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SIGNIFICANCE OF PSYCHOLOGICAL STUDIES IN ASSESSMENT OF STRESS TOLERANCE AND SOCIAL FRUSTRATION IN MEDICAL AND PHARMACEUTICAL STUDENTS AND IN MANAGEMENT OF PHARMACIES' TEAMS

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Objective. The aim of our study was to assess significance of psychological studies in management of pharmacy teams, as well as to explore correlations of stress resistance and social frustration in medical and pharmaceutical students.

Methods. Anonymous psychological testing of sixty-four students of Smolensk State Medical University has been performed. Face-to-face interviewing of pharmaceutical companies' employees with different forms of ownership in the city of Smolensk was conducted as well. A questionnaire with blocks of questions concerning the microclimate in the teams and relationships between employers and their employees was designed. The questionnaire is a method that provides written answers to a system of questions, each of which is related to the central objective of the study. In the anonymous survey, twenty-five respondents participated including four Heads of Pharmacies (16%), and 21 pharmacists (84%).

Results. The article presents results of the study identifying rates of stress, social frustration, aggressive manifestations and the sense of loneliness in medical and pharmaceutical students. The data obtained testify to high stress resistance in the respondents. The correlations between social frustration and hostility, between dissociated loneliness and aggressiveness can be regarded as reliable markers of developing manifestations of social and psychological maladaptation and boost further studies. Collective nature of activities is characteristic of pharmaceutical companies. In this connection, the efficiency of the company's activity depends on both organizational behavior of employees, and activities of managerial staff.

Conclusion. The received data testifies to high stress-resistance in medical and pharmaceutical students. At the same time, the correlations between social frustration and hostility, between dissociated loneliness and aggressiveness should be regarded as possible markers of the development of social and psychological maladaptation manifestations. The structure of company's management is known to be a form of delegation of formal authorities between employees; the ability of the Head of a pharmaceutical company to estimate the significance and priority of professional tasks facing the company is fundamental. Microclimates of pharmaceutical companies in the city of Smolensk were studied. Employees of the companies constitute certain groups, the joint activities of which are focused on achieving common and coordinated goals aimed at effective financial and economic results.

Keywords: stress, social frustration, maladaptation, pharmaceutical management

ЗНАЧИМОСТЬ ПСИХОЛОГИИ В ИЗУЧЕНИИ СТРЕССОУСТОЙЧИВОСТИ И СОЦИАЛЬНОЙ ФРУСТРИРОВАННОСТИ У ОБУЧАЮЩИХСЯ МЕДИЦИНСКОГО ВУЗА И В УПРАВЛЕНИИ ФАРМАЦЕВТИЧЕСКИМ КОЛЛЕКТИВОМ

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Цель. Определение роли и места психологии в вопросах организации и проблемах управления фармацевтическим коллективом, а также изучить варианты взаимосвязи стрессоустойчивости и социальной фрустрированности у обучающихся.

Методика. Проведено анонимное психологическое тестирование 64 студентов, обучающихся в Смоленском государственном медицинском университете. В исследовании использовался метод очного интервьюирования сотрудников фармацевтических организаций г. Смоленска разной формы собственности. Анкета состояла из блоков вопросов, касающихся микроклимата в коллективе и отношения подчинённых с руководством. Анкета – метод исследования, предусматривающий письменные ответы на систему поставленных вопросов, каждый из которых связан с центральной задачей исследования. В анонимном анкетировании также приняли участие 25 человек – заведующие аптеками 4 человека (16%), фармацевты 21 человек (84%).

Результаты. В статье представлены результаты изучения уровней стресса, социальной фрустрированности, агрессивных проявлений и чувства одиночества у обучающихся медицинского вуза. Полученные данные свидетельствуют о высокой стрессоустойчивости респондентов. Выявленные корреляционные связи между социальной фрустрированностью и враждебностью, между диссоциированным одиночеством и агрессивностью могут расцениваться как возможные маркеры формирующихся проявлений социально-психологической дезадаптации, что объясняет необходимость дополнительных исследований. Для фармацевтических организаций свойственен коллективный характер работы. В связи с этим, эффективность ее деятельности зависит не только от организационного поведения сотрудников, но и от деятельности руководителя.

Заключение. Полученные данные свидетельствуют о высокой стрессоустойчивости у обучающихся. Вместе с тем, выявленные корреляционные связи между социальной фрустрированностью и враждебностью, между диссоциированным одиночеством и агрессивностью должны расцениваться как возможные маркеры формирующихся проявлений социально-психологической дезадаптации. Установлено, что структура управления предприятием представляет собой форму разделения должностных полномочий между работниками, основополагающим является умение руководителя фармацевтической организации оценивать важность и приоритетность стоящих перед организацией профессиональных задач. Деятельность является его перед ним задач в своей трудовой практике. Изучен микроклимат фармацевтических организаций г. Смоленска. Сотрудники организации составляют сплоченный коллектив во главе с заведующим аптекой, совместная деятельность которой ориентирована на достижение целей фармацевтических организаций, направленных на осуществление эффективной деятельности.

Ключевые слова: стресс, социальная фрустрированность, дезадаптация, фармацевтический менеджмент

Introduction

In any social and economic conditions, the role of human assets is known to be fundamental. According to a number of authors [4, 5], in today's environment, proper management is directly related to the increasing role of human factors. The pharmaceutical sector brings together highly qualified specialists, where the main condition for financial success is a competent human resources policy. The period of import substitution in Russia is characterized by dynamic changes in the legislative context, external environment, implementation of innovative techniques in pharmaceutical service, high competition in the retail sector and demanding customers. Trends of recent years have imposed new requirements both to the pharmaceutical staff [12], and to senior managers of the pharmaceutical industry in human resource management [15]. Under these conditions the relevance of the issues related to the training of higher school graduates in the specialty "Pharmacy" becomes evident. It is important to assess rates of stress, social frustration, aggressive manifestations and loneliness in pharmaceutical students at their initial stage, because the consequences of social frustration, in particular manifestations of emotional burnout syndrome can develop already during the course of training, but most noticeably manifest themselves after the first year of independent work as a specialist [14].

The aim of the study was to assess significance of psychological studies in management of pharmaceutical teams, as well as to explore options for the relationship of stress resistance and social frustration in students.

Methods

An anonymous psychological testing of sixty-four Smolensk State Medical University students has been conducted. The following psychodiagnostic methods were used: 1) A.O. Prokhorov's method was used to

diagnose the rates of stress, which allows determining the degree of self-control and emotional lability in stressful conditions [10]; 2) L.I. Wasserman's method, modified by V.V. Boyko to assess social frustration (mental tension caused by dissatisfaction with one's achievements and position in social conditions), [1]; 3) the Cook scale was used to identify the rates of cynicism, aggressiveness, and hostility; 4) S.G. Korchagin's method was used to determine the depth and type of loneliness [8].

Statistical analysis was performed using analysis of sample estimates of mean and standard deviation, Spearman rank correlation coefficient. Correlations were assessed using the Cheddock scale [6].

The study involved the method of face-to-face interviewing of pharmaceutical employees. The companies had different forms of ownership. The survey consisted of six questions concerning the microclimate in the team and the relationship of the subordinates with the management. The questionnaire is a research method that provides written answers to a system of questions, each of which is related to the central objective of the research [9]. Twenty-five people participated in an anonymous survey including four Heads of Pharmacies (16%), pharmacists and 21 pharmacists (84%).

Results

During the study, conducted in the period of Covid-19 pandemic, the rate of students' stress tolerance was $M(SD) 3,5(1,50)$, indicating a high level of regulation abilities in stressful situations. Despite adaptation to new educational (compared to secondary school requirements) and living conditions (in most cases moving from another city), intragroup student processes, prolonged epidemiological situation of coronavirus infection, the rate of social frustration in the examined students was really low $M(SD) 1,14(0,54)$. The data testify to good stress-resistance abilities in students and the ability to adapt quickly to changes in external environment. Correlation between rates of stress and social frustration according to Spearman's coefficient was not revealed ($r=-0,11$; $p=0,3503$).

Since one of the forms of escape from a frustrating situation is hostile and aggressive tendencies, we have conducted a survey of students with the Cook-Medley hostility scale. The technique is aimed at identification of hostility rates with three scales including cynicism, aggressiveness, and hostility. The scale of cynicism largely reflects negative attitudes towards other people; the scale of hostility assesses the tendency to experience negative emotions towards others, the scale of aggressiveness identifies tendencies to destructive behavioral reactions. For all three scales, average rates of expression of the studied parameter with a tendency to high rates were obtained. No correlations between the rates of stress and the indices of cynicism, aggressiveness and hostility were found in the group under study (Table 1). At the same time, a negative moderate relationship on the Cheddock scale between the rates of social frustration and hostility was revealed ($r=-0,35$; $p=0,0037$), which must be taken into account in psychological counseling of students on adaptation to higher education environment and requirements.

Table 1. Correlations between rates of stress and hostility according to Cook-Medley scale ($n=64$; using Spearman coefficient)

Type of correlation	Spearman coefficient r	p
Cynicism is a level of stress	$r=-0,13$	$p=0,2876$
Aggressiveness - stress rates	$r=-0,21$	$p=0,0917$
Hostility is a level of stress	$r=-0,15$	$p=0,2198$

Over time, development of social and psychological dissatisfaction can lead to the formation of subjectively experienced feeling of loneliness. In order to determine the type of loneliness developed as a protective reaction to certain difficulties encountered and its rates in the reference students' group, a survey using Korchagin S.G. questionnaire was conducted. The following hierarchy of loneliness formed in response to frustrating circumstances in students associated with the adaptation in the university was revealed:

1. Dissociated Loneliness $M(SD) 7,06(2,77)$ can be manifested in anxiety, excitability and demonstrativeness of character, antagonism in conflicts, a combination of high and low empathy (with no average level), selfishness and submissiveness in interpersonal relations, which are certainly opposite tendencies. The feeling of loneliness in this case is acute, clear, conscious, and painful.
2. Alienating Loneliness $M(SD) 6,53(1,88)$. In this type of loneliness, there is a loss of meaningful connections and contacts, intimacy, privacy in communication and the ability to be united. The person feels abandoned and lost. Usually such people have distrust, suspicion, attributing bad intentions to

others, melancholy, depression and anxiety. The awareness of the impossibility to be listened to, understood and accepted often leads to belief in one's own uselessness and loss of interest in life. Often, thoughts of an autodestructive nature may arise.

3. A state of seclusion M(SD) 6,50 (2,74) is a controlled loneliness, characterized by the psychological stability of the individual in relation to the influences of society.
4. Diffuse Loneliness M(SD) 6,03 (2,39). People experiencing diffuse loneliness are characterized by suspiciousness in interpersonal relations and a combination of contradictory personal and behavioral characteristics: resistance and accommodation in conflicts; manifestations of excitability, anxiety and at the same time emotionality of character. Such people demonstrate absolute agreement with the opinions, principles, morals, interests of the person with whom they communicate. In this condition, a person begins to use mental resources of the people surrounding him or her. The conditions in which members of the working group interact affect the success of their joint activity, their satisfaction with the process and the results of their work. In particular, they include sanitary and hygienic conditions in which employees work: temperature mode, humidity, illumination, spaciousness of the room, availability of convenient workplace, etc. A huge value has also the character of mutual relations in the group and the dominant mood in it. Such concepts as "social and psychological climate", "psychological atmosphere", "social atmosphere", "organizational climate", "microclimate", etc. are used to designate the psychological state of a group [7].

The next stage of the study was assessment of the microclimate in pharmaceutical organizations. It is obvious that a favorable climate in a team is an incentive for employees in any organization, but especially in a pharmaceutical organization, because their professional activities involve communication, both counseling and mentoring.

Our anonymous survey involved twenty-five employees of pharmaceutical companies in the city of Smolensk. They were asked about their social and psychological environment.

The first two questions in the questionnaire concerned the way the staff was formed and their age range. The information provides an opportunity to speak about the coherence of activities in the team [13].

The age of pharmaceutical employees, (Fig.1) was mostly from 30 to 40 years: two (8%) individuals aged from 25 to 30; 16 (64%) individuals aged 31 – 40 years; 2 (8%) persons aged 41 – 50 years; over 51 years – 5 (20%) people.

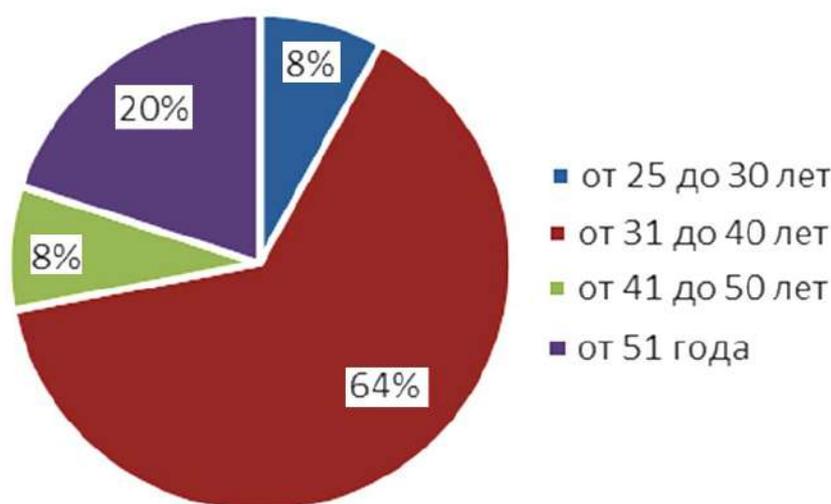


Figure 1. Age structure of pharmaceutical employees

The first block of questions in the questionnaire assessed vertical contacts and the relationship of supervisor-subordinate. When analyzing the obtained answers, it became obvious that not all employees (5 people, 20%), but almost all responded unambiguously that they fulfill the task of the superior regardless of the opinion about it. In sixty-four percent of cases employees noted that their Heads should apply for encouragement of employees, including material ones, solve problems, including personal ones. The questionnaire data addressed the question regarding the pharmacy manager's ability to feel the team and unify the tasks of the company.

According to the results of the survey regarding team capabilities and requirements for the team, sixteen of the respondents stated that real capabilities were often taken into account, which was 64% of the entire

team. The rest of the employees (36%) also gave positive answers regarding the requirements of superior management. All employees felt 100% psychological comfort with the requirements of their superiors.

The majority of employees (96%) stated that a manager is a leader who must be prepared for changing conditions both inside and outside the organization. Motivation (according to the respondents) is perhaps a change in leadership tactics and a change in demands for employees, as well as a change in working conditions. All (100%) respondents said that motivation implies both decent money and non-financial rewards. Subordinates are more interested in the democratic style of leadership, but 20% of respondents stated that sometimes the authoritarian style of leadership was not enough. When asked what kind of team was easier to lead, in their opinion, almost all (80%) responded that a small one.

In twenty percent of cases respondents stated that certain traditions had been formed in the team and when a manager broke them it could lead to stressful and conflict situations. Therefore, the best variant, when the Head takes into account traditions of the company, readiness and ability of subordinates to carry out his/her decisions, is a successful choice of leadership style [11].

According to a number of authors, because there are different ways of motivation, a manager should be able to [16, 17]: first, establish a set of criteria (principles) that most strongly influence employee behavior; second, create an atmosphere conducive to motivating employees; thirdly, communicate with his/her employees actively, because in order for an employee to be fully motivated and work with full commitment, he/she should clearly understand what exactly is expected from him/her.

When asked what non-material incentives [2, 16] respondents would like to receive, the answers were in descending order: public recognition, praise, support and approval, internships, flexible work schedules, additional leave, but subject to meeting the plan. During the survey, it was found that the democratic style of leadership suits the team and it is easier to manage a small team, like a pharmacy. The leader should keep the traditions in the team and encourage employees in different ways. Some managers also need to establish strong vertical contact with subordinates for well-coordinated activities.

The next block of questions included questions about the desire or unwillingness of respondents to work in this team (Figure 2): twenty-four percent of respondents were not going to quit the team, 40% of respondents were not going to quit yet, but they think about it from time to time, and 36% of respondents were going to quit the team. Staff turnover is one of the indicators of the processes taking place in the team. Managers need to think about why it happens or will happen inevitably in their organization. To identify negative aspects in a team, it is necessary to conduct a SWOT analysis of weak and strong points in the activities of the company as a whole.

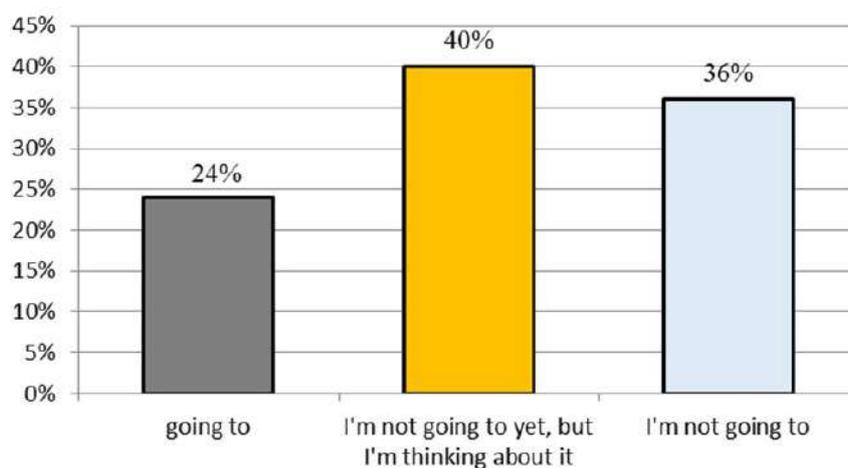


Figure 2. Willingness of pharmaceutical workers to work in these companies

The next block of questions included mentoring issues. Obviously, in many respects, the desire of a young specialist to remain in the team depends on the mentor. It is very important that mentors during production practices are able to transfer new experience and high professionalism to students.

Analyzing the respondents' answers, we concluded that all employees are interested in replenishing the team with young employees with higher education. The majority of respondents (80%) note a high level of training for students. They are interested in delving into the activities of the pharmaceutical institution, trying to adopt the entire experience of pharmaceutical employees, including in the aspect of consulting and informing.

Results

Correlations between predominant types of loneliness and aggressive manifestations have been studied. A positive moderate correlation on the Cheddock scale between dissociated loneliness and aggression was revealed ($r=0,31$; $p=0,0123$), that must necessarily be taken into account in the construction of personalized psychological correction procedures and activities.

In the Russian Federation, a pharmaceutical company is a legal entity, regardless of its organizational and legal forms, engaged in pharmaceutical activities, for example, wholesale trade of pharmaceutical products. Individual entrepreneurs engaged in pharmaceutical activities are equated to pharmaceutical companies.

Pharmaceutical industry is currently developing dynamically and activities are aimed at fulfilling the country's strategic goals of improving the quality of life of the population and providing vital and essential medicines and other pharmaceutical products. In this regard, the efficiency of companies' activities depends on the coordinated work of all employees both horizontally and vertically.

Thus, any Head of a pharmaceutical company should realize that it is awareness and independence of decision-making, the ability to establish and prioritize the company's interests that can lead the company to higher levels in its development or lead out of the crisis.

Any company's manager needs comprehensive multifaceted knowledge and skills in such areas as administrative, innovative, industrial, environmental management, personnel management (moral - ethical), investment, creative, strategic management, crisis management, as well as in process, system and situational approaches.

Conclusion

The data obtained testify to high stress-resistance rates in medical and pharmaceutical students. At the same time, correlations between social frustration and hostility, between dissociated loneliness and aggressiveness should be regarded as potential markers of social and psychological maladaptation.

Teams of pharmaceutical companies in the city of Smolensk are ready to assess the importance and parity of professional tasks facing the company, realize clearly fundamental significance of mentoring; their joint activities are generally aimed at the efficiency, although there are some employees thinking about dismissal.

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