

ISSN 2509-4327 (print)
ISSN 2510-4780 (online)

Inter
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Deutscher Wissenschaftsherold German Science Herald

№ 2/2017

Die Zeitschrift „Deutscher Wissenschaftsherold“ ist eine Veröffentlichung mit dem Ziel ein breites Spektrum der Wissenschaft allgemeinverständlich darzustellen. Die Redaktionsleitung versteht sich als Vermittler zwischen Wissenschaftlern und Lesern. Durch die populärwissenschaftliche Bearbeitung wird es möglich unseren Lesern neue wissenschaftliche Leistungen am besten und vollständigsten zu vermitteln. Es werden Untersuchungen, Analysen, Vorlesungen, kurze Berichte und aktuelle Fragen der modernen Wissenschaft veröffentlicht.

Impressum

Deutscher Wissenschaftsherold – German Science Herald

Wissenschaftliche Zeitschrift

Herausgeber:

InterGING

Sonnenbrink 20

31789 Hameln, Germany

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Marina Kisiliuk

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Gestaltung:

N. Gavrilets

Auflage: № 2/2017 (Juli) – 25

Redaktionsschluss Juli, 2017

Erscheint vierteljährlich

Editorial office: InterGING

Sonnenbrink 20

31789 Hameln, Germany

Tel.: + 49 51519191533

Fax.: + 49 5151 919 2560

Email: info@dwherold.de

Deutscher Wissenschaftsherold - German Science

Herald is an international, German/English language, peer-reviewed, quarterly published journal.

№ 2 2017

Passed in press in Juli 2017

Druck: WIRMachenDRUCK GmbH

Mühlbachstr. 7

71522 Backnang

Deutschland

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INDEXING: Google Scholar, WorldCat, InfoBase Index, Journal Index, Citefactor, International Scientific Indexing, JIFACTOR, Scientific Indexing Services, International Institute of Organized Research.



JIFACTOR



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Academic Scientific Journals



Scientific Indexing Services



INTERNATIONAL
Scientific Indexing



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<http://miar.ub.edu/issn/2509-4327>

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EPIDEMIOLOGICAL ANALYSIS OF DENTAL DISEASES AMONG INDIVIDUALS EXPOSED TO UNFAVOURABLE PSYCHOEMOTIONAL SURROUNDINGS

Abstract. *The article highlights the evaluation of the convicts' quality of life. The indexes of the epidemiology of dental diseases are given. It is proved that prolonged stay in places of deprivation of liberty has an unfavorable psycho-emotional impact on convicts. It is established that dental pathology is widespread among prisoners. A conclusion is made about the need for further investigation of the problem.*

Keywords: *prisoner, epidemiology, dental pathology, an unfavorable psycho-emotional environment.*

Introduction. According to official statistics the population of Ukraine is 42388691 people on February 1, 2017. On the territory of the state there are 148 establishments and 589 units of the criminal-executive inspection where 60771 individuals were kept on September 1, 2016. There are approximately 143 prisoners per 100 000 of Ukrainian population including 1552 individuals who are sentenced to life imprisonment, 6800 sentences to the term of more than 10 years. Medical service for those who are sentenced and taken to prison is administered by 18 departmental hospitals (8 – TB hospitals, 9 – multi-profile, 1 – psychiatric clinic) and 114 medical departments in the establishments of execution of punishments and investigatory isolation wards. Medical care for the imprisoned individuals is given according to the orders and clinical protocols of the Ministry of Public Health of Ukraine without considering specific conditions of staying.

The review of popular scientific-medical periodical publications has found that the issues concerning the health of imprisoned, giving them medical aid, and dental service in particular, are not sufficiently reported. There is no scientifically substantiated approach as to the management of patients who are in places of confinement for a long period of time concerning a negative effect of social-psychological factors on their physical well-

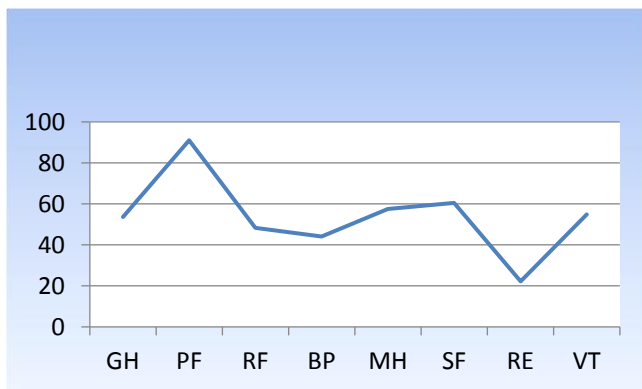
being.

Objective: to study the topicality of the issue to investigate dental mortality among prisoners concerning their long staying in unfavourable psycho-emotional surroundings.

Materials and methods. The group of the investigation included 31 male prisoners of the similar age category without comorbid somatic pathology who endure their punishment in a penal colony of Kherson region. An informed written consent was obtained from every individual who gave his permission to participate in the study and be additionally examined. To assess the quality of life of the prisoners we have used the international non-specific questionnaire sf-36v2 Health Status Survey. Epidemiology of dental diseases was assessed by four directions: diseases of teeth (CFE index), diseases of the gums (PMA index – Schour, Massler, 1948), condition of the periodontal tissue (CPITN index) and oral hygiene (Silness-Löe index, 1964).

Results and discussion. The questionnaire sf-36v2 Health Status Survey consists of 11 parts. According to the instruction as to the processing of the results obtained the data are interpreted in per cents by eight-point scale, each of them reflects a quantitative index of physical and psychic quality of life. General Health (GH) is an individual's assessment of his/her quality of life at the moment and prospects for treatment. Physical

Functioning (PF) is physical functioning, a degree when the level of health limits an individual in performing physical activity. Role-Physical (RP) a role physical functioning is the influence of physical condition on human functioning in everyday life. Bodily Pain (BP) – physical pain is the presence of pain and its effect on the ability to do everyday routine. Mental Health (MH) – psychic health is the assessment by an individual of his/her mood, depression, anxiety, positive or negative emotions available. Social Functioning (SF) – is a degree when physical or emotional condition limits social activity and communication. Role-Emotional (RE) – role-emotional functioning is the degree of effect of emotional condition on successful everyday activity. Vitality (VT) – a vital ability is a subjective assessment of an individual of his/her sensations to be full of life and energy or exhausted. Mean values concerning every out of eight indices are presented on the diagram:



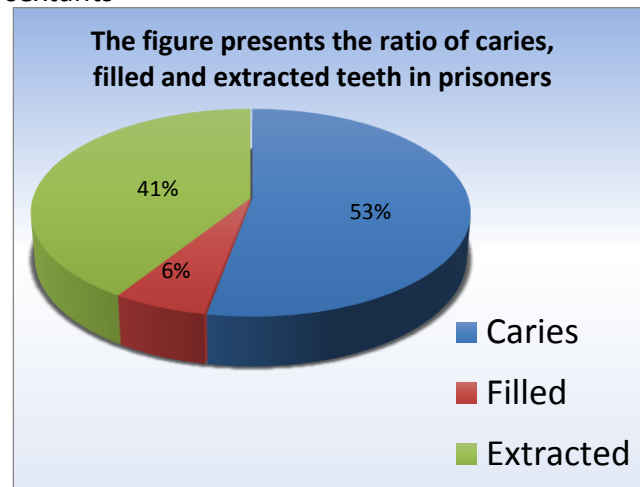
Prisoners mostly assess their lives to be within the scale from 40 to 60 per cent. Although, there are two clearly marked pick deviations: a sharp increase of PF scale (physical functioning) up to 91%, and a quick decrease of RE scale (role emotional functioning) up to 22%.

A mean value of CFE index in the examined patients was 14,81. The following ratio was found while analyzing the constituents of the parameter: teeth afflicted with caries – 7,84 (52,94 %), teeth being filled – 0,9 (6,1 %), teeth being extracted – 6,06 (40,96 %).

An average PMA index in sampling was 22,83 %, which is indicative of a considerable spread of gingivitis among the persons being imprisoned. 29,57 % of them presented inflammation of the interdental papilla, in 18,39 % inflammation involved the marginal edge of the gums, in 0,12 % it was spread onto the alveolar edge of the gums. The rest 51,93 % of the examined teeth possessed

intact gums.

While detecting CPITN index the dentition is divided into six sextants considering index teeth in every of them. Periodontal state of the index teeth was assessed in 186 sextants including 35 sextants



(18,82 %) with healthy periodontium (code 0), 87 sextants (46,77 %) with the signs of bleeding (code 1), 45 (24,19 %) with dental calculus or other factors promoting keeping of dental calculus (code 2), 7 sextants (3,76 %) had periodontal pockets up to 4-5 mm deep (code 3), 12 sextants (6,45 %) were not assessed due to inequality with requirements. In the course of examination of every sextant with the code of 4 periodontal pockets over 4-5 mm deep were not found.

Oral hygiene was assessed by means of Silness-Loe index detecting the thickness of dental plaque in the score determined while touching the edge of the teeth with a probe: 0 – no dental deposits, 1 – dental deposits are not visually detected, although they are seen on the tip of a probe, 2 – a moderate amount of dental deposits is seen with the naked eye, 3 – dental deposit covers a tooth considerably. The mean value of Silness-Loe index was 1,65.

Conclusions. The study was indicative of the fact that the prisoners assessed their quality of life as an average one. Although, in case of high physical functioning a pronounced negative effect of emotional condition is found on their active social position and motivation concerning everyday routine.

A wide occurrence of dental pathology is found among the prisoners, and it requires administration of an appropriate adequate therapy.

Prospects of further studies. The data obtained are rather perspective for further

examination and development of schemes to detect dental diseases among prisoners considering their staying under unfavourable psychoemotional surroundings.

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Deutscher Wissenschaftsherold German Science Herald

Bibliographic information published by the Deutsche Nationalbibliothek
The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed
bibliographic data are available on the Internet at <http://dnb.dnb.de>

№ 2/2017 – 25
Passed in press in Juli 2017



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