



Oral Health Policy and Recommendations for Children with Hemophilia in Bulgaria

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Abstract

BACKGROUND: Hemophilia is the most common inherited coagulopathy, but its diagnosis and treatment are still a challenge for healthcare professionals. Collaborative efforts between National bleeding disorder agencies, World Federation of Hemophilia, Ministries of Health, educational institutions, and non-governmental organizations aim to improve access to care and the quality of life of people with coagulopathies

AIM: The aim of this study was to analyze and critically evaluate the oral health policy for children with hemophilia in Bulgaria.

MATERIALS AND METHODS: A sociological survey is conducted among dentists in Bulgaria during the period 2019 - 2020 about their attitude toward the oral health policy regarding children with hemophilia in Bulgaria. The oral health legislation of Bulgaria and international guidelines for dental care of people with hemophilia is critically evaluated. Data is revised and synthesized for implementation in the Bulgarian health policy.

RESULTS: In 2013, the first European guidelines for the certification of Hemophilia Centers are published, which is the only document accrediting centers for rare diseases. According to the recommendations of the World Federation of Hemophilia, dental and medical care for people with hemophilia should be provided in hemophilia treatment centers. According to the latest guidelines from 2020, dental care for people with hemophilia should be provided by every dentist, regardless of their specialty. Most of the dentists ($n = 88$; $84.62 \pm 3.54\%$) would be more confident in treating a patient with hemophilia in their practice if they are part of an organized team. In need of a consultation with another doctor, dentists prefer to refer the case to a specialist clinical hematologist ($n = 74$; $71.15 \pm 4.44\%$), pediatric oncohematologist ($n = 60$; $57.69 \pm 4.84\%$), or oral surgeon ($n = 35$; $33.65 \pm 4.63\%$).

DISCUSSION: Improvement can be achieved through programs for management of specific dental conditions, targeted at rare disease groups, and successfully implemented in health policy at the local level.

CONCLUSION: Potential new policies may offer more dental treatment options for people with hemophilia. In-depth clinical and sociological studies are needed to determine the optimal effect in the current state and situation.

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Introduction

Hemophilia is the most common inherited coagulopathy, but its diagnosis and treatment are still a challenge for healthcare professionals. Collaborative efforts between national bleeding disorder agencies, World Federation of Hemophilia, Ministries of Health, educational institutions, non-governmental organizations aim to improve access to care, and the quality of life of people with coagulopathies [1].

In times of pandemic situation, the processes of globalization and integration in the European Union risk to be compromised but are extremely important more than ever. Efforts lie in the international political strategies creation and update of programs applied to the specific local sociocultural characteristics of countries. In the development of local policies, it is especially important to borrow and implement European and global ones, which is a trend for future action. Priority is given to the processes of achieving one

united community, where an access to healthy lifestyle is guaranteed and the promotion of well-being for all people, of all ages and groups are promoted. Health as a basic human right for people with rare diseases and components of sustainable development always go through long periods of implementation, difficulties, and obstacles. The adaptation of international health policies and their adoption in the specific national and local sense determine the need to develop approaches to optimize this process [2].

The reason for this is that in recent months the demand of society and institutions to the health care system have increased. Increasingly, the focus is on the gaps and weaknesses in the health system, rather than on the constructive functioning and support of its employees and management teams. Access to organized health care, specifically targeted at rare disease groups, is a focus of the WHO and other global organizations. They aim to unify health legislation and help implement modern programs for dental treatment and prevention in health policy at the local level.

The aim of this study to analyze and critically evaluate the oral health policy for children with hemophilia in Bulgaria.

Materials and Methods

A sociological survey is conducted among dentists in Bulgaria during the period 2019–2020. Data are collected through direct individual questionnaires, containing 15 open-ended, close-ended, and mixed questions. The analysis of the data is realized with the statistical package IBM SPSS Statistics v.25 (IBM Corp., Armonk, NY) and Microsoft Office Excel 2016. The oral health legislation of Bulgaria regarding people with hemophilia is also critically evaluated. A systematic search is conducted in the Medline database with no time limitation. Only publications from online databases discussing oral health policy are included in the review. The selected articles are revised and synthesized for possibilities for implementation in the Bulgarian health policy. All international and national guidelines for dental treatment of people with hemophilia are reviewed.

Research team discussed and decided to divide data into themes: Health legislation and policy concerning the oral health of children with hemophilia in Bulgaria and attitude of the dentists toward the oral health policy regarding children with hemophilia.

Results

Health legislation and policy

The medical care for all children is at the expense of the national budget, as regulated by the Health Insurance Act [3], [4]. The dental activities to which children are entitled are fully or partially covered by the NHIF [3]. According to the recommendations of the World Federation of Hemophilia (WFH) [5], dental and medical care for people with hemophilia should be provided in hemophilia treatment centers [6], [7]. The health legislation regulating all activities regarding the registration and establishment of specialized medical establishments for people with rare diseases is Ordinance No. 16 of 30 July 2014 on the terms and conditions for registration of rare diseases and expert centers and reference networks for rare diseases [6]. The activities under Ordinance 16 are managed by the Commission on Rare Diseases at the Ministry of Health [8].

In 2013, the first European guidelines for the certification of Hemophilia Centers are published, which is the only document accrediting centers for rare diseases [7]. The guidelines have been developed as

a result of a project of the European Commission and the European Hemophilia Network (EUHANET) and aim to develop standards and criteria for certification of Hemophilia Centers [9], [10], [11]. These are centers that are officially designated by the health authorities in each country, but also meet the Orphanet criteria, adapted from the recommendations of the European Union Committee of Experts on Rare Diseases [12], [13]. They are registered as inpatient or outpatient care facilities (according to the Medical Establishments Act) the purpose of which is to provide comprehensive care for patients with coagulopathies [14].

According to the recommendations of the World Federation of Hemophilia so far, people with hemophilia should be referred to a professional dental consultation in case of a dental problem manifesting with pain [5]. They are based on the two editions of global guidelines for the treatment of hemophilia (from 2005 and 2013) [13], [15], [16], [17]. The third edition is published in August 2020 and contains the latest recommendations in the form of clinical guidelines based on evidence in the scientific literature [5].

Attitude of the dentists

The latest version of the guidelines for the treatment of hemophilia emphasizes the maintenance of good oral health and prevention of oral pathology, such as dental caries, gingivitis, and periodontal disease, a main priority for all dental professionals [5]. Asked about their self-confidence in providing different dental services for people with hemophilia, 104 dentists with different experience participated in the research. Dentists are divided into three groups with experience between 1 and 5 years ($n = 49$; 47.10%), 6 - 15 years ($n = 42$; 40.40%), and over 15 years ($n = 13$; 12.50%). Dentists are recruited from all six statistical territorial regions (NUTS 2) in Bulgaria. The relative share of those who have had a patient with hemophilia in their practices ($n = 36$; 34.62%) increases with their experience ($\chi^2 = 13.69$; $P = 0.00$). Most of the dentists express full confidence to provide check-ups ($n = 101$; 97.12%) or conservative restorations ($n = 93$; 89.42%) (Table 1). More than half of them are not fully confident but are willing to provide a dental procedure which is including local ($n = 54$; 51.92%) or conduction dental anesthesia ($n = 53$; 50.96%). The majority of dentists ($n = 75$; 72.12%) would refer a patient with hemophilia to a specialist in case of an invasive treatment, requiring dental extraction.

Table 1: Self-confidence of Bulgarian dentists in providing dental services for patients with coagulopathies

Dental services for patients with coagulopathies	I am confident, n (%)	I am not confident, but I would provide, n (%)	I would refer to a specialist, n (%)
Prophylactic examination	101 (97.12)	2 (1.92)	1 (0.96)
Conservative restoration	93 (89.42)	5 (4.81)	6 (5.77)
Dental restoration with a local anesthesia	35 (33.65)	54 (51.92)	15 (14.42)
Dental restoration with a conduction anesthesia	23 (22.12)	53 (50.96)	28 (26.92)
Tooth extraction	10 (9.62)	19 (18.27)	75 (72.12)

The differentiation of the specialties in dentistry and the postgraduate options every dentist to choose whether to work general dentistry or to focus on a narrower specialty are influenced by personal preferences and continuing education opportunities. There is an increase in the public interest into dental and medical establishments where patients can be treated by a multidisciplinary team as dental and medical-dental centers [18]. The opinion of the dental professionals regarding work as a member of an interdisciplinary team or managing individual practice is evaluated. Response is based on their experience and knowledge about procedures provided to a patient with a bleeding disorder. Most of the participants in the study are willing to participate in a multidisciplinary team for treatment of people with coagulopathies. More than half of the respondents agree to be part of a specialized team, regardless of their specialty (n = 58; 55.77%).

In the same time, if a proper organization is provided for a teamwork with the medical professionals from the hemophilia treatment center, most of the dentists (n = 88; 84.62%) would be more confident in treating a patient with hemophilia in their practices (Figure 1). In need of a consultation with another doctor, dentists confirm that they would refer the case to a specialist clinical hematologist (n = 74; 71.15%), pediatric oncohematologist (n = 60; 57.69%), or oral surgeon (n = 35; 33.65%) (Figure 2).

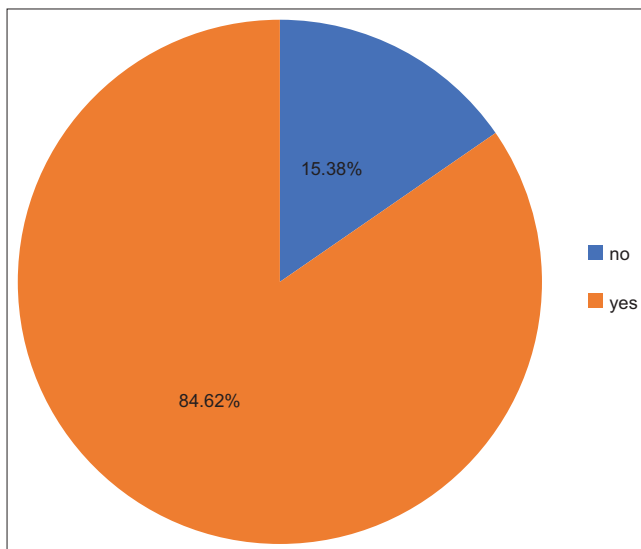


Figure 1: Confidence of dentists to work together with a specialized team from the hemophilia centers

Discussion

General recommendations

People with coagulopathies have an increased need for dental prophylaxis from a child age. Through early dental prophylaxis in children,

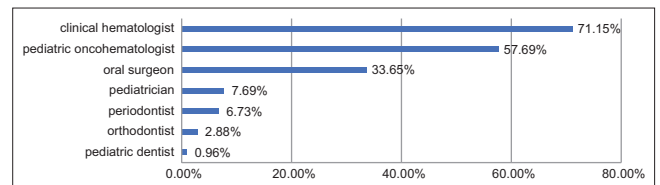


Figure 2: Options for a consultation before dental treatment for a patient with hemophilia

complex dental treatment leading to bleeding could be avoided. An integrated approach to comprehensive care including the dental services in the healthcare system can be guaranteed successfully at a Centre for Comprehensive Treatment of patients with hemophilia. It is recommended that dental treatment protocols for people with hemophilia differentiate between high-risk and low-risk procedures, depending on the risk of bleeding. Only after an evaluation of the bleeding risk, premedication is determined and the patient is referred to a specialized dental establishment or hospital facility. In high-risk cases, premedication must be considered. It is based on the type of dental service to be provided. According to all treatment guidelines, hemostasis management is supervised by a hematologist [5], [13]. Moreover, expert dental care for children and adults with coagulopathies should be provided on evidence-based dental protocols, depending on the severity of hemophilia (Figure 3).

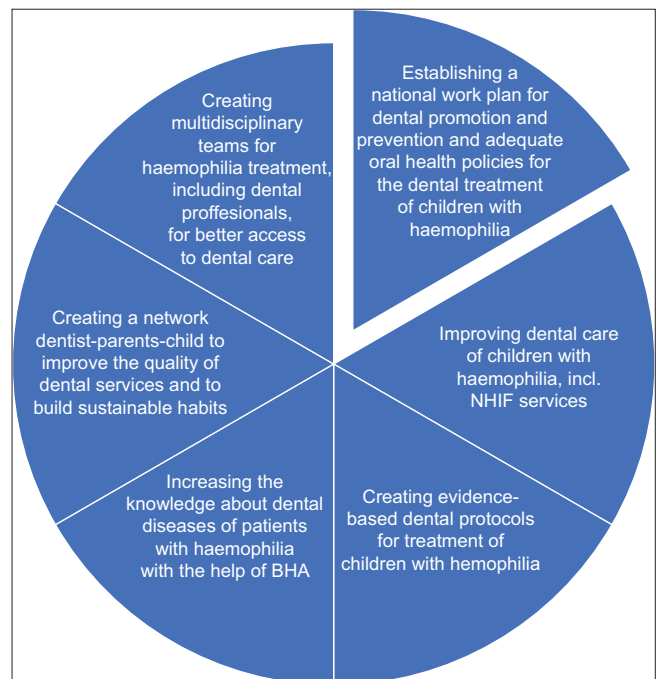


Figure 3: Recommendations and strategies for oral health policy improvement for people with hemophilia

For the first time in 2018, Bulgarian hemophilia association organizes lectures regarding dental health for people with hemophilia. The association has played an active role since 1995 in the social life of people with hemophilia, working in a direction for public benefit. It would be a good practice if lectures concerning dental health are annually included in the educational program

of the summer camp for parents and the summer rehabilitation camp for children. The lectures are mainly with preventive purpose, and patients have the opportunity to receive recommendations on all issues related to their dental health.

Health legislation and policy recommendations

Apart from the clinical aspect of the treatment, it is necessary to pay attention to the dental services for children provided by the health insurance fund in Bulgaria [3]. The full range of covered dental services is provided to none of the age groups, which leads to an increase in the number of medical establishments working without a contract with the NHIF. The relative share of private dental practices is high, which increases the need for direct payments by patients [19], [20]. This could be a burden for many patients. The goal of the National Health Strategy for the next 10 years is to reduce direct payments from consumers. However, this could be done at the expense of improving access to primary dental services, as well as increasing their package by the NHIF. Better access to dental services for people with bleeding disorders should be guaranteed through even distribution of dentists in urban and rural areas. Dental practices' locations significantly predominate in the city areas. A trend toward urbanization is also observed in specialized dental practices, which may compromise the access to secondary dental care [19]. Nevertheless, the unmet dental needs of patients in Bulgaria (12.6%) are close to the European average (12.3%). They turn out to be significantly higher than the unmet needs for prescribing medicines, mental health care or even medical care [21]. Improvement can be achieved through programs for management of specific dental conditions, targeted at rare disease groups, and successfully implemented in health policy at the local level.

Conclusion

The goal of any health care system is to meet the needs of its priority groups and provide access to effective medical and dental care. Determining whether the state has provided and met the needs of its citizens is difficult, so differences between target groups must be taken into account. Increased public and individual awareness are needed to harmonize national and international programs concerning people with rare diseases. The focus of the oral health policy for children with hemophilia will remain active dental prophylaxis, to avoid complicated dental treatment, and to reduce the bleeding risk. Future strategies could be suggested to launch a specific oral health program for children

with hemophilia with components of prevention, care, education, and support for the whole family. Potential new policies may offer more dental treatment options for people with hemophilia. In-depth clinical and sociological studies are needed to determine the optimal effect in the current state and situation.

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