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# The Scientific Study on Monitoring for the Scope Vocational Health Safety Systems, Salubrious and Beneficial Destitution Challenges According to the Covid Pandemic in Georgian Pharmaceutical Foundation Settings

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**Abstract**

Approaches to the activities of pharmaceutical institutions and the pharmaceutical business, in general, have always been a hot topic in Georgia. Therefore, the activities of pharmaceutical institutions require deeper study and supervision. Occupational safety and health in pharmaceutical enterprises is one of the components of labor rights and is a socio-economic law that includes a combination of labor rights and obligations, labor rights, a safe environment, regulation of compulsory working hours, fair working hours, fair or normal business hours. Equal treatment, non-discrimination, instrumental and other rights. Labor relations in different countries of the world are governed by various laws and regulations, international recommendations. The aim of the research was to study the monitoring for the scope vocational health safety systems, salubrious and beneficial destitution challenges according to the covid pandemic in Georgian pharmaceutical foundation settings. The purpose of the labor legislation in Georgia is to regulate the relationship between the employer and the employee through clearly defined legal regulation that excludes the exploitation of the employee and creates the possibility of work based on human dignity, freedom and self-development. Accordingly, the purpose of labor legislation is to regulate private legal relations at the normative level to the extent that it is necessary for the proper social protection of workers.

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So equip the Labor Inspectorate with an unconditional and free access to the places of employment, which implies the authority of the mechanism, by its own decision, to carry out inspections of the places of employment without the prior permission of the court.

***Key words:*** Monitoring; scope; occupational; safety; system; healthy; Covid-19; pharmaceutical foundation.

## 1. Introduction

The performance of the assigned work is usually subject to organizational regulation and the daily and/or weekly hourly work schedule set by the employer. Under such organizational arrangements, it is important to classify time into work, break, and leisure time. Working time includes the time that an employee must use to fulfill a contractual obligation. Break time is the period of time between working hours, while break time is defined by labor law as leave periods and days off [1]. Depending on the specifics of the work, the Labor Code provides for additional leave for those working in heavy, harmful or hazardous work in the amount of 10 calendar days a year. The list of such works is approved by the order of the Minister for Internally Displaced Persons from the Occupied Territories of Georgia, Labor, Health and Social Protection [2,3].

The employer is obliged to provide the employee with the safest working environment for health. The need for individual measures to protect and maintain the health of employees is particularly high in some areas of employment. Periodic and regular medical examinations are required depending on the content of the activity. With the exception of cases provided for by a regulatory enactment, the employer has the right to determine additional conditions for a medical examination [4]. Working conditions. An important prerequisite for the rational use of employees' working time and, in general, for increasing the efficiency of their work are normal working conditions and the establishment of rational internal rules for work and rest at the enterprise. Work should be carried out in normal, favorable conditions, and when planning a workplace and its technological equipment, it is necessary to take into account the latest advances in technology and technology. This significantly helps to reduce staff fatigue, save time, improve staff efficiency and ultimately improve work efficiency and success [5,6].

Safety and social resilience include: protecting employees' rights and safe working conditions, preventing human trafficking and eliminating child labor. In pharmaceutical institutions, hygiene standards are required and adhered to. Pharmacy institutions are all institutions in which pharmaceutical activities are carried out. When carrying out pharmaceutical activities under the influence of high-risk factors, possible cases of occupational diseases of an employee may develop [7,8]. An occupational disease (acute or chronic) develops under the influence of factors that threaten the working environment and the production process, causes a deterioration in his health and/or restriction of his professional ability to work in the short or long term, and is determined by the legislation of Georgia [9,10].

Therefore, the specifics of pharmaceutical activities should be taken into account, in particular: the development of a new pharmaceutical product (molecule), the use of various chemicals and technologies, which, in turn, require special precautions. Also, one cannot ignore the necessary characteristics during storage, transportation,

delivery, consumption of finished products, and, as a result, the need to comply with sanitary and hygienic working conditions [11].

Related to the pharmaceutical industry: measures related to waste collection, processing, waste disposal, pollution control and other waste management processes. Therefore it is necessary to consider:

**1.** Sanitary-hygienic characterization of working conditions - physical, chemical, biological factors of the production and/or working environment and the labor process;

**2.** The permissible norms of chemical substances in the air of the working zone of the pharmaceutical institution shall be used for the hygienic assessment of the working conditions for the following purpose:

**A)** To determine the conformity with the hygienic norms to check the working conditions of the employees and to make a hygienic conclusion;

**B)** To determine the priority direction during the implementation of remedial measures and to determine its effectiveness;

**C)** To create a database at the level of enterprise, field, region, republic;

**D)** To determine the level of occupational risk, to take preventive measures and to justify social protection measures;

**E)** To investigate cases of occupational diseases and poisoning.

These rules set out the organizational and technical measures, as well as the requirements for the prevention (or reduction of the degree of impact) and safety of impact and hazardous impact factors. Occupational safety issues in the workplace, existing and expected threats, accident and occupational disease prevention, staff training, information, counseling and their equal involvement in occupational safety and health issues.

The norms of high hierarchy to be used for labor protection purposes are the Constitution of Georgia; Conventions of international organizations related to labor safety, remuneration, product certification and similar issues, relevant laws, and by-laws.

Labor protection in modern conditions is practically the same component of management, such as optimization of management by raising the qualification of staff; Expansion of the key market (by improving the quality of services and products provided); Perfection of technology and production infrastructure. The sanitation of the institution serves to eliminate the harmful conditions for people in the workplace and to improve the production factors by using sanitary-technical means [12,13]. Harmful conditions are considered to be factors that affect people causing their illness or reduced ability to work. Naturally, this needs to be addressed through proper organizational issues. Safety equipment is organizational, technical measures, technical means, proper staff habits that reduce the impact of dangerous factors on human life and health. Dangerous are factors that in the

shortest amount of time lead to trauma or a sharp deterioration in health [14,15].

Harmful conditions, in some cases, may be conducive to the appearance of hazardous factors at work and increase the likelihood of receiving an industrial injury. For example, dim lighting, high noise levels, etc. It distracts a person and increases the likelihood of receiving an industrial injury. In addition, adverse conditions are sometimes directly attributable to industrial trauma — acute illness as a result of exposure to one shift or less. For example, poisoning with nitrogen, carbon monoxide (oxides) or other toxic impurities, etc. Fire safety means the creation of a system of passive and active organizational-technical measures to prevent its occurrence, which, if necessary, involves evacuation. The system is passive if hard-to-reach materials and equipment are used, making fires less likely to occur under proper conditions[16,17].

We must remember that most of the expected danger in this or that process was revealed after it happened to a person. In view of the above, strict adherence to safety rules is a matter of public need and it is not just a personal matter (of the employer or the employee). Consequently, when concluding a contract, the parties must not only agree on the level of security, but also the level of security provided in each case must be in accordance with the law [18, 19]. Accordingly, safety rules can be formulated on sectoral, technological and other principles. Safety is such an important value that all its interpretations are acceptable given the task of fully mastering and understanding the material [20]. Particular attention in the found literature is paid not only to the protection of safe conditions for the employee, but also plays an important role in the means of avoiding safety by the employee himself. This requires the creation of a self-safe environment, which, first of all, provides for the necessary compliance of sanitary and hygienic norms by the employee, in particular, it is important to process hands in specially designated places, hand washing in the dishwasher is prohibited [21,22].

For hand disinfection use 70% ethyl alcohol and any alcohol preparation (octoriderm, octonecept), 0.5% chlorhexidine bigluconate (70% ethyl alcohol), iodpyrone solution and others, 1% iodide iodine, 0.5% B chloramine solution (if no other drugs) and other remedies authorized by the Ministry of Refugees, Labor, Health and Social Affairs from the Occupied Territories. If the activity is related to research work, in this case an additional condition is to wash your hands with warm water and treat them with emollients such as a mixture of glycerin, alcohol, 10% ammonia and an equal amount of water, which is thoroughly shaken before use. Other emollients, ready-made creams that provide elasticity and durability to the skin of the hand can be used [23,24].

In pharmaceutical establishments special attention should be paid to the lighting factor. Because it is possible that failure to take precautionary measures will harm not only the employee but also the quality of the pharmaceutical product. It is necessary to protect the bactericidal emitters, which are low pressure air discharge lamps, 254 nm. With wavelengths of ultraviolet radiation corresponding to the area of greatest bactericidal action of the radiant energy [25,26].

Two types of emitters are known. Non-screen lamps - for rapid disinfection of the surface and air (in the absence of people). The set power of non-screen lamps should not exceed 2-2.5 watts of power consumed from the mains per 1 m 3 of storage space. With screen lamps - for irradiation of the upper layers of air (in the presence of humans), at this time the lower layers are neutralized by convection. The set capacity of the screen

lamps shall not exceed 1 watt of the power consumed from the mains per 1 m 3 of storage space. Screen bactericidal lamps can work up to 8 hours a day. If there is not enough ventilation, after 1.5-2 hours of continuous operation of the lamps, a characteristic odor of ozone will be felt in the air, it is recommended to turn off the lamps after 30-60 minutes [32]. The pharmaceutical facility is subject to constant cleaning. In this case it is necessary to take into account - the safety of personnel engaged in the use of disinfectant and disinfectant solutions. Clothing should consist of a robe, a hat and rubber gloves. At the time of dosing the drug it is necessary to use protective goggles and a respirator (or a four-layer Dolbandi bandage). When perhydrol gets on the skin it should be rinsed off immediately with water. When chlorine powder gets on the skin, this part of the skin should be washed with soap and water and treated with a 2% solution of sodium hyposulfite or sodium bicarbonate [27,28].

Pharmaceutical establishments are obliged to have fire-fighting and safe activities, in accordance with the Law of Georgia on Civil Safety, and other normative acts in the field of fire safety, to have: Pursuant to paragraph 2 of Article 21 and paragraph 1 of Article 24 of the Law of Georgia on Civil Safety, the powers of the executive bodies of Georgia in the field of fire safety and the powers delegated to the municipalities are defined. Municipalities shall exercise the powers defined by this Technical Regulation only in accordance with the delegation of powers in accordance with Article 24, Paragraph 2 of the Law of Georgia on Civil Security.

Prior to the commencement of the research in the scientific laboratories, the supervisor is obliged to instruct the personnel on the fire safety measures:

**1.** The head of the experiment is responsible for observing the fire safety requirements during the experiments;

**2.** Stocks of flammable and combustible liquids and combustible substances should be stored in specially arranged compartments (cells);

**3.** Chemical reagents that may interact with each other, water and air may cause fire or explosion, should be stored separately, in appropriate packaging, in dry closets. Jars, bottles and other packaging where chemical reagents and substances are stored must be labeled with the characteristic hazards: "fire hazardous", "explosive", "poisonous", "chemically active". Flammable and combustible liquids and gases in laboratory warehouses must be supplied to the workplace in packed and container-safe containers;

**4.** All work in laboratory warehouses, accompanied by the release of explosive fire vapor and gas, should be carried out in the exhaust cabinets. It is forbidden to carry out works in exhaust cabinets that have faulty ventilation;

**5.** Upper and lower air intake should be provided in the exhaust cabinets, if the work carried out is accompanied by the release of flammable vapors and gases;

**6.** Laboratory tables and exhaust cabinets designed to work with flammable liquids and combustible gases, as well as with flammable substances, shall be made of non-combustible materials;

**7.** Do not spill flammable and combustible liquids into the sewer;

**8.** Fire safety signs prohibiting the use of open fire shall be posted on fire hazardous premises and fire-hazardous equipment;

**9.** Chemicals and materials should be stored in separate storage units in groups according to uniformity of physical, chemical and fire hazardous properties;

**10.** During the storage of nitrogen and sulfuric acid, measures should be taken to exclude their contact with wood materials and other substances of organic origin;

**11.** Storages where chemicals capable of thawing during a fire should be stored should be provided with means to limit the free flow of thaw (chemicals, thresholds).

Each facility / enterprise must keep information on the hazard indicators of the substances and materials (including by-products, waste) used in technological processes. It is not allowed to use substances and materials in the technological processes of enterprises, the explosion hazard indicators of which have not been studied. When storing and transporting substances and materials, their aggregate condition, the possibility of joint storage, as well as the uniformity of their extinguishing means, the rule of Annex 8 - storage of substances and materials - should be taken into account, taking into account the requirements [29-31].

Repair work on industrial premises, technological apparatus and equipment, as well as on premises where technological processes related to the release of hazardous dust, steam and gases are underway. Repair and re-equipment of ventilation units is allowed only if Meanings. During the works, the repair apparatus (unit) or the ventilation system area should be disconnected from other areas. In a pharmaceutical institution (pharmacies, training and scientific research laboratories) the responsibility for compliance with fire safety requirements rests with the head of the institution and / or the person designated by the order. There should be an evacuation place for employees on the territory of the institution with the inscription "evacuation place" [18,19,25].

After a long break (more than 1 hour), disconnect electrical appliances (except computers, refrigerators and fax machines) from the electrical outlet; Disconnect the electrical appliances and equipment in the storeroom from the power source. After finishing work, inspect the pharmacy, enterprise, training and scientific research laboratory, room, storeroom, before closing, close all windows, turn off all electrical appliances and lighting.

Stocks of flammable and flammable liquids and volatile / flammable substances should be stored in specially designed containers (limit amount) [14,15,24].

Chemical reagents that may interact with each other, water and air may cause fire or explosion, should be stored separately, in appropriate packaging, in fireproof cabinets. All work in the storerooms, accompanied by the release of poisonous, explosive and flammable vapors and gases, should be carried out in the exhaust cabinets. It is forbidden to carry out works in exhaust cabinets that have faulty ventilation. Tables and hoods designed to

work easily and with flammable liquids and combustible gases, as well as with flammable substances, must be made of non-combustible materials. Do not allow flammable and volatile liquids to enter the sewer. There should be a place in the facility with appropriate special utensils for placing liquid and solid waste (separately), which is removed from the facility by a special service.Fire safety signs and fire-hazardous equipment must be affixed with fire safety signs prohibiting the use of open fire.

Chemicals and materials should be stored in separate storage units in groups according to their uniformity of physical, chemical and toxic, fire-hazardous properties. Do not allow nitrogen and sulfuric acid to come into contact with wood materials and other substances of organic origin during storage. Storage where flammable chemicals are stored should be subject to a free-flow limit [9,16]. Hygienic norms in Georgia are compiled on the basis of recognized international standards, on the principle of specificity of regulation (allergen, carcinogen, irritant, etc.). Hygienic norms provide information on chemicals are presented in the form of summary tables in the appendices, where the following data on each substance are given: chemical name (in alphabetical order), ZDC values (mg / m3), aggregate condition, hazard classes, case of biological impact, number Notes with reference to standard safety phrases [6,9,16,19].

Requirements for the marking and labeling of hazardous chemicals should be taken into account in the state standards and normative-technical documents regulating the field of chemicals management.

From a safety point of view, special importance is attached to the transportation of a pharmaceutical product, which is set out in the same Act as follows:

**1.** In case of transportation of a chemical substance, the label of the transport container shall include additional information on the number of packed container places placed in the transport container, the net and gross mass of each place, an indication on the normative-technical documentation;

**2.** If it is practically impossible to label and mark the container of a hazardous chemical due to the size of the container or the nature of the packaging, the relevant information must be reflected in the attached documentation;

**3.** Requirements for marks include:

**A)** The markings on the label must reflect accurate information about the hazardous chemical;

**B)** The label must be firmly attached to the container. Its size must comply with the requirements set by the norms. The inscription should be clear and easy to understand;

**(C)** Labels with signs and symbols depicted on them must be uniform, including the R-phrases of risk and the S-phrases of safety used in the colors used [27,28,30].

This document addresses the safety issues of the pharmaceutical product in pharmaceutical establishments, as well as the cases when the patient uses the pharmaceutical product.

The Ministry of Labor, Social Affairs, and the Ministry of Internally Displaced Persons from the Occupied Territories of Georgia (hereinafter referred to as the Ministry) is the Labor Safety Supervision Authority in Georgia. Protecting the health of the employed population, preventing occupational and occupational diseases, promoting a safe environment in the workplace. The beneficiaries of the program are citizens of Georgia. The program provides state-sponsored occupational health research for various services, including state-owned enterprises [26,27,28].

By the decree of the Government of Georgia, the state program for monitoring the working conditions was approved, the implementation of which was entrusted to the central office of the Ministry. The target group of the program includes employers who give their prior consent to the monitoring. In addition, under this program, employers receive a notification about the inspection 5 working days before the monitoring procedure. Within the program, the target group is selected and the monitoring sequence is determined. The program does not establish the rules for conducting monitoring and its regulation is linked to the issuance of an individual act of the Minister. Violation of labor safety norms is controlled by a labor safety specialist - a person with appropriate qualifications appointed/ invited by the employer, who ensures the introduction and management of labor safety measures to prevent violations of labor safety norms [11,12, 15].

Occupational safety is a broad commandment and encompasses in itself a safe environment saturated with sanitary norms, primarily the safe use of medicines, subject to all conditions. This determines not only their quality, but also the prevention of a dangerous environment for the population and employees. It should be noted that all the requirements necessary for contact with a product saturated with chemical properties, as well as the extent to which working conditions are observed, including normalized working hours, temperature regime, degree of pollution, fire condition, as well as other unforeseen cases, must be lawfully observed [29,31].

Therefore, the study and evaluation of the legal-normative basis of labor safety, equipment and sanitary-hygienic requirements of the activities of Georgian pharmaceutical companies is quite relevant. The study is multifaceted in its problems, so it is discussed from different angles, including in the context of the security situation in the country. Accordingly, the paper covers, as far as possible, problems related to the fulfillment of labor safety, equipment and sanitary-hygienic requirements, as well as ways to eliminate and solve them.

**Aim and Objectives of the Research**

The aim of the research was to study the monitoring for the scope vocational health safety systems, salubrious and beneficial destitution challenges according to the covid pandemic in Georgian pharmaceutical foundation settings.

The legal-normative basis of labor safety, equipment and sanitary-hygienic requirements of activities in pharmaceutical institutions, to identify their strengths and weaknesses, pros and cons, to reflect a specific problem and to find ways to solve, eliminate and resolve it. In order to achieve the above-mentioned goal, we considered it necessary to determine the quality and compliance of the work space safety of the research facilities with the Organic Law of Georgia on Labor Safety. Assessing the risk of harm to personnel and

consumers was considered an existing epidemic. Regarding safety - according to the data of the study period.

## 2. Materials and Methods

The information source of the paper is the materials of the survey of pharmacists, international economic journals, reports of the Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs, statistical collections of the State Department of Statistics, Georgian laws, bylaws and other legal acts.

In general, the subject of research was the Georgian pharmaceutical market, which creates a danger not only for consumers but also for employees. The objects of research are pharmacies operating in the market, pharmaceutical companies, pharmaceutical companies, regulatory bodies and employees working there.Based on the existing theoretical foundations of occupational safety, we considered it necessary to identify the methodological and practical issues, the set of materials from which we selected the objects of research.The 2 types of questionnaires for pharmacists were selected. The questionnaire, on the one hand, considers whether there is a regulatory legal framework on labor safety in Georgia and, on the other hand, whether all the requirements provided by the legal framework are met, to what extent they comply with the requirements and standards.

Through this questionnaire, we focused on the following key issues:

- What information do pharmacists have about occupational safety, including sanitation;
- Is labor safety in pharmaceutical institutions regulated in Georgia;
- Is there a legal normative basis for sanitary requirements;
- If regulated, then how much is actually done in pharmaceutical establishments;
- Whether employees are provided with information on safety rules when hired and whether there is an appropriate entry in the employment contract.

## 3. Research Results and Discission

The target segment of the research was 5 objects: 2 of them were pharmaceutical factories: GMP Ltd; Neopharm Ltd. Two Drugstores" Pharmacy PSP Ltd; Aversi-Pharma Ltd; And the regulatory body. Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia, LEPL Agency for Regulation of Medical and Pharmaceutical Activities. The answers to each question from each of the five objects are presented in summary form (we did not consider it necessary to present the results separately at this stage). With this we tried to present an overall picture of the data actually available. The survey was conducted with a pre-compiled questionnaire, the anonymity of the respondents was protected.The start date of the study was October 2019, which lasted until May 2020. Thus, the data were collected, which we conditionally divided before the Covid-19-related contraction (February) and and during the Covid-19 activation period. In both cases, due to the current situation, we used the same topical questions. Accordingly, an average of 142 respondents (from all five facilities) were interviewed. The answers are presented with two data. All the first diagrams

presented are data up to Covid-19. Second, even the data obtained during Covid19.

**Table 1:** Q 1. Is labor safety regulated in pharmaceutical institutions?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 30.3 | 40.0 | Yes | 70.3 |
| No | 33.1 | 11.9 | No | 21.2 |
| I do not know | 36.6 | 28.1 | I do not know | 8.5 |

The data show that 30.3% of the respondents did not know about the regulation of occupational safety in a pharmaceutical facility before the pandemic. In the conditions of the pandemic, the interest in this direction increased by 40.0% and also the number of respondents who were unaware decreased from 36% to 28.1% from 8.5%, which somehow indicates a necessary tendency for self-development. See Table №1.

**Table 2:** Q 2. Do you know the legal normative based on sanitary requirements?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 41.8 | 319 | Yes | 73.7 |
| No | 58.2 | 31.9 | No | 26.3 |
| I do not know | - | - | I do not know | - |

The answers to the question about the degree of informativeness about the sanitary requirements of the legal normative base in pharmaceutical institutions do not look very good. The data show that it seems that all respondents are familiar with this issue, but it seems that the current situation also played a role here and the degree of improvement of knowledge amounted to - 31.9%. See Table 2.

**Table 3:** Q 3. Are sanitary requirements regulated in pharmaceutical facilities?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 32.4 | 45.6 | Yes | 78 |
| No | 34.5 | 17.6% | No | 16.9 |
| I do not know | 33.1 | 28 | I do not know | 5.1 |

Unfortunately, 31.1% of respondents did not have information about the regulation of sanitary requirements. In this regard and 34.5% believed that it was not regulated. But in a re-survey, informatics increased by 45.6%, with 78% believing it to be regulated. The number of those who did not know decreased by 28% to 5.1%. See Table №3.

**Table 4:** Q 4. On the territory of Georgia, is there any registration of occupational disease at work with the existing high-risk, severe, harmful hazardous conditions?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 41.8 | 9.0 | Yes | 50.8 |
| No | 25.5 | 0.8 | No | 26.3 |
| I do not know | 32.6 | 9.7 | I do not know | 22.9 |

On this question, we think that the level of informatics is low and it should also be noted that before the pandemic and during the pandemic, interest in this area changed by only 9.0%. There are small gaps between the responses of respondents who do not know whether accounting is taking place. See Table №4.

**Table 5:** Q 5. Did the employer introduce you to the rules of labor safety when hiring you?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 49.3 | 22.7% | Yes | 72 |
| No | 50.7 | 22.7 | No | 28 |
| I do not know | - | - | I do not know | - |

Interest in hiring employers to learn about occupational safety rules increased from 49.3% to 72% to 22.7%. Respondents who did not know and were not informed when hiring accounted for 50.0% which decreased by 22.7% and amounted to 28%. It should be noted that a high rate would be high on all of the above questions to maintain a high degree of information on all occupational safety regulations when hiring. We think that this information is important and should be taken into account. See Table 5.

**Table 6:** Q 6. Is there occupational safety at your workplace?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 48.9 | 30.8 | Yes | 79.7 |
| No | 51.1 | 30.8 | No | 20.3 |
| I do not know | - | - | I do not know | - |

**Table 7:** Q 7. Are you aware of the health risk factors in your workspace?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 49.6 | 37.6 | Yes | 87.2 |
| No | 50.4 | 37.6 | No | 12.8 |
| I do not know | - | - | I do not know | - |

It is noteworthy that 48.9% of respondents in the workplace believe that occupational safety is protected and 51% state that it is not protected, which changed significantly during the pandemic and increased by 30%. We think more attention is needed in this direction. See Table 6.

It is unfortunate that 50% were unaware of the existence of health hazards in the workplace and the degree of interest in information during the pandemic changed by 37.6% to 87.2%. It should definitely be noted that pharmaceutical activity is associated with life-threatening substances. And especially if the touch is long. See Table 7.

**Table 8:** Q 8. Is there an evacuation board/drawing in your workspace?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 62.4 | 32.5 | Yes | 94.9 |
| No | 37.6 | 32.5 | No | 5.1 |
| I do not know | - | - | I do not know | - |

Before the pandemic, 62.1% said that during the pandemic - 94.9%, according to the survey results, during the pandemic, the number of medical institutions where the evacuation board was posted increased by 32.5%. It is known that the evacuation board is a plan of the floors of a building (pharmacy), which shows the evacuation exits, rescue facilities and their locations, etc. The spread of the evacuation board in the pharmacy was due to the sharply increased number of patients in pandemic conditions and the stressful environment created by the situation caused the pharmacists to lose attention, thus increasing the risk of harmful events (flammable substance ignition, fire hazard, etc.). See Table №8.

**Table 9:** Q 9. Do you think the institution should take into account psycho-social factors (stress, communication, post-traumatic stress)?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 66.2 | 16 | Yes | 82.2 |
| No | 19 | 2.1 | No | 16.9 |
| I do not know | 14.8 | 13.9 | I do not know | 0.9 |

Almost all respondents to this question state that psycho-social factors should be taken into account in the institution. And positive responses, i.e. necessity before pandemic and pandemic time difference was 16%. Difference (66.2% before pandemic and 82.2% during pandemic). But it should also be noted that 33.8 (19 + 14.8) does not know the psycho-social factors should be taken into account in the institution. See Table №9.

**Table 10:** Q 10. Do you think if it is necessary to teach labor safety rules as a discipline?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 84.5 | 13 | Yes | 97.5 |
| No | 15.5 | 13 | No | 2.5 |
| I do not know | - | - | I do not know | - |

Quite interesting answers to the question of whether safety rules need to be learned. In both cases, the difference between the responses of the respondents is small and 13%. Nearly 90% believe that occupational safety needs

to be taught. And as far as I know to date this issue is included in the Pharm Case and Organization and Economics curriculum. See Table №10.

**Table 1:** Q 11. Is there a dezo-barrier in the pharmaceutical facility / pharmacy?

| Before Covid-19 (%) | | Differences (%) | During Covid-19 (%) | |
|---|---|---|---|---|
| Yes | 63.4 | 36.5 | Yes | 99.9 |
| No | 36.6 | 36.5 | No | 0.1 |
| I do not know | - | - | I do not know | - |

It is noteworthy that before the pandemic, 36.6% of respondents reported that there were no dezo barriers in pharmacies. The results of the survey differ significantly from the data obtained during COVID-19 infection. 99.9% of respondents confirm that there are dezo barriers in pharmacies. See Table №11.

## 4. Conclusions

Based on the study of the problems of this issue and the results of the research, we can draw the following conclusions:

- We believe that the right, legal approach, strict control and state policy in the field of drug trafficking are a prerequisite for creating a safe environment. Most importantly, despite the interests of the owners of the Georgian pharmaceutical industry and modern marketing approaches, the safety of the population and employees remains a priority;
- 44.3% of respondents are not informed about labor safety regulations in Georgia;
- Low legal-normative base and level of awareness on sanitary requirements in pharmaceutical institutions;
- Expand the scope of the draft law on labor safety and extend it to all places of employment, without exception;
- Equip the Labor Inspectorate with an unconditional and free access to the places of employment, which implies the authority of the mechanism, by its own decision, to carry out inspections of the places of employment without the prior permission of the court.

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