

Original Research Paper

# Psychological Adaptation and Rehabilitation Treatment of Women with Non-Cancerous Diseases of the Female Genital Sphere

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**Abstract:** Treatment of non-cancerous gynecological oncomas is often accompanied by development of problems of psychological nature in patients. According to the data of previous studies, the anxiety-depressive syndrome is observed in 67% of patients. The important point is that a provoked anxiety-depressive syndrome leads to the development of psychosomatic pathology and the deterioration of the physical status of patients. In this regard, it seems extremely relevant to assess the problems of psychological adaptation of women and prospects for application of rehabilitation and health resort treatment methods to diseases of this group, which is conducted in the present study by means of opinion polls of patients and obstetrics and gynecology doctors. 4,502 patients receiving appropriate medication at various stages, 165 doctors working at women's consultation clinics and 150 doctors working at inpatient facilities were surveyed in 2013 in total (representative samples). The obtained results were statistically processed. It was found that most women were worried about the need for surgical intervention (48.9%) and the feeling of uncertainty in "women's health" (25.0%) at the stage of outpatient treatment. About 30% feel anxious regarding the ambiguity of the disease prognosis due to lack of information. When responding to a question of the ways to overcome psychological discomfort, women spoke in favor of increasing the efficiency of interaction with medical staff (68.9%). Patients receiving treatment at inpatient facilities averaged their level of psychological comfort at 3.5 points. Opinion of the majority (85.8%) of obstetrics and gynecology doctors from women's consultation clinics confirms the feasibility of the provision of psychotherapeutic aid to women with gynecological non-cancerous oncomas, but this work is complicated by inadequate public health literacy of patients in 70.2% of cases. Doctors of inpatient facilities (60.2%) pointed out that rehabilitation treatment, as well as (19.7%) after-treatment at a health resort stage should have been considered the most efficient in this area. The need for psychological adaptation, including within rehabilitation treatment and medical rehabilitation, assessed through the opinion polls at all stages of delivery of health care to patients with gynecological non-cancerous diseases, allowed to offer the efficient managerial solutions aimed at improving the arrangement of health care to patients of this group.

**Keywords:** Non-Cancerous Oncomas of the Organs of the Female Genital Sphere, Rehabilitation and Health Resort TREATMENT, PSYchoemotional Discomfort at Gynecological Diseases, Results of an Opinion poll of Obstetrics and Gynecology Doctors and their Patients

## Introduction

Relevance of the arrangement of health care to women with non-cancerous oncomas of the organs of the female genital sphere is determined by its significant impact on the reproductive health of the public (Ailamazyan and Belyayeva, 2003; Bezhenar *et al.*, 2003; Gorokhova *et al.*, 2008a; 2008b; Komlichenko, 2010; Nasyrova, 2011; Petrenko *et al.*, 2005). Besides, treatment is accompanied by development of problems of psychological nature in women, primarily related to the fear of development of cancerous oncomas (Dobrokhotova *et al.*, 1999; Dobrokhotova, 2010; Doletskaya, 2006; Nasyrova, 2011; Potemkina, 2009). Researchers have diagnosed an anxiety-depressive syndrome in 67% of patients who had undergone hysterectomy due to uterine fibroids (Golesheva *et al.*, 2009). It is shown that as the gynecological disease progresses, the patients experience higher levels of anxiety, proneness to conflict, decline in self-confidence and self-esteem, increase in passivity and pessimism; even maintaining the ability to work and social employment, women feel useless and imperfect, since neo plastic processes carry the risk of hysterectomy and (or) ovaries to my, which is a serious challenge for the physical female identity (Arzhanenkova *et al.*, 2007). Finally, the emerged psychoemotional problems such as anxiety disorder, depression and other neuroses cause a complex psychosomatic pathology. Over time, this pathology leads to development of severe somatic disorders of various systems and organs.

Due to their psychological features, women often perceive their disease as a more severe one, despite the overall favorable prognosis of non-cancerous oncoma. Individual psychological features of the patients' personality relate to development of various clinical options of the course of a disease. Most patients suffering from gynecological oncology diseases demonstrate significant disorders of the psychoemotional status. Significantly higher rates of alexithymia are established in patients with chronic gynecological pathology (including non-cancerous oncomas, primarily uterine fibroids), compared with healthy women (Kremleva and Potemkina, 2010). Therefore, the doctor's task is not only to arrange timely and quality treatment, including operative, but also to competently prepare a patient to it. One of the most important aspects of the doctor's work at this stage is to actively inform patients about the prognosis of the disease, its impact on fertility and the risk of development of complications. This will allow to minimize fears over the loss of the feminine after treatment.

Not only must the surgery be successful-its consequences are no less significant. Rehabilitation that progresses without any problems will allow a woman to get back to her normal life faster. This is considerably

influenced by method of the surgery, subsequent prescribed treatment and recovery resources of the body.

Quality of life indicators has an independent prognostic value and their use allows to choose the best strategy to treat patients with non-cancerous gynecology oncological pathology. Studies of quality of life in women (Lapotko, 2007; Strizhakov *et al.*, 1998) after surgical treatment due to uterine fibroids revealed that lower quality of life was noticed before surgery in most cases (87%) in patients with fibroids associated with the manifestations of the underlying disease. Improvement of quality of life was observed during the first 6 months in almost all women after hysterectomy with unilateral ovaries to my due to improving psycho emotional state and lack of complaints about the underlying disease. However, a gradual decline in the quality of life was further observed along with biochemical, neurovegetative and hormonal disorders.

Need for rehabilitation measures aimed at restoring the psychological balance becomes urgent at the outpatient stage already-at women's consultation clinics. Later, the inpatient treatment, especially after surgical intervention, requires further recovery of lost functions of the body (Abashin *et al.*, 2006; Vishnyakov *et al.*, 2006; Gorokhova *et al.*, 2008c; Dodonov *et al.*, 2012). For example, a post-hysterectomy syndrome, described by the emergence of somatic, neuroendocrine and psychic consequences, leads to a significant reduction in the patients' quality of life, despite the absence of surgical complications of the early postoperative period (Volodin *et al.*, 2006). Neurovegetative, endocrine and metabolic disorders and psycho emotional discomfort that develop on the background of hormonal deficiency are reflected on the woman's general health, working ability and quality of life (Vanchakova *et al.*, 2006; Markova *et al.*, 2012; Molchanov, 2008). All this allows to suggest the importance of compliance with the principles of continuity and consistency of treatment of patients at all stages of delivery of health care to patients in this category, as well as the need for broad application of methods of rehabilitation treatment.

## Methodology

With the aim to find ways to optimize the delivery of health care to women suffering from non-cancerous oncomas of gynecological sphere, a comprehensive study was conducted in 2013 on the basis of women's consultation clinics, gynecological departments of inpatient facilities in Saint Petersburg and a gynecological department of rehabilitation treatment of one of health resorts in Lithuania. Using a sociological method and special questionnaires compiled for each group of respondents, the opinions of patients and doctors involved in delivery of health care to them were studied. The questionnaires included a series of close-end and open-end questions, the answers to which

allowed to assess major medical and statistical characteristics of the groups of respondents under study, as well as their opinion about delivery of health care to gynecological patients, including: efficiency of specific methods of treatment and diagnostics, rehabilitation, main problems in outpatient and inpatient treatment, suggestions for improving health care delivery.

A continuous method of observation within the selected medical organizations was used in the selection of doctors participating in the survey-the characteristics of doctors completing the developed questionnaires were consistent with the characteristics of doctors at women's consultation clinics and inpatient facilities in Saint Petersburg in general. Overall, 165 obstetrics and gynecology doctors from women's consultation clinics and 150 doctors of large multi-speciality inpatient facilities were surveyed. High activity of the doctors that participated in the survey should be noted: the share of those who answered the questionnaire was 95% of the total number of doctors.

Opinions of patients at the outpatient and inpatient stages of delivery of health care were examined by sampling. The formula for calculation of the volume of observations at the known value of population was used to define the size of the sample:  $N = (N^2 Pq)/(Np^2 + t^2 Pq)$ , where:  $N$  is count of sample;  $N$  is count of population;  $P$  is indicative indicator according to literature, often a value of 50% is used to obtain a maximum required sample volume;  $q$  is 100- $P$ , if  $P$  is expressed as a percentage;  $t$  is confidence coefficient ( $t = 2$ , at confidence 95%);  $p$  is marginal error of indicator  $P$ , in the case of which  $P$  should be taken equal to  $\pm 2\%$ . Overall, 156,585 outpatients and 6,884 inpatients with non-cancerous oncomas of the organs of the female genital sphere have been registered in the system of compulsory health insurance in Saint Petersburg in 2012. The value of the sample is defined based on the above calculations. Opinions of 2,500 patients of women's consultation clinics and 1,800 inpatients suffering from non-cancerous oncomas of the organs of the female genital sphere were examined within this study.

Features of the stage of rehabilitation treatment of patients with non-cancerous oncomas of the organs of the female genital sphere by the example of a health resort in Lithuania were examined by a continuous method, 202 patients' opinions in total were examined.

Female patients of various medical organizations participating in the survey have shown significant interest and activity: The share of those who answered the questionnaire was 85% on the average.

The obtained data were further statistically processed through application of calculation of averages, intensive and extensive indicators and correlation analysis.

## Results

Results of the conducted study confirmed significant volume of the problem of psychological discomfort in

women suffering from non-cancerous diseases of the female genital sphere: only one in three respondents indicated that the need for treatment had no effect on the psychological state.

Most often, women are concerned about the need for surgical treatment (48.9%), the sense of uncertainty about their "women's health", anxiety about unclear disease prognosis due to the lack of information (Fig. 1). The level of revealed concern about women's health in the age group of women younger than 40 years was significantly higher than the average and amounted to 55%. When responding to a question of the ways to overcome psychological discomfort, women, regardless of the age, spoke not so much in favor of psychologist aid (only one in ten indicated this) as in favor of increasing the efficiency of interaction with medical staff (68.9% of women indicated that they would be comforted by the detailed explanations about the diagnosis and treatment) (Fig. 2).

A comprehensive study revealed that there were a total of 19.25 staff positions of psychotherapists in women's consultation clinics in Saint Petersburg in 2013. Meanwhile, such positions were not provisioned in half of the women's consultation clinics (57.6%) at all. Only 13 positions from the provisioned staff positions of psychotherapists were filled, on which 11 specialists worked. Number of visits to those specialists in 2013 amounted to 22.0 thous. (1.3% of all visits to women's consultation clinics).

An opinion poll of obstetrics and gynecology doctors from women's consultation clinics revealed the need to deliver psychotherapeutic aid to women suffering from non-cancerous oncomas of the organs of the female genital sphere: 85.8% believe that application of such methods is appropriate. Meanwhile, a substantial part of the surveyed doctors (27.5%) consider the work of women's consultation clinics in the arrangement of medical and preventive care for women with gynecologic oncomas insufficiently efficient.

Most obstetrics and gynecology doctors (70.2%) indicated that insufficient public health literacy of patients hinders the effective work of women's consultation clinics with patients suffering from non-cancerous oncomas of the organs of the female genital sphere.

The obtained data do not speak in advantage of the work of women's consultation clinics. In accordance with the Regulation of organization of the women's consultation clinics, approved by order of the Ministry of Health of the Russian Federation dated 01.11.2012 No. 572n "on approval of the delivery of health care in obstetrics and gynecology," one of the functions of the women's consultation clinics is to carry out activities to raise awareness and health culture of population in various aspects of healthy lifestyle and preservation of women's reproductive health. One of the duties of an obstetrics and gynecology doctor is public health

education among the assigned female population on the issue of reproductive health and abortion prevention. As such, an indication by the surveyed doctors from women's consultation clinics of low public health literacy of patients suggests, among other things, the low level of work of women's consultation clinics and doctors on raising awareness and health education of population.

The patients themselves confirm this aspect of the problem, as most of them lack the information provided by the doctor in charge and other medical staff regarding their own treatment. Women are not able to properly assess the cause-and-effect relationships of their disease in all cases and consequently to timely eliminate the negative factors contributing to its aggravation: according to the survey results, one in five patients of women's consultation clinics cannot identify the possible causes of the development of their disease. This should be regarded as a lack of awareness of patients about the course of their disease. This indicator looks especially negatively at the background of the fact that, as a rule, patients suffering from non-cancerous oncomas of the organs of the female genital sphere visit women's consultation clinics for quite a long time and have numerous contacts with the medical staff. One in ten women noted the lack of freely available sources of the necessary reliable information set out in a comprehensible form and on the other part-the need to obtain such knowledge about the course, diagnosis, treatment, prognosis and prevention of their disease. This undoubtedly causes an additional level of anxiety in patients: the surveyed women indicated that available scientific and popular literature, particularly prepared

regarding their disease, would have helped them overcome the psychological problems.

Present-day ideas about the arrangement of inpatient health care suggest the need to shorten the period of hospitalization as much as possible. At the same time, patients cannot readily return to normal life after a short stay in inpatient facility and require rehabilitation measures.

Patients who had received treatment due to non-cancerous oncomas of the organs of the female genital sphere at the inpatient facility averaged their level of psychological comfort at 3.5 points. However, after discharge from the hospital and the treatment given, only 37% of surveyed women indicated that their psychological state had improved.

Most of them noted that they needed further outpatient observation in a women's consultation clinic, often women indicated that they needed follow-up care with the use of rehabilitation programs, sanatorium-resort therapy and methods of psychological rehabilitation. Only 4 out of 100 interviewed women were ready to return to their everyday life after discharge from the hospital. Only some patients were uncertain about the need for further treatment (response rate 5.8 per 100 respondents) (Fig. 3). In the framework of the study, a number of social factors that may affect rehabilitation and psychological adaptation of patients have been revealed. So, the most significant of them is a woman's family status and age: married women in the age group up to 45 years with children recover easier after treatment: 30 of 100 interviewed women were ready to return to their everyday life after discharge from the hospital.

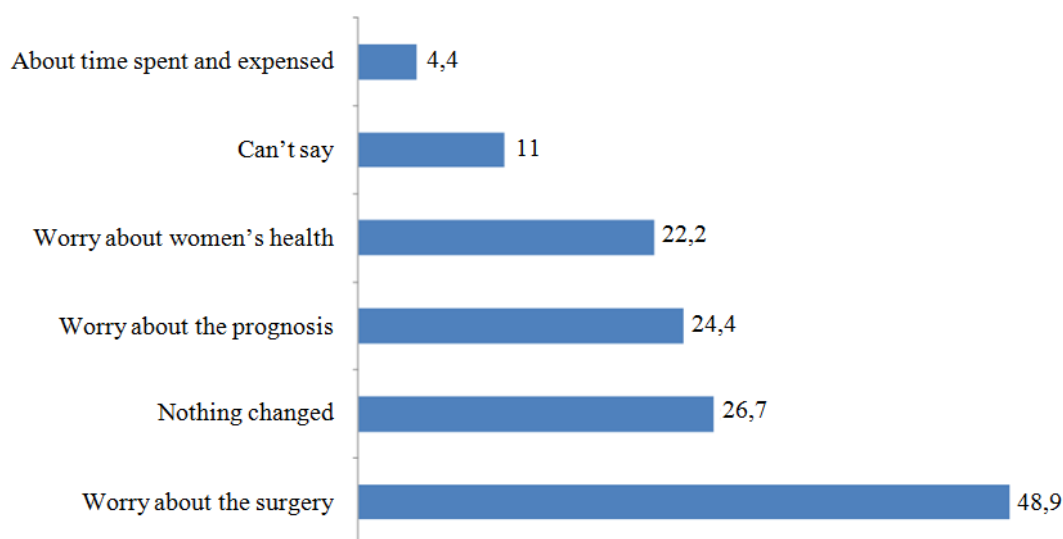


Fig. 1. Frequency of female patients' answers about changes in the psychological state after inpatient treatment of benign tumors of the female reproductive organs (per 100 respondents)

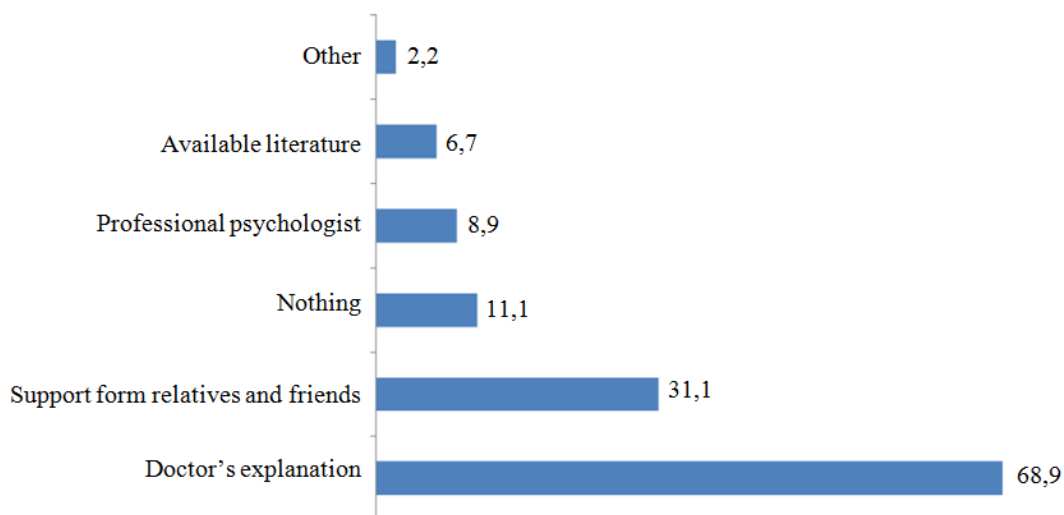


Fig. 2. Response frequency of female patients with benign tumors of female reproductive organs about overcoming the negative psychological state (per 100 respondents)

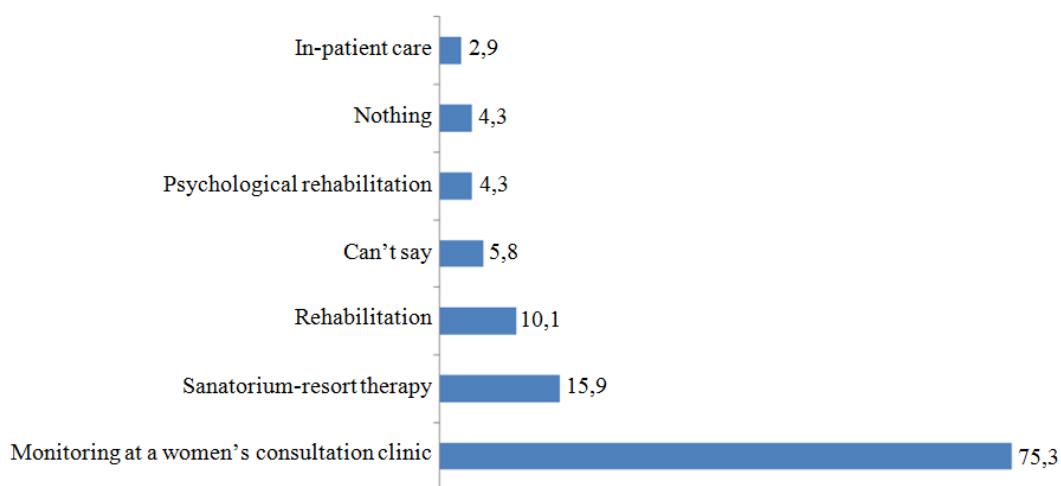


Fig. 3. Response frequency of female patients about the need for further treatment after inpatient treatment (per 100 respondents)

The development of methods of rehabilitation treatment in various fields of medicine in recent years cannot ignore approaches to their application in delivery of health care to gynecological patients. We offered obstetrics and gynecology doctors from women's consultation clinics to evaluate the need for application of rehabilitation methods in patients. The obstetrics and gynecology doctors from women's consultation clinics actively support this area of delivery of health care-more than 65.0% expressed the opinion that the application of rehabilitation treatment in patients of this group would undoubtedly be efficient. Doctors from inpatient facilities (with a frequency of 20.5 in 100 respondents) indicated that patients might immediately get back to normal life after discharge from the hospital. With

frequency of 60.4 in 100 respondents, the doctors indicated that such patients needed a short outpatient observation immediately after discharge from the hospital. At the same time, the obstetrics and gynecology doctors from inpatient facilities with frequency of 18.2 in 100 respondents indicated that patients needed after-treatment with application of rehabilitation programs and with frequency of 9.1 in 100 respondents-that such patients were advised health resort treatment. Only a few specialists were undecided with the unambiguous answer to this question (response rate is 3.6 in 100 respondents).

A separate task of the poll of obstetrics and gynecology doctors from inpatient facilities was to clarify their opinions on the efficiency of application of

health resort and rehabilitation treatment to women with non-cancerous oncomas of the organs of the female genital sphere. It turned out that all the surveyed specialists confirmed the efficiency of these methods. At the same time, 60.2% of surveyed doctors indicated application of rehabilitation treatment as the most efficient, 19.7% consider the need for after-treatment at the health resort stage of delivery of health care as the most efficient, while in 20.1% of cases doctors indicated both of the above areas of treatment as efficient.

The average age of the surveyed health resort patients was 54.5. Most of them were socially active (62.5% work). Most of the surveyed women have been suffering from non-cancerous oncomas for a long period of time: half for several years and 37.5% for a few months. At the same time, 65% of respondents have not previously received rehabilitation treatment, including due to the pathology under study.

## Discussion

In accordance with the Regulation of organization of the women's consultation clinics, approved by order of the Ministry of Health of the Russian Federation dated 01.11.2012 No. 572n "On approval of the delivery of health care in obstetrics and gynecology," one of the established functions of the women's consultation clinics is delivery of legal, psychological, medical and social care to women. It is recommended to allocate a psychotherapist (medical psychologist) office in the structure of a women's consultation clinic for this purpose. According to the recommended staffing standards of a women's consultation clinic, the provision of specified professionals must be 1 position per 10 positions of medical specialists.

The obstetrics and gynecology doctors believe that main causes of inefficient work of women's consultation clinics with patients suffering from non-cancerous oncomas of the organs of the female genital sphere are insufficient responsibility of women and their low activity in matters of their own health monitoring, determined by lack of their awareness. For example, 95.0% of doctors indicated the untimely seeking of medical advice by women. It should be emphasized that the above factor directly depends on public health literacy of patients, availability of information about the need for treatment and possible consequences of lack of attention to their health.

A method of rehabilitation treatment of women with non-cancerous oncomas of the organs of the gynecological sphere studied by the example of a health resort in Lithuania includes seven main sections: pharmacotherapy (vitamin therapy), physiotherapy (electrotherapy, laser therapy, magnetic therapy, light therapy, lymphatic drainage, inhalation of vapors of

mineral water and oxygen, mud baths), exercise therapy (aimed at stimulation of pelvic organs, strengthening of muscles of lumbosacral spine, lower limbs), diet therapy, climate therapy (aero therapy, heliotherapy), psychotherapy (men therapy, biblio therapy, psycho relaxation, aromatherapy), manual therapy and massage (neck massage). Depending on medical grounds, the above methods of treatment are applied to patients in various combinations and are accompanied by drug therapy due to concurrent diseases.

All the surveyed patients were admitted to treatment at the health resort almost immediately after inpatient treatment (waiting time ranged from a few days to one week). The duration of prior inpatient treatment in the majority of respondents (61.8%) did not exceed 7 days, while the rest indicated that they were treated at the inpatient facilities for no more than 10 days. This allows to consider the rehabilitation treatment under study at the health resort as after-treatment stage, which allows to reduce the duration of stay at the inpatient facility to the necessary minimum.

The overwhelming majority of the surveyed women (97.3%) indicated that they were fully satisfied with the work of the health resort, while 87.5% of respondents believe that the effect of health resort treatment fully met their expectations. Patients find physical therapy and exercise therapy the most effective methods of treatment at the health resort-the survey participants indicated this with a frequency of 63 in 100. Women also indicated manual therapy and massage among the methods that have had the greatest positive impact on their health (56 positive responses in 100). A fairly high frequency of positive responses about the efficiency of psychotherapeutic methods should also be noted-37 in 100 respondents indicated that. Patients indicated climate therapy and diet therapy among the most efficient methods less often (19 and 12 in 100 respondents, respectively).

## Conclusion

Compliance with the principles of continuity and consistency in the treatment of patients with non-cancerous oncomas of the organs of the female genital sphere is a priority area in arrangement of health care to this category of citizens. At the same time, application of methods of rehabilitation treatment is important at every stage.

From the very start of treatment of non-cancerous oncomas of the gynecological sphere, a woman gradually adapts to the outcome of the disease. Explanations (in the comprehensible form for the patient) about the nature of the disease, results of its treatment and how the disease will affect the reproductive system functions will contribute to the efficiency of the rehabilitation process. Such explanations, particularly at the stage of the women's consultation clinic, will undoubtedly contribute to psychological adaptation and will help overcome

gynecological problems of women resulting from low awareness of sex hygiene and the presence of a large number of myths associated with pregnancy, consequences of undergone surgeries, etc., reluctance to visit a gynecologist due to fears.

Taking into consideration the results of a comprehensive study, it must be noted that the increase in women's awareness of the causes of development, methods of identification, observation, operative and conservative methods of treatment, as well as the methods of prevention of non-cancerous oncomas of the organs of the female genital sphere should be considered one of the main components of psychological support of patients and increasing availability of health care.

The results of earlier studies dedicated to rehabilitation and psychological adaptation of women with gynecological diseases show that the issues of improving availability of medical care information are the least developed. Increase in information availability of health care to women with non-cancerous oncomas of the gynecological sphere can be achieved through implementing a set of measures, including tightening control of heads of women's consultation clinics over the work of obstetrics and gynecology doctors in public health education among the assigned female population; preparation of relevant awareness-raising materials for women in a comprehensible and understandable form, representing information on the identification, methods of treatment and prevention of non-cancerous oncomas of the gynecological sphere; arrangement of systematic individual and public awareness of women with non-cancerous oncomas (doctor-patient interaction, specially designed awareness-raising materials, placement of awareness-raising materials on the territory of the women's consultation clinic, preparation and placement of awareness-raising materials on the official websites of women's consultation clinics, preparation of videos).

Since the conducted study has revealed that psycho-emotional factor is an essential component of the development of non-cancerous oncomas of the organs of the female genital sphere, it is advisable for the health authorities to consider the idea of establishing staff positions of psychotherapists at women's consultation clinics in Saint Petersburg in accordance with the specified standard, as well as their staffing with individuals who have received appropriate training.

The conducted study revealed that women suffering from non-cancerous oncomas of the gynecological sphere needed rehabilitation measures. At the moment, the availability of rehabilitation medical care to patients with non-cancerous oncomas of the gynecological sphere is extremely low. Issues of application of rehabilitation treatment of women with non-cancerous oncomas of the organs of the female genital sphere after inpatient treatment, including surgery, are particularly relevant in light of the search for ways to improve efficiency of

treatment, as well as the rational use of limited health care resources. Reducing the length of patients' stay on an expensive inpatient bed can only lead to a more rational use of resources in health care in case of efficient application of after-treatment methods: medical rehabilitation and health resort treatment. This requires a detailed examination of these issues and taking managerial decisions on stimulating the provision of health services for rehabilitation treatment of women with non-cancerous oncomas of the gynecological sphere within the programs of the state guarantees to deliver free medical care to citizens.

Day patient facilities can become an important link in case of respecting the principles of continuity-not only at the initial stages of treatment of women with non-cancerous oncomas, but also in the period of rehabilitation. Besides, the application of methods of medical rehabilitation based on day patient facilities can significantly improve the availability of this type of health care.

We have studied the opinions of doctors from women's consultation clinics and inpatient facilities on the issue of availability of treatment of the group of patients under study at day patient facilities. Opinions of doctors were diametrically divided, notably, no dependence of the expressed opinion on the doctor's place of work, position or other medical-and-social characteristics has been detected. Half of the surveyed specialists (52.5%) believe that surgical treatment of women, in particular, is impossible and inadvisable at a day patient facility, as its arrangement requires round-the-clock medical observation. Accordingly, 47.5% of specialists indicated that this issue could be considered positively. The specialists believe that hysteroscopy and some minor surgery can successfully be carried out on the basis of a day patient facility of the women's consultation clinic. At the same time, 22.0% of the surveyed doctors indicated that surgical treatment of patients suffering from non-cancerous oncomas of the organs of the female genital sphere at a day patient facility was undoubtedly possible, but not advisable.

Activity of work of day patient facilities in the system of compulsory health insurance in Saint Petersburg decreases year by year: while the day patient services were provided to patients with non-cancerous oncomas of the organs of the female genital sphere by 24 medical organizations in 2008, only 11 did the same in 2012. This results in reduction in the rate of hospitalization of patients to day patient facilities down to 5.1 per 100 thousand adult population. Since the day patient facilities do not receive extensive development as a method to arrange treatment of gynecological patients that replaces inpatient treatment, it is advisable to consider medical rehabilitation on their basis, which will contribute to

the development of this kind of health care and increase in its accessibility for citizens.

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## Author's Contributions

**Larisa Valerianovna Kochorova:** Development of the plan and design of the study, analysis of the results. Writing of conclusions.

**Boris Lvovich Tsivyan:** Collection, processing and analysis of material. Writing of conclusions

**Nikolay Ivanovich Vishnyakov:** Development of the plan and design of the study, analysis of the results. Writing of conclusions

**Vadim Sergeevich Skripov:** Collection, processing and analysis of material. Writing of conclusions

**Sergey Yurevich Lomakov:** Collection, processing and analysis of material. Writing of conclusions

## Ethics

This article is original and contains unpublished material. All the authors have read and approved the manuscript and no ethical issues involved.

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