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The beautiful thing about learning is nobody can take it away from you—B. B. King

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THE MANIFESTATION KEY ISSUES OF STUDY EFFECTS OF PALOSURAN IN RENOVASCULAR HYPERTENSION AND INDUCED CARDIAC AND RENAL MULTIPLICITY COMPLICATIONS IN RATS

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ABSTRACT

The aim of the study was to investigate effects of Palosuran in renovascular hypertension and induced cardiac and renal complications in rats. Hypertension, as one of the most common chronic diseases, produces a substantial morbidity and mortality rate. Uncontrolled hypertension increases the risk of stroke, coronary artery and kidney diseases. Despite the wide array of drugs currently available for treating high blood pressure (BP), it is still difficult to avoid the manifestations of existing antihypertensive drug side-effects that reduce treatment efficacy. Studies have shown that in hypertensive rats, Palosuran reveals a hypotensive effect, decreases the workload on the myocardium, and reduces the risk of cardiac and renal complications. It should also be mentioned that the impact of treatment is better expressed at the early stage of hypertension. According the study results, excessive secretion of cyclic vasoactive neuropeptide urotensin-2 (U-II), with strong vasoconstrictor properties and up-regulation of UT-II receptors (UTR) identified in several pathological states, especially hypertension, increases the interest of researchers investigating effects of U-II/UTR antagonists as an attractive target in hypertensive disease, cardiovascular and renal system pathology. Effect of the Palosuran, UTR antagonist (10 mg/kg, i.p., daily for 4 weeks) was studied on 32 male Wistar rats with renovascular hypertension (RH). BP was measured non-invasively (BP measurement system “Systola”). The renal functional markers - serum creatinine (SC) was measured spectrophotometrically (Cobas-Roshe C111) and plasma renin (PR) by ELISA (HumaStar HS) method. Heart and renal tissue samples for

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morphological investigations were stained with hematoxylin-eosin (H&E). In Palosuran-treated rats (PTR) with RH on the 8th weeks of hypertension, mean arterial pressure (MAP) was reduced by 32% (p<.001), PR – by 33% (p<.01) and SC – by 26% (p<.05). On the 12th week of hypertension, BP was decreased by 23% (p<.02), PR- by 24% (p<.01), and SC – by 9,4% (p<.01) compared to control. In PTR, the left ventricular size (LVS) was 1,07 mm, right - 0,19 mm (within the norm). Slightly expressed hypertrophy was observed by the 12th week of hypertension. LVS was 1,12 mm and right - 0,21 mm. In PTR renal tissue, by 12th week of hypertension, tubular dilatation was detected without glomerular hyperemia and RBC diapedesis. Palosuran reveals a hypotensive effect in RH rats, improves renal functional markers, decreases the workload on the myocardium, and reduces the risk of cardiac and renal complications. The impact of treatment is better expressed at the early stage of hypertension.

Keywords: Hypertension, palosuran, heart, kidney, cardiac, renal, complications, rats.

Introduction

The prevalence of high blood pressure is a serious public health problem. Although easily preventable, hypertension is responsible for a significant proportion of global morbidity and mortality. Common methods of blood pressure control include prescribing antihypertensive drugs, a pharmacological approach, and increasing physical activity, a behavioral approach. Overall, little is known about the comparative effectiveness of pharmacological and behavioral approaches to lowering blood pressure in hypertensive patients. Hypertension, as one of the most common chronic diseases, produces a substantial morbidity and mortality rate. Uncontrolled hypertension increases the risk of stroke, coronary artery and kidney diseases. Despite the wide array of drugs currently available for treating high blood pressure (BP), it is still difficult to avoid the manifestations of existing antihypertensive drug side-effects that reduce treatment efficacy. Excessive secretion of cyclic vasoactive neuropeptide urotensin-2 (U-II), with strong vasoconstrictor properties and up-regulation of UT-II receptors (UTR) identified in several pathological states, especially hypertension, increases the interest of researchers investigating effects of U-II/UTR antagonists as an attractive target in hypertensive disease, cardiovascular and renal system pathology [1-2].

Nowadays, management of hypertension remains a not-solved problem due to the multiple side effects of existing antihypertensive drugs and growing cases of uncontrolled hypertension. In recent years, interest in the cyclic vasoactive neuropeptide urotensin-2 (U-II), which is characterized by strong vasoconstrictor properties, has been increased [38-39]. Excessive secretion of U-II and up-regulation of UT-II receptors have been identified in several pathological states, especially hypertension. Using U-II/UTR antagonists remain an attractive target in cardiovascular and renal system pathology [3-4].

As one of the most common chronic diseases, hypertension produces a substantial rate of morbidity and mortality. Individuals with uncontrolled hypertension are at high risk of developing stroke, coronary artery disease, and chronic kidney disease [5]. It's established that patients with hypertension and heart failure (HF) frequently have reduced glomerular filtration rate (GFR), which estimates in alteration of kidney function [6]. In large HF registries, 20–68% of patients with hypertension and associated HF have moderate to severe kidney disease [7].

The main goal of studying hypertension etiopathogenesis in animal models is to foster improved approaches to preventing and treating high blood pressure (BP) and its complications. The well

understating of the pathological continuum could help us find target critical points of novel antihypertensive drug development.

Urotensin II (U-II) is a cyclic oligopeptide with vasoactive potential. It is currently one of the most potent vasoconstrictors known in mammals [8]. The kidney is the major source of U-II in humans and animal species. The role of the U-II system in human physiology/pathophysiology is not yet fully understood. Increased plasma U-II concentrations have been associated with hypertensive disease, chronic HF, and diabetes [9]. Elevation in U-II endogenous tone has also been recently demonstrated to contribute to the deterioration of renal functions in rats [10-11]. Because of its potent vasoconstrictor effect, U-II attracted the interest of researchers in general hemodynamic. In fact, hemodynamic responses to U-II show regional heterogeneity in relation to its receptor localization, even in the differences of functional state of the endothelium [8].

U-II is a constrictor of large resistive vessels. Although U-II is a potent vasoconstrictor, it reveals some vasodilating properties in specific vascular beds, notably in non-diseased blood vessels via enhanced NO activity. The central action of U-II, in part mediated via the autonomic nervous system, leads to increased cardiac output and resultant higher BP. Conversely, it relaxes mesenteric vessels. U-II also plays a role in body fluid regulation, decreases GFR, and increases renal sodium retention [12-13].

Urotensin-II receptors (UTR) are expressed within the renal tubules, cardiovasculature (vascular smooth muscle, endothelium, myocardium etc.). They may, therefore, contribute to the physiological and pathophysiological regulation of cardiovascular homeostasis in humans [14-15]. U-II action is brought about via activation of G-protein–coupled receptor 14 (GPCR14). U-II increases inositol phosphate turnover and intracellular Ca^{2+}. By activation of UTR, U-II might influence different pathways, depending on the cells and vascular compartment where the receptor is located.

Activation of the endothelial UTR leads to relaxation via NO formation (dilatory responses), while vascular smooth muscle cells contraction and UTR vasoconstrictive response develop by RhoA/Rho-kinase activation. RhoA/Rho-kinase (RhoA/ROK) pathway is the primary cellular target for regulating Ca^{2+} sensitivity of agonist-induced contraction (including α1-adrenergic agonist). The activation of RhoA results in ROK stimulation that phosphorylates and subsequently inactivates myosin light chain (MLC) phosphatase (MLCP), favoring MLC phosphorylation actin-myosin interaction and cell contraction [16-17]. In the kidney, UTR influences sodium and water homeostasis and GFR [18].

There are epidemiologic data to support a relationship between U-II and essential human hypertension. In a study of 62 individuals with hypertension and 62 age-matched normotensive controls, plasma U-II levels were significantly higher in the hypertensive group. They correlated positively with systolic blood pressure. In addition, U-II excreted in urine was significantly higher in patients with essential hypertension than in normotensives and patients with hypertension-related kidney impairment compared to normotensive patients with renal disease [19-20]. Studies in other disease conditions are eagerly awaited.

Because the U-II/UTR is involved in the cardiovascular system, regulation UT antagonism remains an attractive target in cardiovascular and renal system pathology. Using U-II/UTR antagonists supposedly could have clinical potential and therapeutic benefit in patients with hypertensive disease and associated complications. Increased U-II expression in disease states has prompted the development of several UTR antagonists. Preclinical and some clinical studies show

potential benefits of inhibiting U-II/UTR function in hypertension, heart failure, renal disease, and diabetes that could be achieved using UTR antagonists [21-22].
One of the UTR antagonists Palosuran (ACT-058362; 1-[2-(4-benzyl-4-hydroxy-piperidine-1-yl)-ethyl]-3-(2-methyl-quinoline-4-yl)-urea sulfate salt), in experimental studies revealed cardio-renal and metabolic protection in rat models of both ischemic and diabetic nephropathy [23]. Palosuran increased renal perfusion, GFR, renal sodium excretion, and improved renal function in cirrhotic rats, supposedly due to the direct effect of UTR blockade at the tubules and glomeruli. It lowered portal pressure via splanchnic vasocontraction in these rats via activation of mesenteric vascular Rho-kinase and inhibition of NO/cGMP-dependent PKG signaling [24-25].
Our preliminary studies on rats with renovascular hypertension Palosuran revealed an antihypertensive effect compared to untreated hypertensive rats [26].
Coming from the aforesaid, we considered it interesting to investigate the antihypertensive effects of UTR antagonist - Palosuran in laboratory rats with renovascular hypertension.
Our working group was aimed to study the effect of the UTR antagonist - Palosuran on blood pressure, morphological appearance of the myocardium, and renal tissue in rats with hypertension (2 kidneys+1 clip). Palosuran was administered intraperitoneally (10 mg/kg, i.p., daily for 4 weeks). Blood pressure was measured non-invasively, using the systolic blood pressure measurement system "Systola" ("tail cuff" method) [27-28].
Studies have shown that in hypertensive rats, Palosuran reveals a hypotensive effect, decreases the workload on the myocardium, and reduces the risk of cardiac and renal complications. It should also be mentioned that the impact of treatment is better expressed at the early stage of hypertension [29-32].

Materials and methods

Study design and animal groups. The study was performed on 32 male Wistar rats weighing 200-250 g. after an adaptation period of at least 1 week. All rats were housed in the lab as a group of 8 per cage in climate-controlled conditions with a 12-h light/dark cycle and free access to normal pelleted rat chow and drinking water.
The protocol used in this study for the use of rats as the animal model for research was overseen and approved by the Tbilisi State Medical University Animal Welfare and Use Ethics Committee (N39 - 17/08/2019).
For experimental modelling of hypertension we used the reno-vascular (the two-kidney, one-clip - 2K1C) H. Goldblatt model. After separation of the renal artery from the vein and nerve the clip was placed on the left renal artery close to the aorta under general anaesthesia (Nembutal - 50 mg/kg) [33].
The experimental animals were divided into 4 groups: Group I - healthy, intact rats; Group II - hypertensive rats; Group III - hypertensive rats, subjected to treatment with palosuran (10 mg/kg, i.p., daily), started after 4 weeks of disease modelling; Group IV - hypertensive rats, subjected to treatment with palosuran (10 mg/kg, i.p., daily), started after 8 weeks of disease modelling during 4 weeks. Optimal dose of palosuran was sellected acording to the results of dose-response pilot study in hypertensive rats.

Measurement of bloodpressure and renal functional markers. Blood pressure was measured non-invasively, using the systolic blood pressure measurement system "Systola" ("tail cuff" method) once a week for 12 weeks.

Blood samples were obtained by jugular venous puncture after ketamine/xylazine (75 mg/kg and 5 mg/kg) anesthesia. Serum creatinine levels was measured using spectrophotometric method [34]. The method explores the oxidation of p-methylamino phenol sulfate (Metol) in the presence of copper sulfate and creatinine whconcich yields an intense violet colored species with maximum absorbance at 530 nm. Plasma renin (PR) concentration was measured using Enzyme-linked immunosorbent assay (ELISA) method.

Morphological assessment of heart and kidney

Heart and kidney samples for morphological investigations were stained with hematoxilin-eosin (H&E) dye.

Statistical analysis

All statistical tests were conducted using IBM SPSS Statistics. Differences between control and treated animals were determined by using the Independent-Samples T test. The criterion for significance was set to $p<.05$.

Research results and discussion

Mean arterial pressure measurement. In experimental rats at different stages of the renovascular hypertension changes in mean arterial pressure (MAP) were detected compared to MAP of the group I animals (intact, healthy rats).

Results of experiment have shown that after 1 week of disease modelling, MAP was not increased significantly, after 2 weeks - MAP increased by 24% ($p<.05$), after 4 weeks, MAP increased by 42% ($p<.02$), after 8 weeks there was a significant increase in MAP by 44% ($p<.02$) and after 12 weeks of disease modelling, MAP was increased by 53% ($p<.001$) compared to MAP of the group I animals;

In healthy rats after administration of Palosuran (10 mg/kg, i.p.) MAP decreased by 33% ($p<.02$). In hypertensive rats on the 8^{th} week of hypertension MAP was reduced by 32% ($p<.001$) compared to the control, untreated hypertensive rats and on the 12^{th} week of hypertension, Palosuran revealed relatively less effect on MAP than at treatment started earlier. However, MAP was still reduced significantly by 23% ($p<.02$) compared to control group (untreated, hypertensive rats). See Tab. N1.

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Table 1. Mean arterial pressure in healthy, hypertensive untreated and Palosuran-treated rats.

Rats	Mean arterial pressure (mm/Hg)	
	Without treatment	+ Palosuran (10 mg/kg)
	N=8. Mean ± SEM	N=8. Mean ± SEM
Intact, healthy rats	95 ±3,1	64±3,0**
1st week after renovascular hypertension	97±3,5	-
2nd week after renovascular hypertension	118±4,1*	-
3rd week after renovascular hypertension	101 ±9,2	-
4th week after renovascular hypertension	135 ± 10,0**	-
8th week after renovascular hypertension	137± 8,3**	93 ± 5,5***
12th week after renovascular hypertension	145 ± 10,0***	112± 7,2**

*p<.02, **p<.05, ***p<.001 in compare to the healthy and control (hypertensive, untreated) rats. Date is expressed as ± SEM.

Measurement of the renal functional markers. After 1 week of disease modeling increase in PR by 4% was not statistically significant. After 2 weeks, PR was increased by 45% (p<01); After 3 weeks it was increased by 42% (p<01); After 4 weeks PR decreased and it was not statistically different compared to the norm. After 8 weeks, PR was increased by 162% (p<.001) and after 12 weeks, it was sharply increased by 234% (p<.001) compared to data of healthy rats.

Palosuran administration in healthy rats decreases in PR by 12% was not significant. After 8 weeks of disease modeling in hypertensive rats' treatment with Palosuran decreased PR by 33% (p<.01) and after 12 weeks, PR was decreased by 24% (p<.,01) compared to data of untreated hypertensive rats.

The serum creatinine (SC) level in rats after 4 weeks of disease modeling was not changed. SC on 8th week of hypertension it was increased by 22,7% (p<.05) and on 12th week of hypertension - by 45,4% (p<.01).

In healthy rats after administration of Palosuran changes in SC were not statistically significant. In treated with Palosuran group animals after 8 weeks of disease modeling SC was decreased by 26% (p<.05) and after 12 weeks of disease modeling, in Palosuran-treated hypertensive rats, decrease in SC by 9,4% was not statistically significant (Tab. 2).

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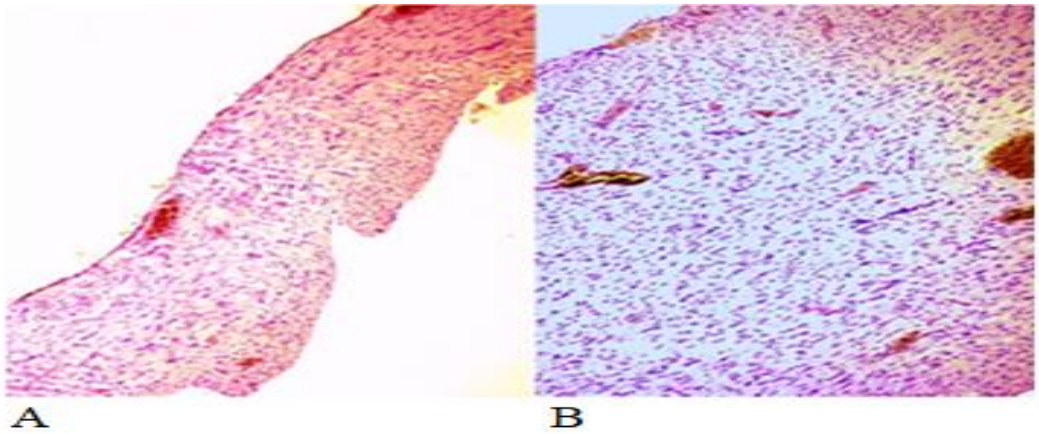
Table 2. Serum levels of renin and creatinine in healthy, hypertensive untreated and Palosuran treated rats.

Rats	Without treatment		+ Palosuran (10 mg/kg)	
	Renin (ng/ml)	Creatinine (mg/dL)	Renin (ng/ml)	Creatinine (mg/dL)
	N=8. Mean ± SEM	N=8. Mean ± SEM	N=8. Mean ± SEM	N=8. Mean ± SEM
Intact, healthy rats	1,72 ±0,5	0,22±0.03	1,52 ±0,3	0,21±0.01
1st week of hypertension	1,79 ±0,3	-	-	-
2nd weekof hypertension	2,49±0,4**	-	-	-
3rd week of hypertension	2,45 ± 1,3**	-	-	-
4th week of hypertension	1,94 ± 0,1	0,23±0.05	-	-
8th week of hypertension	4,5 ± 1,4***	0,27±0.04*	3,02± 0,9**	0,20±0.01*
12th week of hypertension	5,75 ± 1,5***	0,32±0.03**	4,39 ±1,5**	0,29±0.02

*p<0.05, **p<0.01,***p<0.001 in compare to the healthy and control (hypertensive, untreated) rats. Date is expressed as ± SEM.

Morphological assessment of heart and kidney tissues.
According to the results of morphological investigations, the healthy rats left ventricular size was 1,0 mm, right - 0,2 mm; cardiomyocytes were within the norm (pic. N**1**).
Picture. 1. N1 Myocardial tissue of healthy rats.



A - Myocardial tissue of healthy rat (H&E, x150);
B - Myocardial tissue of healthy rat (H&E, x250);
After 8 weeks of disease modeling, in untreated hypertensive rats there was a slightly expressed left ventricular hypertrophy. Left ventricular size was 1,4mm, right - 0,21mm. Cardiomyocytes were within the norm. After 12 weeks of hypertension there was a well-expressed left ventricular hypertrophy. Left ventricular size was2.0mm, right - 0,22 mm.

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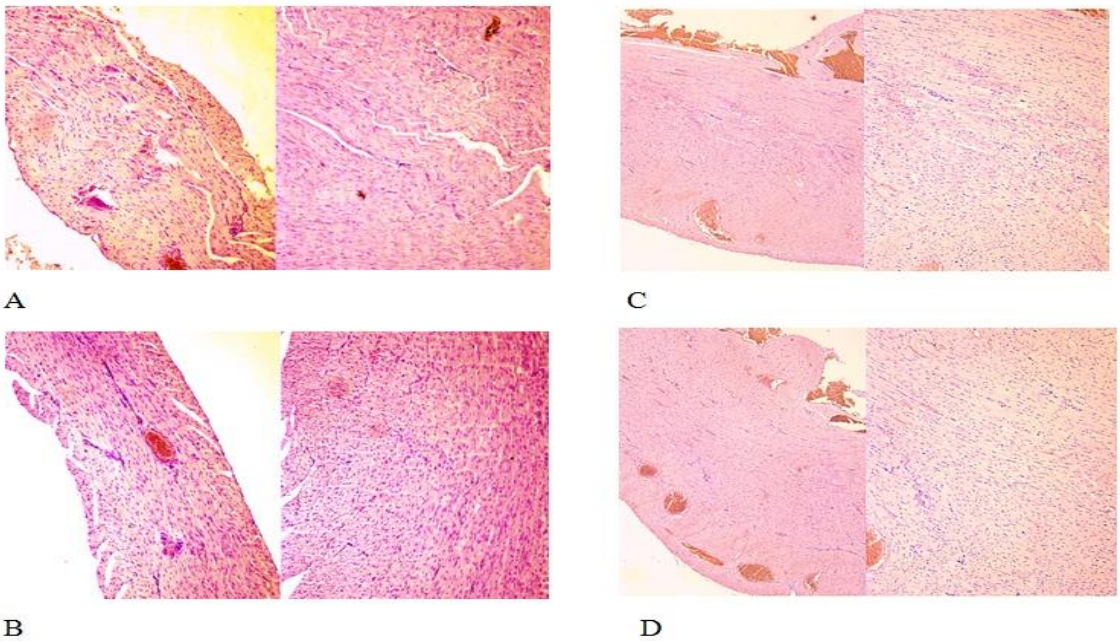
In Palosuran-treated rats by 8 weeks of hypertension myocardial hypertrophy was not detected. Left ventricular size was 1,07mm, right - 0,19mm. Slightly expressed hypertrophy was observed by 12th week of hypertension. Left ventricular size was 1,12mm and right - 0,21 mm (pic. N**2**).

Picture. 2. N2 Myocardial tissues of healthy, untreated and Palosuran-treated rats at different stages of renovascular hypertension.



A - Myocardial tissue of hypertensive rat (8th week, H&E, x150. x250);
B - Myocardial tissue of hypertensive rat (12thweek, H&E, x150. x250);
C - Myocardial tissue of Palosuran-treated hypertensive rat (8thweek, H&E, x150. x250);
D - Myocardial tissue of Palosuran-treated hypertensive rat (12thweek, H&E, x150. x250)

Morphological investigations of renal tissue in healthy rats have shown normal renal histoarchitecture with pronounced mild hyperemia. Glomerular and tubular apparatus was without pathology.

In hypertensive rats after 12 weeks of disease modeling there was intraglomerular hyperemia with RBC diapedesis, tubular dilatation and severe hyperemia.

In Palosuran-treated hypertensive rats 12 weeks after disease modeling tubular dilatation was detected without glomerular hyperemia and RBC diapedesis (pic. 3).

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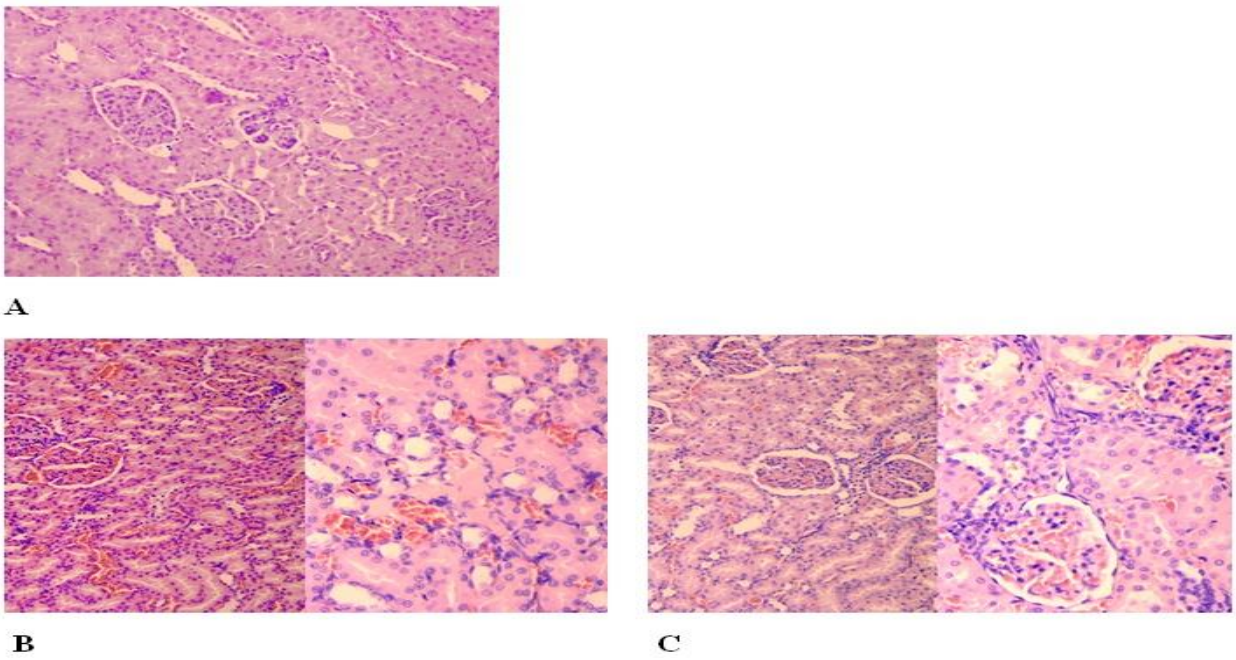
Picture 3. Renal tissues of healthy, untreated and Palosuran-treated rats at 12th week of renovascular hypertension.



A- Healthy rat (H&E, x250);
B- Rat with renovascular hypertension (12th week. H&E, x250, x300);
C- Palosuran-treated rat with renovascular hypertension (12th week. H&E, x250, x300).

Discussion

The study results have shown that after two weeks of disease modeling statistically significant increase in blood pressure was indicated. At the same time, after four weeks, we observed a progressive and morphologically significant increase in blood pressure. First of all, the increase in blood pressure at renovascular hypertension develops due to the renal artery ischemia in the clipped kidney leading to ischemia, hypoxia, and the renin-angiotensin-aldosterone system (RAAS) over activation.

After 3 weeks of hypertension modeling, the reduction in MAP could be explained by the compensatory reaction of the second, intact kidney, decreasing renin production and inhibiting the RAAS system from restoring homeostasis [23, 24]. However, on the 4 weeks of renovascular hypertension, the compensatory reaction of the intact kidney fades away, the pressure regulatory system is unable to maintain the blood pressure within the normal range, and it increases significantly.

At this stage of hypertension, increased MAP manifested in experimental animals is supposedly caused by the complex action of RAAS and activated sympathetic nervous system leading to further increase in renin production and peripheral vasoconstriction.

Intraperitoneal treatment with Palosuran decreased blood pressure significantly in all study groups. The antihypertensive effect of Palosuran was demonstrated in both cases, at early

treatment (started after 4 weeks of hypertension modeling) and at the relatively late onset of treatment (started after 8 weeks of hypertension modeling).

URT antagonistic effects of Palosuran could explain decreased MAP in all study groups of experimental animals. However, it must be mentioned that at the relatively late onset of treatment, the antihypertensive effect of Palosuran was lesser.

According to the literature, small dose (укажите какая) of U-II induce NO generation (via NO-synthase activation) which leads to vasodilatation, but damaging effects of hypertension on blood vessels supposedly increase production of U-II and enhance the endothelium-independent vasoconstrictive effect of U-II [25].

In hypertensive rats was increased progressively compared to the data of healthy rats. In Palosuran-treated hypertensive rats, PR was significantly lower than in untreated hypertensive rats. In hypertensive rats by 2nd and 3rd weeks after disease modeling, an increase in PR 1.45- and 1.42-fold and increased MAP develops due to renal ischemia. Four weeks later, a decrease in PR could be explained by a second, intact kidney-compensatory mechanism decreasing renin production. High BP at the same period of hypertension in the presence of relatively low PR could be explained by an increase in blood osmotic pressure, increase in circulating blood volume and increase in vascular basal tone due to hyper-production of aldosterone, leading to the exaggerated sodium reabsorption with further increase in blood osmolality and increased secretion of antidiuretic hormone, stimulating the release of adrenocorticotropic hormone and potentiating peripheral vasoconstriction [36-37].

The increase in basal tone is supposedly caused by the rise in the intravascular Na^+ level, leading to water retention, causing their swelling, and thickening. In addition, Na^+ increases the sensitivity of α-adrenoceptors in blood vessel walls in response to catecholamines. Aldosterone also facilitates the release of norepinephrine from the sympathetic nerve endings and, as a result, increases vascular and neurogenic tone as well [26].

By the 8^{th} week of disease modeling, PR was increased 2,6-fold compared to the norm and 3.34-fold by the 12^{th} week of hypertension, correlating with systemic blood pressure and MAP data.

Palosuran produced a significant decrease in PR in all study group animals compared to control, untreated hypertensive rats (especially in case of early onset of treatment), except in healthy rats, where only a tendency of decrease in PR was observed.

In healthy rats, after administration of Palosuran, MAP and PR were not changed significantly, which could be explained by the fact that U-II production is relatively low in healthy rats; hence, the Palosuran are more minor, respectively.

Increased SC in rats by the 12th week of hypertension supposedly points to kidney malfunctioning. Although Palosuran decreased SC in hypertensive rats at the early onset of treatment, the kidney spearing effect was not evident at late stages of hypertension and late-onset of therapy.

Morphological features confirmed the renal and cardiac complications developed due to hypertension. The increased cardiac workload was reflected in myocardial hypertrophy and renal malfunctioning was manifested by intraglomerular hyperemia with RBC diapedesis, tubular dilatation and severe hyperemia.

In Palosuran-treated rats, due to normalization of renal hemocirculation, reduced MAP and myocardium workload decreased, all investigated parameters were normalized, but only at the early stage of disease and early onset of treatment of hypertension.

Conclusions

Palosuran reveals a hypotensive effect in RH rats, improves renal functional markers, decreases the workload on the myocardium, and reduces the risk of cardiac and renal complications. In PTR renal tissue, by 12th week of hypertension, tubular dilatation was detected without glomerular hyperemia and RBC diapedesis. Treatment with Palosuran (10 mg/kg) reveals a hypotensive effect in RH rats, improves renal functional markers, decreases the workload on the myocardium, and reduces the risk of cardiac and renal complications. The impact of treatment is better expressed at the early stage of hypertension. Palosuran produced a significant decrease in PR in all study group animals compared to control, untreated hypertensive rats (especially in case of early onset of treatment), except in healthy rats, where only a tendency of decrease in PR was observed.

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THE MANIFESTATION OF KEY ISSUE FEATURES, CHARACTERISTICS AND SPECIFICITIES OF PARACHUTE MITRAL VALVE IN CASE STUDIES FINDING

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ABSTRACT

Parachute mitral valve (PMV) is a rare congenital valvular anomaly, occurring in 0.2% of patients with congenital heart disease. No racial or sex predilection is known. Asymptomatic patients may be discovered incidentally. Usually, the anomaly is detected in childhood, adult presentation is extremely rare. In PMV all the chordae tendineae of the mitral valve are attached to a single papillary muscle. PMV is commonly associated with mitral valve stenosis. The mechanism for the mitral valve stenosis is the reduced mobility of the leaflets due to the short and thick chordae. PMV may occur as an isolated lesion or in association with other congenital cardiac anomalies. The most common associated malformations are coarctation of the aorta, aortic valve stenosis, and sub valvular aortic stenosis. We describe the case of a 29-year-old asymptomatic woman who visited cardiologist for performing echocardiographic examination. A transthoracic echocardiography (TTE) revealed the presence of PMV with mild mitral stenosis, bicuspid aortic valve with mild aortic regurgitation. Asymptomatic patients with mild mitral stenosis require no significant therapy. They should undergo yearly follow-up care with physical examination, chest radiography, ECG and echocardiography. These patients may remain stable for decades before mitral stenosis progresses and the patient requires surgical intervention. Surgical intervention is indicated for the symptomatic and hemodynamically compromised patients. Two-thirds of PMV patients require surgical treatment of the mitral valve lesions. PMV is curable by mitral valve repair in most cases, and mitral valve replacement is indicated only for patients with severe mitral valve lesions. Mitral valve repair is preferred over mitral valve replacement for the mitral valve abnormalities. The patients often have a promising outcome. The clinical course of isolated PMV will depend on the presence and severity of mitral stenosis or regurgitation. Some patients remain asymptomatic with normal hemodynamics across the valve and no medical or surgical intervention is needed. Diuretic therapy and regular follow-up with repeat echocardiograms have been described. Mitral valve replacement or repair is indicated when the patient is symptomatic with hemodynamically significant stenosis or regurgitation of the valve. In conclusion, PMV is a rare congenital anomaly usually seen in infants and children, but may discover incidentally in adults. These patients may remain stable for a long time and do not need any treatment. The parachute mitral valve can be an isolated lesion or one of the combinations of Shawn syndrome.

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Patients with severe congenital mitral stenosis had PMV. The syndrome consists primarily of four defects: supravalvular mitral membrane, MVP, subaortic stenosis (membranous or muscular), and coarctation of the coarctation. A single papillary muscle and orientation of a severely affected PMA contributes to subaortic stenosis. Although the surgical treatment of PMA is consistently reported, the morphologic features of PMA and the indications for surgical intervention are described in limited cases.
Keywords: Parachute mitral valve; Asymptomatic woman; Congenital valvular anomaly; Mitral stenosis; Echocardiography.

Introduction

The parachute mitral valve (PMV) is characterized by the attachment of a focal tendon chorda of the mitral valve to a papillary muscle. Very few adult patients have been reported to experience this single anomaly. The rarity and complexity of parachute flaps, as well as their occurrence in infants and children, has attracted much interest and admiration for their surgical treatment. We present a case of PMA associated with prominent reticular chordae in an adult. To the best of our knowledge, this is the first reported case of PMA involving the reticular tendon chordae in adults.

Parachute mitral valve anomaly is more common in males and is characterized by attachment of all tendons of the tendon to the papillary muscle of the muscle group, resulting in occlusion of mitral valve flow. The parachute mitral valve has a characteristic pear-shaped four-chamber apical bulge. In adults, mitral regurgitation is closely associated, although less frequently, with mitral stenosis due to narrowing of the mitral valve orifice.

Parachute mitral valve (PMV) is an extremely rare congenital valvular anomaly, occurring in 0.2% of patients with congenital heart disease. Asymptomatic patients may be discovered incidentally. Mitral valve stenosis due to the PMV can commonly be diagnosed at childhood whereas the less common it can progress even silently to the adulthood [1-4].

PMV results from an embryological disturbance during the normal delamination of the trabecular ridge between the fifth and nineteenth week of gestation. Parachute mitral valve can occur in association with other cardiac defects in approximately 95% of cases, including: aortic valve stenosis (32%), atrial septal defects (54%), and hypoplastic left heart (19%). Isolated PMV is rare accounting for less than 1% of all cases [5-8].

The association of multiple levels of left-sided inflow and outflow tract obstruction is termed the Shone complex: supraannular mitral ring, subaortic stenosis, and aortic coarctation.

Mitral stenosis can be associated with Lutembacher syndrome. This syndrome is defined as a combination of mitral stenosis and a left-to-right shunt at the atrial level. Typically, the left-to-right shunt is an atrial septal defect (ASD) of the ostium secundum variety. Both these defects, ASD and mitral stenosis, can be either congenital or acquired [9-12].

The normal mitral valve is a complex apparatus composed of an annulus and 2 leaflets that are attached by chordae tendineae to 2 papillary muscles. PMV is a congenital valvular anomaly in which all the chordae tendineae of the mitral valve are attached to a single papillary muscle. The chordae tendineae in PMV are often underdeveloped and hence short, thick, and adherent causing decreased mobility of the valve leaflets and reducing the size of mitral orifice. The unifocal attachment of the chordae results in a restricted valve opening and the potential for subvalvular obstruction and, less frequently, valvular regurgitation [13-16].

Echocardiography establishes the diagnosis in the majority of the patients with PMV (77.77%). The typical parachute deformity of the mitral valve is best demonstrated in parasternal short axis

views of the left ventricle (LV): a single papillary muscle is confirmed at the mid- level of LV and the typical “parachute leaflets” are noted at the basal level short axis view [17-20].
first reported a mitral valve pathology consisting of the insertion of the tendons into a single papillary muscle to form a funnel valve and they identified this lesion as a parachute mitral valve (PMV). Subsequently, Bett and Stovin reported on a patient with MVP and a bicuspid aortic valve. In PMA, all of the chordae are usually shortened and thickened and attach to the posterior medial papillary muscle while the anterolateral papillary muscle is absent [21-24].
The parachute mitral valve can be an isolated lesion or one of the combinations of Shawn syndrome. Patients with severe congenital mitral stenosis had PMV. Aslam et al. have also reported on Shawn syndrome in congenital heart disease. Shawn syndrome consists primarily of four defects: supravalvular mitral membrane, MVP, subaortic stenosis (membranous or muscular), and coarctation of the coarctation. A single papillary muscle and orientation of a severely affected PMA contributes to subaortic stenosis. Although the surgical treatment of PMA is consistently reported, the morphologic features of PMA and the indications for surgical intervention are described in limited cases [25-29].
Mitral stenosis associated with PMA has often led to failed biventricular reconstruction in neonates with borderline small left ventricular size, which has increased the importance of left ventricular inflow status when choosing a single or biventricular treatment strategy. Balloon mitral valve repair reduced peak and mean mitral valve gradients by an average of 33% and 38%, respectively; however, 54.5% (6/11) of patients with a supravalvular mitral annulus developed significant mitral valve regurgitation after mitral valve balloon repair. Mitral valve repair was the preferred operation over MVR. In some patients, correction of the stenotic PMA was achieved by dissecting the papillary muscles and fenestration the leaflet. In children, MVR has several disadvantages, such as: High operative mortality, high rate of complete heart block and pacemaker implantation, lack of prosthetic valves suitable in size and growth potential for young children, difficulty with postoperative anticoagulant treatment and rapid wear of the valve bio prosthesis [30-35].
Mitral valve obstruction was the most serious problem of this lesion. The severity of mitral valve obstruction was found to be inversely correlated with long-term outcomes, and operative mortality in patients with Schon syndrome was found to ultimately negatively affect operative mortality. However, there is no significant association between progressive mitral stenosis and PMA type, dominant papillary muscle, sex, or surgical or interventional treatment [36-39].
Since MVPs are usually not isolated lesions and are characterized by a combination of pathological changes in the mitral valve leaflets, annulus, adhesions, sub valvular apparatus, and supravalvular mitral annulus, most patients require one or more surgeries and the frequency of reoperations is high.
Thus, approximately two-thirds of patients with a parachute mitral valve require surgical treatment for mitral valve damage. Parachute mitral valves are cured by mitral valve repair in most cases, and mitral valve replacement is only indicated in patients with severe mitral valve disease.
Parachute mitral valve disease is more common in males and is characterized by attachment of all tendon cords to one muscle group of the papillary muscles, resulting in obstruction of mitral valve inflow. The parachute mitral valve is said to have a distinctive "pear shape" in an apical four-chamber view. In adults, and because mitral valve opening is limited, it is strongly associated with mitral stenosis, mitral regurgitation is less common. This disease is reported as an isolated lesion

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in 55.5% of cases and with other left-sided obstructive heart lesions such as supravalvular mitral ring, sub valvular stenosis, aorta and aortic stenosis known as Shawn's disease in 44.4% of cases illness. Complex, as well as aortic valve stenosis, atrial septal defects and hypoplasia of the left heart. This occurs when the development of the anterolateral and posteromedial papillary muscles is interrupted between the fifth and nineteenth week of gestation, causing the embryonic progenitors of the papillary muscles to thicken into a single muscle. The results of treatment of patients with a parachute mitral valve depend on the spectrum of concomitant cardiac lesions, the degree of mitral valve obstruction remains stable; most do not require a valvotomy. Surgical treatment consists of either choroidal fenestration or papillary muscle dissection with or without a commissurotomy.

Isolated congenital anomalies of the tricuspid valve. Valves are relatively rare. In most cases these malformations coexist with other concomitant defects. The meaning of this condition and related. Symptoms depend on the functional consequences such as tricuspid regurgitation and/or stenosis. Presence of other associated injuries. Parachute deformity is one of the congenital one's developmental defects. This happens when the agreements tendons arise from a single papillary muscle. This type of deformity can include one or both atrioventricular valves. First case with parachute deformity from. The tricuspid valve was confirmed by autopsy and has been published in the literature.

The parachute mitral valve is a rare congenital anomaly characterized by a monofocal attachment of the tendons of the anterior and posterior leaflets of the mitral valve to a single papillary muscle. It is thought to develop from improper separation of the anterior and posterior trabecular crests that normally form the anterior and posterior papillary muscles between 5 and 19 weeks of gestation. It rarely occurs as an isolated lesion and is usually associated with other congenital heart defects. Results depend on the range of lesions involved. The pathognomonic pear-shaped appearance is evident in the long apical echoes of the auricle, which form the base of the pear, and the mitral valve cusps, which form the apex, and the transthoracic echo. Tendon strands are usually short and thick. Along with the attachment of the confluent papillae, the mobility of the valve leaflets decreases and stenosis occurs. Parachute mitral valves are rare in adults and may be asymptomatic or show mild stenosis.

Case report

We present a case of 29-year-old asymptomatic female with PMV who came to our attention for routine echocardiographic examination for evaluation of cardiac function. TTE showed a single papillary muscle centrally placed receiving chordae from both the anterior and posterior mitral valve leaflets. The short-axis view revealed the presence of a symmetric mitral valve orifice with all chordae attaching to a large anterolateral papillary muscle. The mitral valve orifice was mildly stenotic, no mitral valve regurgitation was shown. The examination revealed the presence of bicuspid aortic valve with mild to moderate aortic regurgitation, moderately dilated ascending aorta - 40mm. Left ventricular end-diastolic diameter was 45mm, end-diastolic volume 82ml, left ventricular ejection fraction 60%, and left atrial diameter 39 mm (anteroposterior diameter), left atrial volume index (LAVI)-29ml/m2. For further assessment, the patient was referred for a computed tomography (CT) because of bicuspid aortic valve. No sign of aortic coarctation was found. A decision was made to follow-up the patient closely for worsening of valvular function.

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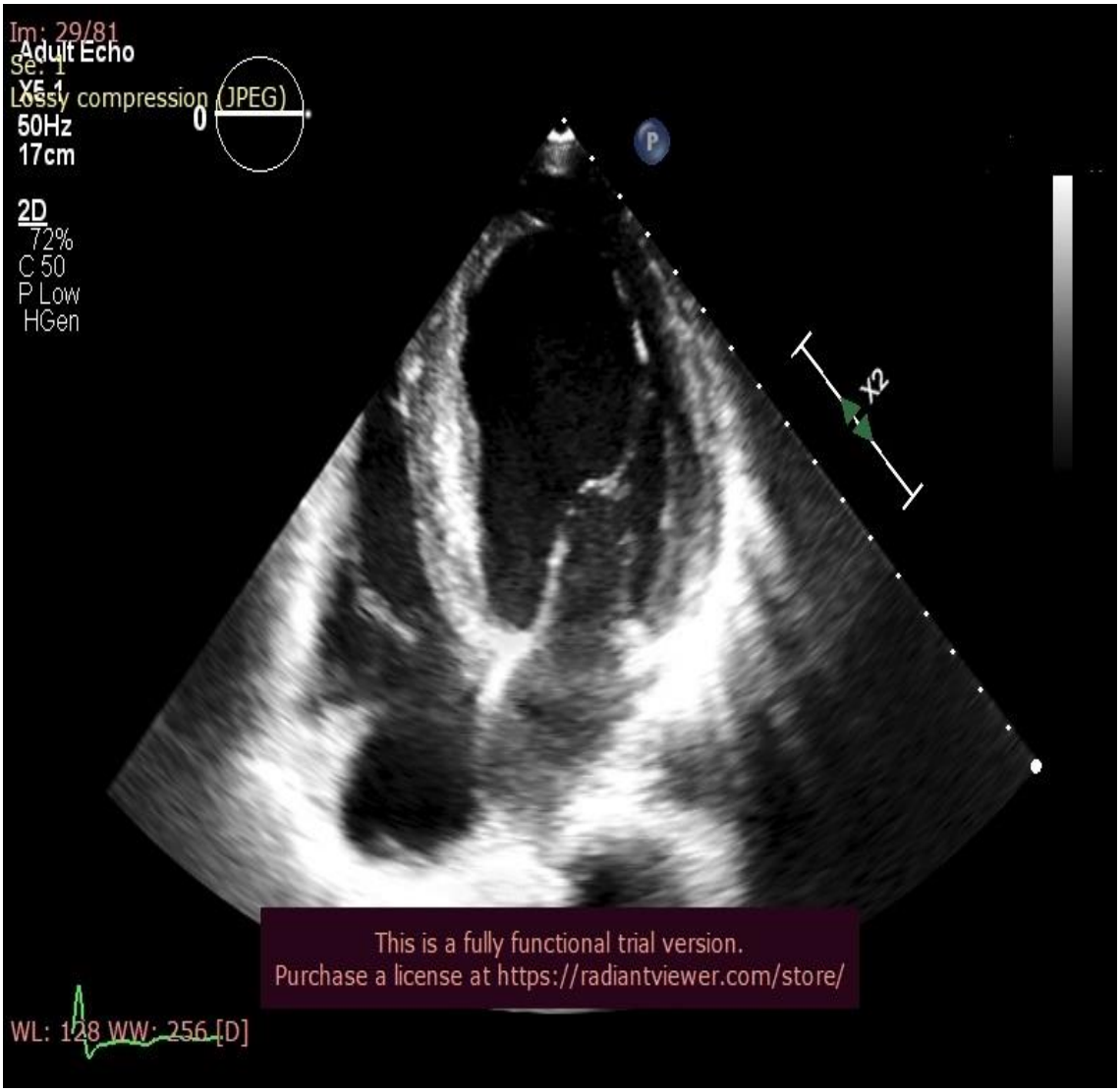

Video 1. Echocardiographic Finding
Transthoracic echocardiogram, apical four chamber view showing single papillary muscle.

Discussion

The differential diagnosis for mitral stenosis includes parachute-like asymmetrical mitral valve, anomalous mitral arcade, double orifice mitral valve, hammock mitral valve and rheumatic mitral stenosis.

Most adult patients with PMV usually present with dyspnea and have hemodynamically significant lesions of variable severity across mitral valve. However, some cases may be incidentally diagnosed during echocardiography.

Asymptomatic patients with mild mitral stenosis require no significant therapy. They should undergo yearly follow-up care with physical examination, chest radiography, ECG and echocardiography. These patients may remain stable for decades before mitral stenosis progresses and the patient requires surgical intervention. Surgical intervention is indicated for the

symptomatic and hemodynamically compromised patients. Two-thirds of PMV patients require surgical treatment of the mitral valve lesions. PMV is curable by mitral valve repair in most cases, and mitral valve replacement is indicated only for patients with severe mitral valve lesions. Mitral valve repair is preferred over mitral valve replacement for the mitral valve abnormalities. The patients often have a promising outcome.

Conclusions

The clinical course of isolated PMV will depend on the presence and severity of mitral stenosis or regurgitation. Some patients remain asymptomatic with normal hemodynamics across the valve and no medical or surgical intervention is needed. Diuretic therapy and regular follow-up with repeat echocardiograms have been described. Mitral valve replacement or repair is indicated when the patient is symptomatic with hemodynamically significant stenosis or regurgitation of the valve.

In conclusion, PMV is a rare congenital anomaly usually seen in infants and children,but may discover incidentally in adults. These patients may remain stable for a long time and do not need any treatment.

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THE SCIENTIFIC DISCUSSION OF THE MANIFESTATION KEY ISSUE FEATURES AND ARGUMENTS OF PHARMACISTS' PROFESSION PRIORITIES, PROGNOSIS, PROSPECTS, ACHIEVEMENTS, CHALLENGES AND ASPIRATIONS IN MODERN MEDICINE AND HEALTH

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ABSTRACT

The main objective of the study was to analyze pharmacists' profession priorities, prognosis, prospects, achievement, challenges and aspiration in modern medicine and health. The study was a quantitative investigation and analysis of pharmacists' profession priorities, prognosis, prospects, achievement, challenges and aspiration in modern medicine and health in Georgia by using questionnaires. According the study results the higher quality healthcare and pharmaceutical

services education level is of great matter. Hospital pharmacists are drug experts who work in multidisciplinary medical teams to manage drug use in hospitals. Hospital clinical pharmacists are integrated into services and departments and provide clinical pharmacy services to patients at the bedside, with each clinical pharmacist (or team) being responsible for patient care in a specific medical ward or department. Hospital pharmacists provide clinical pharmacy services to patients hospitalized at the bedside as well as in other clinical areas such as emergency departments and outpatient clinics, as well as physicians and nurses. Most of them work in hospitals, however, innovations in the practice of hospital pharmacy have led pharmacists to work in community health services, nursing homes, rehabilitation centers and medical clinics. general. Roles may vary depending on the organization and clinical needs of the hospital pharmacy. Most hospital pharmacists provide clinical services in their area of specialization; however, they can apply their skills to other roles including pharmacy managers, purchasing managers, hospital pharmacy consultants. Educational roles are also prevalent, such as giving lectures to pre-registered trainees, making presentations to other medical staff, or providing educational support to pharmacy students.

The name clinical pharmacy describes the work of pharmacists whose main job is to communicate with other healthcare professionals, to meet, interview, interview and assess patients, to follow up specific pharmacotherapeutic recommendations, to monitor and control a patient's response to pharmacotherapy, and to provide drug information. Clinical pharmacists, mainly working in clinics, hospitals, health insurance funds and emergency services. They provide patient-centered services rather than production-centered services.

Only the pharmacists with higher pharmaceutical education have the right to work at the pharmacist position in the pharmacies. Therefore, the role of pharmacist should be underlined in healthcare system. The provided study showed that the health of patients was directly related to the professional education level of pharmacist. Therefore, pharmacist should have appropriate higher pharmaceutical education, higher professional knowledge in pharmacology, pharmaceutical care, pharmacotherapy, clinical pharmacy and other professional subjects. The vast majority of respondent patients consider, that the government should make the certification of pharmacists. It should be noted that in developed countries, as well as in many developing countries pharmaceutical specialty is regulated profession, as family medicine. In the western country’s pharmacist as a family doctor, needs higher pharmaceutical education, diploma and continuous pharmaceutical education, pharmaceutical license and periodic accreditation. Only the pharmacists with higher pharmaceutical education have the right to work at the pharmacist position in the pharmacies. In the pharmacists’ certification programs should be only involved pharmacists who have graduated pharmaceutical faculties from the state recognized and accredited universities. The higher pharmaceutical education and the pharmacists’ certifications programs are guarantee for higher professionalism of pharmacists and of higher pharmaceutical service provision in pharmacies. More than half part of the respondents considered that pharmacist is not in charge of treatment as a physician, meanwhile about a quarter of the public health specialists considered a pharmacist to be in charge of that. Properly educated pharmacist can minimize and reduce the mistakes made by a doctor in the recipe. That has a great importance and value for provision higher quality health care service for patients’ safety. To increase the pharmacist’s professional qualification, professionalism, professional knowledge and competency the higher pharmaceutical education universities programs should more emphasize the mentioned subjects. It is too important, that a pharmacist should realize and understand that qualification

upgrading study courses, professional trainings and professional workshops are of great necessity for further professional advancement. Thus, the Government should develop continuous pharmaceutical education programs accessible to all pharmacists. The qualification upgrading study courses, professional education or training courses should be available for all pharmacists. Pharmacist's education process should not be stopped. Developing a continuous pharmaceutical education system will enhance the professionalism of the pharmaceutical personnel. Experiential education should encourage perfection of critical opinion and the problem resolving processes along with the medicine discovery.

Purpose of the work

The main objective of the study was to analyze pharmacists' profession priorities, prognosis, prospects, achievement, challenges and aspiration in modern medicine and health.

Material and methods of research

Research objectives are materials of sociological research: the study was quantitative investigation by using survey (Questionnaire). Surveys was for patients; 1506 patients were interviewed in Georgia. We used methods of systematic, sociological (surveying, questioning), comparative, segmentation, mathematical-statistical, graphical analysis. The data was processed and analyzed with the SPSS program. Results and discussion: The survey was conducted through the questionnaires. Material and methods: Research objectives are materials of sociological research: the study was quantitative investigation by using survey (Questionnaire). The study was quantitative investigation by using survey (Questionnaire). The in-depth interview method of the respondents was used in the study. The 7 types of approved questionnaires were used (Respondents were randomly selected): Questionnaire for chief pharmacists: 410 chief pharmacists participated in the study. Questionnaire for patients: 1506 patients (customers of drug-stores) participated in the study. Questionnaire for the employed pharmacy faculty-student: 222 employed pharmacy faculty students participated in the study. Questionnaire for health-care specialists: 307 public health specialists participated in the study. Questionnaire for pharmacist specialist, 810 pharmacist specialists participated in the study.; Totally 3888 respondents were interviewed in Georgia. We used methods of systematic, sociological (surveying, questioning), comparative, segmentation, mathematical-statistical, graphical analysis. The data was processed and analyzed with the SPSS program. Results and discussion: The survey was conducted through the questionnaires.1506 patients were interviewed in Georgia. Questions and answers are given in the tables. On each question are attached diagrams or table. Questionnaire and diagrams are numbered. Study of the data was processed and analyzed with the SPSS program. We conducted descriptive statistics and regression analyses to detect an association between variables. Statistical analysis was done in SPSS version 11.0. A Chi-square test was applied to estimate the statistical significance and differences. We defined $p < 0.05$ as significant for all analyses.The study's ethical items. In order to provide the study's ethical character each participant of it was informed about the study's goal and suggested of willingness of the work to be done. So, the respondents' written or oral compliance was got on that issue. All the studies were carried out by the selected organizations administrations' previous compliance. Were used Informed consent form for each respondent to participate in an anonymous survey. During the whole period of research, the participants incognita was also provided. For the international rules and criteria' conformity this human subject comprising given study was discussed and confirmed on the Bioethics Committee sessions of the YSMU. In order to meet the objectives, set in the research we also used the results

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obtained through analysis of available official information, studies and opinions about pharmacists, as well as the methods of quantitative studies. The research implementation required the following sub studies: pharmacists' profession priorities, prognosis, prospects, achievement, challenges and aspiration in modern medicine and health in Georgia.
Keywords: Pharmacists', profession, priorities, prognosis, prospects, achievement, challenges, modern, medicine, health.

Introduction

The literature analysis showed that a study of individual aspects of the pharmacists' professional development is directed to elaborating of the necessary requirements to ensure effective pharmaceutical care, postgraduate education, finding strategies for the better management of pharmacist personnel, pharmacists' job satisfaction and issues of their psycho-social adaptation to the emerging market conditions [1-3]. However, weighable studies aimed at understanding the perspectives of the pharmacist in the career aspect and the ways to provide high-quality pharmaceutical care have not been carried out yet [4-5].

Pharmacists provide patient care across the continuum of care and must actively participate in the electronic health record, researching and documenting information. The use and implementation of the EHR is driven by funding and policy changes, and pharmacists should be part of development and implementation teams. As medical information technology develops rapidly and EHRs are developed and deployed in healthcare environments, meeting the workflows and information needs of pharmacists in EHRs is essential to optimize quality of drug therapy and patient outcomes. Although pharmacists use many different advanced functions in the EHR, three main applications are described in the literature: documentation, medication matching, patient assessment and follow-up [6-8].

Pharmacists provide ongoing medical care to patients and must actively participate in electronic health records, information retrieval, and documentation. The use and implementation of the EHR is driven by changes in funding and policy, and pharmacists need to be part of development and implementation teams. As health information technologies proliferate and online medical records are developed and implemented in the healthcare environment, it is essential that pharmacists' workflows and information needs are met in online medical records to optimize the quality of care. medication and patient outcomes. Although pharmacists use many different advanced features of electronic health records, three main areas of application are described in the literature: documentation, medication matching, and patient assessment and follow-up [9-11].

Electronic Prescribing and Electronic Delivery Electronic prescribing is the ability for a prescriber to electronically send an accurate, error-free, and understandable prescription directly to a pharmacy from the point of care. It is an important element in improving the quality of patient care. Electronic dispensing is defined as the electronic retrieval of a prescription and delivery of the drug to the patient as specified in the associated electronic prescription. Once the medication is delivered, the dispenser reports information about the dispensed medication(s) via software. The benefits of both technologies include increased patient safety, reduced medication costs, better access to patient prescription records, and improved pharmacy workflow [12-14].

Electronic Prescribing and Electronic Delivery is the ability for a prescriber to electronically submit an accurate, error-free, and understandable prescription directly from the local pharmacy. This is an important element in improving the quality of patient care. Electronic dispensing means receiving a prescription electronically and dispensing a drug to a patient as specified in the

associated electronic prescription. Once a drug is dispensed, the dispenser provides the program with information about the dispensed drugs. The benefits of both technologies include increased patient safety, reduced drug costs, better access to patient prescription records, and increased pharmacy efficiency [15-16].

An integral part of the state system of measures to implement the rights of citizens for protecting their health, via using the quality pharmaceutical care services [17-18]. The provision of pharmaceutical care maintenance is significantly dependent on the pharmacist personnel qualifications. In this concern, the professional qualification of drug experts is under the state control and is one of the state regulations objects in regard to the drug-medicine relationship aiming to maintain the competence of expert specialists throughout their careers with the varying requirements for professional quality [19-21].

In developed countries and in many developing countries in the pharmacy field there are also state regulations like as in family medicine [22-23]. A pharmacist, as a family doctor, should have the higher, post-graduate and consistent education in pharmacy, and also needs to hold the pharmacist license and periodic accreditation by the board of pharmacy (BOP) [24-25]. In the western countries, pharmacists are the specialists with the higher pharmaceutical education who have graduated from the state-recognized and accredited colleges and universities, and only such qualification specialists are allowed to work in the pharmacy. A pharmacy opening permission is issued only the pharmacists who holding higher pharmaceutical education with the pharmacist diploma [26-27].

The modern system of pharmaceutical care is to improve and enhance the life quality of patients, which is promoted by highly skilled professionals in pharmacies, whose competence has been growing along the process of professional development [28-29]. Pharmacist's specialists should not only be to be capable to use their knowledge and skills gained at the educational institutions, but also should be ready and motivated for the professional self-development, because without qualified pharmaceutical care there is no qualified health care system [30-31]. Since the scope of drug treatment, pharmacy is one of the most socially significant areas of the state regulation, the sequence of carrying out the reform measures, accumulation of experience, and also smooth introduction and application of new methods become crucial nowadays [32]. For the development of an organizational and functional model of licensing of pharmaceutical activities, pharmacists work can improve the efficiency of public pharmaceutical administration, which has the great relevance, scientific and practical value [33-34].

In the pharmacy field, an increase of negative trends, such as poor mechanisms of interaction between professional education and the pharmaceutical market, a slow adaptation of graduates to the market reality is being observed [35-36]. A difference between the increasing demands of the patients' and the level of specialists' knowledge, as well as adaptation to market reality can affect the process of professional development of pharmacists and the quality of pharmaceutical care in general. The mentioned trends, as well as the pharmacists' professionals' increasing role and responsibility in the health care system, make the necessity to analyze the current practical experience and evaluate the theoretical background of the specialists' development, as well as identify new contributing factors for their development as professional pharmacist practitioners.

Responsible administering of drugs involves that healthcare network mediator capabilities and activities are balanced to assure that patients get the right drug, on the proper time, using properly and patient have profited from them. Delivering the right drugs into patients' demands commitment of all representatives, inclusive Government and a desire on how to consolidate

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private and public interests and mobilize sources. That is significant for the public to be guaranteed that expenses on pharmaceuticals productions are an equivalent cost of cash. On the viewpoint of the pharmacists' comprehensive academically field and their traditionary function in composing, qualifying, delivering and ensuring drugs. A pharmacist is informing customers, consumers and patients on the drug using; they are greatly positioned to suppose professional liability for the monitoring of pharmacotherapy. They are members of the healthcare team immediately engaged in patients' health care services. Their responsibility is to assistance patients in using their drugs, which is impossible to do alone. Thus, in terms pharmacists' profession have been progressed. New type pharmacists have done the work in more efficient way. Pharmacists holding the higher, university-level education. They understand the biochemical mechanisms of metabolism, mechanisms actions of drugs, medicines pharmacotherapeutic characteristic, side effects of drugs, potential interactions of drug and the argumentations monitoring. It is conjugated of specialized knowledge of biochemistry, anatomy, therapy, physiology, pathology, pharmacology and other pharmacy subjects. The pharmacists explain this particularized knowing when communicating with physicians, patients and another health care providers.

Qualified pharmacy management concentrates on several important points during marketing management. Among them, the main emphasis is on: the study of consumer psychology, behavior, motivation to buy (behavioral marketing (behaviorism - behavior in English)); on innovative marketing, which relies on scientific and technical development in accordance with market requirements. Particular attention is paid to: pharmaceutical products, prices, sales and communication policy (integrated marketing).

The direct method of selling pharmaceutical products and services is direct marketing, when the manufacturer and pharmacy management come into direct contact with the consumer.

The proactive side of marketing is enhanced by strategic planning, which helps define and shape customer/patients demand and supply in line with the company's long-term goals. This form is known as strategic marketing. The form of marketing activity, known as targeted marketing, takes into account market segments, including one or more target segments deliberately, taking into account what pharmaceutical product is effective for this segment.

The state (legal, legislative, regulatory funds), marketing (owned by pharmaceuticals) and a society whose member is a patient is responsible for pharmaceutical activities. They are interconnected through communication. Pharmaceutical management considers the relationship with the society and the individual (patient) as the main function. Assesses the mood, uses different forms in this direction, such as presentations, ceremonies and promotions, conferences, meetings, open days, round tables, exhibitions and fairs, important dates, receptions and other events.

Three parameters- need, demand and request are due to the mutual influence of marketing, consumer and society. And it is more important to manage marketing, since the patient does not buy the drug as a necessary purchase, or a care item, but to restore health, and in itself it is under the pressure of the symptoms of the disease, and also affects it by a doctor who is equally, and sometimes even more driving. That is, the pharmacy, pharmacist, patient /customer and doctor are interconnected. Each has its own functional characteristics and determines their relationship with their characteristic components. The patient/customer in turn determines to the pharmacy,that which medicine it needs and which analogues to choose and should be of high quality.

Therefore, it can be seen that, together with the consumer, one of the main objects of pharmaceutical marketing is a pharmaceutical product with different dosages, a technological

form, which represents some kind of unique characteristics. But, the decision about the need to take the medicine is made by the doctor and not by the patient/consumer. We presented the internal environment of pharmaceutical marketing in the form of a pharmacy, and the external environment of a state institution that legally ensures the quality, registration, and dispensing conditions of a pharmaceutical product.

We noted that on the one hand, pharmaceutical activities, in particular marketing, are influenced by the patient with his necessary needs, demand, taste and preferences (the advantage that he possesses a lot of information) and including, taking into account the involvement of the doctor. Patients - who use the product, services, ideas. Consumer(s) - there are people, groups of people, as well as various organizations that are consumers of services (pharmaceutical products) and ideas.Relationships and impact forms depending on the specificity of pharmaceutical marketing are vary by level. The level of financial income of patients using the pharmacy should be taken into account. If the pharmacy has many low-income customers, it does not use the form of telephone or "service" at home when dealing with it. If the pharmacy has a high-price insolvent patient (buyer) then, full partnership relations with him are solidified.

Being healthcare occupational means of to be a member of a group, which is centered on one purpose: serving with a patient to obtain better health. Pharmacist plays the centric role on the delivering of communication to patients and society about using of medicines. They effectively cooperate with doctor prescribers to assure a general treatment to patients by the delivery information and advice. The pharmacists are involved in a multidisciplinary treatment to the contribution the rational pharmacotherapy. They sufficiently informing patients and common society about the adverse influences of the drugs. They are monitoring these side effects via partnership together with different health care vocational. Pharmacists provide education on medications, disease states and the lifestyle issues as a part of clinical prevention, as well as educational programs to groups on issues such as drug abuse or others that are an example of population health activities. Pharmacists do counsel on a wide range of health promotion products found in the typical retail pharmacy such as sunscreens, dental hygiene products or vitamin and mineral products. Moreover, pharmacists provide immunization services and participate in screening activities.

Though the quantity of pharmaceutical productions on the world market is growing, the approach of vital medicines is till now lacking in a lot of parts of the worldwide. Health care expenses rise and the technological, social, political and economic conditions change have made the health care transformation crucial across the worldwide. The renewed treatments are required reforms at the personal and public levels to ensure effectively, quality and safe pharmacotherapy to the patients in more ever complicated surroundings condition.

The pharmacists hold the great condition to satisfy the necessity for health care vocational to ensure effective and safe using of medicines. To do this, pharmacists should suppose higher liability than they at the present time do for the monitoring of pharmacotherapy for the customers, consumers and patients they are serving. That liability goes completely behind the traditional distributing and dispensing practices that have long been the maintenance of the pharmacy activities. Pharmacists liability should be enlarged conclude controlling of the pharmacotherapeutic progression and thereby improve therapeutic outcomes and patients' life quality, advising with doctor prescribers and consolidating with different health care workers and practicians on behalf of patients. Pharmacists' involvement into pharmaceuticals may consist in drug storage, drug supply, dispensing, manufacturing, formulation, distribution, marketing,

quality warranty, licensing, information management, monitoring, development, education, and research. Drug supply and medicine information management system is the main part of pharmaceutical services and proceeds forming the basement of pharmacy activities. The higher pharmaceutical schooling and education hold an appropriate duty and responsibility to generate post-graduate professionals who are qualified and authorized to provide the pharmaceutical care services. Sufficiency results promote to quality warranty by provided that easily approachable working standards.

Results and discussion

A study of the experience of other countries shows that pharmacists should be included in the clinical team of patients in hospitals in favor of the Bachelor / Master of Pharmacy training programs and should move to patient-centered practice, including a mandatory one-year internship program, and part of academic preparation. Clinical pharmacists in the hospital should start working as an integral part of the medical teams. Currently, pharmacists in clinical pharmacies, like real clinical pharmacists, perform various patient care services: they include drug therapy management, dose adjustment, interventions to optimize drug therapy, and provision of information about medicines to healthcare workers and patients. Clinical pharmacy residency programs can be created to improve and improve the skills of hospital staff. A better understanding of the perspective of healthcare professionals on clinical pharmacy services will enable us to better identify challenges and future opportunities for clinical pharmacists in hospitals. Thus, this qualitative study was designed to explore the challenges and opportunities of clinical pharmacy services at a medical center in West Georgia from the practitioners' point of view.

The interviewees were asked to describe the potential opportunities that can enable clinical pharmacy services to carry on successfully One of the opportunities most frequently described by the respondents reflects the existence of a good attitude towards clinical pharmacy services.

Other healthcare professionals (nurses and physicians) noted that the desire and acceptance of healthcare professionals in terms of services, management and high patient workload are good opportunities for healthcare providers. In addition, they also emphasized that collaboration between practitioners helps in teamwork and avoids unnecessary conflicts due to duplication of work between healthcare providers.

Respondents also stated that there had previously been problems with medical practitioners taking on a wide range of responsibilities. Clinical pharmacists can then step in to reduce the burden on unnecessary practitioners. The majority of respondents cited the high patient workload as a unique opportunity because clinical pharmacists may be faced with many cases and rare diseases that they cannot find anywhere else. Thus, it allows clinical pharmacists to be exposed to various diseases and thus expand their competence through better experience.

Respondents indicated that the presence of some infrastructures, such as the Medicines Clearing House, human resources and the launch of new programs, provides more opportunities for practical participation and delivery of clinical pharmaceutical services.

Some respondents described that government policies and the existence of national guidelines played an important role not only in the implementation of the program, but also in the sustainability that allowed the implementation of services.

All interviewees were asked if there are potential barriers to service delivery and they attempted to list all challenges. The challenges described by most of the respondents' stem from the

availability of pharmacists, other healthcare practitioners, hospital administration and its infrastructure, academic policies and work guidelines. Challenges of clinical pharmacy services.
Challenges are defined as: Any situation that suggests effective implementation of clinical pharmacy Keywords: NUR-Nurse, MD, Pharmacist Challenges include inadequate service facilitation, lack of service continuity, poor drug information center service and lack of commitment, communication and trust between clinical pharmacists.
Most respondents reported that poor service attitudes, conflict of interest due to unclear scope of practice, and lack of cooperation are challenges emerging from health practitioners such as nurses and doctors. Some respondents also described challenges arising from hospital management and set-up. The challenges they mentioned include lack of training, qualified manpower, lack of incentives, lack of clinical pharmacy ward facilities and collaboration between academics and hospital clinical pharmacists. Other challenges cited by respondents were due to academic policies and the curriculum itself. This includes certain gaps in the curriculum; lack of a clear job description and work manual; and documentation system.
This study describes the personal experiences of health practitioners towards clinical pharmacy services provided in hospital, thereby extracting opportunities and challenges which will be used as a means to strengthen the services. In addition, participants were also asked to describe how they perceive the scope of practice in clinical pharmacy services from which challenges and opportunities were also identified. The perception of scope of pharmacy practice among health practitioners reflects whether there is conflict of interest and resistance to cooperation. Interviewees also suggested possible solutions for utilization of potential opportunities and tackling of challenges by the responsible parties.
One of key findings was that health practitioners believed the services are very important and have already brought some changes to the usual patient care, they believed it will inevitably have a positive impact on patient health outcomes. Several studies have shown that clinical pharmacy services have contributed to good clinical, economic and humanistic outcomes The interviewees also indicated that the service is improving as compared to the time of implementation but has not yet reached the level of health practitioners' expectation. The respondents attributed the poor health practitioners' satisfaction to the lack of continuity of the services.
The scope of practice varies between countries as determined by the governing board of pharmacy. Many countries allow the pharmacist to play a part only within certain areas of the medication use process, while in other countries the scope of practice is so wide-ranging and inclusive that, it encompasses the entire medication use process. Some of the respondents in this study thought that the scope of practice should be limited to drug therapy. However, others suggested that the scope can range from diagnosis to prescribing of drugs. The respondents explained that this can be achievable only if we get rid of conflict with other practitioners as their job description and authorities are not well delineated.
As clinical pharmacy services are at their infancy, the respondents suggested that services should focus more on key areas that are less considered by other practitioners. They believed this would increase acceptability of clinical pharmacy services by other health providers. One study reported that clinical pharmacists are experts in therapeutic knowledge, experience and skills which are used to ensure desired patient outcomes utilizing the best available clinical evidence and intervention in collaboration with the health care team.
Some of the opportunities listed in this study also have some drawbacks which may be a source of challenge unless they are improved. For instance, the new clinically-oriented curriculum is much

better than the previous product-oriented one, but still the curriculum is not as competent as a PharmD program. In addition, poor drug information service is another area of practice in need of improvement to satisfy the health practitioners.

Clinical pharmacy services in hospitals face different challenges which may arise from other health practitioners' willingness, practice setups, and clinical pharmacists' attitudes. In some countries, a qualitative study highlighted work load, low salary and lack of interest of pharmacists as main challenges for clinical pharmacy services. Further, another study conducted revealed sets of challenges that limit pharmaceutical care practice, such as lack of time and need of effort, insufficient remuneration, no team work among health care workers and deficiency in staff strengths. Our finding reflect that challenges may originate from the pharmacists themselves, other health practitioners, hospital's administration issues and its infrastructure, academic policies and availability of working guidelines. The interviewees listed many potential and actual challenges. One major challenge emphasized by the interviewees was the lack of continuity of services. Although the academic staff providing indirect services through tutoring students, it is also important to note that the number of hospital clinical pharmacists included in clinical settings is very minimal and that may be a reason for absence of service continuity. However, The School of Pharmacy and should take the initiative to integrate, empower and employ hospital clinical pharmacists or provide incentives for the academic staff to improve the continuity of services.

This study describes practitioners' personal experiences with clinical pharmacy services, thereby identifying opportunities and challenges to be used as a means to improve services. In addition, participants were also asked to describe how they perceive the scope of practice in clinical pharmacy services, from which challenges and opportunities were also identified. The perception of the scope of pharmaceutical practice among practitioners reflects conflicts of interest and resistance to collaboration. Interviewees also suggested possible solutions to responsible parties to take advantage of potential opportunities and overcome challenges.

Recent reforms to hospital implementation guidelines state that pharmacists should be assigned to hospitals for the benefit of patients. Prioritizing national guidelines, the undergraduate pharmacy curriculum shifted toward patient-centered practice by including a mandatory one-year internship program as part of academic training. Hospital clinical pharmacists began to work as an integral part of healthcare teams. Clinical pharmacists sporadically provided various care services to patients.

The clinical pharmacist performs critical patient monitoring and reviews the patient profile / chart to identify, prevent, or mitigate drug-related problems, wrong drug or dose selection, sub-therapeutic dose, overdose, drug adverse reactions, drug interactions, drug missing, no indication to treatment, the use of drugs without indications and treatment failure; The clinical pharmacist communicates effectively and appropriately with healthcare providers and caregivers (doctors, nurses, etc.), and ensures the continuity of pharmaceutical care between shifts and between staff; The clinical pharmacist is actively involved in drug management and restriction programs; Participate in the work of pharmacies and distribution of medicines; Clinical Pharmacist maintains competence and actively participates in operations programs, central pharmacies, subsidiary pharmacies and specialty pharmacy areas, as required by the work assignment; Facilitates the process of purchasing, ordering and dispensing specialized drugs, including but not limited to chemotherapy, parenteral nutrition, controlled substances, etc., as appropriate. Clinical pharmacists are specialized medical practitioners who provide direct patient care and holistic treatment. While this practical model has proven itself best in the United States, there are clinical

pharmacists around the world who are improving the care of patients of all ages in all areas of emergency and outpatient care. This article discusses training standards, expected skills, and contributions from clinical pharmacists.

Clinical pharmacists practice across all healthcare settings and use in-depth knowledge of drugs and medical conditions to manage drug therapy as part of a multidisciplinary team. Clinical pharmacists are responsible for drug treatment and patient outcomes. They are the primary source of scientifically reliable information on the safe, correct and economical use of medicines. Whereas pharmacists may be involved in the management of specific drugs or individual medical conditions the standard of care that ensures that each patient's drugs (prescription, over-the-counter, supplements, or herbal medicines) are individually assessed to determine if they are appropriate whether they are for the patient, effective for the disease, safe for use in concomitant diseases and concomitant therapy, and whether the patient can take them. An individualized care plan defines goals, monitoring and expected outcomes The patient is actively involved in developing the plan with other members of the care team. The impact of conventional medical management provided by clinical pharmacists on an outpatient basis is being studied to identify efficient processes and measure overall patient outcomes. Disease-specific drug management programs have shown a reduction in the incidence of some drug-related problems, including non-adherence, and have reduced some health care costs.

Clinical care team in the form of health professionals - physicians, advanced practice registered nurses, other registered nurses, medical assistants, clinical pharmacists and other health professionals - with the training and skills to provide coordinated care high quality, specific to the patient's clinical condition ... needs and circumstances. The clinical pharmacist also provides support for group practice. Although the composition of the teams may vary, the responsibility and authority for specific aspects of the treatment rests best with the person best suited to the task. The effectiveness of a team of clinical pharmacists depends on a culture of trust, shared goals, effective communication and mutual respect. The best interests of the patient should be the driving force behind teamwork.

The clinical pharmacist does not need to be in the same place as a member of the medical team and therefore the large group of health professionals certainly includes general practitioners in hospitals, clinics and stores. Although this is only an example, patients benefit from collective management through better BP control, and a large proportion of patients achieved controlled BP when the pharmacist was part of the clinic. the team. The composition of dynamic clinical teams is reflected in the multidisciplinary nature of large professional organizations such as the Society for Resuscitation, the Society for Hospital Medicine, the Nutrition Society, and the Society for Neurocritical Physicians. Most of these organizations include clinical pharmacists in leadership positions, including the chair. Clinical pharmacists are pharmacists, physicians who specialize in direct patient care. Although they are expected to follow the steps outlined in the pharmacist's POC, Standards of Practice (SOP) help clinical pharmacists comprehensively assess drug needs and often manage complex and specialized regimens. Documentation requirements are more detailed and, where applicable, should be consistent with billing requirements. The clinical pharmacist can exercise his practice more independently in certain contexts, in particular according to organizational privileges. Clinical pharmacists who have received the appropriate qualifications and certifications should now enjoy hospital privileges such as doctors and providers of excellence. They are required to maintain a valid license, but have additional

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certification requirements. SOP for the clinical pharmacist also includes educational, research and quality improvement activities.

Coupling the data of respondents' answers' analysis of the questions "Indicate your sex" (Q1) and "Are you satisfied with your professional career? " (Q13) it became apparent that variables are gender dependent (P=0.001), there is a statistically significant differences between two groups, that means that the male pharmacists were less satisfied with their professional career, rather than the female pharmacists (See tabl.1).

Table 1. Satisfaction professional career of respondent pharmacists according gender.

Crosstab			
Satisfaction professional career of respondent pharmacists			
Q13. Are you satisfied with your professional career?	Q1 Indicate your sex		Total
	1 Female	2 Male	
1. Yes	30.88%	18.00%	30.40%
2. Partially	33.95%	27.20%	33.70%
3. No	35.17%	55.00%	35.90%
Total	100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-square	23.884[a]	2	0.001

Coupling the data of respondents' answers' analysis of the questions "Indicate your sex" (Q1) and "Q14 Are you satisfied with your work (job)? **"** (Q14) it became apparent that variables are gender dependent (P=0.024), there is a statistically significant differences between two groups, that means that the male pharmacists were less satisfied with their work, rather than the female pharmacists (See tabl.2).

Table 2. Satisfaction with work of the respondent pharmacists according gender.

Crosstab			
Satisfaction with work of respondent pharmacists			
Q14 Are you satisfied with your work?	Q1 Indicate your sex		Total
	1 Female	2 Male	
1. Yes	44.00%	22.65%	33.20%
2. Partially	39.90%	11.90%	37.30%
3.No	11.80%	62.15%	24.40%
4. Cannot say	4.40%	3.30%	5.10%
Total	100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-square	24.261[a]	3	0.024

Coupling the data of respondents' answers' analysis of the questions "Indicate your sex" (Q1) and „Are you satisfied with the time duration of your job? " (Q26) it became apparent that variables are gender dependent (P=0.048), there is a statistically significant differences between two

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groups, that means that the male pharmacists were less satisfied with the time duration of work, rather than the female pharmacists (See tabl.3).

Table 3. Respondent pharmacists' satisfaction with the time duration of job.

Chi-Square Tests			
Satisfaction with time duration of work of the respondent pharmacists according gender			
Respondent pharmacists' satisfaction with the time duration of job			
Q26. Are you satisfied with the time duration of your job?	Q1 Indicate your sex		Total
	1 Female	2 Male	
1. Yes	22.38%	14.70%	22.10%
2. Partially	34.10%	36.70%	34.20%
3. No	43.51%	48.60%	43.70%
Total	100.0%	100.0%	100.0%

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-square	19.775[a]	2	0.048

Coupling the data of respondent's answers' analysis of the questions "Indicate your sex" (Q1) and „Are you satisfied with your income? " (Q27) it became apparent that variables are gender dependent (P=0.019), there is a statistically significant differences between two groups, what means that the male pharmacists were less satisfied with income, rather than the female pharmacists (See tabl.4).

Table 4. Satisfaction of the respondent pharmacists with income according gender.

Crosstab			
Satisfaction of the respondent pharmacists with income according gender			
Q27. Are you satisfied with your income?	Q1 Indicate your sex		Total
	1 Female	2 Male	
1. Yes	10.59%	0.00%	10.20%
2 .Partially	25.48%	23.30%	25.40%
3. No	63.82%	76.70%	64.30%
Total	100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-square	13.314[a]	2	0.019

Analysis the data of respondents answers on the question „Do you think that the Government should make the certification of pharmacists? "(Q) revealed the following in different categories: the majority of chief pharmacists, of consumers of medications, of the employed students, of the healthcare specialists and pharmacists considered, that Government should make certification of pharmacists (P<0.000) There are statistically significant points between variables. (See Table 5).

Table 5. Respondents' opinion about pharmacists' certification.

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Cross tabulation				
Do you think that the Government should make the certification of pharmacists?	Do you think that the Government should make the certification of pharmacists?			Total
	1. I agree	2. I partially agree	3. I Do not agree	
Chief Pharmacists	76.6%	16.3%	7.1%	100.0%
Customers	82.6%	11.6%	5.8%	100.0%
Employed Students	95.9%	3.6%	0.5%	100.0%
Health-care Specialists	94.8%	4.6%	0.7%	100.0%
Pharmacist specialists	71.9%	21.9%	6.3%	100.0%
Average	81.2%	13.5%	5.2%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	132.625[a]	8	0.000

Coupling the data of respondents' answers' analysis of the questions "Indicate your sex" (Q1) and „Do you think that the Government should make the certification of pharmacists? " It was obvious that there was not a significant difference between the variables (P=0.556) There is no statistically significant attitude between sex and variables (See tabl.6), this means that, ("Q1 Gender") and „Q12 Do you think that the Government should make the certification of pharmacists? ". So Answers are not dependent on sex.

Table 6. Consumers of medications opinion about pharmacists' certification according gender.

Gender Cross tabulation				
Do you think that the Government should make the certification of pharmacists?		Q1 Gender		Total
		1. Female	2. Male	
Do you think that the Government should make the certification of pharmacists?	1. I agree	83.4%	81.3%	82.6%
	2. I partially agree	11.0%	12.6%	11.6%
	3. I Do not agree	5.6%	6.1%	5.8%
Total		100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-square	1.173[a]	2	0.556

Pharmaceutical education varies across the world. In the United States (USA), a pharmacist is eligible for a license after 6 years of training in pharmacy. While not required, many of these graduates already have a Bachelor of Science degree in another field. Pharmacists interested in direct patient care may receive additional training in postgraduate residency programs in Emergency or Outpatient Care. It is a large-scale accredited expertise in clinical care, drug information, administration, teaching methods projects/research. Those interested in specialization can complete their second year of postgraduate study in areas as diverse as any medical specialty (outpatient care, intensive care, infectious diseases, internal medicine, oncology, and many others). Additional research grants may follow, especially for those interested in an academic or research role. Pharmacists licensed in the United States have received formal training, and many

universities are partnering with pharmaceutical schools outside of North America to create clinical pharmacy training opportunities for international students. Additional clinical practice sessions were included in the training programs. Clinical pharmacists may practice under a formal collaborative practice agreement with physicians in their area of practice or under hospital conditions. For example, a pharmacist can change the dose, frequency, or way of taking medications that are covered by a collaborative practice agreement. They may also initiate serum concentration monitoring or other applicable laboratory tests to monitor the effects of therapy. Quality assessments have demonstrated the value of these programs. Hospitals may require people to provide periodic quality assessments or evidence of minimum activity. Pharmacists' laws are governed by the ordinances of state and local hospitals.

Clinical pharmacist role includes developing quality assessment tools and data evaluation. Clinical pharmacists make important contributions to these drug therapy control and surveillance systems. I also report the side effects of medications. Many side effects or incidents are related to systemic problems, and the clinical pharmacist regularly provides advice on possible process improvements when programming intravenous pumps, drug safety systems, or other processes. The clinical pharmacist manages for critical care pharmacist residency program and oversees the resident's progress and interactions with other mentors in our healthcare system. The clinical pharmacist participates in multidisciplinary book club discussions, thematic conferences, and quality assessment meetings. Like other professionals, the clinical pharmacist strives to maintain its role in scientific publishing in the literature, maintain skills, and keep abreast of the growing literature. As a certified critical care pharmacist, a clinical pharmacist must undergo continuing education and maintain certification, and as a licensed pharmacist, a clinical pharmacist must also pursue continuing education. As clinical pharmacy programs around the world are at different stages of development, the need for specialists who specialize in drugs and their optimal use is universal. Clinical pharmacists have supported these training programs and provided training to individuals and groups. Their publications are used by pharmacists around the world to prepare and maintain the certification board. This awareness is expected to continue as more partners are involved and more pharmacists and their multidisciplinary teams recognize the power of clinical pharmacists to improve patient care.

Hospital pharmacists are drug experts who work in multidisciplinary medical teams to manage drug use in hospitals. Hospital clinical pharmacists are integrated into services and departments and provide clinical pharmacy services to patients at the bedside, with each clinical pharmacist (or team) being responsible for patient care in a specific medical ward or department. Hospital pharmacists provide clinical pharmacy services to patients hospitalized at the bedside as well as in other clinical areas such as emergency departments and outpatient clinics, as well as physicians and nurses. Most of them work in hospitals, however, innovations in the practice of hospital pharmacy have led pharmacists to work in community health services, nursing homes, rehabilitation centers and medical clinics. general. Roles may vary depending on the organization and clinical needs of the hospital pharmacy. Most hospital pharmacists provide clinical services in their area of specialization; however, they can apply their skills to other roles including pharmacy managers, purchasing managers, hospital pharmacy consultants. Educational roles are also prevalent, such as giving lectures to pre-registered trainees, making presentations to other medical staff, or providing educational support to pharmacy students.

The name clinical pharmacy describes the work of pharmacists whose main job is to communicate with other healthcare professionals, to meet, interview, interview and assess patients, to follow up

specific pharmacotherapeutic recommendations, to monitor and control a patient's response to pharmacotherapy, and to provide drug information. Clinical pharmacists, mainly working in clinics, hospitals, health insurance funds and emergency services. They provide patient-centered services rather than production-centered services.

The health systems of many other countries have developed similar claims of competence for pharmacists. As a critical care pharmacy specialist, it is difficult to describe a typical day, but usually busy with the elements of a pharmacist's support process during the day. It is believed that the clinical pharmacist will be responsible for all aspects of the administration of the drug. Every day, the clinical pharmacist assesses and evaluates new patients and updates the progress of previous patients, identifies drug-related issues and potential problems, develops a problem list and treatment plan for optimal dosage based on the renal and hepatic function, potential drug interactions and serum concentration. The clinical pharmacist joins the multidisciplinary rounds with the intensive care team and applies the treatment plan by teaching the medical residents the correct order of entry or by entering the orders themselves according to a collaborative practice agreement and by them. documenting in an electronic health record. A major contribution to medication management is identifying therapies that are no longer needed, reducing the cost and risk of adverse events, and supporting antimicrobial stewardship programs with infectious disease physicians and pharmacists. The clinical pharmacist also supervises the performance of quality measures such as the appropriate prevention of venous thromboembolism, the appropriate use of drugs to prevent stress gastritis, the addition of aspirin to increase the levels of troponin associated with l coronary ischemia, and discussing the need for central tubing and urinary catheters. The clinical pharmacist educates the team on drug-related topics and related literature through tours and didactic discussions. A clinical pharmacist is always available for emergencies and resuscitation, and to answer questions related to mediation [17-19].

This includes managing drug therapy, dose adjustments, interventions to optimize drug therapy, and providing information about drugs to healthcare professionals and patients. Hospital. A better understanding of the perspectives of healthcare professionals regarding clinical pharmaceutical services may provide a better opportunity to identify future challenges and opportunities for clinical pharmacists in the hospital. Therefore, the present qualitative study aimed to examine the challenges and opportunities of clinical pharmaceutical services provided in the hospital from the perspective of healthcare professionals.

A clinical pharmacist is in no way a competitor of a doctor, on the contrary, he must refer patients who need qualified medical care to a doctor. It is difficult to imagine that a pharmacist does not know the alphabet of medicine and does not have relevant knowledge of the main clinical syndromes. Must have a particularly good knowledge of the nomenclature of medicines (mainly over-the-counter medicines). In essence, a clinical pharmacist must provide a defined pharmaceutical supply and make a decision about the dispensing of the drug.

While curricula have been adjusted to prepare pharmacists for this new role, changes in practice have focused on other issues, such as: B. the emerging Covid epidemic which has brought about significant changes in the medical care industry in terms of practice and law. Clinical pharmacy should be viewed as a different professional approach than hospital pharmacy. It is important for pharmacists to have a complete picture of a patient's condition so they can assess drug therapy and communicate effectively with other members of the healthcare team. Pharmacists need to establish a good relationship and connection with the multidisciplinary medical team by asking them to move from the pharmacy to the wards where they dispense medication and see doctors.

Staffing issues and a lack of trained clinical pharmacists have resulted in pharmacists being unable to work in clinical settings. In particular, the following pharmaceutical support functions were missing.

The concept of pharmaceutical care has evolved into integrated medication management as part of clinical pharmacy. Drug treatment has expanded as treatment regimens have become more complex and specialized, particularly in more complex patients who may have five comorbidities and are taking an average of eight drugs at a time. To achieve the best results of drug therapy in these patients, systematic and complex drug therapy is required.

For the majority of respondent patients', mostly significant factors, while choosing a pharmacy are: Service culture, wide range of products, reasonable prices. For less than half of respondent patients, mostly significant factors, while choosing a pharmacy are: Possibility to receive consultation about drugs with a physician or a pharmacist, convenient location of the pharmacy, high qualification of pharmacist personnel.

The majority of the patients determined the main factor while drug choosing process to be recommendation of a physician. Less than half part of respondents determined the main factor while choosing the drugs to be the doctor's prescription and advice of a pharmacist. Therefore, the role of pharmacist is significant in the healthcare system. For the higher quality healthcare and pharmaceutical services, the pharmacist's appropriate education level is of crucial importance. It was shown that the health of patients was directly related to the professional education level of pharmacist. Therefore, pharmacist should have eligible higher pharmaceutical education.

For the majority of respondents mostly significant factors while choosing a pharmacy were: service culture, wide range of products and reasonable prices. For less than half part of respondents mostly significant factors while choosing a pharmacy were: possibility to receive consultation about medications with a physician/ a pharmacist, convenient location of the pharmacy, high qualification of pharmacist personnel. Therefore, the role of pharmacist is underlined in healthcare system. For the higher quality healthcare and pharmaceutical services education level is of great matter. The study provided showed that the health of patients was directly related to the professional education level of pharmacist. Therefore, pharmacist should have appropriate higher pharmaceutical education, higher professional knowledge in pharmacology, pharmaceutical care, pharmacotherapy, clinical pharmacy and other professional subjects.

For the majority of respondents mostly asked the pharmacists about the rules of drugs intake and prices of drugs. For the less than half part of the respondents mostly asked about the drugs' adverse effects and quality. For about the one third of them mostly asked about help in selection of analogue of drugs, indication/contraindication of drugs, the terms and conditions of their storage (conditions and shelf-life), the drugs dosage, rules of drug administration and selection of OTC drugs.

On the question - Do you think that the government should make the certification of pharmacists? Patients'82.6% answer I agree, patients' 11.6% answer I partly agree, patients' 5.8% answer I do not agree. The vast majority of respondent Patients consider, that the government should make the certification of pharmacists.

The majority of the pharmacy's consumers determined the main factor while drug choosing process to be recommendation of a physician. Less than half part of respondents determined the main factor while choosing the drugs to be the doctor's prescription and advice of a pharmacist (See fig.1). Therefore, the role of pharmacist is significant in the healthcare system. For the higher

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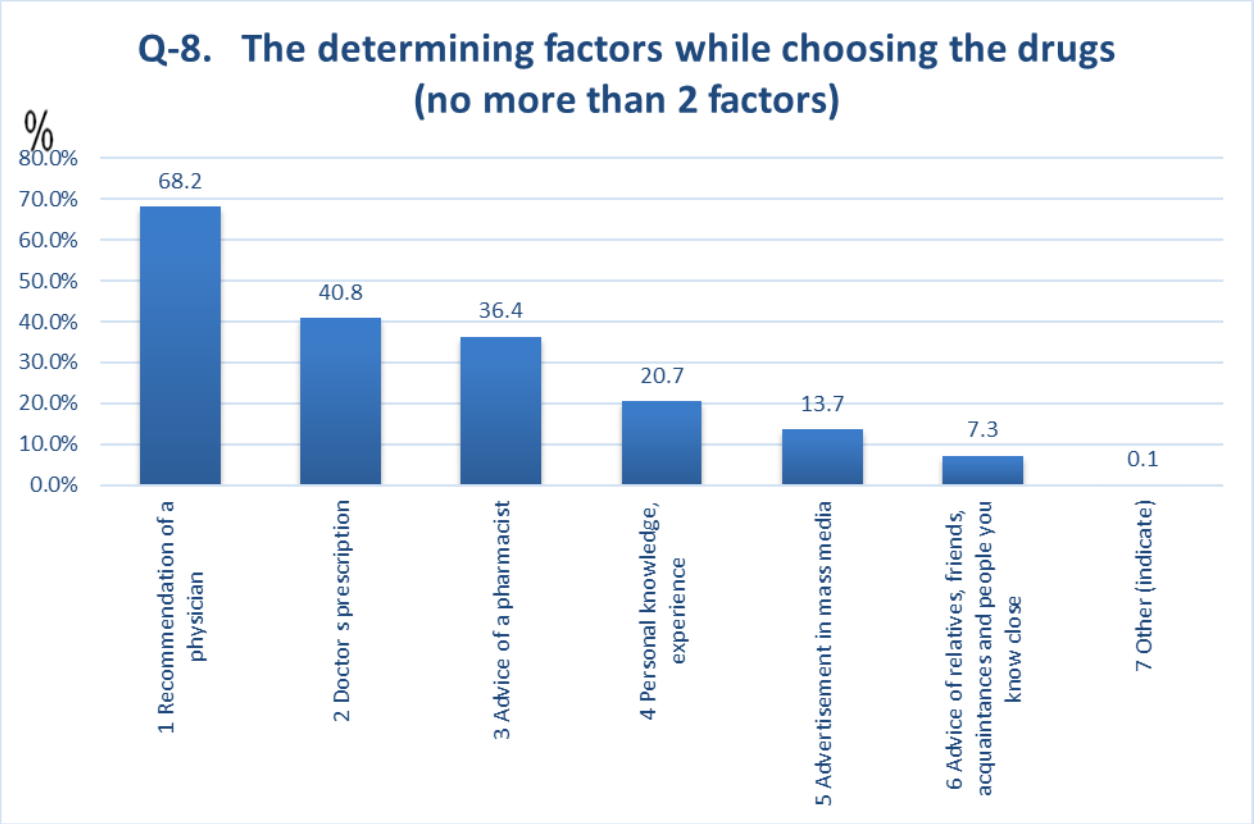

Figure 1. The determining factors while respondents choose the drugs.

For the majority of respondents mostly significant factors while choosing a pharmacy were: service culture, wide range of products and reasonable prices. For less than half part of respondents mostly significant factors while choosing a pharmacy were: possibility to receive consultation about medications with a physician/ a pharmacist, convenient location of the pharmacy, high qualification of pharmacist personnel (See tabl.7).

Table 7. The mostly significant factors while respondents choose a pharmacy.

Q-9. The most significant factors while choosing a pharmacy (no more than 5 answers were accepted)	Count	Percent (%)
1. Service culture	764	50.7
2. Wide range of products	798	53.0
3. Possibility to receive consultation about medications with a physician/ pharmacist	742	49.3
4. Reasonable prices	877	58.2

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5. High qualification of personnel	547	36.3
6. Convenient location of the pharmacy	681	45.2
7. Absence of queues	477	31.7
8. Friendly staff	293	19.5
9. The existence of high-quality medicines	472	31.3

The majority of respondents applied into the pharmacy for acquiring medications (See tabl.8). So, the pharmacist professional qualification, knowledge and professional competencies are very important to provide good pharmaceutical service.

Table 8. Products that respondents purchase frequently in pharmacies.

Q-7. The products purchased frequently in pharmacies (several answers were possible)	Count	Percent (%)
1. Medications (drugs)	1310	87.0
2. Optics	170	11.3
3. Medical devices -products of medical purpose	177	11.8
4. Mineral water	283	18.8
5. Cosmetics and perfumery products	359	23.8
6. Disinfectants	473	31.4
7. Personal hygiene items	567	37.6
8. Medical and dietary nutrition	183	12.2
9. Biologically active additives-food supplements (nutritional, dietary)	217	14.4
10. Patient care items	223	14.8
11. Child nutrition	337	22.4

Therefore, the role of pharmacist is underlined in healthcare system. For the higher quality healthcare and pharmaceutical services education level is of great matter. The study provided showed that the health of patients was directly related to the professional education level of pharmacist. Therefore, pharmacist should have appropriate higher pharmaceutical education, higher professional knowledge in pharmacology, pharmaceutical care, pharmacotherapy, clinical pharmacy and other professional subjects.

For the majority of respondents mostly asked the pharmacists about the rules of drugs intake and prices of drugs. For the less than half part of the respondents mostly asked about the drugs' adverse effects and quality. For about the one third of them mostly asked about help in selection of analogue of drugs, indication/contraindication of drugs, the terms and conditions of their storage (conditions and shelf-life), the drugs dosage, rules of drug administration and selection of OTC drugs (See tabl.9).

Table 9. The respondents' mostly asked questions to pharmacists.

Q-10. The questions mostly asked to pharmacists (several answers were possible)	Count	Percent (%)

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1. About rules of intake of medications	950	63.1
2. About adverse effects of medications	625	41.5
3. About prices of medications	925	61.4
4. About help in selection of analogue of medication	449	29.8
5. About quality of medications	640	42.5
6. About availability of medications in a pharmacy	399	26.5
7. About indication/contraindication of medications	471	31.3
8. About terms and conditions of storage of drugs (conditions and shelf-life)	464	30.8
9. About medications dosage	505	33.5
10. About routes of drug administration	292	19.4
11. About drug forms	289	19.2
12. About drug design	130	8.6
13. About drugs toxic effects (toxicity)	297	19.7
14. About principles of pharmacotherapy	55	3.7
15. About rules of drug administration	386	25.6
16. About drugs generic, chemical and brand names	156	10.4
17. About selection of OTC drugs	409	27.2
18. Some specific information about drugs	380	25.2
19. Effectiveness of drug	312	20.7
20. About drugs action and their interactions	284	18.9
21. About drugs safety	321	21.3
22. About cost-effectiveness of drugs	51	3.4

Therefore, pharmacist should possess deep and steady knowledge in pharmacology, pharmacotherapy, toxicology, pharmaceutical care, clinical pharmacy, pharmacokinetics, pharmacodynamics, basics of medicine and other pre-clinical and clinical subjects. Such knowledge can be obtained only from higher pharmaceutical education institutions. Therefore, pharmacist working on pharmacist position must have exclusively the higher pharmaceutical education.

The majority of respondents considered that the required quality for pharmacist was professional competency. Less than half part of the respondents considered it to be a readiness for relationships (communication-contact), patience, endurance and stamina, amiability or kindness and high professionalism (See tabl.10). Studies have confirmed that professional competency was mandatory for pharmacists. Being a hallmark the pharmacists' professional competency could be achieved by adopting of higher pharmaceutical education and certification of pharmacists.

Table 10. The required qualities for pharmacist in the respondents' opinion.

Q-11. The qualities required for ppharmacists (pharmaceutical professionals in the pharmacy) (3 possible answers)	Count	Percent (%)
1. Readiness for communication-contact	714	47.4%
2. Professional competency	891	59.2%
3. Patience, endurance and stamina	630	41.8%

4. Amiability or kindness	710	47.1%
5. Ability to build up relations with people	376	25.0%
6. Vocational particular skills	503	33.4%
7. Friendliness (goodwill)	415	27.6%

Most of the patients considered that the Government should make the certification of pharmacists.
It should be noted that in developed countries, as well as in many developing countries pharmaceutical specialty is regulated profession, as family medicine. In the western country's pharmacist as a family doctor, needs higher pharmaceutical education, diploma and continuous pharmaceutical education, pharmaceutical license and periodic accreditation. Only the pharmacists with higher pharmaceutical education have the right to work at the pharmacist position in the pharmacies. In the pharmacists' certification programs should be only involved pharmacists who have graduated pharmaceutical faculties from the state recognized and accredited universities. The higher pharmaceutical education and the pharmacists' certifications programs are guarantee for higher professionalism of pharmacists and of higher pharmaceutical service provision in pharmacies.
The Government should take care of the profession of pharmacist authority. The pharmacist's profession in the health care system should increase the authority and social importance by the state support. Pharmacist's profession should become of more power and authority; a pharmacist should have a much higher status in the healthcare system. Therefore, the role of a pharmacist is significantly increased in the healthcare system and is directly related to his professional education level. Therefore, pharmacist should have appropriate higher pharmaceutical education. All the mentioned is achieved then, when the pharmacist profession will move into the health-regulated professions list.
The professional competency is mandatory for pharmacists. Pharmacists' professional competency can be achieved by adopting of higher pharmaceutical education and by certification of pharmacists. The higher pharmaceutical education, pharmacists' certifications are the guarantee for higher professionalism of pharmacists and the pharmaceutical service provision in pharmacies. The level of basic training of pharmacists should be in compliance with the contemporary requirements. The pharmacist should have deep knowledge in pharmacology, in pharmacotherapy, in toxicology, in pharmaceutical care, in clinical pharmacy, in pharmacokinetics, in pharmacodynamics, in basic of medicine and in other pre-clinical and clinical directions. Such knowledge can be obtained only in the higher pharmaceutical education institutions. Therefore, pharmacist working in pharmacy must have only higher pharmaceutical education.
The higher quality healthcare and pharmaceutical services education level is of great matter. Only the pharmacists with higher pharmaceutical education have the right to work at the pharmacist position in the pharmacies. Therefore, the role of pharmacist should be underlined in healthcare system. The provided study showed that the health of patients was directly related to the professional education level of pharmacist. Therefore, pharmacist should have appropriate higher pharmaceutical education, higher professional knowledge in pharmacology, pharmaceutical care, pharmacotherapy, clinical pharmacy and other professional subjects. The vast majority of respondent patients consider, that the government should make the certification of pharmacists.
It should be noted that in developed countries, as well as in many developing countries pharmaceutical specialty is regulated profession, as family medicine. In the western country's

pharmacist as a family doctor, needs higher pharmaceutical education, diploma and continuous pharmaceutical education, pharmaceutical license and periodic accreditation. Only the pharmacists with higher pharmaceutical education have the right to work at the pharmacist position in the pharmacies. In the pharmacists' certification programs should be only involved pharmacists who have graduated pharmaceutical faculties from the state recognized and accredited universities. The higher pharmaceutical education and the pharmacists' certifications programs are guarantee for higher professionalism of pharmacists and of higher pharmaceutical service provision in pharmacies.

Translation of professional pharmaceutical literature should be supported and implemented, with further inclusion in educational programs. International professional publications in pharmacy should be more accessible, as they are highly required for all pharmacists.

To raise the professional standards, the Government should make a certification of the higher pharmaceutical education pharmacists. It is very essential for pharmacist's professional perfection and professional growth, for self-realization and job satisfaction of the higher pharmaceutical education pharmacists, for the pharmacists' career advancement, their much higher status among the health care specialists and economic welfare, for their full realization of the received knowledge while working, for an opportunity to have private pharmaceutical activity, for the perspectives of professional promotion and correspondence of pharmacists qualification to the work performed. There is a substantial need for preparation and implementation of the registration-certification regulations for pharmacists' staff. Process of the pharmacists' certification should be started immediately.

To obtain more power and authority, much higher status, independence, self-realization, power, economic welfare, professional growth, career advancement the Government and private pharmaceutical companies should increase the salaries of pharmacists and the system of benefits' scheme for the pharmacist employees. The working conditions of pharmacists should be improved; the labor conditions should become more constructive for the pharmacist, providing more beneficial psychological climate within the collective and the possibility of career growth should be accessible to all pharmacists. The pharmacist's work schedule should become more flexible, and the job duration time per week should be reduced on the more effective for pharmacist's labor design. The flexibility will further improve pharmacists' workability and motivation toward the job, and also contribute to improve pharmacists' satisfaction according to the time duration of a job.

The profession of pharmacist has yet to develop into a clinical profession in Georgia and is now more focused than ever on moving from a product-oriented profession (including procurement, preparation and evaluation of medicines) to a product-oriented profession patiently. The pharmacist has an important role to play in ensuring the health of the patient. In 2006, the American College of Clinical Pharmacy (ACCP) identified the largest differences between clinical pharmacists and the regularly registered pharmacists as clinical pharmacists [23-25], which improves the quality of life of patients. Therefore, pharmaceutical care can be considered as a form of clinical pharmacy. The establishment of clinical pharmacy in Georgia can be considered when the registration of clinical pharmacy appeared in the National Register of Qualifications, however, there is still no framework, a document that would define the role of clinical pharmacy and career opportunities, although many Clinics participate in international clinical trials, in which, according to the international protocol, a clinical pharmacist should participate , although at this stage such a profession and staff in clinics are not established, it turns

out that general pharmacists formally perform the functions of a clinical pharmacist , what confirmed in our survey. The role of the pharmacist in Georgia needs to be developed, which remains a problem: some clinical guidelines have been developed in Georgia [31-32].

Unfortunately, we have not yet seen a pharmacist in the writing group for any of the guidelines. We already consider the participation of the clinical pharmacist in the recommendation development process to be necessary. The involvement of a clinical pharmacist is important at all stages of creating a treatment algorithm.

A clinical pharmacist is required to participate in the design of a drug use policy, collaborate with specialists in the development of recommendations and methodological guidelines for the treatment of specific diseases, and participate in the purchase and sale of drugs, the creation of medicinal formulations, etc. The pharmacist profession is not yet a clinical profession, but is more focused than ever on its transformation from a product-oriented profession (including the procurement, preparation and evaluation of medicines) to a patient profession - job-oriented. The clinical pharmacist plays an important role in ensuring patient health [33-34].

A large number of pharmacy schools and departments do not offer digital medical education. Similarly, only a small proportion of the students and practitioners surveyed have received education or training in digital health as part of their continuing education. There is a misconception among students and faculty interviewed that digital medical education and online education are considered interchangeable terms. Digital health education still has a long way to go to create ready and flexible pharmaceutical education to meet the rapid changes in digital health. Integrating digital health into undergraduate pharmaceutical education is a critical strategy for improving digital health. “Much remains to be done to create ready and flexible pharmaceutical education to keep up with the rapid changes in digital healthcare. About half of the educators agreed that their students have the competencies to deliver digital health services, and their individual schools can easily identify and add new digital health skills to the curriculum as they emerge in practice. While this finding shows the potential for progress overall as it is likely to promote digital health awareness and lifelong learning. Pharmacists were more likely to receive digital medical education as part of continuing professional development if pharmacists had previously received digital medical education in school. The most common digital health education issues reported by schools and departments were lack of experience followed by lack of resources.

Practitioners' responses indicated that they were not familiar with new digital health technologies such as blockchain technology, bots, digital medicine and artificial intellect. A key gap in digital medical education is the skills and knowledge on how to use technology to solve existing clinical problems and improve care. Practitioner expectations of the clinical benefits of digital health in practice remained low. This may be because the introduction of digital health tools into clinical care has been one of the least likely concepts to be included in pharmaceutical education, from the point of view of academics. Existing digital medical education appears to be more focused on providing administrative and functional competencies to facilitate business processes and improve operational efficiency.

Training in the implementation of digital health tools was a key need cited by students and practitioners. The lack of enabling policies, the availability of digital health tools and data, and technical limitations were identified as the biggest challenges in implementing digital health in practice. The report is the first of its kind global review of digital health in pharmaceutical education that examines the readiness and responsiveness of pharmaceutical education and

identifies gaps in knowledge and skills among the pharmacy workforce. We believe this report will encourage further research and development in this area to expand digital healthcare with a pharmaceutical workforce.

Conclusions

More than half part of the respondents considered that pharmacist is not in charge of treatment as a physician, meanwhile about a quarter of the public health specialists considered a pharmacist to be in charge of that. Properly educated pharmacist can minimize and reduce the mistakes made by a doctor in the recipe. That has a great importance and value for provision higher quality health care service for patients' safety. To increase the pharmacist's professional qualification, professionalism, professional knowledge and competency the higher pharmaceutical education universities programs should more emphasize the mentioned subjects. It is too important, that a pharmacist should realize and understand that qualification upgrading study courses, professional trainings and professional workshops are of great necessity for further professional advancement. Thus, the Government should develop continuous pharmaceutical education programs accessible to all pharmacists. The qualification upgrading study courses, professional education or training courses should be available for all pharmacists. Pharmacist's education process should not be stopped. Developing a continuous pharmaceutical education system will enhance the professionalism of the pharmaceutical personnel. Experiential education should encourage perfection of critical opinion and the problem resolving processes along with the medicine discovery. Pharmacists, pharmaceutical schools, educators, students, and practitioners indicated the need to support national organizations, schools, workplaces, and student associations to provide guidance, training, infrastructure and educational resources for digital health.

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AZƏRBAYCAN DİLİNDƏ ANTROPONİMLƏRİN YARANMASINDA İCTİMAİ-SİYASİ HADİSƏLƏRİN TƏSİRİ

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XÜLASƏ

Onamalogiya Azərbaycan dilçiliyinin gənc sahəsidir və dilimizin onomastik sistemi dil faktları ilə olduqca zəngindir. Burada əsas yerlərdən birini antroponimlər tutur. Antroponimlərin hər biri xüsusi sosial işarədir. Onların örgənilməsi, tətqiq edilməsi xalqın tarixinin araşdırılması baxımından hazırda ən aktual məsələdir.
Araşdırmalardan belə bir nəticəyə gəlinir ki, antroponimlərin yaranmasl, dəyişməsi və yenilənməsində ictimai-siyasi hadisələrin rolu böyükdür.
Antroponimlərə şəxs adları, soyad və təxəllüslər daxildir. Azərbaycanda yeni adların yaranmasında C.Cabbarlı inqilab etdi desək yanılmarıq.
Müasir Azərbaycan onamastikasında antroponimlərin xüsusi mövqeyi vardır və həmişə tədqiq edilməsi aktual olaraq qalır.
Açar sözlər: Onamalogiya, Azərbaycan dilçiliyi, onomastik sistem.

ABSTRACT

Onamalogy is a young branch of Azerbaijani linguistics, and the onomastic system of our language is very rich in linguistic facts. One of the main places here is occupied by anthroponyms. Each of the anthroponyms is a special social sign. Studying and researching them is currently the most urgent issue in terms of researching the history of the people.
It is concluded from the researches that the role of socio-political events in the creation, change and renewal of anthroponyms is great.
Anthroponyms include personal names, surnames, and pseudonyms. It would not be wrong to say that J. Jabbarli made a revolution in the creation of new names in Azerbaijan.
Anthroponyms have a special position in modern Azerbaijani onamastics and their research is always relevant.
Keywords: Onamalogy, Azerbaijani linguistics, onomastic system

Onomalogiya Azərbaycan dilçiliyinin gənc sahəsidir və dilimizin onomostik sistemi dil faktları ilə cox zəngindir. Dilçilik elmində dilin başqa vahidlərində olduğu kimi onomostik leksikanın da təsnifi müəyyən prinsiplərə əsaslanır. Burada əsasən məna və məzmun nəzərə alınır. Onomastikada əsas yerlərdən birini antroponimlər tutur desək, səhv etmərik. Antroponimlər hər biri xüsusi sosial işarədir. Onların öyrənilməsi, tədqiq edilməsi xalqın tarixinin araşdırılması baxımından hazırda ən aktual məsələlərdəndir. Onomastikanın bir qrupunu təşkil edən antroponimlərə şəxs adları, soyad, təxəllüs, bəzi hallarda ləqəblər də daxil edilir.
Türk dilli xalqların möhtəşəm ortaq abidəsi “Kitabi-Dədə Qorqud” dastanındakı antroponimlər göstərir ki,türk xalqlarında adlar şəxsin igidliyi, mərdliyi, mübarizliyi, gücü ilə əlaqədar verilirdi və el arasında onun həm də fəxri adı hesab olunurdu, onun cəmiyyətdəki mövqeyini əks etdirirdi.

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Buna misal olaraq Qazan, Aruz, Uluğ, Dəli Dondar, Aruz Qoca, Dəmir Donlu, Səlcuq və s. adları göstərə bilərik.
"Kitabi-Dədə Qorqud" əsərindəki adı çəkilən antroponimlər məhz belə ad vermə modelinin bariz nümunəsidir. Əsərdə Dədə Qorqudun dilindən onun əşya və məfhumların adlandırılmasında uyğunsuzluğa yol verdiyi də söylənilir.

Gəlinə ayran demədim, mən Dədə Qorqud
Ayrana doyuran demədim, mən Dədə Qorqud
İynəyə tikən demədim, mən Dədə Qorqud
Tikənə sökən demədim mən Dədə Qorqud

Bu misralardan aydın olur ki, nəinki şəxslər, hətta məişətdə işlədilən hər bir əşya,yaxud təbiətdəki hər bir bitki və ağac belə müəyyən məqamla əlaqədər adlandırmışdır.
Eləcə də "Koroğlu dastanında" da dəlilərin adı onların xasiyyətlərinə, davranış və igidliklərinə görə aldıqları elə adların mənasından məlum olur. Məsələn Halaypozan, Topdağıdan, Tanrıtanımaz, Toxmaqvuran, Qorxuqanmaz kimi iki komponentli adlar onlarin müəyyən rəmzlə bağlı verildiyini sübut edir. Türk mənşəli xalq olaraq Azərbaycan türklərində də bu ənənə əsrlər boyu davam etmişdir.
Səfəvilər, Əfşarlar, Qacarlar dövründə isə hökmdarlar öz adları ilə bərabər şah titulunu da (Şah İsmayıl, Şah Abbas, Nadir Şah, Şah Qacar) daşıması ilə əlaqədar şəxs adlarının ya əvvəlinə, ya da sonuna şah sözü artırılaraq Şahsevən, Şahverdi, Şahhüseyn, Şahbəyim, Şahsənəm, Şahbaz, Şahlar və s. kimi antronominlər yaranmışdır.
Bundan başqa sultan, əmir, bəy, xan, vəkil, vəzir kimi titul bildirən sözlər də antroponimlərin yaranmasında istifadə edilir ki, bunlara misal olaraq Əmir, Əmirxan, Xanlar, Xanoğlan, Bəylər, Sultan, Sultanəli, Xanbəyim, Xanış, Ağabəyim, Ağaxan adlarını göstərə bilərik.
VII əsrdən başlayaraq İslan dininin yaranması və Azərbaycanda da qəbul olunması ilə əlaqədar ərəb mənşəli dini adlar hakim mövqe tutmağa başladı. Məhəmməd, Əli, Məhəmmədəli, Əliabbas, İslam, Abbas, Hüseyn, Həsən, İsmayıl, Fatimə, Xədicə, Oruc, Namaz, Əliverdi, İmamverdi, Zəhra, Ömər və kimi dini adların körpələrə verilməsi kütləvi hal aldı. Dini adlar Qədim türk mənşəli adları sıradan çıxarmaqla yanaşı, həm də bizi xalq olaraq kökdən uzaqlaşdırdı. Məsələn Mete, Basat Atilla və basqa adları buna misal göstərə bilərik. Dini adların geniş yayılması ilə bərabər eyni zamanda igidlik, qorxmazlıq və gözəllik simvolu olan heyvan adları da körpələrə verilirdi ki, bu proses indi də davam etməkdədir. Bənövşə, Sünbül, Aslan, Göyərçin və s. adları buna misal göstərə bilərik.
Bildiyiniz kimi, 1918-ci il may ayının 28-də Şərqdə ilk Demokratik Respublika olan Azərbaycan Xalq Cumhuriyyəti 23 aydan sonra süqut edərək Şura hökuməti quruldu. Bu dəyişiklik xalqın ictimai həyatında köklü fərqliliyə gətirib çıxarması ilə bərabər, şəxs adlarında da özünü göstərməyə başladı. Belə ki, Şura, Sovet, Şaumuyan, Vladimir, Marks, Kommuna kollektivləşmə dövründə isə yəni 30-cu illərdə Kolxoz, Kombayn, Traktor kimi adlar yayılmağa başladı. Və zaman keçdikcə bu ad vermə modeli uyğun olmadığından davam etdirilmədi.
Azərbaycanda yeni adların yaranmasında dramaturq Cəfər Cabbarlı inqilab etdi desək yanılmarıq. Onun əsərlərindəki obrazların adları xalq arasında sevilərək körpələrə verilirdi ki, bu adlar indi də ön sıralardan birini tutur. Sevil, Sevər, Aydın, Oqtay, Gültəkin, Solmaz, Almaz, Gündüz belə adlardandır. A.Qurbanov müasir Azərbaycan dilindəki rəsmi şəxs adlarini mənalarina gorə asağidaki kimi qruplaşdirmişdir.

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1. Ənənəvi adlar: Dədə, baba, nənə adlari: Abdulla, Hacikərim,Tükəzban və s.
2. Görkəmlivə məşhur tarixi şəxsiyyətlərin adlari ilə əlaqədar olan adlar: Nizami, Füzuli, Nəbi və s.
3. Yer adlari ilə əlaqədar olan adlar: Misir, Altay, Tovuz, Lənkəran.
4. Su obyektlərinin adlarını ifadə edənlər: Araz, Aral, Dərya və s.
5. Qiymətli daş –qaş adları ilə əlaqədar olan adlar: Almaz, Firuzə, Brilliant və s.
6. Bitki adları ilə əlaqədar olan adlar: Çəmən, Çiçək, Nərgiz, Lalə və s.
7. Göy cisimlərinin adları ilə əlaqədar olan adlar: Ulduz, Günəş, Aynur və s.
8. Quş və heyvan adları ilə əlaqədar olan adlar: Durna, Kəklik, Maral, Aslan, Bəbir, Ceyran və s.

Maraqlıdır ki, tarixən şərq xalqlarında olduğu kimi Azərbaycan türklərində də oğlan və qız övadlarının doğulmasına münasibət fərqli olmuşdur, Belə ki, ailədə oğlan övladı neçənci olursa olsun ona mənfi münasibət bildirən ad verilmirdi. Əksinə Allahverdi, İmamverdi, Ocaqverdi, Pirverdi, Tapdıq, Sevindik, Dayandur və s. kimi adlar qoyulurdu. Qız övladlarına isə Yetər, Tamam, Qıztamam, Qızyetər, Qızbəs, Kifayət, Bəsti kimi adlar qoyulması adi hal sayılırdı.
Bu baxımdan S.Vurğunun "Bəsti poemasında":

Anan səni doğanda adına bəsdi dedi
Əllərimi bu fələk oğuldan kəsdi dedi
Beləyi bizdə qayda qız doğanda analar
Baxıb qara geyərdi su ustə analar

Bu misralar vaxtı ilə ailədə doğulan qız övladlarına münasibəti obrazlı ifadə edir. Hazırda Azərbaycanda dini adlar qoyulması yenə üstünlük təşkil edir ki, bu da 1991-ci ildə müstəqilliyimizin bərpasından sonra Respublikamızda multikultural dövlət olaraq dini inanclara sərbəstlik verilməsi ilə bağlıdır. Dini adların tarixən uzun ömürlü olmasının bir səbəbi də baba-nənə adlarının nəvələrə verilərək yaşadılması ənənəsinin davam etdirilməsi ilə bağlıdır. Hətta respublikamizda Sovet hakimiyyəti bərqərar olduğu illərdə də bu ənənənin davam etdirilməsi ilə bağlı dini adların yaşadılması davam etdirilirdi. Adlarla bağlı bir nüansa da nəzər yetirək.
Bəzən valideynlər körpələrə ad verərkən məktəbdə, ictimai yerlərdə bir sözlə gələcək həyatında adı ilə bağlı rastlaşacağı psixoloji vəziyyəti nəzərə almırlar. Daha çox nənə, baba adlarını yaşatmaq məqsədilə vaideynlər Səviyyə, Kimya, Seyrək, Sarı, Qara, Qırımxan, Şirastan, Şəkər, Nabat, Qələm, Tapdıq və daha çox Bakı kəndləri üçün xarakterik olan iki komponentli Pirqulu, Ağaverdi, Ağababa, Xırdaxanım, Böyükxanım, Kiçikxanım kimi adlar qoymaqla uşağın məktəbdə gülünc mənbəyinə çevrilməsinə, özünə qapanmasına və cəmiyyətdən təcrid olunmasına səbəb olur, bu da uşaqlarda ciddi psixoloji travmaya gətirib çıxarır.
Soyad Azərbaycanda uzun illər familya kimi ifadə olunmuşdur. Soyad tayfa, qəbilə, yer adları əsasında yaranmış bir nəslə, bir ailəyə mənsubluğu göstərən antroponimdir. Adətən ulu babanın adı soyada çevrilir, əsasən bir ailəyə, nəslə daxil olan adamların qohumluğunu bildirir. Soyadların araşdırılıb tədqiq olunması və sənəd kimi təsdiqlənməsi dünyada nisbətən yeni haldır. Elə xalqlar var ki, məsələn, islantlar, familiya işlətmirlər, yaxud çexlər, polyaklar, bolqarlar ata adlarından istifadə etmirlər. İsveçdə soyadın mürləq olması tələbi 1901-ci ildə qərarlaşdırılıb. Avropada yalnız zadəgan ailələr soyadlarını təsdiqləyirdilər. Bunu ona görə edirdilər ki, miras yalnız soyadın davamçılarına qismət olurdu.

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Afad Qurbanov göstərir ki, XI əsrdən soyad (familya) formalaşmağa başlasa da Azərbaycanda XIX əsrdən etibarən təşəkkül tapmış və inkişaf etmişdir. Həmin dövrə qədər soyadları təxəllüs və ləqəblər əvəz edirdi.
XIX əsrin I yarsında Azərbaycan ədəbiyyatında xüsusi yer tutan milli realizmin ilk görkəmli nümayəndələrindən olan Qasım bəy Zakir "Nəzminin cavabı, eytaci-sərim" əsərində deyir.
Qasım bəy Zakirin:
O kəslər ki tanımazdıq övladın
İndi famili ilə çağırdır adın.

Misralarından aydın olur ki, XVIII əsrdə Azərbaycanda soyadlar (familiyalar) formalaşmış, XIX əsrdə artıq kütləvi halda işlənməyə başlanmışdır. Təbiidir ki, ilk dövrlərdə familyalar imtiyazlı şəxslərə, dövlət orqanları, hakimiyyət dairələrində işləyən şəxslər üçün müəyyənləşdirilərək götürülürdü. İnzibati idarələrdə işləyən şəxslər üçün soyadlar (familiyalar) mütləq vacib olsa da, bəzi sinfi təbəqə üçün vacib sayılmırdı.
Azərbaycanda tarixən nəsil adı ifadə edən Cavanşir, Aranlı, Qurtqaşınlı, Kəngərli kimi, eləcə də Nizami, Füzuli, Xəqani kimi təxəllüslər mövcud olmuşdur ki, bunlar da ya toponimlərlə əlaqədar yaranmış, ya da başqaları tərəfindən təxəllüs kimi verilmişdir.
Qarabağda xan nəslinin Cavanşirlər adlanması Albaniya hökmdarı, Cavanşir nəslinin törəməsi olduğu versiyası həqiqətə çox uyğundur.
Bayram Bayramov "Dünyanın karvan yolu" əsərində müəllif obrazın – İllqarın dili ilə deyir; "Familiyam var, Cavanşirzadə. Cavanşir bizim Albaniyanın knyazı olub. Familiyanı dəyişməyin qəti əleyhinəyəm. Kökdən ayrılmaq olmaz".
Aydındır ki, müəllif Sovet dövründə öz fikirlərini obrazın dili ilə çatdırmağa çalışıb.
Azərbaycan türklərində soyadlar tarixən ulu baba adları ilə yaranmaqla bərabər, həm də toponimlərdən yarandığı güman edilir, hətta tayfa adları onların yaşadığı əraziyə verilərək toponimə çevrilmişdir. Belə ki, eyni yer adlarının müxtəlif ərazilərdə mövcud olması bunu güman etməyə əsas verir. Məsələn; həm Ağdam, həm də Goranboy rayonunda Qərvənd və Xanqərvənd, eləcə də Ağdam və Beyləqan rayonu ərazisində Çəmənli toponiminə rast gəlinməsi təsadüfi hesab edilə bilməz. Yəni tayfanın, nəslin müəyyən bir hissəsi başqa əraziyə köç edərkən həmin ərazini nəslin adı ilə adlandırıb yaşatması təbiidir. Nəzərə alsaq ki, Azərbaycan türkləri maldarlıqla əlaqədar həm aran, həm də yaylaqda yaşamışlar və köç etdikləri ərazi onların dədə-baba torpağı olmuşdur. Azərbaycan türklərinin dədə-baba torpağı olması bu versiyanın həqiqətə uyğunluğunu təsdiq edir.
Rus antroponimiyasında isə türk xalqlarından fərqli olaraq qeyri-ciddi məna verən soyadların (familiyaların) bu gün də mövcudluğu onlarda familiayaların ləqəblərdən yarandığını bariz nümunəsidir. Məsələn; Lisev (Tülküyev), Zaytsev (Dovşanov), Volkov (Canavarov), Medvedyev (Ayıyev), Dvornikov (Dalandarov) və s.
Türk xalqlarında isə yuxarda qeyd etdiyimiz kimi adlar, həm də fəxri adlar sayılırdı. Yəni igidliyə, davranışa, xasiyyətə uyğun verilirdi və atributiv məna daşıyırdı. Belə baba adları sonralar soyada çevrildiyindən qədim Azərbaycan soyadlarında heç bir namünasib hala rast gəlinmir.
Soyadların Azərbaycan dilinə uyğunlaşdırılması Azərbaycanda müstəqilliyimizin bərpasından sonra irəli sürülən siyasətdir. 1993-cü ildə Milli Məclisin qəbul erdiyi Qərara görə "ov" , "yev" soyad sonluqlarının (söz kökündən aslı olaraq) li, lı, lu, lü, "zadə", "oğlu" və ya sonluqsuz ifadə formaları ilə əvəz etmək olar. Hazırda ad, ata adı və soyad rəsmi sənədlərdə bütöv yazılmalıdır. Azərbaycan Milli Elimlər Akademiyasının nəznində yaradılmış xüsusi komissiya soyadlarla bağlı

xüsusu konsepsiya hazırlamışdır. Bu komissiya soyad sonluqları bağlı dörd variant təklif edir. Bunlar "lı", -"li", -"lu", -"lü". "oğlu" və ikisi bir yerdə -"soy" –"gil" formalardır. Hazırda Gürcüstan azərbaycanlıları da rus soyadlarından imtina edərək bu soyad sonluqlarından istifadə etməyə başlamışlar.

Tarixən hay tayfası kimi mövcud olan ermənilərə 1920-ci ildə Sovet hökuməti tərəfindən qərbi Azərbaycan torpaqları hesabına Ermənistan Respublikası yaradılaraq hədiyyə edildi. Onların ilk işi Azərbaycan türklərinin toponimlərinin adlarını məqsədyönlü şəkildə dəyişmək oldi. Dərələyəz, Xanabad, Zəngəzur, Göyçə və s. toponimlərin adları dəyişdirildi. Eləcədə məskunlaşdırıldıqları Qarabağda Xankəndi –Stepanakert, Şuşa-Şuşi, Ağdərə –Mardakert, Xocavənd –Martuni kimi toponimlərimizi dəyişdirilərək tarixdən silməyə çalışdılar. Bu ənənə çar Rusiyasının siyasətinin davamı idi. Hazırda Füzuli rayonu adlandırılan qədim türk toponimi Qarabulaq rayonu rus generalının şərəfinə Karyagin adlandırılmışdır. Eləcə də qədim Gəncə şəhəri Yelizavetapol, Sovet dövründə isə S.M. Kirovun şərəfinə Kirovabad, Mücürəddin Beylaqaninin vətəni Beyləqan rayonu isə Jdanov adlandırılmışdır. Bütün bunlar məkirli siyasətin, türk xalqlarının antroponim və toponimlərinin tarixdən silinməsi məqsədi ilə icra olunurdu. Məhs bu baxımdan hazırda soyadların yenilənməsi "düşmən dəyirmanına su tökür". Yəni soyadların yenilənməsi bizi kökdən uzaqlaşdırır. Lüzumsuz soyad yeniləmə prosesi belə gedir, ata doğulan övlada öz soyadını yox, baba adını soyad yazdırır ki, bu da soyadların yenilənməsinə gətirir və nəticə xeyrimizə olmur. Araşdırmalardan belə bir nəticəyə gəlmək olar ki, onomastik vahid kimi antroponimlərin yaranmasında, dəyişməsində, yenilənməsində ictimai –siyasi hadisələrin təsiri böyükdür. Yeri gəlmişkən 44- günlük II Qarabağ müharibəsində zəfər çaldıqdan sonra doğulan oğlan uşaqlarına Zəfər adı verilməsi sevindirici haldır.

Bazən gənclər arasında lüzumsuz qısaltmalara yol verildiyinin şahidi oluruq. Əvvəlcə soyad, sonra ad, daha sonra ata adı yazılmalıdır. Çox təəsüf ki, Əzimzadə Nihad Səbuhi oğlu əvəzinə Ə.Nihad, kimi yanlış yazilara rast gəlinir.Bu da yol verilməz nöqsan hesab olunur.

Azərbaycan türkləri, digər türk xalqları kimi mədəni mentalitetə malik bir xalqdır. Məlumdur ki, təxəllüsdən fərqli olaraq ləqəblər mənfi anlam verən mənada işlənən sözlərdir. Təxəllüslər ya şəxsin özü, yaxud başqaları tərəfindən verilir və şəxs tərəfindən qəbul olunur. Ləqəblər isə insanların qüsurlarına və ya başqa xüsusiyyətlərinə görə başqaları tərəfindən verilir və dediyimiz kimi mənfi anlam ifadə edir. Buna misal olaraq Teymurləng, yaxud topal Teymur adlarını göstərə bilərik. Təxəllüslərdən daha çox yaradıcı adamlar istifadə etsə də, hazırda siravi şəxslərin də antroponimlərdən istifadə etməsi məqamlarına rast gəlinir.

Araşdırmalardan belə bir nəticəyə gəlinir ki, müasir Azərbaycan onomastikasında antroponimlərin xüsusi mövqeyi vardır və həmişə tədqiq edilməsi aktual olaraq qalır.

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INFLUENCE OF SOCIO-POLITICAL EVENTS ON THE EMERGENCE OF ANTHROPONYMS IN THE AZERBAIJAN LANGUAGE

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ABSTRACT

Onamalogy is a young branch of Azerbaijani linguistics, and the onomastic system of our language is very rich in linguistic facts. One of the main places here is occupied by anthroponyms. Each of the anthroponyms is a special social sign. Studying and researching them is currently the most urgent issue in terms of researching the history of the people.
It is concluded from the researches that the role of socio-political events in the creation, change and renewal of anthroponyms is great.
Anthroponyms include personal names, surnames, and pseudonyms. It would not be wrong to say that J. Jabbarli made a revolution in the creation of new names in Azerbaijan.
Anthroponyms have a special position in modern Azerbaijani onamastics and their research is always relevant.
Keywords: Onamalogy, Azerbaijani linguistics, onomastic system

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SƏNAYE MÜƏSSİSƏLƏRİNİN AUTSORSİNQ STRATEGİYASININ FORMALAŞMASI VƏ İNKİŞAFI

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XÜLASƏ

Müəssisələrin gündəlik olaraq fəaliyyətlərini təmin edə bilmələri üçün tələb olunan bəzi xidmətlər, müəssisə daxilində təmin olunmaya bilər və ya yüksək kapital xərcləri tələb edə bilər. Müəyyən sistemləri öz daxilində quraşdırmağı seçən şirkətlər yüksək sabit xərcləri ödəmək məcburiyyətində qalırlar. Autsorsinq şirkətləri isə bir çox şirkətdən aldıqları sifarişləri birləşdirərək nəqliyyat, gömrük və material kimi əməliyyat xərclərini azaldır və dəyişən xərclər olaraq müştərilərinə daha çevik və əlverişli şərtlər təklif edə bilirlər. Məsələn: Otellər və restoranlar, yaradılması və idarə edilməsi qəliz və məsrəfli olan paltaryuma məntəqələrinə resurslar ayırmaq əvəzinə daha çox autsorsinqdən istifadə etməyə üstünlük verirlər.
Hazırda autsorsinq strategiyasından bir çox sahələrdə sıxlıqla istifadə edilir. Bu strategiyadan istifadə edilən sahələrə informasiya texnologiyaları, müştəri xidmətləri və çağrı mərkəzləri, insan resursları, marketinq və reklam, səhiyyə və tibbi xidmətlər, təhsil müəssisələri, dövlət qurumları, həmçinin nəşriyyat kimi bir neçə sahələri misal göstərə bilərik. Dünya miqyasında autsorsinq strategiyası son illərdə böyük artım tempi nümayiş etdirir. Gün keçdikcə dövlət, həmçinin özəl müəssisələr və xidmət təminatçıları autsorsinqin faydaları haqqında daha çox məlumatlı oldular və bu strategiyanı daha geniş şəkildə qəbul etdilər. Bütün dünyada autsorsinq səmərəliliyi artırmağa, təcrübə həmçinin rəqabət üstünlüyü əldə etməyə kömək edir. Bununla belə, autsorsinq müqaviləsində qeyd olunan bəndləri diqqətlə idarə etmək və tələblərə riayət etmək, eləcə də təhlükəsizlik və məxfilik tədbirləri görmək çox vacibdir.
Açar sözlər: autsorsinq strategiyası, sənayedə autsorsinq, autsorser

Giriş

Autsorsinq, şirkətlərin tələb olunan keyfiyyət standartlarına uyğun olaraq, öz əsas sahələrinə aid olmayan proseslərini, həmin sahələrdə ixtisaslaşmış bizneslər vasitəsilə həyata keçirmələri deməkdir. Bu, onlara əsas fəaliyyətlərinə diqqət yetirməklə, rəqabət üstünlüyü əldə etməyə imkan verən, idarəetmə strategiyasıdır. (Autsorsinq İnstitutu, 1997)
Sənaye autsorsinqi, bir şirkətin və ya sənayenin əməliyyatlarını davam etdirmək və ya müəyyən iş proseslərini həyata keçirmək üçün xarici resurslardan istifadə təcrübəsinə aiddir. Bu o deməkdir ki, müəssisə öz daxili resurslarından istifadə etməkdənsə, müəyyən xidmətlər və ya proseslər çox vaxt ixtisaslaşmış kənar şirkətlərə və ya xidmət təminatçılarına (subpodratçılar, podratçılar, məsləhətçilər və s.) təhvil verilir. Sənaye autsorsinqinin üstünlükləri təcrübəyə, qənaətə, resurslardan səmərəli istifadəyə və daha çox diqqəti cəmləmək qabiliyyətinə əsaslanır, çatışmazlıqlara isə məxfilik riskləri, keyfiyyətə nəzarət məsələləri və asılılıq riski daxil ola bilər. Autsorsinq hər bir şirkətin ehtiyacları və məqsədləri əsasında qiymətləndirilməlidir.

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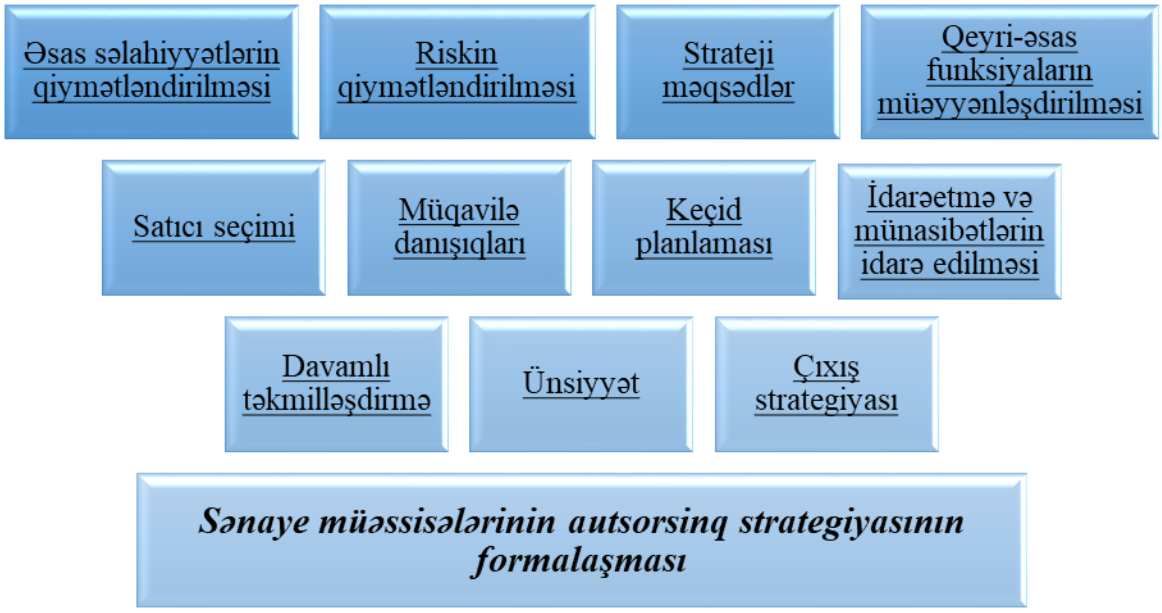
Sənaye autsorsinqi məhsul istehsalının təmin edilməsi üçün bəzi köməkçi funksiyaların və əməliyyatların (mühasibat uçotu, anbar, avadanlıqların təmiri və texniki xidməti, logistika və s.) yerinə yetirilməsidir

Autsorsinq barəsində bir çoxları tərəfindən menecment konsaltinqinin atası hesab edilən Peter Drucker, "*Ən yaxşı etdiyinizi edin, qalanını kənardan satın alın"* deyərkən öz fikirlərini ən yaxşı halda ifadə etmişdir.

Sənaye müəssisələrinin autsorsinq strategiyasının formalaşması

Sənaye müəssisələri üçün autsorsinq strategiyasının formalaşdırılması hansı spesifik funksiyaların, proseslərin və ya vəzifələrin xarici xidmət təminatçılarına həvalə edilməli olduğuna və bu autsorsinq əlaqələrinin effektiv şəkildə idarə olunmasına qərar vermək üçün sistemli yanaşmanı nəzərdə tutur.



Şəkil 1. Sənaye müəssisələrinin autsorsinq strategiyasının formalaşması

Sənaye müəssisələrinin autsorsinq strategiyasının formalaşması əsas etapları aşağıdakılardır*:*

Əsas səlahiyyətlərin qiymətləndirilməsi: İlk addım sənaye müəssisəsinin əsas biznes məqsədləri üçün vacib olan əsas səlahiyyətləri və fəaliyyətləri müəyyən etməkdir. Bunlar rəqabət üstünlüyü təmin etdiyi üçün şirkətin öz daxilində saxlamalı olduğu funksiyalardır.

Qeyri-əsas funksiyaların müəyyənləşdirilməsi: Hansı funksiyaların və ya proseslərin qeyri-əsas olduğunu müəyyən edin, yəni onlar təşkilatın əsas biznesində mərkəzi deyil, lakin onun fəaliyyəti üçün hələ də zəruridir. Bu əsas olmayan funksiyalar autsorsinq üçün potensial namizədlərdir.

Strateji məqsədlər: Autsorsinqin strateji məqsəd və məqsədlərini müəyyənləşdirin. Buraya xərclərin azaldılması, ixtisaslaşmış təcrübəyə çıxış, əsas fəaliyyətlərə diqqətin artırılması və ya qlobal genişlənmə daxil ola bilər.

Riskin qiymətləndirilməsi: Məlumatların təhlükəsizliyi, keyfiyyətə nəzarət, hüquqi və tənzimləyicilərə uyğunluq kimi autsorsinqlə bağlı potensial riskləri qiymətləndirin. Bu riskləri aradan qaldırmaq üçün təsirlərin azaldılması strategiyaları hazırlanmalıdır.
Satıcı seçimi: Potensial autsorsinq satıcılarını müəyyən edin və qiymətləndirin. Onların təcrübəsi, sənaye reputasiyası, maliyyə sabitliyi və xidmətlərinin keyfiyyəti kimi amilləri nəzərdən keçirin. Potensial tərəfdaşların qısa siyahısını yaradın.
Müqavilə danışıqları: Seçilmiş təchizatçılarla autsorsinq müqavilələrini müzakirə edin. Müqavilədə işin həcmi, xidmət səviyyəsində razılaşmalar, qiymət strukturları və mübahisələrin həlli mexanizmləri aydın şəkildə göstərilməlidir.
Keçid planlaması: Məsuliyyətlərin daxili komandalardan autsorsinq tərəfdaşına keçidi üçün ətraflı plan hazırlayın. Buraya biliklərin ötürülməsi, heyətin yenidən yerləşdirilməsi və rəvan təhvil verilməsinin təmin edilməsi daxildir.
İdarəetmə və münasibətlərin idarə edilməsi: Autsorsinq münasibətlərinə nəzarət etmək üçün idarəetmə strukturu yaradın. Bu, xüsusi komandanın yaradılmasını və ya satıcı ilə əlaqələrin idarə edilməsi, performansın monitorinqi və problemlərin həllinə cavabdeh olan menecerin təyin edilməsini əhatə edə bilər.
Performans monitorinqi: Xarici tərəfdaşın razılaşdırılmış əsas performans göstəriciləri və xidmət səviyyəsi müqavilələrinə cavab verməsini təmin etmək üçün performans monitorinqi və hesabat mexanizmlərini tətbiq edin. Satıcının fəaliyyətini mütəmadi olaraq nəzərdən keçirin və hər hansı sapmaları dərhal aradan qaldırın.
Davamlı təkmilləşdirmə: Daimi olaraq autsorsinq strategiyasının effektivliyini qiymətləndirin. Təkmilləşdirmə sahələrini, xərclərə qənaət imkanlarını və biznes prioritetlərində dəyişiklikləri müəyyən edin ki, bu da autsorsinq strategiyasına düzəlişlər edilməsini tələb edə bilər.
Çıxış strategiyası: Autsorsinq tərəfdaşlığının dayandırılması və ya başqa bir provayderə köçürülməsi lazım olduğu halda fövqəladə hallar planı və çıxış strategiyası hazırlayın.
Ünsiyyət: Əməkdaşlıq və məhsuldar əlaqələri inkişaf etdirmək üçün həm daxili maraqlı tərəflər, həm də autsorsinq tərəfdaşı ilə açıq və şəffaf ünsiyyəti qoruyun.
Autsorsinq, qlobal biznesin aparılması qaydasında paradiqmanın dəyişməsini tələb edən güclü biznes strategiyasıdır. Düzgün istifadə edildikdə, autsorsinq həqiqətən də xərclərin azaldılması, əsas biznes sərištələrinə diqqət yetirmək bacarığı, təkmilləşdirilmiş keyfiyyət, üstün bacarıq və imkanlar, bazara çıxma vaxtı və rəqabət üstünlükləri kimi faydalar verə bilər. Autsorsinqi əsas sərištəliliyə çevirən təşkilatlar, qlobal bazarda rəqabətçilik baxımından yaxşı mövqe tutacaqlar. [3, s. 30]
Autsorsinq strategiyasının formalaşdırılması ümumi biznes strategiyası ilə uyğunlaşdırılmalı və biznes mənzərəsi dəyişdikcə inkişaf etməlidir. Strategiyanı lazım olduqda uyğunlaşdırmaq və təkmilləşdirmək vacibdir ki, autsorsinq tədbirləri dəyər verməyə və təşkilatın məqsədlərinə dəstək verməyə davam etsin.

Sənaye müəssisələrinin autsorsinq strategiyasının tətbiq sahələri

Autsorsinq konsepsiyası uzun müddətdir ki, ənənəvi tətbiq sahəsini qoruyub saxlayıb və tikinti, nəqliyyat, ümumiyyətlə daha az özəllik tələb edən işlərlə məhdudlaşmışdır. Son illərdə iqtisadi dalğalanmalar, texnoloji inkişaflar, artan rəqabət və qloballaşma səbəbindən autsorsinqin tətbiq sahələri genişlənmişdir [1, s. 9].
Hazırda istehsalın və iqtisadi autsorsinqin ən fəal istehlakçıları yanacaq-energetika kompleksinin, metallurgiya, kimya və nəqliyyatın iri müəssisələridir. Üstəlik, bu müəssisələr inteqrasiya

olunmuş xidmətlərə maraq göstərirlər, buna görə də xidmətlər paketinin təqdim edilməsi tendensiyası getdikcə artan sayda autsorserlərin fəaliyyətində özünü büruzə verir. İri müəssisələrin gələcək islahatları və inkişafı tendensiyalarını təsvir edərək, ehtimal etmək olar ki, investisiya resurslarından istifadəni optimallaşdırmaq üçün iri şirkətlər əsas rəqabət üstünlüklərini təmin edən əsas istehsal proseslərinin təkmilləşdirilməsi və inkişafı lehinə əsas olmayan vəsaitləri geri qaytaracaqlar. Məsələn, "Lukoyl" şirkəti quyuların qazılması üçün öz qurğularını "Lukoil Drilling" ixtisaslaşdırılmış birliyinə ayırıb, "BP-TNK" şirkəti isə öz xidmət bölməsini satmaq niyyətindədir.

Oxşar tendensiyalar maşınqayırmada da baş verir. Məsələn, bəzi assosiasiyalar yüksək keyfiyyətli məhsulları təmin edən üçüncü tərəf təchizatçılarının xeyrinə köhnəlmiş texnologiyadan istifadə edərək sxem lövhələrinin öz istehsalından imtina etdilər. Tanınmış müəssisələrdən biri az gəlirli dəmirçi və dəzgahlarını satıb, indi yan tərəfdə oxşar məhsullar alır. Eyni dərəcədə tanınmış bir traktor zavodu, yalnız 10% yüklənmiş metal məmulat istehsalı üçün sərfəli olmayan emalatxanasını ləğv etdi və ixtisaslaşdırılmış üçüncü şirkətdən metal məmulat almağa başladı. Yüngül sənaye sahəsində tanınmış şirkət aşağıdakı kimi fəaliyyət göstərmişdir: "OGGI" brendi altında qadın geyimləri istehsal edərək, müstəqil şəkildə modellər təkmilləşdirir, istehsalı hazırlayır, material və aksessuarlar alır, həmçinin hazır geyimlərin satışı ilə məşğul olur. Bununla belə, geyim istehsalının özü yüngül sənayenin bir çox kiçik və orta müəssisələri ilə autsorsinq və subpodrat müqaviləsi əsasında həyata keçirilir. Autsorsinq bazarındakı vəziyyəti qiymətləndirərkən başa düşmək lazımdır ki, mövcud iri müəssisələrin əksəriyyəti əsasən köhnəlmiş, əsas məhsulun istehsalına qapalı olan və yaşayış təsərrüfatının sənaye çeşidini təmsil edən sənaye birlikləridir. Xalq təsərrüfatının yaranması şəraitində, sənaye xidmətlərinin infrastrukturunun tədricən inkişaf etməsi ilə iri müəssisələrin geniş çeşiddə şəxsi istehsala, köməkçi və funksional bölmələrə ehtiyacı azalır. Məlumdur ki, bir sıra iri müəssisələrin iqtisadi səmərəliliyini artırmaq məqsədilə onlar yenidən strukturlaşdırılır və onların tərkibindən bir sıra əsas olmayan bölmələr (nəqliyyat, təmir, tikinti, alət və bir sıra digər sexlər, o cümlədən bir çox dəstək xidmətləri) çıxardılmışdır. Onların autsorsinq şərtləri üzrə funksiyaları bir sıra üçüncü tərəf kiçik ixtisaslaşdırılmış müəssisələr tərəfindən daha effektiv şəkildə yerinə yetirilə bilər.

Bununla belə, autsorsinq əlaqələrinin geniş inkişafına hələ də sənaye və elmi-texniki xidmətlərin göstərilməsi sahəsində kiçik sahibkarlığın çox zəif inkişaf səviyyəsi mane olur. Üstəlik, maliyyə resurslarının çatışmazlığından əziyyət çəkən kiçik biznes sektorunun özündə autsorsinq əlaqələri iri və orta müəssisələrə nisbətən daha ləng inkişaf edir. Bu həm də onunla əlaqədardır ki, kiçik müəssisələrin çox vaxt müəyyən funksiyaların autsorsinqinin həyata keçirilməsinin mümkünlüyünü təhlil etmək imkanı yoxdur. Bununla əlaqədar olaraq ekspertlər müəssisənin biznes funksiyalarının bölgüsünü prinsipə uyğun olaraq əsaslandırmağı tövsiyə edirlər: "Mən yalnız başqalarından daha yaxşı bacardığımı özüm üçün saxlayıram, onun başqalarından daha yaxşı gördüyü işi kənar podratçıya ötürürəm. " Bu yanaşma müəssisə-müştəriyə öz təşkilati strukturunu optimallaşdırmağa, keyfiyyəti yüksəltməklə yanaşı istehsal xərclərini azaltmağa və müəssisənin səmərəliliyinin artırılmasının strateji məsələlərinə diqqət yetirməyə, ikinci dərəcəli və köməkçi funksiyaların icrasını üçüncü tərəf müəssisələrinə həvalə etməyə imkan verir. Tədricən, kiçik müəssisələr arasında İT xidmətləri, ofis avadanlığı xidməti, nəqliyyat vasitələri və hətta mühasibat xidmətlərinin göstərilməsi sahəsində autsorsinq üçün tanınmağa başlayır. Bu, kiçik müəssisələrə mühasibat uçotu və vergitutma ilə bağlı bir çox problemləri daha uğurla və səmərəli şəkildə həll etməyə imkan verir. Ölkəmizdə uğurlu autsorsinq təcrübəsi nümunələrinin olması işgüzar münasibətlərin bu formasının gələcək inkişaf perspektivlərindən xəbər verir,

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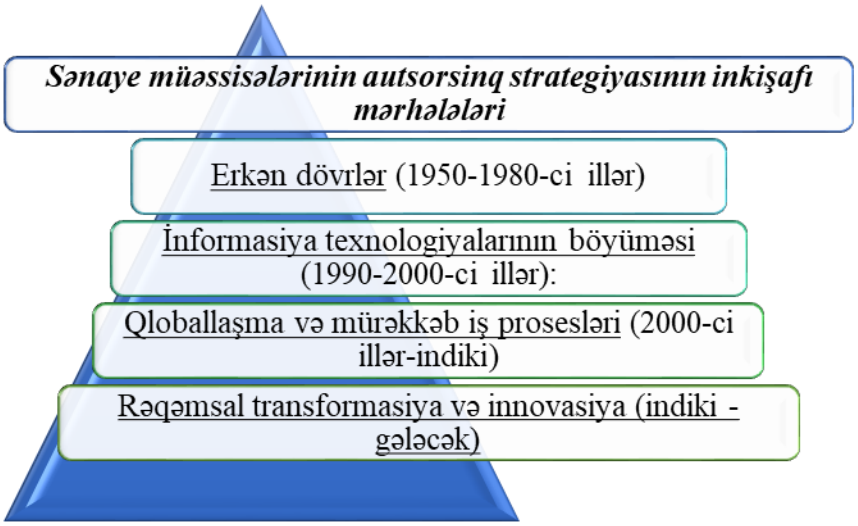
xüsusən də müəssisələrdə zəruri bilik və mütəxəssislərin kəskin çatışmazlığı şəraitində. Autsorsinq layihələrin (texnoloji, informasiya, inzibati, idarəetmə və s.), eləcə də satınalma xidmətlərinin (mühasibatlıq, logistika, marketinq tədqiqatları, avadanlıqların təmiri və s.) yüksək keyfiyyətli hazırlanması və tez həyata keçirilməsi üçün yüksək ixtisaslı mütəxəssislərin hərtərəfli cəlb edilməsinə imkan verir. Autsorsinq əlaqələrinin inkişafı real iqtisadiyyatda fəaliyyət göstərən iri, orta və kiçik müəssisələrin strukturunun tədricən optimallaşdırılmasına, onlara müəyyən faydalar gətirməsinə kömək edir.



Şəkil 2. Sənaye müəssisələrinin autsorsinq strategiyasının inkişafı mərhələləri

Sənayedə autsorsinq strategiyalarının inkişafı, iş proseslərinin səmərəliliyini artırmaq və rəqabət üstünlükləri əldə etmək üçün təşkilatların zamanla autsorsinqə yanaşmasının təkamülünü əks etdirir. Bu inkişaf sənaye ehtiyaclarına, texnoloji inkişaflara və bazar şərtlərinə cavab olaraq dəyişdi. Sənayedə autsorsinq strategiyasının inkişaf mərhələləri aşağıdakı kimidir;

Erkən dövrlər (1950-1980-ci illər): autsorsinq konsepsiyası, xüsusən də böyük təşkilatlarda, müəyyən iş funksiyalarının və ya xidmətlərin xarici mənbələrə verilməsi ilə başladı. Bu müddət ərzində təşkilatlar əsasən xərclərə qənaət etmək üçün istehsal və istehsal əməliyyatlarını xidmət təminatçılarına təhvil verdilər. Əsas diqqət əmək xərclərinin azaldılmasına yönəldilmişdir.

İnformasiya texnologiyalarının böyüməsi (1990-2000-ci illər): informasiya texnologiyalarının sürətli inkişafı, təşkilatların informasiya texnologiyaları xidmətləri və proqram təminatını üçüncü tərəf satıcılarına ötürməsinə səbəb oldu. Bu dövrdə informasiya texnologiyaları (İT) sahəsində ixtisaslaşmış xarici qaynaq təminatçılarının sayı artdı və təşkilatlar İT infrastrukturunun səmərəliliyini artırdılar.

Qloballaşma və mürəkkəb iş prosesləri (2000-ci illər-indiki): Qlobal iqtisadiyyatın böyüməsi təşkilatların daha mürəkkəb iş proseslərini idarə etmək ehtiyacını artırdı. Bu dövrdə təşkilatlar yalnız xərclərə qənaət etmək əvəzinə iş üstünlüyü, strateji diqqət və rahatlıq kimi daha geniş hədəflərə diqqət yetirdilər. İş proseslərinin mürəkkəbləşməsi daha çox təcrübə tələb edən iş sahələrini xarici qaynaqlara müraciət etmək üçün daha çox imkanlar açdı.

Rəqəmsal transformasiya və innovasiya (indiki - gələcək): hazırda təşkilatlar Sənaye 4.0, süni intellekt, böyük məlumat analitikası və digər rəqəmsal texnologiyaların tətbiqi ilə biznes

proseslərinin daha da rəqəmsallaşdırılması və avtomatlaşdırılması məqsədlərinə diqqət yetirirlər. Bu, onların autsorserlərlə necə əməkdaşlıq etdiklərinə də təsir edir. Autsorsinq təminatçıları təşkilatların rəqəmsal imkanlarının genişləndirilməsində və rəqabət üstünlüyünün əldə edilməsində mühüm rol oynaya bilər.

Qlobal iqtisadiyyatda autsorsinq əlaqələrinin inkişaf səviyyəsi 2004-cü ildə onların həcminin 72 milyard dollara çatması ilə xarakterizə olunur. Bu həcmin 53%-i Amerika qitəsində, 44%-i Avropada və yalnız 3%-i Asiya-Sakit okean regionunda baş verib. Autsorsinqin maliyyə sektoru bütün müqavilələrin 33%-ni əhatə edir və onların ümumi dəyərinin 26%-ni təşkil edir, istehsal sektoru müvafiq olaraq (17 və 15%), telekommunikasiya (13 və 12%), biznes xidmətləri (9 və 15%) və digər xidmətlər (9% və 5%).

Təşkilatlar rəqabət qabiliyyətini artırmaq üçün getdikcə daha çox autsorsinqə müraciət edirlər. Məsələn, Chrysler minikompakt və subkompakt avtomobillərinin yarısını xaricdən alır. Bundan əlavə, Chrysler və Ford hal-hazırda bütün avtomobillərinin dəyərinin yarısından azını öz daxilində istehsal edirlər. Eynilə, Boeing daha çox təyyarə istehsalını ausubtsorsinqə etibar etməyə başladı. Məsələn, Boeing-in üçüncü ən böyük kommersiya təyyarəsi olan Boeing 767, əsasən Fuji, Kawasaki və Mitsubishi kimi Yapon istehsalçılarının konsorsiumuna verilir (Hill & Jones, 1995). Buna görə də, 767-nin dəyərinin yalnız 10 faizi müəssisədə istehsal olunur. [2, s.3]

Hazırda dünya təcrübəsində intellektual xidmətlərin göstərilməsi seqmenti daha böyükdür. Bununla belə, perspektivdə müxtəlif inzibati vəzifələri özündə cəmləşdirən sənaye autsorsinqi seqmentinin intellektual xidmətlər seqmentindən demək olar ki, üç dəfə sürətlə artacağı gözlənilir. Bir çox şirkətlərdə autsorsinqin istifadəsi əsas səyləri müəssisənin əsas fəaliyyətinə yönəltmək və istehsalın səmərəliliyini artırıb xərcləri azaltmaqla rəqabət üstünlüyünə nail olmaq ehtiyacı ilə müəyyən edilir. Belə ki, "Plant Maintenance Resource Center" tədqiqat şirkətinin fikrincə, autsorsinqin ən mühüm səbəbləri, xərcləri azaltmaqla yanaşı, məhsuldarlığı artırmaq istəyir və əsas biznesə diqqət yetirmək istəyidir. Bundan əlavə, autsorsinq işin icrasını sürətləndirməyə imkan verir, həmçinin yeni texnologiyalara və xüsusi avadanlıqlara çıxışı asanlaşdırır. Müxtəlif ekspertlərin fikrincə, autsorsinqin istifadəsinin təsiri müştəriyə əməliyyat xərclərini təxminən 35% azaltmağa və kapitalın gəlirliliyini orta hesabla 6% artırmağa imkan verəcək, eyni zamanda gəlir artımını sürətləndirəcək. "İndustry Week Census on Manufacturing" adlı araşdırmaya görə, ABŞ şirkətlərinin 54,9%-i istehsalda, 43,8%-i isə avadanlıqların təmirində autsorsinqdən istifadə edir

Nəticədə, sənayedə autsorsinq strategiyasının inkişafı təşkilatların ehtiyacları və texnoloji inkişaflarla paralel olaraq inkişaf etmişdir. Bugünkü təşkilatlar, sadəcə xərclərə qənaət etmək əvəzinə, əməliyyat səmərəliliyini artırmaq, ekspert biliklərinə çıxış, strateji diqqət və innovasiyaya daha geniş məqsədlərə diqqət yetirərək autsorsinq strategiyalarından istifadə edirlər

Sənaye müəssisələrinin autsorsinq strategiyasının inkişafına təsir göstərən amillər

Autsorsinqin inkişafının lehinə ən mühüm arqumentlər xərclərə qənaət, etibarlılıq və göstərilən xidmətlərin yüksək keyfiyyətinin təminatıdır. Bunun səbəbi, podratçının (autsorserin) dar bir istehsal və ya xidmət sahəsi üzrə ixtisaslaşmaq imkanına malik olması, diqqətini ən yaxşı mütəxəssislərə yönəltmək, ən müasir avadanlıqlardan istifadə etmək, qabaqcıl texnologiyalardan istifadə etmək və çoxlu sayda xidmət göstərməkdə daim təcrübə toplamaqdır. Müştərilərin, özümüzün və götürülmüş təcrübəmizi birləşdirərək, autsorser təminatçısı göstərilən xidmətlərin keyfiyyətini tədricən artırır və həmişə istifadəyə hazır həll təklif edir.

Autsorsinqin inkişafına töhfə verən amillərdən biri də istehsal və xidmət sahələrində müxtəlif müəssisələrin yüksək səviyyədə ixtisaslaşması ilə yanaşı, maliyyə, maddi və informasiya

axınlarının sürətli və etibarlı mübadiləsini təmin edən müasir, yüksək səmərəli rabitə mühitinin (rabitə, kompüterləşdirmə və nəqliyyat) olmasıdır. Bir çox müştərilərə xidmət göstərməklə, autsorser əlavə xərcləri bölüşdürür və işin qənaətini optimallaşdırır ki, bu da göstərilən xidmətlərin keyfiyyətini yaxşılaşdırarkən qiymətləri azaltmağa imkan verir. Bu halda, müştəri ixtisaslı kadrlarla və mürəkkəb avadanlıqlarla ixtisaslaşmış bölmənin saxlanması ilə bağlı xərc çəkmədən xidmətləri alır. Bu, müəssisə-müştəriyə inkişaf xərclərini azaltmağa imkan verir, çünki lazımi xidmətləri əlavə xərc çəkmədən və münasib qiymətlərlə almaq mümkün olur. Autsorsinq müqaviləsi müştəriyə yüksək peşəkar səviyyədə yerinə yetirilən istənilən xidməti almaq hüququ verir və bir çox hallarda onların icrasının keyfiyyətinə görə autsorserin məsuliyyətini təmin edir.

Xarici resursların cəlb edilməsi forması kimi autsorsinq əsas olmayan fondlara investisiya ehtiyacını minimuma endirir və əlavə məsrəfləri (iş yerlərinin dəyəri, işçilərin təlimi, informasiya dəstəyi və s.) azaldır, işçilərin genişlənməsinə yol vermir. Müxtəlif sənaye sahələrində autsorsinqdən istifadənin aşkar faydaları ilə yanaşı, onun inkişafına mane olan ciddi amillər də mövcuddur. Daxili iqtisadiyyatda autsorsinqin inkişafına mane olan əsas səbəblər sırasında bazar münasibətlərinin indiki inkişafı şəraitində vəziyyəti dəqiq təhlil etməyi və autsorsinqin faydalarını qiymətləndirməyi bacaran yüksək ixtisaslı menecerlərin olmaması; rabitə sistemlərinin və logistika zəncirlərinin qeyri-kafi inkişaf səviyyəsi ilə istehsal və texnoloji məsələlərin həllində səmərəliliyin azalması; müəyyən regionda və ya icazə verilən nəqliyyat xərcləri radiusunda məhdud sayda alternativ istehsalçı və xidmət təminatçıları ilə əlaqəlidir, bu da autsorsinq şərtləri əsasında qarşılıqlı fəaliyyət üçün optimal və ya iqtisadi cəhətdən sərfəli tərəfdaşların seçilməsini çətinləşdirir və ya qeyri-mümkün edir.

Həqiqətən, sürətli bir şəkildə bütün sahələrə yayılan autsorsinqdən istifadə iş quruluşunu kəskin dəyişikliklərə tabe edir. Bir çox fikirlərə görə, müəssisələrin autsorsinq təcrübələrinə müraciət etmələri və ehtiyac duyduqları fəaliyyətləri təchizatçı şirkətlər vasitəsilə təmin etmələri yalnız xərclərlə bağlı narahatlıqlarla əlaqələndirilir. Xərclər şübhəsiz vacib olsa da, müəssisələrin yalnız xərcləri azaltmaq üçün autsorsinqdən istifadə etməsinin səbəblərini məhdudlaşdırmaq düzgün olmazdı. Xərclər həmişə müəssisələr üçün vacib olub, lakin müəssisələrin autsorsinqdən istifadə etmə səbəbləri müxtəlifdir [1, s. 12].

Bütün bunlar, sahibkarlarda müəssisə üzərində nəzarəti itirmək qorxusuna və müştəri ilə autsorser arasında effektiv qarşılıqlı əlaqəni təmin etmək üçün lazım olan fəaliyyətləri haqqında müəyyən məlumatlarla üçüncü tərəf təşkilatına etibar etmək istəməməsinə səbəb olur. Həqiqətən, autsorsinq zamanı müştəri müəyyən dərəcədə şirkətin fəaliyyətinin ötürülən hissəsinə nəzarət etmək qabiliyyətini itirir. Buna görə də, bəzi hallarda müştərinin xarici şirkətdə işin effektivliyini və göstərilən xidmətlərin səviyyəsinin müştərinin tələblərinə uyğunluğunu qiymətləndirəcək öz nəzarətçisinin olması məsləhət görülür. Xüsusilə qeyd etmək lazımdır ki, autsorsinq müqaviləsi bağlayan müştəri müqavilədən itkisiz çıxmaq üçün şərtlərin təsvirini daxil etməlidir. Müştəri işçi heyətini, avadanlıqları və əmlakı autsorserə verirsə, belə müqavilənin ləğvi şərtləri onların müştərinin şirkətinə qaytarılmasına imkan verməli və ya alternativ müqavilə bağlamaq imkanı verməlidir.

Xidmət səviyyəsi müqaviləsinin düzgün bağlanması şərti ilə, keyfiyyətsiz autsorsinq xidmətlərindən qorunmaq və biznes funksiyalarını üçüncü tərəf strukturuna ötürərkən riskləri minimuma endirmək mümkündür. Bu müqavilə tərəflərin peşəkar məsuliyyətini müəyyən edir və xidmətlərin lazımi keyfiyyətinin təmin edilməsi və mümkün itkilərin ödənilməsi sahəsində podratçının öhdəliklərini müəyyən edir. Belə bir müqavilə əsasında siz autsorseri öz səhvlərini düzəltməyə və dəymiş ziyanı ödəməyə məcbur edə bilərsiniz. Bununla belə, əksər autsorsinq

şirkətlərinin keyfiyyətsiz iş nəticəsində mümkün itkiləri kompensasiya etmək üçün kifayət qədər aktivləri yoxdur, ona görə də xidmət müqavilələri bir sıra hüquq, konsaltinq, mühasibat, audit, İT xidmətləri və s. sığortaya məruz qalır. Autsorsinqdən uğurla istifadə edən şirkətlər, öz öhdəliklərinin yerinə yetirilməsini təmin etməyə çalışır və tədarükçülərindən etibarlı tərəfdaşlıq qurmaq üçün açıqlığı maksimum dərəcədə artırmalarını gözləyirlər.

Sonda qeyd etmək lazımdır ki, ayrı-ayrı sahibkarlıq subyektləri arasında autsorsinq münasibətlərinin ləng inkişafı öz növbəsində iqtisadiyyatın klasterləşmə prosesinə mane olur və bununla da ölkəmizin sosial-iqtisadi inkişafının sürətləndirilməsi imkanlarını məhdudlaşdırır. Milli bazar inkişaf etdikcə, subpodratçı münasibətlərində ixtisaslaşan kiçik müəssisələrin davamlılığı və səmərəliliyinin artması ilə böyük şirkətlər, məsələn, qlobal avtomobil sənayesində olduğu kimi, getdikcə daha çox autsorsinqin inkişafına diqqət yetirməyə başlayacaqlar. Böyük avtomobil konsernlərindən daha çox, iş parçaları, hissələri və birləşmələri tədarükçüləri kimi kiçik müəssisələr əsas istehsal vahididir. Ölkədə davamlı iqtisadi artımın ən mühüm şərtlərindən biri kimi sənaye və elmi-texniki sahədə milli kiçik biznesin inkişafının sürətləndirilməsi zərurətini nəzərə alaraq, belə güman etmək olar ki, autsorsinq münasibətləri kiçik bizneslə qarşılıqlı əlaqə üçün əsas olacaqdır.

Nəticə

Günümzüdə, bir çox müəssisələr üçün autsorsinq mühim önəm daşımaqdadır. Fəaliyyətdə olan şirkətlər, ixtisaslaşa biləcəyi sahələrin sürətli artımı nəticəsində autsorsinq strategiyasından istifadə etməyə məcbur qalırlar. Belə ki, artıq hər sahədə daha yaxşısı ola bilməyəcəklərinin fərqinə vararaq, ən yaxşı olduqları sahəyə yönəlib, özlərini daha da inkişaf etdirməyə başladılar. Autsorsinq strategiyası, müəssisənin ixtisaslaşdığı sahədən kənarda qalan digər fəaliyyət sahələrinin, həmən sahədə ixtisaslaşmış digər tərəfdaşlarına ötürülməsi deməkdir.

Müəssisələr əgər bütün sahələrdə ixtisaslaşmağa çalışarsa, yalnız həmən sahədə ixtisaslaşmış və fəaliyyət göstərən digər rəqibləri ilə rəqabətə tab gətirə bilməzlər. Bu səbəbdən dolayı, müəssisələr öz resurslarını ən yaxşı olduqları sahəyə istiqamətləndirərək, rəqabəti qorumağa çalışırlar.

Hazırda autsorsinq strategiyasından çox saylı sahələrdə geniş istifadə olunur. Daha çox xidmət sahələrində istifadə olunan autsorsinq, ölkəmizdə də geniş istifadəyə sahibdir.

Autsorsinq strategiyasının üstünlükləri olduğu kimi, bir çox çatışmazlıqları da vardır, bunlar əsasən bunlardır; nəzarətin itirilməsi, işçilərə mənfi təsir, məlumatların qorunması və məxfilik riskləri, ardıcıllığın olmaması, maliyyə və reputasiya riskləri, daha az çeviklik. Autsorsinq strategiyasından istifadə edərkən müəssisə rəhbərləri öncədən bu riskləri nəzərə almalı, sonra müqavilə imzalanmalıdır.

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FORMATION AND DEVELOPMENT OF THE OUTSOURCING STRATEGY OF INDUSTRIAL ENTERPRISES

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ABSTRACT

Some services required by businesses to operate on a day-to-day basis may not be available on-premises or may require high capital expenditures. Companies that choose to install certain systems in-house face high fixed costs. Outsourcing companies, by consolidating orders from multiple companies, reduce transaction costs such as transportation, customs, and materials, and can offer more flexible and favorable terms to their customers as variable costs. For example: Hotels and restaurants prefer to outsource more than devoting resources to laundry facilities, which are cumbersome and expensive to set up and manage.
Currently, the outsourcing strategy is widely used in many areas. Examples of areas where this strategy is used include information technology, customer services and call centers, human resources, marketing and advertising, health and medical services, educational institutions, government agencies, and publishing. Outsourcing strategy worldwide has shown a great growth rate in recent years. Day by day, public as well as private enterprises and service providers have become more aware of the benefits of outsourcing and have adopted this strategy more widely. Outsourcing around the world helps to increase efficiency, experience and gain competitive advantage. However, it is very important to carefully manage and comply with the clauses mentioned in the outsourcing agreement, as well as take security and privacy measures.
Keywords: outsourcing strategy, outsourcing in industry, outsourcer

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ECONOMIC CHARACTERISTICS OF AZERBAIJAN'S FUEL AND ENERGY RESOURCES AND ANALYSIS OF THE ECONOMIC-ECOLOGICAL SITUATION

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ABSTRACT

Azerbaijan attracts attention as a country with rich energy resources. This study analyzes the economic characteristics of Azerbaijan's fuel and energy resources and the economic-ecological situation of these resources. Azerbaijan's oil and natural gas reserves have contributed greatly to the country's economic growth. While oil and natural gas production accounts for a large share of foreign trade revenues, the energy sector has increased employment and stimulated industrial growth.

However, this growth in the energy sector has also brought environmental impacts. Oil and natural gas production has led to environmental problems such as depletion of natural resources, water pollution and air pollution. At the same time, excessive dependence on energy resources has made Azerbaijan vulnerable to fluctuations in international energy prices.

This study examines Azerbaijan's energy policies and environmental sustainability efforts, emphasizing the importance of using energy resources more sustainably. Azerbaijan should focus on policy changes and investments to direct its energy sector in a way that protects the environment and sustains economic growth. This requires striking a balance that aims to minimize environmental impacts while preserving the long-term economic benefits of energy resources.

Keywords: Azerbaijan, Fuel and Energy Resources, Economy, Ecology, Analysis, Oil, Natural Gas, Economic Growth, Environmental Impacts.

Azerbaijan's energy and fuel balance may include the following key components:

Oil and natural gas production: Azerbaijan is known as a country with rich oil and natural gas reserves. By producing these resources, the country increases its foreign trade revenues and exports energy.

Import and export: While Azerbaijan can import energy products, it also exports oil and natural gas. Import and export of energy products are important factors affecting the energy balance.

Energy consumption: Azerbaijan's energy consumption is based on energy used in industrial, domestic and commercial sectors. Energy consumption is closely related to the country's economic growth and development [5, 17].

Renewable energy: Azerbaijan is increasing its efforts to develop renewable energy sources. Renewable sources such as wind, solar and hydroelectric power may become increasingly important in the energy balance.

Energy policies and investments: Azerbaijan's energy and fuel balance is also shaped by the government's energy policies and investments. These policies aim to support the sustainability of the energy sector and economic growth.

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Azerbaijan's energy and fuel balance is shaped by the combination of a number of factors such as energy production, consumption, imports and exports. To access up-to-date and detailed data, you will need to consult the official reports of the Azerbaijani Ministry of Energy or international energy agencies.

Energy balance in 2022

The energy balance includes a system of accounting indicators for the collection and coordination of data on all energy products entering, leaving and using the territory of the country during a certain period.

In 2022, primary energy products accounted for 88.0 percent of energy products with a total production volume of 75.5 million tons of oil equivalent in the country, oil products for 8.3 percent, and heat and electricity for 3.7 percent. Crude oil (including gas condensate) accounted for 50.5 percent of all primary energy products, natural gas for 49.1 percent, and renewable energy products for 0.4 percent.

Azerbaijan is a country that exports crude oil, natural gas and petroleum products. In 2022, the volume of exports in the country amounted to 49.6 million tons of oil equivalent, of which 55.2 percent was crude oil, 42.5 percent was natural gas, 2.0 percent was oil products, and 0.3 percent was electricity.

Compared to 2021, the total energy supply increased by 6.2 percent and amounted to 18.7 million tons of oil equivalent. 20.1 percent of the total energy supply is the processes of the transformation sector, 4.5 percent is the internal consumption of the energy sector, 4.0 percent is the losses, 71.4 percent is the final consumption, etc. organized.

Households accounted for 40.4 percent of final energy consumption, transport for 27.8 percent, industry and construction for 16.3 percent, and other sectors of the economy for 15.5 percent [2].

Table 1. Energy balance and Other types of fuel by products for 2021**.**

	Natural gas	Renewable energy sources and waste	Heat energy	Electrical energy	Other types of fuel		
	Petroleum bitumen	Other oil products					
Production of primary energy products	-	-	30,395.6	223.3	-	-	-
Import	-	121.5	-	-	-	13.0	3.7
Export	-182.9	-318.8	-17,800.2	-	-	-143.9	-
Filled in fuel tanks on international flights	-	-	-	-	-	-	-
On fuel tanks of ships	-	-	-	-	-	-	-
On aircraft fuel tanks	-	-	-	-	-	-	-
Changes in stocks (residues).	10.7	38.0	-348.9	1.8	-	-	0.1
General power supply	-172.2	-159.3	12,246.5	225.1	-	-130.9	3.8
Statistical difference	-	0.3	13.0	-	-	2.2	-
Transfers	-	-	-	-	-	-	-

Transformation sector processes	354.2	1,304.9	-5,893.0	-194.5	354.2	2,398.4	-
Power plants that produce electricity	-	-	-4,087.3	-194.4	-	1,877.3	-
Thermal power plants that produce heat and electricity	-	-2.4	-1,602.8	-	201.8	521.1	-
Heating centers (boilers)	-	-	-197.6	-	152.4	-	-
Gas processing plants	-	22.6	-5.3	-	-	-	-
Blast furnaces	-	-	-	-	-	-	-
Oil refineries	354.2	1,284.7	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-	-
Other transformation processes	-	-	-	-0.1	-	-	-
Domestic consumption of the energy sector	-	166.4	247.4	-	0.1	327.5	-
Losses	-	-	652.0	-	18.3	184.6	-
Final consumption	182.0	978.9	5,441.1	30.6	335.8	1,753.2	3.8
Final consumption for energy purposes	-	5.7	4,948.2	30.6	335.8	1,753.2	0.2
Industry and construction	-	5.7	849.7	8.3	187.0	419.6	-
Black metallurgy	-	-	22.2	-	-	41.0	-
Chemistry and petrochemicals	-	5.2	239.5	-	187.0	50.1	-
Nonferrous metallurgy	-	-	2.6	-	-	72.9	-
Production of non-metallic mineral substances	-	0.5	402.4	-	-	50.0	-
Transport equipment	-	-	0.2	-	-	0.2	-
Production of machinery and equipment	-	-	14.2	-	-	16.2	-
Mining	-	-	8.6	0.2	-	14.2	-
Food and tobacco production	-	-	118.0	7.5	-	85.2	-
Production of paper, pulp and printing products	-	-	2.2	-	-	6.0	-
Wood processing and production of wood products	-	-	0.1	-	-	3.5	-
Textile, leather and clothing industry	-	-	10.1	-	-	13.3	-
Construction	-	-	24.2	-	-	54.9	-
Other areas of industry	-	-	5.4	0.6	-	12.1	-
Transportation	-	-	21.4	-	-	24.8	0.2
Car	-	-	20.7	-	-	-	-
Railway	-	-	-	-	-	18.6	0.2
Indoor air	-	-	-	-	-	-	-
Domestic water	-	-	-	-	-	-	-
Pipeline	-	-	0.7	-	-	6.2	-
Other types of transport	-	-	-	-	-	-	-
Other areas of the economy	-	-	4,077.1	22.3	148.8	1,308.8	-

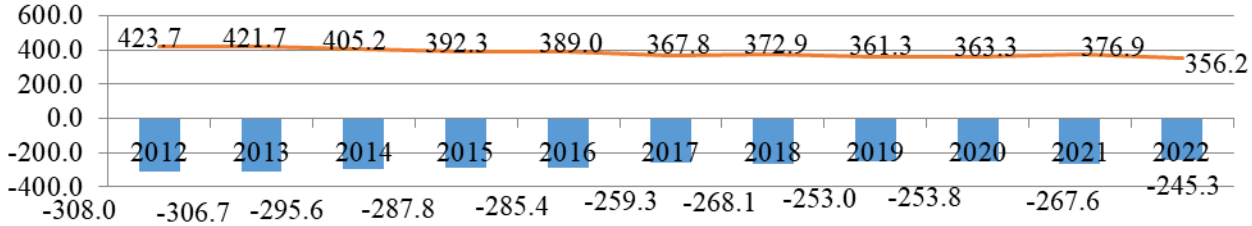
Agriculture, forestry and fishing	-	-	169.1	0.1	-	141.0	-
Commercial and public services	-	-	171.3	16.0	23.9	569.2	-
Households	-	-	3,736.7	6.2	124.9	598.6	-
Other areas	-	-	-	-	-	-	-
Non-energy final consumption	182.0	973.2	492.9	-	-	-	3.6

Source: [1]

This table is an energy balance table of Azerbaijan containing energy production, consumption and other relevant data. Here are descriptions of the key elements of the table:
"Fuel and Energy Sources": The title of the table includes different energy sources (such as natural gas, renewable energy sources, heating energy, electrical energy, other types of fuels and petroleum products).
"Production": Shows the production amount of energy resources. For example, heating energy production is 30,395.6 units.
"Import": Indicates the import of energy resources. For example, imports of renewable energy sources and waste are 121.5 units.
"Export": Indicates the export of energy resources. For example, exports of petroleum products are -182.9 units.
"Changes in Stocks (Residuals)": Changes in stocks of energy resources indicate the increase or decrease in stocks in a certain period.
"General Energy Provision": It defines the general energy supply process of energy sources. This part includes the transmission and distribution of energy to the consumer.
"Statistical Difference": Statistical difference refers to the differences that occur when the data in the energy balance table is taken from different sources.
"Transmissions": Transfers refer to the movement or transfer of energy from one place to another.
"Conversion Sector Processes": Energy resources are subjected to transformation processes in certain sectors. This may involve converting energy for electricity generation or heating.
"Power Plants Producing Electricity": Shows the production amount of power plants producing electricity.
"Thermal Power Plants Producing Heat and Electricity": Shows the contribution of thermal power plants to both heating and electricity production.
"Heat Centers (Boilers)": Shows the contribution of heat centers to heating energy production.
"Gas Processing Facilities": Shows the contribution of gas processing facilities to gas production.
"Explosive Furnaces": Shows the energy consumption of explosive furnaces in their production processes.
"Oil Refineries": Indicates the contribution of oil refineries to the production of petroleum products.
"Petrochemical Facilities": Shows the contribution of petrochemical facilities to the production of chemical products.
"Other Conversion Processes": Shows the energy consumption of other conversion processes.

"Domestic Consumption of the Energy Sector": Shows the energy sector's use of the energy it produces itself.
"Losses": Indicates losses in the energy sector.
"End consumption": Shows the consumption of energy resources by end users. This section specifies how energy is used in industry, domestic use, transportation, and other areas.
"Final Consumption for Energy Purposes": Shows how energy is consumed by end users for energy purposes.
"Final Consumption for Energy Purposes - Sectors": Shows the final consumption for energy purposes in detail in specific sectors.
"Final Consumption for Energy Purposes - Other": Shows the final consumption for energy purposes in detail in other fields.
"Last Consumption for Other than Energy Purposes": Shows the last consumption for other than energy purposes.
This table provides a comprehensive view of the production, imports, exports and consumption of Azerbaijan's energy resources. The energy balance table provides important information about a country's energy economy and the effective use of its resources [1].

Diagram 1. Energy dependence and self-sufficiency (in percent).



Blue: energy authenticity, **Red:** self-sufficiency, **Source:** [4]

Azerbaijan is known as a very rich country in terms of energy resources. These energy resources form one of the cornerstones of the country's economy. Other types of fuel lay the foundation of Azerbaijan's energy sector. In this article, we will focus on other types of fuel available in Azerbaijan and the impact of these resources on the country's economy.
Azerbaijan is a country rich in energy resources such as oil and natural gas. These energy resources contribute to the growth of Azerbaijan's economy and meet the country's energy needs. The most important types of fuel in Azerbaijan include oil, natural gas, coal and hydropower.
Oil is Azerbaijan's most important energy source. The large oil reserves located on the country's territory form the basis of Azerbaijan's energy exports. These oil resources constitute a large part of the country's foreign trade revenues. Additionally, the oil industry creates many jobs in Azerbaijan [3, 13].

Table 2. Other types of fuel.

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	2017	2018	2019	2020	2021	2022
Production	0.2	9.0	19.5	19.0	9.0	12.9
Import	6.4	3.4	3.4	3.1	2.3	17.9
Export	-	-	-	-	-	-
Filled in fuel tanks on international flights	-	-	-	-	-	-
On fuel tanks of ships	-	-	-	-	-	-
On aircraft fuel tanks	-	-	-	-	-	-
Changes in stocks (residues).	-	-	0.1	-	0.1	-
General supplies	**6.6**	**12.4**	**23.0**	**22.1**	**11.4**	**30.8**
Statistical difference	**0.3**	-	-	-	-	-
Transfers	-	-	-	-	-	-
Cost of transformation sector	-	-	-	-	-	-
Power plants that produce electricity	-	-	-	-	-	-
Thermal power plants that produce heat and electricity	-	-	-	-	-	-
Heating centers (boilers)	-	-	-	-	-	-
Gas processing plants	-	-	-	-	-	-
Blast furnaces	-	-	-	-	-	-
Oil refineries	-	-	-	-	-	-
Petrochemical plants	-	-	-	-	-	-
Other transformation processes	-	-	-	-	-	-
Domestic consumption of the energy sector	-	-	-	-	-	-
Losses	-	-	-	-	-	-
Final consumption	**6.3**	**12.4**	**23.0**	**22.1**	**11.4**	**30.8**
Final consumption for energy purposes	**1.9**	**10.2**	**20.8**	**19.6**	**9.2**	**13.1**
Industry and construction	-	**4.3**	**12.3**	**14.6**	**8.3**	**12.2**
Black metallurgy	-	-	-	-	-	-
Chemistry and petrochemicals	-	0.8	-	-	-	-
Nonferrous metallurgy	-	-	-	-	-	-
Production of non-metallic mineral substances	-	-	-	-	-	-
Transport equipment	-	-	-	-	-	-
Production of machinery and equipment	-	-	-	-	-	-
Mining	-	-	-	0.7	0.2	-
Food and tobacco production	-	1.7	12.3	12.6	7.5	11.0
Production of paper, pulp and printing products	-	-	-	-	-	-
Wood processing and production of wood products	-	-	-	-	-	-
Textile, leather and clothing industry	-	-	-	-	-	-
Construction	-	-	-	-	-	-
Other areas of industry	-	1.8	-	1.3	0.6	1.2
Transportation	**1.5**	**1.1**	**1.0**	**0.6**	**0.2**	**0.1**

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Car	-	-	-	-	-	-
Railway	1.5	1.1	1.0	0.6	0.2	0.1
Indoor air	-	-	-	-	-	-
Domestic water	-	-	-	-	-	-
Pipeline	-	-	-	-	-	-
Other types of transport	-	-	-	-	-	-
Other areas of the economy	**0.4**	**4.8**	**7.5**	**4.4**	**0.7**	**0.8**
Agriculture, forestry and fishing	-	-	-	-	-	0.2
Commercial and public services	0.4	4.4	5.4	3.8	0.3	0.3
Households	-	0.4	2.1	0.6	0.4	0.3
Other areas	-	-	-	-	-	-
Non-energy final consumption	**4.4**	**2.2**	**2.2**	**2.5**	**2.2**	**17.7**

Source: [6]

Natural gas is also an important energy source of Azerbaijan. The country's natural gas reserves are sufficient for both domestic consumption and export. Azerbaijan's natural gas exports to neighboring countries contribute to the growth of the country's energy sector. Additionally, natural gas is used to meet the energy needs of industrial facilities and homes.

Although coal is among Azerbaijan's energy resources, it has a less important role than oil and natural gas. Coal is used in energy production and industrial facilities, but most of Azerbaijan's energy needs are met by other sources.

Hydropower is one of Azerbaijan's renewable energy sources. The country has many rivers and lakes, and these water resources are used to build hydroelectric power plants. Hydropower is an important resource for clean energy production and supports environmental sustainability.

As a result, other types of fuel in Azerbaijan form the basis of the country's energy sector and contribute greatly to its economy. Oil and natural gas are especially important for increasing the country's energy revenues and maintaining the foreign trade balance. Additionally, renewable energy sources such as hydropower help Azerbaijan meet its energy needs in an environmentally friendly way. These resources strengthen the country's energy independence and support sustainable economic growth.

Conclusion

Azerbaijan is known as a country rich in energy resources, and these resources form one of the cornerstones of the country's economy. In this article, we examined the economic characteristics of Azerbaijan's fuel and energy resources and also analyzed the economic-ecological situation of these resources. Here are the results of this analysis:

Azerbaijan's energy sector plays an important role in the country's economy. Oil and natural gas form the basis of this sector, and energy exports determine Azerbaijan's foreign trade balance. Oil and natural gas revenues contribute greatly to the country's economy and attract the attention of foreign investors. However, such a large share of the energy sector makes Azerbaijan vulnerable to fluctuations in energy prices. Therefore, economic diversification and effective management of energy resources are of great importance.

Coal has a less important role among Azerbaijan's energy sources. Coal is used in energy production and industrial facilities, but most of the country's energy needs are met by other sources such as oil and natural gas. Reducing coal use can increase environmental sustainability.
Hydropower is one of the renewable energy sources and carries great potential for sustainability in Azerbaijan's energy sector. This resource contributes to clean energy production and minimizes environmental impacts. However, the effects of hydropower projects on ecosystems and water resources should be analyzed well.
From an economic-ecological perspective, Azerbaijan's energy sector faces some challenges. Oil and natural gas production can lead to depletion of natural resources and environmental problems. It can also cause environmental problems, such as the release of greenhouse gases during energy production. Therefore, it is important for Azerbaijan to adopt sustainable energy policies and environmental protection measures.
As a result, Azerbaijan's fuel and energy resources form the basis of its economy and ensure the country's energy independence. However, effective management of these resources and economic diversification are important. From an economic-ecological perspective, the energy sector can cause environmental problems and therefore it is necessary to adopt sustainable energy policies. Azerbaijan should support both economic and environmental sustainability by using energy resources more efficiently.

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Theory and Calculation (Times New Roman, 12)
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Mathematical Expressions and Symbols (Times New Roman, 12)
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$$f(x) = a_0 + \sum_{n=1}^{\infty} \left(a_n \cos \frac{n\pi x}{L} + b_n \sin \frac{n\pi x}{L} \right) \quad (1)$$

Results and Discussion (Times New Roman, 12)

This section may each be divided by subheadings or may be combined. A combined Results and Discussion section is often appropriate. This should explore the significance of the results of the work, don't repeat them. Avoid extensive citations and discussion of published literature only, instead discuss recent literature for comparing your work to highlight novelty of the work in view of recent development and challenges in the field.

Preparation of Figures and Tables (Times New Roman, 12)

Authors are supposed to embed all figures and tables at appropriate place within manuscript. Figures and tables should neither be submitted in separate files nor add at the end of manuscript. Figures and Tables should be numbered properly with descriptive title. Each Figure/Table must be explained within the text by referring to corresponding figure/table number. Any unexplained or unnumbered Figure/Table may cause rejection of the paper without being reviewed.

Formatting Tables (Times New Roman, 12)

Table should be prepare using table tool within the Microsoft word and cited consecutively in the text. Every table must have a descriptive title and if numerical measurements are given, the units should be included in the column heading. Formatting requirement has been summarized in the Table 1.

Table 1: Summary of formatting requirement for submitting paper in this journal.
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Layout	**Size**	**Margin (Normal)**	**Header**	**Footer**	
Single column	A4 (8.27" X 11.69")	Top=1" Bottom=1" Left=1" Right=1"	Do not add anything in the header	So not add anything in the footer	
Font	**Article Title**	**Headings**	**Subheadings**	**Reference list**	**Text**
	Times New Roman, 16 pt, Bold, centred	Times New Roman, 11 pt, Bold, Left aligned	Times New Roman, 10 pt, Bold, Left aligned	Times New Roman, 8 pt, Justified	Garamond, 11 pt, Justified
Line Spacing	1.15	1.15	1.15	1.15	1.15
Page number	We will format and assign page numbers				

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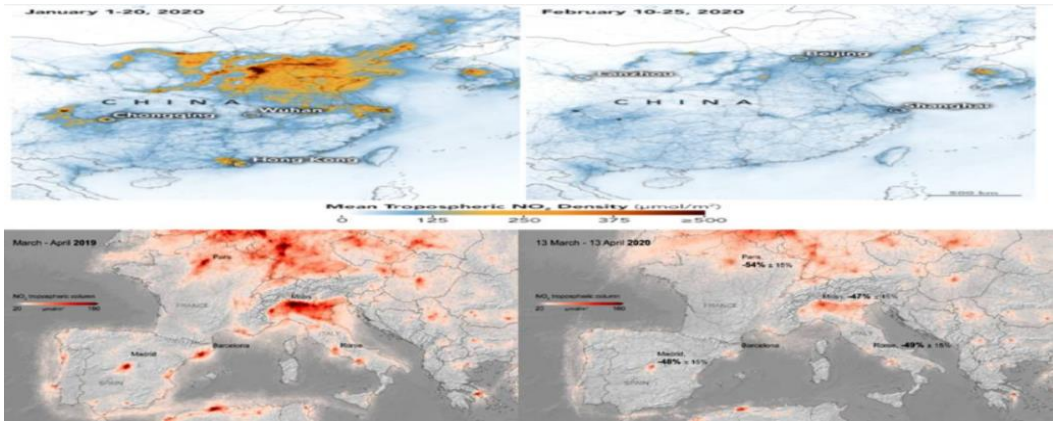

Figure 1: Logo of the IRETC Publisher (Times New Roman, 12)

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Each manuscript should contain a conclusion section within 250-450 words which may contain the major outcome of the work, highlighting its importance, limitation, relevance, application and recommendation. Conclusion should be written in continuous manner with running sentences which normally includes main outcome of the research work, its application, limitation and recommendation. Do not use any subheading, citation, references to other part of the manuscript, or point list within the conclusion.

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1. W. S. Author, "Title of paper," Name of Journal in italic, vol. x, no. x, pp. xxx-xxx, Abbrev. Month, year. https://doi.org/10.21467/ajgr
2. Bahishti, "Peer Review; Critical Process of a Scholarly Publication", J. Mod. Mater., vol. 2, no. 1, pp. 1.1-1.2, Oct. 2016. https://doi.org/10.21467/jmm.2.1.1.1-1.2
3. Bahishti, "A New Multidisciplinary Journal; International Annals of Science", Int. Ann. Sci., vol. 1, no. 1, pp. 1.1-1.2, Feb. 2017. https://journals.aijr.in/index.php/ias/article/view/163
4. W. S. Author, "Title of paper," Name of Journal in italic, vol. x, no. x, pp. xxx-xxx, Abbrev. Month, year. Access online on 20 March 2018 at https://www.aijr.in/journal-list/advanced-journal-graduate-research/
5. W. S. Author, "Title of paper," Name of Journal in italic, vol. x, no. x, pp. xxx-xxx, Abbrev. Month, year. Access online on 5 March 2018 at https://www.aijr.in/about/publication-ethics/
6. M. Ahmad, "Importance of Modeling and Simulation of Materials in Research", J. Mod. Sim. Mater., vol. 1, no. 1, pp. 1-2, Jan. 2018. DOI: https://doi.org/10.21467/jmsm.1.1.1-2

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