

UDC 640.41:615.834(477)  
DOI: 10.31866/2616-7468.3.2.2020.219693

**ACUSOTHERAPY  
AS AN INNOVATIVE  
METHOD OF RECOVERY  
IN SPA-TECHNOLOGIES  
OF HOSPITALITY  
ENTERPRISES  
IN UKRAINE**

**Iryna Medvid,**  
Assistant Professor,  
National University of Food Technologies,  
Kyiv, Ukraine,  
medvidrina@gmail.com  
<https://orcid.org/0000-0003-2537-2823>  
© Medvid I., 2020

**Olena Shydlovska,**  
Ph.D. in Technical Sciences, Associate Professor,  
National University of Food Technologies,  
Kyiv, Ukraine,  
elena\_shydlovska@ukr.net  
<https://orcid.org/0000-0001-5318-1835>  
© Shydlovska O., 2020

**Tetiana Ishchenko,**  
Ph.D. in Technical Sciences, Associate Professor,  
National University of Food Technologies,  
Kyiv, Ukraine,  
ichenkotat@gmail.com  
<https://orcid.org/0000-0002-5241-5342>  
© Ishchenko T., 2020

**Viktor Dotsenko,**  
D.Sc. in Technical Sciences, Professor,  
National University of Food Technologies,  
Kyiv, Ukraine,  
dotsvf@nuft.edu.ua  
<https://orcid.org/0000-0003-1788-1599>  
© Dotsenko V., 2020

**The topicality.** Natural medical resources of Ukraine are a powerful resource base for the health tourism development. Important components of domestic recreation are coniferous forests, so it is important to study the prospects for the introduction of acusotherapy in the spa industry of hospitality. **The purpose** of the article is to assess the possibility of using forest plantations for the development of hospitality, analysis of the current state and determine the prospects for the use of acusotherapy in spa-technologies at the hotel industry. **Methods**, used in the study: system method, comparative and structural analysis. **Results.** The current state of forests in Ukraine and the possibility of their use for health and recreation have been analyzed. It was found that  $\frac{1}{2}$  of the total area of forests are suitable for recreational activities, among the plantations of which coniferous trees are characterized by special healing properties. The healing properties of pine needles have been substantiated and the prospects of using acusotherapy as a kind of balneological therapy with the use of coniferous tree products as an innovative direction of development of the spa industry of the hospitality sphere have been characterized. The list of acusotherapy services provided by recreational hotel enterprises for the purpose of additional improvement has been established, and their positive influence on a human body has been proved. **Conclusions and discussions.** The research showed that the comprehensive implementation of acoustics in spa technologies of hotel enterprises is an urgent task of the service sector, as it will increase their efficiency and meet the need for rehabilitation of a large number of potential visitors, which will increase the number of hotel rooms and create a modern competitive recreational hotel product.

**Keywords:** hospitality industry, spa service, recreational resources, coniferous forest plantations, acusotherapy.

### **The actuality of the problem**

The rapid development of global infrastructure and its detrimental impact on the environmental aspects of human life, emotional stress and overload in the modern rhythm of life of metropolitan residents causes a number of problems with physiological and psychological health, which leads to the actualization of health as a leisure goal (Naumik-Gladka, 2017). Given that in today's reality, most people seek to travel for health benefits, health tourism has great potential. Thus, according to the forecast of the World Health Organization, the combination of tourism with health is becoming one of the key industries in the world (Zelenko et al. 2018). Many researchers consider the term "health tourism" to be identical in content and scope to the concept of "spa & wellness tourism", common in modern domestic and foreign literature. Favorable potential and available in Ukraine natural healing resources, which include mineral waters, therapeutic muds, climatic conditions, etc., are an important prerequisite for this segment development (Shapovalova & Sapa, 2013; Parfinenko et al. 2018; Ustimenko & Bulgakova, 2019).

The leading direction in medical and health tourism is spa-technologies, the use of which in the hotel industry many times increases their attractiveness in the eyes of potential visitors, focused on the tourist and recreational product, and helps to increase competitiveness. The term "spa" includes a health complex of procedures using water with medicinal properties (mineral, sea, fresh), as well as seaweed and salt, medicinal mud and medicinal plants. These spa components are able to activate metabolic processes, improve blood circulation, remove toxins, improve general well-being and promote relaxation of the body as a whole (Shapovalova & Sapa, 2013). Thus, the use of spa-technologies in the hotel industry is promising to increase their load by expanding the range of additional hotel services aimed at recovery and relaxation.

Various aspects of the spa industry development in the field of hospitality are revealed in the works of such domestic scientists as N.V. Fomenko (2007), O.O. Shapovalova (2013), O.O. Zelenko, O.V. Zelenko (2018), A. Yu. Parfinenko, I.I. Volkova (2018), S.V. Dubinsky, V.M. Orlova (2017), K.G. Naumik-Gladka (2017), M.V. Rutinsky, V. Petrakivsky (2012), V. Redin, I. Reshetov (2009), as well as in the works of foreign scientists S. Kadieva (2015), T. Albayrak, M. Kaber (2017), V. Kosniken, T. A. Vilska (2019), V. Shushych, D. Dimitrievich (2015). Among the main areas of research of these scientists are: the study of prospects for the development of health tourism in the regions of Ukraine and Europe; analysis of the natural recreational potential of Ukraine and the possibility of its use for rehabilitation; analysis of the provision of spa services by domestic sanatoriums and health resorts; study of the current state of the world spa industry and classification of spa services at hotel enterprises, among which considerable attention is paid to the therapeutic value of mineral waters (balneotherapy), mud therapy, various types of massage.

Market competition and growing customer requirements are a prerequisite for the inevitable and dynamic development of the hotel business segment, as a result of which hotel companies are trying to modernize and diversify their services. A study of the

range of health services in the hotel industry shows that in recent year's hotel and sanatorium complexes actively provide spa services, among which the most common is the use of physiotherapy, including hydrotherapy, mud, balneotherapy, apitherapy, thalassotherapy, aromatherapy, etc.

Analysis of the scientific literature on the research topic confirms the urgency of the problem, but it should be noted that the study of prospects for the use of medicinal plants in spa-technologies at the hotel industry has not been considered enough. The healing properties of many plants have been known since ancient times (about 3 thousand years BC). Medicinal plants are involved in metabolism, affecting the activity of organs and systems of the human body, their functional activity. Hence the belief of many researchers that there are no diseases in nature against which dozens of healing substances would not be formed in the plant world. Potential raw materials for the treatment and prevention of many diseases are pine needles (modified leaves) and other products from conifers (buds, resin, cones, wood, nuts, etc.). Given that an important recreational resource of Ukraine with healing phytoncide properties is coniferous forests, it is promising to study the possibility of their use for rehabilitation and implementation of acusotherapy (from the Latin *acus* – pine) as a spa service in the hospitality industry, which will attract more visitors focused on effective improvement of health, relaxation and rest, as well as maintaining competitiveness in the modern domestic hotel market.

### **Purpose and research methods**

*The purpose of the article* is to assess the possibility of using domestic recreational resources, namely forest plantations for the development of hospitality, analysis of the current state and identify prospects for the use of acousotherapy in spa-technologies in the hotel industry.

*The object of research* is spa technologies with the use of recreational and health coniferous forest resources.

*The subject of the study* is spa facilities with the use of forest resources.

*Research methods.* The study used general scientific methods: *system method* is to study the concentration and condition of forest recreational areas of Ukraine, *comparative analysis* is in the process of studying the experience of using pine therapy in spa technologies of domestic hotel enterprises and analyzing the range of services, *structural analysis* is in determining components of services acusotherapy in the hospitality industry.

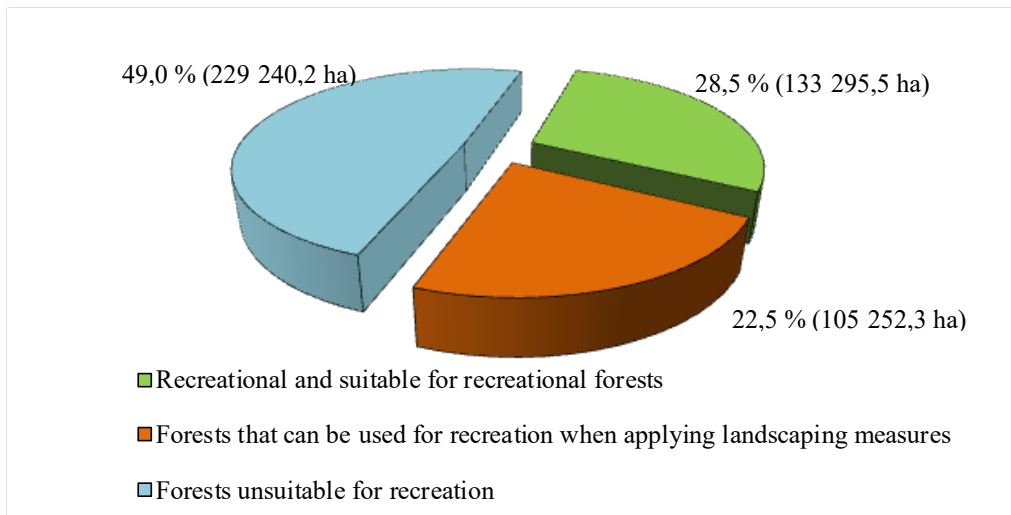
*The information base of the research* is the scientific works of domestic and foreign scientists, devoted to the assessment of the state and spa & wellness tourism development, as well as the results of modern hotel enterprises, presented on their official websites.

### **Research results**

To meet the needs of modern consumers, hotel businesses should implement services that could save them from the effects of urbanization and bring maximum health benefits in a short period of time. In today's world, a large number of hotels pay attention to the consumption of natural resources. Thus, over the past decade, this area

is gaining popularity in the world, giving tourists the opportunity to feel the effect of unity with nature at all stages of consumption of hotel services.

Among the existing recreational resources of considerable importance for health and recreation in nature are forests, which are characterized by a combination of clean air filled with oxygen and high humidity. The total area of forests in Ukraine is about 10.4 million hectares, which is about 15.9% of its territory. Forests on the territory of Ukraine are located quite unevenly. According to the research of IF Kalutsky (2013), recreational and recreational forests occupy 28.5% (133 295.5 ha) of the state forest fund. At the same time, 22.5% (105,252.3 ha) belong to forest areas that have the potential for use for the development of recreation and tourism, subject to certain landscaping measures (Fig. 1).



*Fig. 1.* Distribution of the forest fund of Ukraine according to the level of fitness for recreation  
Source: developed on the basis of (Kalutsky, 2013; Information of the State Forest Cadastre)

The analysis of the above results shows that the total forest fund of Ukraine, which can be used for recreation, is 238,547.8 hectares, ie 51.0% of the total area, which determines the prospects for its use for the development of health tourism and hospitality industry.

The concentration of forest vegetation in different natural areas of Ukraine has significant differences, the percentage of which is presented in Fig. 2.

The largest number of forest resources is concentrated in the Ukrainian Carpathians and Polissya, where the formation of recreational areas is based on this factor, as well as in the Forest-Steppe zone. Young and medieval trees predominate in Ukrainian forests, such species as pine (33%), spruce (8%), beech (7%), and oak (24%) are widespread. They occupy about 90% of the forested area.

Depending on the comfort of the weather (combination of microclimatic conditions favorable for forest recreation), the recreation season (calendar period of the year during which the type of forest recreation is carried out) and the type of forest recreation it can be carried out in Ukraine all year round.

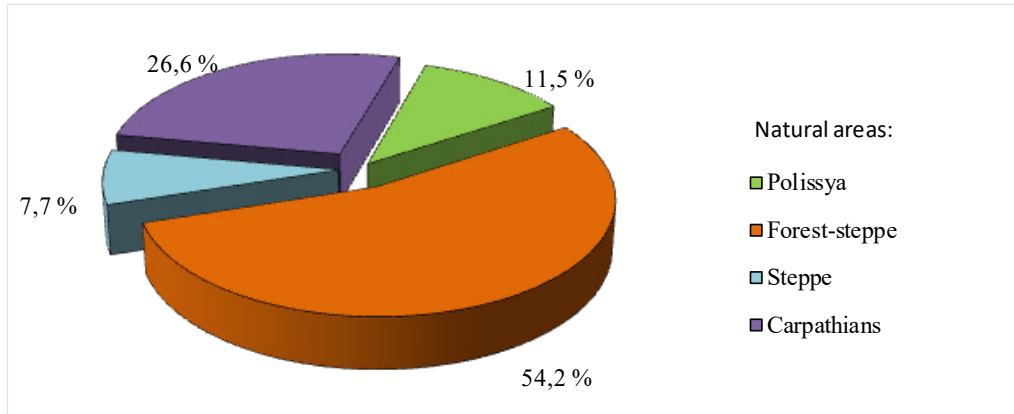


Fig. 2. Forest territories of Ukraine, suitable for recreational development

Source: Information of the State Forest Cadastre

It is known that forest air contains significantly fewer microorganisms than in the city or residential areas. Thus, in 1 m<sup>3</sup> of city air there are on average 30-40 thousand bacteria and other microorganisms, while in forest air – from 30 to 400, i.e. hundreds of times less. Even the air of city parks contains 200 times less bacteria than the air of the streets.

An important factor that determines the therapeutic functions of forests is their volatile. Phytoncides is substances that are produced by plants and have bactericidal, fungicidal and antistatic action. This is a complex of organic compounds (solid, liquid and gaseous), which belong to the biologically active substances. The degree of phytoncide reaches a maximum in the spring and summer months, especially during flowering and active plant growth, and decreases until autumn, and phytoncide activity of young leaves and needles is usually higher than old ones. Among woody plants, coniferous trees stand out for their phytoncide properties (Fomenko, 2007).

Coniferous air is useful for the treatment of the central nervous system problems, weakening of the immune system, metabolic disorders, diseases of the cardiovascular system, problems with blood pressure, and diseases of the respiratory system. In view of this, it is important to locate hotel facilities, namely sanatoriums, recreation centers, boarding houses, resort hotels, spa hotels, etc., outside the city in recreational areas with coniferous forests.

Fierce competition encourages hotel spa companies to actively create new products and reformat existing ones, use new marketing technologies and sales channels, reach new target groups of consumers (Shapovalova & Sapa, 2013). Due to the high healing properties of coniferous trees (cedar, pine, spruce, fir (fir), etc.), it is promising to use them as the main raw material for acoustic therapy in spa technologies of hotel enterprises.

Acus therapy (from the Latin acus is pine needles) is a type of balneological therapy with the use of coniferous products: needles, bark, resin, cones, wood, nuts, buds. Conifers are able to release resins and essential oils, which improve well-being

when inhaled, and have a healing effect on people suffering from respiratory diseases, especially bronchial asthma or bronchitis.

Pine needles are widely used in medicine due to their medicinal properties, which is primarily due to the high content of essential oils, which have a strong bactericidal effect. In addition, pine needles contain a huge amount of vitamins C, groups B, K, E, iron, ascorbic acid, proteins, many macro- and micronutrients, flavonoids, tannins, lignins, volatile acids, and benzoic acid. Thus, the content of vitamins in pine needles is 6 times higher than their number in oranges and lemons. It is believed that the effectiveness of the impact is not comparable to any complex drug that has a chemical origin. Among the most pronounced beneficial properties of pine needles are the following: anti-inflammatory, antimicrobial and disinfectant, anti-zinc, expectorant, diaphoretic and diuretic, analgesic, purgative and hematopoietic, regulation of metabolic processes, tonic.

The unique properties of pine and spruce needles allow you to restore the vascular system, help patients with retinal detachment, kidney disease, multiple sclerosis, asthma. In addition, spruce, fir and pine needles are a recognized means of cancer prevention.

The analysis of domestic experience of functioning of medical and improving hotel enterprises has shown that use of therapy by needles in the field of hospitality is rather popular and economically advantageous. Many hotels use pine products in the organization of additional services. The main results of the information search of the range of acoustherapy services provided by spa centers in hotels and sanatoriums of Ukraine are presented in table 1.

*Table 1. The use of acoustherapy in spa technologies of hotel enterprises*

<b>Hotel establishment</b>	<b>Location</b>	<b>Acoustherapy services</b>
“ShishkiNN” Spa Hotel	Village Snovyanka, Chernihiv region	1) Coniferous bath. 2) Bath treatments on hay, which include heating with coniferous steam in combination with massage with brooms made of coniferous trees of Chernihiv forests. At the end of mating, the client is poured with a healing coniferous infusion, in which brooms were steamed. 3) Aromatherapy with pine needles in a Finnish sauna. 4) Coniferous aroma massage.
Green Park Hotel	Truskavets, Lviv region	1) Coniferous bath. 2) Aroma relax bath using extracts of pine needles, valerian and lavender. 3) Inhalation on herbs.
Hotel “Belle Royal”	Village Forestry of the Transcarpathian region	1) Underwater shower massage with aromatic salts with essential oil of pine needles.

Hotel establishment	Location	Acusotherapy services
Hotel complex "Fantasy"	Village Glade of the Transcarpathian region	1) Coniferous and coniferous-pearl baths. 2) Cedar phyto barrel is a combination of the healing power of natural material, hot steam and natural components of concentrate of natural origin (collection of Carpathian herbs). Therapeutic steam under pressure enters a compact mini-sauna (barrel) made of natural Siberian cedar.
Grand Hotel Pylypets	Village Pylypets of the Zakarpattia region	1) Carpathian vats with spring water with the addition of pine needles and spruce twigs.
Elena Spa Resort Bukovel	Bukovel, Ivano-Frankivsk region	1) Bath with the addition of herbs, coniferous twigs and aromatic oils.
Sanatorium "Red Viburnum"	Village Zhobryn, Rivne region	1) Coniferous bath. 2) Ultrasonic inhalations with essential oils.
Sanatorium "Vorzel"	Vorzel, Kyiv region	1) Coniferous bath with pharmacy coniferous extracts or with pre-harvested needles (pine, spruce, fir).
Sanatorium "Carpathia"	Village Shayan of the Zakarpattia region	1) Fitted with pine needles and a sedative. 2) Aroma massage. 3) Inhalation with fir.

Source: own development on the basis of the data presented on official pages of the hotel enterprises

After analyzing the domestic experience of recreational hotel enterprises, we can conclude that some acoustic therapy services are provided for additional rehabilitation, but there is no comprehensive holistic combination.

European countries have the highest level of exploitation of recreational resources, their most efficient use and provision of recreational services in the world. Yes, Europe is the most recreationally attractive in the world. Particular attention is paid to the recreational use of the Atlantic coast, the search for mineral waters in order to expand the network of spas, the agro tourism development, etc. (Levtsov, 2015). However, according to research, hospitality companies whose additional spa services would include the use of coniferous tree products for physiotherapy to restore health and relaxation are absent.

The positive impact of coniferous air on the visitors' health to many hotel facilities operating abroad is explained only by their geolocation in areas with coniferous forests (spa hotel "Nunisi Forest", Georgia; spa hotel "Lenkerhof", Switzerland; hotel complex "Pine Needles", USA; spa center at the hotel "Med Sorocaba Campus", Brazil, etc.).

The results of the research show that the most common acoustotherapy services provided at the hotel industry of Ukraine are pine baths. It is an indispensable tool for people suffering from diseases of the cardiovascular, respiratory and nervous systems. In addition, such baths in combination with the consumption of coniferous broth contribute to weight loss, removal of toxins, toxins and radionuclides from the body.

No less common is the use in spa technologies of hotel enterprises of aromatherapy with essential oils of pine needles (pine, spruce, fir), i.e. inhalation of their vapors, which contributes to the prevention and treatment of respiratory diseases. Massage with the use of coniferous essential oils helps to reduce tension, stress and improve energy status.

Given the healing properties of pine needles, it is important to implement a set of acoustotherapy services in the hotel industry, rather than their partial provision (Fig. 3).

An integral part of spa treatments is a system of healthy and balanced nutrition. The “gold standard” in all spa centers at hotels is the presence of a phyto-bar or the introduction of spa menus in restaurants or cafes of hotel enterprises. As you know, herbal medicine not only achieves an additional health effect, but also creates a comfortable psychological atmosphere (Novichkova & Zolotareva, 2013). Therefore it is expedient to combine acoustotherapy with food, i.e. inclusion in a food ration of a complex of drinks, broths or products from coniferous trees. This diet treats cholecystitis, gallstones, glomerulonephritis, pyelonephritis and other kidney diseases, gout, metabolic disorders, and strengthens the immune system.

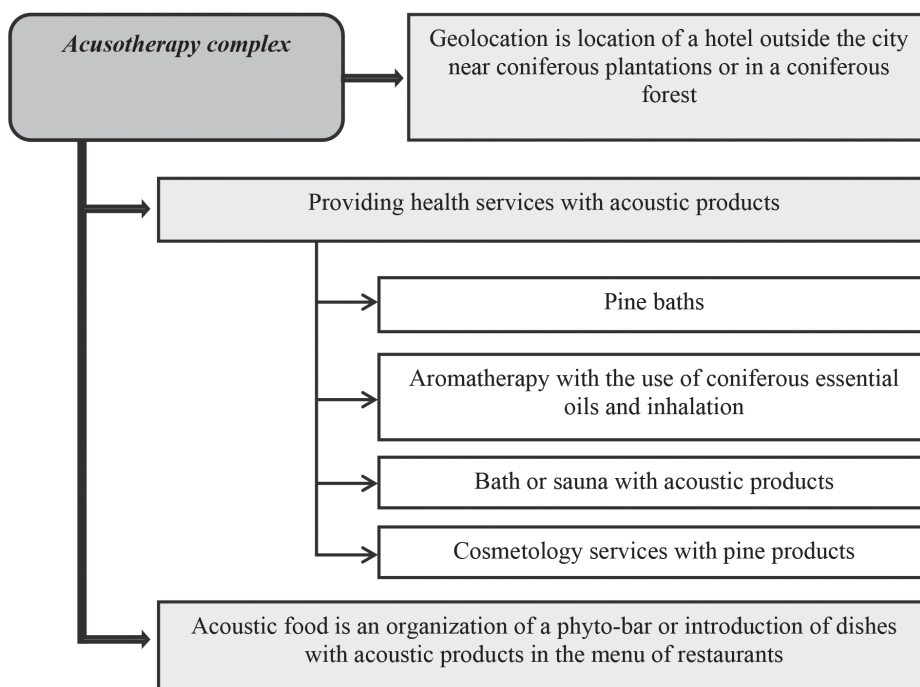


Fig. 3. Integrated use of acoustotherapy services in the hospitality industry  
Source: own development

Acoustic nutrition includes padium honey, spruce cone jam, pine nuts, kvass from pine or spruce needles, drinks and jams from juniper berries, gin, tea based on pine needles and juniper berries, cedar milk strips (digestibility is 95%) and blueberries, etc.

One of the important prerequisites for the introduction of acoustotherapy in spa technologies of hospitality companies is their geolocation. Thus, a significant advantage



for the purpose of recreation and health is the location of the hotel outside of large cities with a focus on coniferous forests (near coniferous forests, pine forests, etc.), which will improve the therapeutic effect of spa treatments using coniferous products.

### Conclusions and results discussion

Thus, the expansion of the range of additional services in the hotel industry, aimed at recovery and relaxation, is becoming increasingly popular in the modern rhythm of life and urbanization, which leads to the development of health tourism. As a result of the analysis of the scientific literature it was revealed that an important role for health improvement and recreation among the existing natural resources is played by forests, 51.0% of the total area of which can be used for recreation. It is established that among woody plants coniferous trees have especially healing phytoncide properties. Therefore, given the wide range of indications for treatment with pine needles, we can conclude that acoustotherapy is a promising area of the spa industry development in the hospitality industry. The introduction of acoustotherapy in the hotel industry is economically feasible and effective due to the cheapness of raw materials and a wide range of products, and it will meet the need for rehabilitation of a large number of potential visitors. In addition, due to the fact that coniferous forest recreation does not depend on the season, the activities of the hospitality industry with its use can be carried out throughout the year, which will increase the tourist flow. Based on the analysis of the experience of recreational hotel enterprises, a list of acoustotherapy services provided for additional rehabilitation has been established, and their positive impact on the body has been substantiated.

The scientific novelty of the research lies in the integrated application of medical and health services acoustotherapy in the hotel industry, which will ensure the achievement of their competitiveness high level.

The practical significance of the obtained results is to increase the efficiency of the hospitality industry by providing a range of spa acoustotherapy services, as well as to obtain a qualitatively new level of tourist offer and promote the creation of a modern competitive recreational hotel product.

Prospects for further research are to analyze the possibility of integrated use of acoustic therapy in the hospitality industry in different regions of Ukraine, justification of economic efficiency from the implementation of this concept and ways to improve the process of providing acoustic therapy services.

### REFERENCES

---

- Albayrak, T., Caber, M., & Kadriye Öz, E. (2017). Assessing Recreational Activities' Service Quality in Hotels: An Examination of Animation and Spa & Wellness Services. *Journal of Quality Assurance in Hospitality & Tourism*, 18(2), 218-234. <https://doi.org/10.1080/1528008X.2016.1208550> [in English].
- Dubinskyi, S. V., & Orlova, V. M. (2017). Vyznachennia faktoriv, yaki zabezpechuiut rozvytok medychnoho ta likuvalno-ozdorovchoho turyzmu v Ukraini [Identification of factors, that ensure the development of medical and health tourism in Ukraine]. *Academy review*, 2(47), 12-20 [in Ukrainian].
- Fomenko, N. V. (2007). *Rekreatsiini resursy ta kurortolohiia [Recreational resources and balneology]*. Tsentr navchalnoi literatury [in Ukrainian].

- Kadieva, S. (2015). Contemporary changes in the hotel product for spa and wellness tourism and their distribution. *BizInfo (Blace) Journal of Economics, Management and Informatics*, 6(1), 1–10 [in English].
- Kalutskyi, I. F. (2013). Rekreatsiino-ozdorovchi lisovi resursy Ivano-Frankivshchyny ta shliakhy pokrashchennia yikh vykorystannia [Recreational forest resources of the Ivano-Frankivsk region and ways of improvement of their use]. *Mountain School of Ukrainian Carpaty*, 10, 176–178 [in Ukrainian].
- Koskinen, V., & Wilska, T. A. (2019). Identifying and understanding spa tourists' wellness attitudes. *Scandinavian Journal of Hospitality and Tourism*, 19(3), 259–277. <https://doi.org/10.1080/15022250.2018.1467276> [in English].
- Levtsov, S. V. (2015). Zarubizhnyi dosvid orhanizatsii nadannia rekreatsiinykh posluh ta yoho implementatsiia v Ukraini [Foreign experience in the organization of recreational services and its implementation in Ukraine]. *Derzhavne upravlinnia: udoskonalennia ta rozvytok*, 9, 1–8 [in Ukrainian].
- Naumik-Hladka, K. H. (2017). Marketynhovi ta psykholohichni aspekty diialnosti spa-industrii pry hotelnykh kompleksakh [Marketing and psychological aspects of the spa industry in hotel complexes]. *Modern Economics*, 4, 100–106 [in Ukrainian].
- Novichkova, T. P., & Zolotarova, L. A. (2013). Pryntsyipy zdorovoho kharchuvannia v styli SPA [Principles of healthy eating in the style of SPA]. *Kharchova nauka i tekhnolohiia*, 1(22), 15–18 [in Ukrainian].
- Parfinenko, A. Yu., Volkova, I. I., & Shcherbyna, V. I. (2018). Problemy ta perspektyvy rozvytku likuvalno-ozdorovchoho turizmu v Ukraini (u porivnianni z krainamy tsentralnoi Yevropy) [Problems and prospects of development of medical and health tourism in Ukraine (in comparison with the countries of Central Europe)]. *The Journal of V.N. Karazin Kharkiv National University Series "International Relations. Economics. Country Studies. Tourism"*, 7, 130–135 [in Ukrainian].
- Portal vidkrytykh danykh. (2019, February 13). *Vidomosti Derzhavnogho lisovogho kadastru [Information of the State Forest Cadastre]*. <https://data.gov.ua/dataset/341e5bd6-3855-4507-9a53-f95a9a1e3035/resource/5f72c9df-5eba-4d4f-ab95-226810113756> [in Ukrainian].
- Redin, V., Reshetov, I., & Ilchishyna, I. (2009). Kurorty yak rynek likuvannia ta vidpochynku [Resorts as a market for treatment and recreation]. *Chasopys sotsialno-ekonomichnoi heohrafi*, 6. [http://geografica.net.ua/publ/sathti/chasopis\\_socialno\\_ekonomichnoji\\_geografiji/chasopis\\_socialno\\_ekonomichnoji\\_geografiji\\_5\\_2008\\_r/69-1-0-1011](http://geografica.net.ua/publ/sathti/chasopis_socialno_ekonomichnoji_geografiji/chasopis_socialno_ekonomichnoji_geografiji_5_2008_r/69-1-0-1011) [in Ukrainian].
- Rutynskyi, M., & Petranivskyi, V. (2012). Likuvalno-ozdorovchyi turizm: aktualni tsili ta suchasni pidkhody do orhanizatsii [Medical and health tourism: current goals and modern approaches to the organization]. *Visnyk of the Lviv University. Series International Relations*, 29(1), 179–189 [in Ukrainian].
- Shapovalova, O. O., & Sapa, Yu. A. (2013). Suchasni tendentsii rozvytku "spa" i "wellness" turizmu [Modern tendencies in development of "spa" and "wellness" tourism]. *The Journal of V.N. Karazin Kharkiv National University Series "International Relations. Economics. Country Studies. Tourism"*, 1042, 154–158 [in Ukrainian].
- Ustymenko, L., & Bulhakova, N. (2019). Rozvytok wellness-turizmu ta yoho vplyv na transformatsiiu turystychnoi industrii Ukrainy [Development of wellness tourism and its impact on the transformation of the tourism industry in Ukraine]. *Bulletin of Kyiv National University of culture and arts. Series: Tourism*, 2(1), 49–59. <https://doi.org/10.31866/2616-7603.2.1.2019.173023> [in Ukrainian].
- Zelenko, O. O., Zelenko, O. V., & Aliieva, L. A. (2018). Osoblyvosti rozvytku likuvalno-ozdorovchoho turizmu v skhidnykh rehionakh Ukrainy [Features of development of health tourism in the Eastern regions of Ukraine]. *Pryazovskiy economic herald*, 6(11), 342–348 [in Ukrainian].

The article was received on August 10, 2020

УДК 640.41:615.834(477)

**Ірина Медвідь,**

асистент,

Національний університет харчових технологій,

Київ, Україна,

medvidrina@gmail.com

<https://orcid.org/0000-0003-2537-2823>

**Олена Шидловська,**

кандидат технічних наук, доцент,

Національний університет харчових технологій,

Київ, Україна,

elena\_shydlovska@ukr.net

<https://orcid.org/0000-0001-5318-1835>

**Тетяна Іщенко,**

кандидат технічних наук, доцент,

Національний університет харчових технологій,

Київ, Україна,

ichenkotat@gmail.com

<https://orcid.org/0000-0002-5241-5342>

**Віктор Доценко,**

доктор технічних наук, професор,

Національний університет харчових технологій,

Київ, Україна,

dotsvf@nuft.edu.ua

<https://orcid.org/0000-0003-1788-1599>

## АКУСОТЕРАПІЯ ЯК ІННОВАЦІЙНИЙ МЕТОД ОЗДОРОВЛЕННЯ У СПА-ТЕХНОЛОГІЯХ ПІДПРИЄМСТВ СФЕРИ ГОСТИННОСТІ УКРАЇНИ

**Актуальність.** Природні лікувальні ресурси України є потужною ресурсною базою для розвитку лікувально-оздоровчого туризму. Важливою складовою вітчизняної рекреації являються хвойні ліси, тому актуальним є дослідження перспектив впровадження акусо-терапії у spa-індустрії сфери гостинності. **Мета** статті – оцінка можливості використання лісових насаджень для розвитку сфери гостинності, аналіз сучасного стану та визначення перспектив застосування акусо-терапії у spa-технологіях на підприємствах готельного господарства. **Методи,** що використовувались при проведенні дослідження: системний метод, порівняльний та структурний аналіз. **Результати.** Проаналізовано сучасний стан лісових масивів України і можливість їх використання для оздоровлення та відпочинку. Виявлено, що  $\frac{1}{2}$  загальної площі лісів є придатними для рекреаційної діяльності, серед насаджень яких особливими цілющими властивостями характеризуються хвойні дерева. Обґрунтовано лікувальні властивості хвої та охарактеризовано перспективи використання акусо-терапії як різновиду бальнеологічної терапії із застосуванням продуктів хвойних дерев в якості інноваційного напрямку розвитку spa-індустрії сфери гостинності. Встановлено перелік послуг акусо-терапії, які надаються рекреаційними готельними підприємствами з метою додаткового оздоровлення, та обґрунтовано їх позитивний вплив на організм людини. **Висновки та обговорення.** Дослідження показало, що комплексне впровадження акусо-терапії у spa-технологіях підприємств готельного господарства є актуальним завданням сфери обслуговування, оскільки дозволить підвищити ефективність їх роботи та задовольнити потребу в оздоровленні значної кількості потенційних відвідувачів, що

сприятиме збільшенню завантаженості номерного фонду готелю та створенню сучасного конкурентоспроможного рекреаційного готельного продукту.

**Ключові слова:** індустрія гостинності, спра-послуга, рекреаційні ресурси, хвойні лісові насадження, акусотерапія.

УДК 640.41:615.834(477)

**Ирина Медвидь,**  
ассистент,  
Национальный университет пищевых технологий,  
Киев, Украина,  
medvidrina@gmail.com  
<https://orcid.org/0000-0003-2537-2823>

**Елена Шидловская,**  
кандидат технических наук, доцент,  
Национальный университет пищевых технологий,  
Киев, Украина,  
elena\_shydlovska@ukr.net  
<https://orcid.org/0000-0001-5318-1835>

**Татьяна Ищенко,**  
кандидат технических наук, доцент,  
Национальный университет пищевых технологий,  
Киев, Украина,  
ichenkotat@gmail.com  
<https://orcid.org/0000-0002-5241-5342>

**Виктор Доценко,**  
доктор технических наук, профессор,  
Национальный университет пищевых технологий,  
Киев, Украина,  
dotsvf@nuft.edu.ua  
<https://orcid.org/0000-0003-1788-1599>

## **АКУСОТЕРАПИЯ КАК ИННОВАЦИОННЫЙ МЕТОД ОЗДОРОВЛЕНИЯ В СПРА-ТЕХНОЛОГИЯХ ПРЕДПРИЯТИЙ СФЕРЫ ГОСТЕПРИИМСТВА УКРАИНЫ**

**Актуальность.** Природные лечебные ресурсы Украины являются мощной ресурсной базой для развития лечебно-оздоровительного туризма. Важная составляющая отечественной рекреации – хвойные леса, поэтому актуальным является исследование перспектив внедрения акусотерапии в спра-индустрии сферы гостеприимства. **Цель** статьи – оценка возможности использования лесных насаждений для развития сферы гостеприимства, анализ современного состояния и определение перспектив применения акусотерапии в спра-технологиях на предприятиях гостиничного хозяйства. **Методы,** которые использовались при проведении исследования: системный метод, сравнительный и структурный анализ. **Результаты.** Проанализированы современное состояние лесных массивов Украины и возможности их использования для оздоровления и отдыха. Выявлено, что ½ общей площади лесов пригодны для рекреационной деятельности, среди насаждений которых особыми целебными свойствами характеризуются хвойные деревья. Обоснованы лечебные свойства хвои и охарактеризованы перспективы использования акусотерапии как разновидности бальнеологической терапии с применением продуктов хвойных деревьев в качестве инновационного направления развития спра-индустрии сферы госте-

приємства. Установлен перечень услуг акустотерапии, предоставляемых рекреационными гостиничными предприятиями с целью дополнительного оздоровления, и обосновано их положительное влияние на организм человека. **Выводы и обсуждение.** Исследование показало, что комплексное внедрение акустотерапии в spa-технологиях предприятий гостиничного хозяйства является актуальной задачей сферы обслуживания, так как позволит повысить эффективность их работы и удовлетворить потребность в оздоровлении значительного количества потенциальных посетителей, что будет способствовать увеличению загрузки номерного фонда гостиницы и созданию современного конкурентоспособного рекреационного гостиничного продукта .

**Ключевые слова:** индустрия гостеприимства, spa-услуга, рекреационные ресурсы, хвойные лесные насаждения, акустотерапия.