern about using personal electronic
devices was also indicated, in terms of decreased physical activity, mental and psychosomatic changes.

Chapters about the adolescents' lifestyle risk factors presented the latest national data of tobacco smoking, regular or binge drinking style of alcohol consumption, drug abuse and early initiation of sexual activity. Concerning the reproductive health, there was especially striking the girls' early (<10 years) smoking initiation. Life prevalence values of illegal drug consumption doubled in the second half of 1990s. It was pointed out, that there were serious shortages in caring for less than 16 years old drug users as a result of low number of specialized pediatric departments for mental hygiene and child psychiatry. Developing these capacities would require a complex program in close collaboration with educational facilities and child protection agencies. The program indicated clearly, that the available network with confused competencies of educational counseling services and crime prevention was unable to manage the hardest psychiatric cases. 15.8% (n=347,000) of children and adolescents require psychiatric care in Hungary, but among them only 10% were registered. Additionally, the regional centers shifted their activity toward providing 16-18 years old patients, and closed capacities for treating illegal drug using patients <16 years of age.

The 7th Chapter is dealing exclusively with main objectives for developing child and adolescent psychiatry: 1) in the first wave Psychiatric wards (20-30 beds) and outpatient care units should be established in Hungary’s four metropolitan cities; 2) subsequently plans have to be prepared for further psychiatric wards to achieve the standard of minimum 6 beds /100,000 inhabitants and guideline development is necessary for psychiatric emergency care by agreement of all professional groups; 3) Rehabilitation facilities are needed for patients with behavioral disorders, in collaboration with child protection agencies; 4) Professional supervision must be established in each of Hungary’s seven regions; 5) for early detection and identification of illegal drug users there should be arranged special training courses particularly for general practitioners and other professionals managing underage population.

“Semmelweis plan for saving the health system-Revitalization and Treatment” (2011)

The health secretary of Ministry of National Resources issued this strategic white paper after a nationwide consultation with 114 competent national institutions, professional and social organizations. WHO experts took also part in the project while preparing the public health chapter. The program defined the infant, child, and youth healthcare as a complex subsystem operating in collaboration with educational, sports, youth and social programs providing equal opportunities for the age groups concerned.

Hungary met earlier the highest international standards in psychiatry but actually it needs desperately help to cope with the worldwide worst incidence of mental illnesses and prevalence of alcoholism. As a result of austerity measures of the 2000s, psychiatric inpatient capacities decreased drastically by 24% and ended up in the last but one place among the European Union (EU) countries. In the secondary care, the Semmelweis Plan prioritized explicitly the child and adolescent psychiatry. Referring to international and national epidemiological studies, it demonstrated that 15.8% of Hungarian children aged 4-17 years were suffering from mental conditions. As a matter of fact, the healthcare system was lacking of the necessary professional personnel and institutional infrastructure and thus the vast majority of patients remained underserved in diagnostic and therapeutic terms alike.

According to the program for a substantial improvement the most important tasks of child and adolescent psychiatry were: 1) Increasing the number of specialist in psychiatry, clinical psychologists, specialized licensed nurses, educational advisors
and behavioral experts, 2) Establishing a nationwide network of school psychologists, 3) Increasing capacities of inpatient facilities with high security wards, 4) Creating children’s mental health centers in the seven administrative regions of the country with specialized multi-disciplinary teams (child psychiatrists, psychologists, special educational advisors, speech therapists, social workers, child protection employees, family therapists, and psychotherapists), 5) Setting up 15-bed emergency units for attempted suicide patients and those in acute crisis situation, 6) Increasing the number of rehabilitation beds for patients suffering from schizophrenia, autism, eating disorders, etc., 7) Developing outpatient care and rehabilitation network concerning also illegal drug addict residents in the homes of the National Children and Adolescent Protection Agency.


This latest strategic paper had been prepared in 2014 and was approved by the Hungarian Government as a Government Decision and the Minister of Human Resources - who is responsible also for the entire health sector - was called upon to start the necessary actions to achieve its goals. The strategy was based on the Semmelweis Plan 2011, updating its priorities and actualizing the objectives included.

Based on the analysis of relevant indicators, the document classified the strategic priorities of improving the physical and mental health status of the population at individual and community level respectively for the period 2014-2020 as it follows: 1) Significant, at least 10% improvement of the general mental health status of the population, 2) Reducing the number of suicides by 10% among the general population, 3) Reducing the school- and domestic violence, 4) Improving the services of preconceptional care and increasing the number of the planned pregnancies, 5) Developing the community rehabilitation of child and adolescent psychiatric patients.

Achieving these goals the health policy priorities are until 2020: 1) Low threshold preventive psychological care and psychotherapy at the primary level, 2) Improvement of community psychiatry for depression and anxiety patients, 3) Developing the outpatient network by collaboration with the social care system, 4) In terms of patient pathway management, creating a net of mental health coordinators caring for children and adolescents discharged from inpatient care.

Structural improvements aim the development and modernization of children health care facilities by establishing new children and adolescent healthcare centers, which include active psychiatric and addiction treatment departments and integrated out-patient units, with services of early development child care intervention.

DISCUSSION

Psychiatric care of children and adolescents operates between pediatrics and psychiatry, thus it is exposed to all changes in theoretical and practical terms of both specialties. Consequently, while analyzing the documents it was necessary to excerpt also the pediatric parts of the programs. There are explicit similarities in system planning and trend settings. Supported by relevant international and domestic studies, principles of the evidence based medicine are accepted also by the health policy makers of the successive governments.

Obviously all programs incorporated the actual WHO and EU documents, showing that their impact was growing on the national health policy. Initially, only the principles and substantial aims were taken over as highlighted in the introduction of the “Our Children our Treasures, National Infant and Child Health Program” [28]. Nevertheless the latest program, Healthy Hungary [30] transferred practically the whole framework of the concerning WHO document and applied it to the domestic circumstances while completing them by the specific national endeavors. This phenomenon indicates
clearly the growing influence of the WHO and other international organizations on the Hungarian health policy.

While comparing the specific documents, there is an obvious continuity even though it is sometimes denied by the actually governing political parties for ideological reasons. Some documents refer explicitly to the previous ones while accepting or rejecting them, some are seemingly neglecting them entirely. From professional point of view, continuity is a key issue concerning patients and parents, health personnel and health care facilities because they are not to be re-arranged by every new government in four years terms of the regular parliamentary cycles. Great social networks as education, culture, and health care are heavy and slow motion structures, thus they may be changed only through consistent and long-term programs supported by all interested stakeholders.

Documents analyzed in this study are weighting differently the general problems of mental health and the domestic psychiatric care system and especially those of the child and adolescent psychiatry. Distinct approaches depend on whether the program or plan targets the overall problems primarily from public health point of view (National Program of the Decade of Health [27]), or the health care system modernization (Semmelweis Plan for Saving the Health System - Revitalization and Treatment [29]), or combine both approaches (Healthy Hungary) [30]. In our view, the most important documents are of course the age specific Our Children our Treasures - National Infant and Child Health Program [28] and the National Program of Mental Health 2014-2020 of psychiatric experts (still under preparation).

Each document is dealing with the real social significance of mental hygiene and conditions, however they are using differently presented arguments of medical and social sciences. The period under review (1990-2015) generated fundamental changes among others also in the mental health status of the population after the fall of the former Communist system (e.g. unemployment, re-thinking of societal values, etc). Remarkably, the documents are pondering differently the weight of prevention in school health services and in developing specific areas of child and adolescent primary and secondary care. Finally all documents indicate hard challenges while balancing between central and local governments in multi-sectoral issues, like tailored programs of primary prevention, health education and promotion, increasing health awareness of children and adolescents in different institutional settings and satisfying professional requirements of mental health services. Although there is a striking difference: the earlier programs laid much greater emphasis on the municipalities and local governments, but in the last years it was overshadowed by the greater responsibility and stronger role of the state and central government.

The greatest merit of the National Program of Decade of Health 2003 was the first step toward reducing prejudices related to psychiatric conditions, initiating primary prevention of mental disorders and diseases by running models of community psychiatry, additionally reducing the adolescent suicide rate by 20%. Pre-eminent changes to be implemented were the transformation of traditional psychiatric institutions toward community psychiatry, supporting local governments for re-arranging the primary health care, changing financial incentives and funding of mental health education and promotion and long term psychiatric care, emphasizing also the significant expansion of children and adolescent mental health services.

In the middle of the 2000s, the Our Children our Treasures - National Infant and Child Health Program 2005 adopted new strategies of developing age specific mental health care by establishing new psychiatric wards for children and adolescents (at least 60 beds/100,000 inhabitants), extended capacities of the outpatient care and psychiatric emergency units for underage population and supported school health services for
managing problems of behavioral disorders, illegal drug use and rehabilitation of young psychiatric patients.

The Semmelweis Plan for Saving the Health System - Revitalization and Treatment 2011 realized the imminent threat of “mental epidemics” indicated by high prevalence (15.8%) of psychiatric conditions in the 4-17 years old population. At the same time the Plan admitted that Hungary while lacking human and material resources is not equipped to provide the vast majority of potential patients, which impaired substantially the principles of equity and accessibility. As necessary improvements the Plan aimed increasing the number of specialists, widening the school psychologists’ network, increasing the capacities of special psychiatric wards for underage patients with high security departments, extending the competencies of outpatient care units enabling them for managing illegal drug use problems of school children and arranging their rehabilitation.

Actually, the last issued document Healthy Hungary 2014-2020 endeavor to show the near future while encouraging pre-eminently family doctors of the primary health care for providing basic mental health services. Following these ideas, general practitioners would also be stakeholders of community mental hygiene and psychiatry supported by professionally trained nurses and psychologists.

While summarizing the basic health policy documents on children’s and adolescents’ mental health services and facing them with the day-to-day practice, there is an obvious gulf of the growing knowledge and its substandard implementation. Realizing the shortages of human and material resources and concerning the missing investments, Hungary has the same problems as the middle income countries. It is an undeniable matter of fact as it was revealed by the audit report of the State Audit Office of Hungary (2012) about the re-organization of mental health services [31]. However it must be emphasized that this report concerned only the use of public financing resources without any considerations of theoretical or practical aspects of the psychiatry. The report revealed that general conditions of the domestic psychiatry inclusive the caring for children and adolescents worsened definitely since 2006 in terms of decreasing capacities of both the in- and outpatient care the extent of which in some services (long term care) became a permanent and imminent risk of the regular operation. Thus Hungary has a long way ahead to transfer the aims of already existing programs in the day-to-day practice.

REFERENCES


31. Hungarian State Audit Office: “Report of the State Audit Office of Hungary about the re-


