

AJMR

ISSN (Online) : 2278 - 4853

Asian Journal of Multidimensional Research



Published by :
www.tarj.in

Editor-in-Chief : Dr. Esha Jain

Impact Factor : SJIF 2020 = 6.882

Frequency : Monthly

Country : India

Language : English

Start Year : 2012

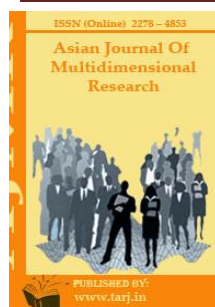
Published by : www.tarj.in

Indexed/ Listed at : Ulrich's Periodicals
Directory, ProQuest, U.S.A.

E-mail id: tarjjournals@gmail.com

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Multidimensional
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DOI NUMBER: 10.5958/2278-4853.2020.00001.4

THE PROCESS OF FORMING POLITICAL PARTIES (HISTORICAL ANALYSIS)

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ABSTRACT

The article is devoted to a brief analysis of the history of the formation of political parties as a social phenomenon that arose with the appearance of the first political organizations in ancient times in the history of mankind. In particular, it examines aristocratic groups formed in ancient states, protoparty groups in ancient Greece, the activities of populations and optimists in ancient Rome, Confucian groups at the palaces of Chinese emperors, the processes of separation of the madhhabs in Islam. Also, based on historical examples, political groups are analyzed at the palaces of the Khorezmid dynasties, Timurids, Bukhara emirs, as well as the first party groups in medieval Italy and England. The article analyzes the place of interest groups and political parties in the formation civil society, the specifics of their activities and also explored the formation of political parties. Parties, being a structural element of the political system, an important institution of civil society, activate political life, establish links between different levels and branches of government. The full realization of this function of political parties depends on the existence of a rule of law state. The Confucianists were nominated for office, but were deprived of the positions they were seeking because of the success of their agents. These agents were often relatives of women in the imperial harem. This prompted the Confucians to unite and express public dissatisfaction with the ruler and to formulate a joint protest.

KEYWORDS: *Proto Political Groups, Political Parties, Multiparty System, Interest Groups, Power, Political Activity, Political Elite, Public Associations, Party System, Civil Society, States, Multi-Party System.*

INTRODUCTION

The history of the formation and development of political parties in the world is long and complex. For example, modern-day parties have emerged in Europe after the bourgeois revolution, but party-based associations, groups, and associations have a long history.

RESULTS AND DISCUSSION

According to the historian L.S.Vasilev Labor inherent in the distribution of any developed society, more or less certain groups of people, etc. a variety of different proto-political groups appeared first time during the Neolithic settlements, the prestige and the team could have been caused during the struggle for a career in management. Anthropologists from different nations have used the generous principle of patriarchs of family groups to succeed in achieving their goals. Those who are wealthy for a variety of reasons will be able to use the forced exchange opportunities, gain a great reputation and have clients who cannot repay their material benefits and thus pay for it. Sponsorship relations motivated from proto-political reasons were the first shape of groups[1, 114] .

These types of groups were short-lived and even single-minded, with specific objectives. But their rivalry was genuine and could or should not have won. First the state forms the next stages of the competition caused by the narrow interests around the integration of ethnic groups within the community (tribe) has become a struggle, including the status of the most successful and biggest contenders for victory a grudge match. Their support groups could be considered as the earliest forms of proto-political groups that have existed for a long time. The fighters who supported the rulers within the base of the Urbanistic civilization also performed similar groups. There is no doubt that their proto-political nature, that is, first political.

In the ancient world - in ancient Greece and ancient Rome - there were attempts to create political organizations in the form of proprietary aristocratic groups that would compete to seize or influence state power. These were temporary associations of people gathered around individual political leaders. Thus, in ancient Greece BC 356-323 years, during Alexander's period there were such groups as: Likurg Group, Demosfen Group, Giperid group, Esxin group, Fokion group. As soon as the head had gone off from the political area the faction and the group also shattered[2, 256] .

The earliest party groups that emerged in ancient Greece had some of the characteristics of modern political parties. They have served the interests of the people of a particular region or territory. Greek philosopher Aristotle states that in the fourth century BC, the oligarchs in Athens had to gain power through various political movements and fight the looters [3, 539]. Aristotle notes that, the mountains, the plains and the coast of the city of Athens is part of the People's Party, which temporarily united around a certain political leader, which will allow them to realize their goals [4, 6] . Or in some sources of BC V-IV centuries, the paralias, diacrias and other information about the local parties in Attica [5, 14] .

As well as the heterias were organized in Athens (hetaireia – Greek-Friendship, cooperation) also party to the comparative item. It is well known that in Greece there were no regular and legitimate parties, but they had a friendly circle of friends, associations, and societies of men familiar and trusting from their youth. They had friendly discussions and political discussions. These are called heterias that political conspiracies are often discussed and decided that they are at the center of opposition organizations [6, 43] .

Ancient Rome also had similar organizations like parties which they have nowadays. For example, the populace (in Latin - the public figure) and the optimates (in Latin - selected). The populares have demanded the Senate to strengthen the role of the popular assembly, to restore and consolidate small land ownership, to limit large land tenure, and some to abolish litigation. Tiberius and Guy Grack were their spokesmen. Sometimes the optimates were up against the populares. Their purpose was to increase the role of aristocracy (nobles) in the political and economic life of Rome[7] .

The formation of more or less organized political groups in the Middle Ages was episodic. The conflict between these groups continued on the basis of property, legal, religious or family-tribal relations[8, 104] .

In the Middle Ages, some countries have faced various forms of counter-insurgency under the influence of a domestic crisis that could last for decades, even centuries. For example, in the world of Islam sect (groups) are proved. This is especially true of the Shia sect. This resistance could lead to the separation of the State or the separation of a part of the entire Khalifat. This can be seen as a form of political competition.

Chinese history tells us that influential Confucian groups strongly opposed the rules of the country, and for some time opposed those who had once become emperor's trust. The Confucianists were nominated for office, but were deprived of the positions they were seeking because of the success of their agents. These agents were often relatives of women in the imperial harem. This prompted the Confucians to unite and express public dissatisfaction with the ruler and to formulate a joint protest. Although the authors of these references received occasional silk ropes (which were recommended for hanging and usually performed), the flow of references did not stop. There is reason to think of the situation not only as a political confrontation of the opposition with the rulers, but also as a political proto-party, albeit a very simple one, that is united in purpose and has certain elements of the internal union.

This means that there may be emerged proto-parties in the Orient, but any tension in the domestic political environment has not led to the emergence of politically motivated groups. Moreover, such proto-parties appeared not everywhere, but in countries where the Confucian culture was prevalent (for example, medieval Japan was opposed by political groups of nobles). Thus, the violation of the law by the rulers in Confucianism was the basis for their criticism [1, 115] .

Historically, the throne is such a magical power that attracts everyone. But the throne is one, and the one who seeks it is one thousand, and the last word is usually drawn to the sword. An ancient history for thousands of years has been witness to this proverb [9, 44] .

In the history of our country there were many political gangs at different times. For example, the state kept Khorezmshah two governments are also united in the interests of political groups struggle for the throne at the show. Muhammad Khorezmshah's mother was Kipchak khan's daughter Turkanxotun authority and occupied a leading position in almost all of the work inspired by her work, her orders and instructions implicitly were fulfilled by her son. High-ranking military commanders from the Kipchaks were close to the Turkanxotun and led a group, many of whom opposed the Sultan in the palace. Under the influence of his mother, Alouddin Muhammad appointed as the head of the state his young son of Uzlokshah, born from the princesses of Dashti Kipchak instead of his eldest son, Jaloliddin Manguberdi. As a

result, several groups of political disasters have emerged in the struggle for power, resulting to the appearance of the crisis in the country.

After the death of Amir Temur (1405), the struggle for the throne was among: Sultan Hussein the son of Amir Temur's daughter, the son of Miran Shah, Khalil Sultan, legal Crown Pir Muhammad and the youngest son of Amir Temur Shohrux Mirza which were clashes between political and economic interests, such as the above, for the sovereignty of the individuals.

When Hussein was poisoned and killed who was in the throne after Amir Haydar's in the Bukhara emirate, and the influential nobles and officials of Bukhara raised his another brother, Umar. The new Amir was supported by the Naimans. But Haydar's another son Nasrullo (1826-1860) did not agree to this and besieged Chinese-Kipchak his side then captured Bukhara. And the nobles of the Naimans were executed [10, 85].

The few historical facts cited above show that in each era there was a group of political interests supporting the ruler or princes. Their aim was to promote their political interests through their own princes or rulers, to participate in the rule of government, to gain unlimited powers and, of course, to accumulate wealth through these opportunities.

Later, in the traditional East, different states, little or no change, existed until the nineteenth century, and when the institutional form took shape, political struggle ranged from palace conspiracies to military conflicts. Usually, the case was resolved without any serious organized proto-parties, that is, the government was from hand to another hand. Even ideological connections were not needed. The power belonged to the ruler, but he shared the authority with a well-organized and centralized administration. There were occasions within the framework of this administration (Divan), but no basis for the formation of a party group. This is because authoritarian rule, the sole ruler, no matter how helpless it is, does not go against the open opposition, because the opposition undermines conservative stability in society more than power, and conservative stability is one of the highest and fully understood values of all traditional societies.

Some of the medieval associations were concentrated in small elite clubs, regulating the acute conflict between the various clans in power. As a result of the formation of civil society, the functions and functions of these clubs have continuously expanded, which have gradually become proto-party, in the modern language [11, 83]. In particular, the party of whigs (liberals) and Tories (conservatives) in England was formed, and in Italy the party of Guelphs (traders and craftsmen) and Ghibellines (feudal nobles) [7].

In a complex and very important situation for all the early Italian bourgeois in the 12th and 15th centuries, the well-known Guelphs and Ghibellines in Italy, especially in Lombardy, initially united the supporters (Gibellines) of the Holy Roman Empire. Later, they became a much narrower and more controversial first party group. Florence Guelphs fight against Pisa Ghibellines, by changing the ratio of forces Pisa fight to Genoa based on the Guelphs. In the same city of Lombardy (Milan, Bologna), merchants and craftsmen, the main force of the citizens, were on the side of the Guelphs, and the aristocrats who lived in the same cities relied on Gibellines. At the same time other centers (Rome, Siena) could have been the opposite. Political thinker and historian N. Machiavelli, in his work "History of Florence", reflects on the conflicts between Ghibellines and Guelphs, arguing that the people of Florence were divided into opposing parties and subsequently suffered from it [12].

The parties that emerged during the bourgeois revolution (XVI–XVIII centuries) did not pursue independent policy as a political association, but were influenced by religious, class, and tribal families. In England in 1831 the conservatives established the Charlton Club and in 1836 the Liberals formed the Reform club. Although the birth of clubs in England dates back to the 17th century, they were officially party-based [13, 84] .

As Aristotle correctly describes, “Man is a political being, and he is a collective being. It is through a relationship with other people that a person can meet the many-sided demands of a normal life and his or her happiness” [3, 380] . Indeed, the guarantee that a person as a political entity will achieve certain political goals and interests is the result of its association with certain associations, movements and groups.

The main thing in a sustainable first party is that unity is the basis for the unification of everyone whose interests are in the interests of the leaders of a particular group at the time. Or, in other words, the main thing is that their interests are aligned with the interests of those who are looking for a base to increase their power in the fight against the enemy at a particular time (talking about group leaders). And it is no coincidence that this principle is already applied to the early party groups.

It should be noted that, unquestionably he indicated that parties rooted in the ancient roots of the socio-political system of the most important features of the original bourgeois evolution west of the road may be only in the societies. The fact is that when there were other forms of power, there was no basis for the emergence of political groups that could constantly challenge the ruling elites in societies.

It is well known that in any complex political system there are certain mechanisms that directly represent citizens' relations with the state. Among them there are the interest groups and the political parties.

Political parties of various directions and colors, depending on the situation, either act as ruling parties or play the role of a loyal opposition, which itself can at any moment form a government.

Parties are an essential element of the political system of society. They act as carriers of competing political courses, serve as spokesmen for the interests, needs and goals of certain social groups, as a link between civil society and the state. The task of the parties is to turn the many private interests of individual citizens, social strata, and interest groups into their combined political interest. Through parties and electoral systems, the participation of citizens in political life is formalized. Parties take an active part in the functioning of the mechanism of political power or have an indirect effect on it. An important feature of the activities of parties is their ideological impact on the population, their role in the formation of political consciousness and culture is significant.

Max Weber singled out three periods in the development of parties as subjects of political activity:

- 1) In the XVI - XVII centuries in Europe, parties are aristocratic groups uniting a few representatives of the political elite;
- 2) in the XVIII - XIX centuries - these are already political clubs oriented toward attracting people to political activity who are influential not only in politics but also in other vital areas of public life;

3) In the XIX - XX century's modern mass parties are being formed. Their types depend on the nature of the main orientation, the way of expressing and representing the private interest of a particular social group at the level of general interest, problems of social integrity [14, 124].

B.N. Chicherin noted: "Parties can be very diverse. They can be local and random. Each more or less common interest can group people around itself and become a center for the formation of a party. Each peculiar shade of thought, sharply expressed and shared by many, can act as an active element in the public arena" [15, 614] .

A.S. Avtonomov defines a political party as a public association that defends and implements the interests of the class or social group that it represents by fighting for state power, exercising it, participating in its exercise, or exerting the maximum possible influence on its implementation in specific conditions, while in opposition as part of a state body or outside them [16, 221].

CONCLUSION

Parties, being a structural element of the political system, an important institution of civil society, activate political life, establish links between different levels and branches of government. The full realization of this function of political parties depends on the existence of a rule of law state. Only a legal democratic state, in essence, ensures the effective functioning of political institutions and political parties in the legal field with all the ensuing consequences. The democratic and legal institutions of civil society create favorable conditions for political parties to fulfill their main task - to unite the private interests of citizens, individual social groups and layers into a common political interest, develop compromise political decisions, mediate between the various social groups that make up the electoral (electoral) base. Political parties, being the supporting constructs of the political system, to a greater extent form a common political interest [17].

Based on the comments above, it should be noted that:

First, most of the proto-parties in history have emerged in extreme situations and disappeared as soon as the state in the state followed.

Secondly, some political movements, clubs and interest groups have over time become a political party based on their goals.

Third, the interest groups, the first political groups, the proto-parties also acted as mediators in the system of social and political relations, protecting the public interest in the political sphere, thereby facilitating the interaction between society and state institutions.

Fourth, the efforts of different interest groups make it difficult to build a political system. In particular, this is due to the rise in party formation and the increase in grouping in political institutions, the differentiation of the functions of management structures and the rational organization of the organizational structure, the formation of a multiparty system, and more.

It is well known that political associations and parties are formed for various reasons. They are formed as a result of certain social differences in the society and within the specific economic and political interests of certain groups. It also emerges from the party's social outcry and the opposition to the official government.

Thus, the existence and functioning of political parties and interest groups, reflecting real relationships, is the key to building a democratic legal state and a strong civil society.

REFERENCES

1. Vasiliev L.S. The formation of political parties and parties of “a new type”//Social science and modernity. – Moscow, 2010. – № 2. –P.114–116.
2. Fortuatov V.V. History of world civilizations. – St. Petersburg: Piter, 2012. –P.256.
3. Aristotle. Writings: In 4 volumes. V.4 / Trans. from ancient greek. – Moscow: Misl, 1983. – P.539.
4. Sergeyenkova I.F. Parties and party systems of Western Europe and the United States in the XX – beginning XXI centure. – Izhevsk: UdGu, 2012. – P.6.
5. Mavlyanova S. N. Multi-party system supporting structure of political pluralism in the Arab Republic of Egypt and the Republic of Uzbekistan: Abstract of the dissertation of the candidate of political sciences. – Tashkent: TGIV, 2004. – P.14.
6. Isayev B.A. Theory of parties and party systems. – Moscow: AspectPress, 2008. – P.43.
7. Avtonomov A. S. and others. Political parties. Why are they needed for.// URL – <http://www.inop.ru/publication/party/>
8. Olshansky V.V., Koryakin A.A. Power and politics. – Rostov-na-Donu, 2010. – P.104.
9. Rakhimov J. Hero of the motherland with a lion heart. – Tashkent, 2015. – P.44-45.
10. Shamsutdinov R. and others. The history of motherland (XVI–XX centuries). B.2. – Tashkent: “Sharq”, 2010. – B.85.
11. Galkin A. A. Past and present right-wing parties // Politiya. – 2008. – № 2. – P. 83-84.
12. Machiavelli N. History of Florence (Books 1-4). // URL – http://royallib.com/book/machiavelli_nikolo/istoriya_florentsii_knigi_1_4.htm
13. Ostrogorskiy M. Ya. Democracy and political parties. – Moscow: ROSSPEN, 1997. – P.84-85.
14. Theory of State and Law. – Moscow: Yurist, 2007. – P. 124.
15. Chicherin B.N. Russia on the eve of the twentieth century // Chicherin B.N. Philosophy of law. – St. Petersburg: Nauka, 1998. – P. 614–615.
16. Avtonomov A. S. Legal ontology of politics: to a build system of categories. – Moscow: INFROGRAF, 1999. – P. 221.
17. Xuako Z. Yu. Political parties: moral demension // Bulletin of the Adyghe State University, 2014. www.cyberleninka.ru



Published by: **TRANS** Asian Research Journals

AJMR:

**Asian Journal of
Multidimensional
Research**

(A Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: 10.5958/2278-4853.2020.00002.6

CHARACTERISTIC OF NATURAL VEGETATION KYZYLKUM

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ABSTRACT

The material is devoted to the economic and biological characteristics of promising desert, semi-shrub halophytes to improve the saline lands of the Kyzylkum desert. Their vegetation usually begins in the fall, in winter cold time it often stops or stops; they develop most splendidly and intensively in the spring, and with the onset of water deficit in the meter layer of soil they manage to complete their vegetation. For each species, the following description order is adopted: the botanical family, the name of the genus and species, a brief morphological description, ecology, life form, species features, breeding method, chemical composition, nutritional and economic value. These lands are good pastures in pre-random and random periods. They are represented by annual solyanka and perennial solyanka species. This is a wooly solyanka, cartilage solyanka, donashur, etc. Most representatives containing toxic substances are also dangerous during the period of active vegetation (buttercups), whereas after the completion of their vegetation they practically become safe for animal health. The main purpose of this publication is to briefly and briefly describe the most common and frequently encountered species from among grasses, shrubs, shrubs, and annual hodgepodge. Along with a description of the nutritional benefits of individual species, if they are interesting in this regard, their medicinal, honey, decorative, dyeing and other economically useful properties are indicated.

KEYWORDS: Kyzylkum, Desert, Ephemera, Halophytes, Pastures.

INTRODUCTION

The whole variety of natural vegetation of the Kyzylkum desert used as pasture can be combined into 4 types of pastures: ephemeral, semi-shrub-ephemeral, shrub-grassy and solyankovy.

The floristic composition of the ephemeral pastures of Kyzylkum is made up of ilak, congurbash, yaldyrbash. In addition, cereals (arpagans, aegilops) are noted in the composition of the stand; annual legumes, cruciferous and representatives of other families.

Most types of ephemera are most valuable in the spring during the growing season, when they contain the highest amount of vitamins and are a wonderful, juicy nutritious food.

No less important is the semi-shrub-ephemeral type of pasture. Their grass stand is usually two-tier: in the upper tier are shrubs (wormwood, hodgepodge, singren).

The lower tier consists of ephemera and ephemeroids - desert sedge, bulbous bluegrass, and less commonly - ilak and others from the cruciferous, legume family.

Shrub-grassy pastures in the sandy desert are extremely valuable fodder land. A variety of life forms, multi-simultaneous and almost year-round vegetation, the seasonality of eating and other household amenities make it possible to practically use them for grazing year-round.

They are characterized by a multi-tiered addition of vegetation: trees and shrubs make up the upper tier; this tier exceeds 2 meters or more, shrubs and some perennial grasses make up the middle tier (0.5-1.5 m); the lower tier consists of ephemers - ilak, kurburbash, etc.

A variety of plant groups can provide continuous vegetation of various species of fodder plants for a large (up to 10 months) period of the year.

Solyanky pastures in Kyzylkum do not form separate isolated large massifs. Halophytes are also interspersed in small areas in other pasture land options. These lands are good pastures in pre-random and random periods. They are represented by annual solyanka and perennial solyanka species. This is a wooly solyanka, cartilage solyanka, donashur, etc.

The main form of pasture management in Kyzylkum is specialization in the production of astrakhan products (smushki, meat, wool).

Kyzylkum farms have extensive forage land spaces, allowing maneuvering livestock distribution in the event of an unfavorable confluence of pasture and forage land. The main management method is an extensive use system. The nutritional value of feed varies by season. The best nutritious feed for sheep is eaten in spring: 80-90 feed units are contained in 100 kg of feed.

By summer, the protein content is significantly reduced, in the autumn it decreases by more than 2 times, and the fiber content increases. By winter, the crude protein content drops to 4-7.5%, and the total nutritional value of feed is barely 18-20 feed units.

Kyzylkum pastures are unevenly flooded. Some areas are significantly overloaded with livestock, while others are underutilized, and in others there is no grazing at all.

Overloading pastures can lead to arching or overgrowing with weeds. The optimal load at a yield of 2-3 kg / ha is 5-6 ha per conventional sheep.

Briefly summarizing the current state of pasture use in this large region of karakul breeding, there is reason to say that pasture-feeding conditions are characterized by the originality of the

flora, high endemism of the botanical composition, a significant number of specialized species - psammophytes; and in the gypsum part - gypsophytes, complexity.

Therefore, the improvement of the pasture areas of Kyzylkum, the creation of a solid fodder base for astrakhan husbandry here is an important condition for the further development of pasture farming in this large and promising region.

The main purpose of this publication is to acquaint and visual aid in the correct recognition of the most common plants of arid pastures in Uzbekistan.

In total, brief information is given on plant species that are most often found on the pastures of deserts and adyrs of Uzbekistan.

Species are grouped by life forms and food groups: ephemera and ephemeroid; shrubs and shrubs; coarse plants, annual hodgepodge.

Within the listed food groups, plants are distributed among botanical families.

A separate group describes not only common forage species, but also individual decorative, as well as non-eatable, harmful, poisonous plants of astrakhan pasture.

Familiarization with them is, of course, of known interest.

Shrubs, shrubs in the arid pasture grassland occupy the highest tier and are valuable for providing sheep in the autumn-winter period. Among them there are species eaten year-round; many types are promising for introduction into the culture or already introduced into the culture.

Depending on the place of growth, year and type, the yield of fodder mass of shrubs, shrubs varies widely; in the average years of harvest, the value of their feed mass is 1.5-3 c / ha of eaten mass.

The forage group, commonly referred to in the pasture and zootechnical literature as coarse grass or coarse stalks, is grassy perennials that are vegetative for a long time and give relatively high grazing with respect to the low-nutrient forage mass.

Representatives of this group on desert pastures are selins, feather grass, wheatgrass, ferula, turfertium, heliotrope, camel thorn, caviar and others.

Most species of this group are poorly eaten by sheep during the growing season, however, in other seasons, sheep eat them more willingly.

Coarse-grained plants in the karakul breeding zone are more often used to procure insurance reserves of feed used on non-working days.

Ephemeras and ephemeroids are one and perennial herbaceous plants, timed to vegetate in a humid and favorable time (spring) of the year.

Their vegetation usually begins in the fall, in winter cold time it often stops or stops; they develop most splendidly and intensively in the spring, and with the onset of water deficit in the meter layer of soil they manage to complete their vegetation. After drying, some of them break off and disappear from the grass stand and when grazing are used in the form of debris, called "Khas" by the local population, others remain dry for a long time and are called "hay in the vine".

The main advantage and advantage of ephemeral pastures is that they are excellent, highly nutritious spring and summer pastures for Karakul sheep.

By the content of protein, carbohydrates, vitamins, perhaps, they have no equal in the desert pastures in the spring season. This season, an ephemeral grass stand, consisting of succulent and nutrient rich herbs, is readily eaten by all types of domestic and wild animals and is a bait feed.

The feed stock of ephemeral pastures is determined by the hydrothermal conditions of the spring period, and varies greatly from large to insignificant (less than 0.5 kg / ha) i.e., it can decrease by 15-20 times with respect to the maximum value.

Some researchers for the conditions of the foothills indicate the following values with respect to the average year: very productive year-250%, productive-160%, medium-100%, lean-50% and very lean-25%.

A significant drawback of ephemeral pastures is their narrow-season use. For their year-round use, especially in the autumn-winter, the application of phytomelioration techniques from among representatives of shrubs and shrubs is required

Annual hodgepodge is a long vegetative herbaceous plant with a high content of mineral salts. The entire diversity of these species growing on saline soils is divided into dry and juicy hodgepodge.

Their differences in economic terms lies in the fact that the former are eaten by the sheep throughout the entire growing season, and the latter after the cessation of the growing season and drying out.

In the Central Asian deserts, there are over 700 species of halophytes, most of which belong to the haze family.

Fleshy leaves and stems (balykkuz, donashur, haridandan) are inherent in juicy hodgepodge, while dry hodgepodge (kumarchik, seta, sagan) have nonsense shoots, leaves and are characterized by a high fiber content.

One-year hodgepodge - feed seasonal (autumn-winter) period of use.

Their average productivity is low (3-5 kg / ha), however, it varies significantly over different years.

100 kg of dry feed contains 40-50 feed units, the utilization rate is not more than 30%.

From the number of species growing on arid pastures, it is still necessary to separate into a separate group - harmful and poisonous plants that cause one or another harm to animals, spoil the quality of the product or adversely affect their health until their death.

Speaking about the group of harmful and poisonous plants found on the desert pastures of Uzbekistan, they should note some of their features: their harm is not manifested for the entire growing season, but only in separate phases of development. In particular, *Taeniatherum crinitum* Nevski. (kylyk) causing injury to the oral cavity in the ripening phase of the ears. In the green state, this species is completely harmless and is well eaten by cattle.

Most representatives containing toxic substances are also dangerous during the period of active vegetation (buttercups), whereas after the completion of their vegetation they practically become safe for animal health.

No less important is the fact that many of these species, due to their specific adaptations (high content of essential oil substances, pubescence, pricklyness, etc.), practically do not eat during the growing season and therefore, mass poisoning by them of farm animals on pastures is rarely observed.

Our information on fodder plants of desert pastures will obviously be incomplete if we do not emphasize the distinctive features of the pasture economy of astrakhan breeding in general. They tend to:

- The livestock is kept almost all year round on pasture with a seasonal nature of grass stand use;
- The nature of the sheep keeping and the system of pasture use is determined by periodic fluctuations of the crop by year and season;
- The water cut of the territory is very important, essential for the use of pasture grassland;
- In some years, forced livestock distillation is practiced beyond the boundaries of the main pasture territory.

As a rule, the rational use of forage land dictates the need for their seasonal use: in spring and summer - on ephemeral, shrub-grassy pastures; in autumn and winter - on semi-shrub-ephemeral, solyanka pastures.

The eatability of fodder plants in arid pastures is determined by a number of anatomical and morphological and biochemical characteristics, community composition, animal species, salinity of drinking water, etc. The nutritional value of pasture feed is also highly variable over the seasons of the year.

Pasture feeds, consisting of ephemeral and ephemeroid pastures on most types of pastures in spring, are not only inferior in nutrition to the best meadow and mountain grasses, but also often have a higher content of digestible protein, carotene and phosphorus.

Green vitamin feeds of spring pastures in abundance provide sheep with the nutrients necessary for their growth and development.

In summer, the main food for sheep is dry ephemera, ephemeroids and part of the vegetative species and therefore lose many valuable properties. In terms of overall nutritional content, digestible protein content, summer arid pasture feeds are equal to good quality hay.

Despite the abundance of species eaten, autumn pasture feeds of arid pastures are slightly inferior to summer ones in general nutrition, and by winter their nutritional value decreases by 1.5-2.0 times in comparison with spring.

The main source in the description of each plant species was the long-term results of scientific research, observations accumulated in the Uzbek Scientific Research Institute of Astrakhan breeding and desert ecology; where necessary, materials from other related organizations were also used (Botanic Research and Production Center of the Uzbek Academy of Sciences, Uzbek Forestry Institute, Uzgirozem, Uzbek Livestock Research Institute, Institute of Deserts of the Academy of Sciences of Turkmenistan).

The nomenclature of species is given according to S.K. Cherepanov (1974), taking into account new taxonomic changes, synonyms are given for individual species.

Russian and Uzbek plant names are usually given in the books Flora of the USSR and Flora of Uzbekistan.

For each species, the following description order is adopted: the botanical family, the name of the genus and species, a brief morphological description, ecology, life form, species features, breeding method, chemical composition, nutritional and economic value.

When compiling the draft of this publication, the author did not strive for an exhaustive description of all fodder and useful plants growing on desert pastures of Uzbekistan.

The main purpose of this publication is to briefly and briefly describe the most common and frequently encountered species from among grasses, shrubs, shrubs, and annual hodgepodge. Along with a description of the nutritional benefits of individual species, if they are interesting in this regard, their medicinal, honey, decorative, dyeing and other economically useful properties are indicated.

The information on the chemical composition of feed given in the article is based on previously published materials for Uzbekistan, Kazakhstan, Turkmenistan and is given as a percentage of absolutely dry weight; the number of feed units and the digestible protein content in kilograms per 100 kg of absolutely dry weight.

The authors proceeded from the fact that the knowledge of some non-specific aspects of food species is of particular interest to the reader and broadens his horizons.

REFERENCES

1. Adaptation of fodder plants to the conditions of the arid zone of Uzbekistan (team of authors). Tashkent, "Fan", 1983, 304p.
2. Akzhigitova N.I. Halophilic vegetation of Central Asia and its incubation properties. Tashkent, "Fan", 1982, 192 p.
3. Amelin I.S. Seed productivity of pasture plants of deserts of Central Asia. // Proceedings of VNIK, t.6, Samarkand, 1958, p. 258-259
4. Makhmudov M.M. Keyreuk is a valuable fodder plant in the desert zone of Uzbekistan. Samarkand, 1991, 63 p.
5. Makhmudov M.M. Agrobiological basis and technology of improvement of pasture Kyzylkum. Abstract of thesis, Tashkent, 1998, 52 pp.
6. Makhmudov M.M. Achievements and immediate tasks of arid forage production. // Problems of Biology and Medicine, 2 (15), 2000, p. 34-37
7. Makhmudov M.M. Improvement of pasture Kyzylkum. Samarkand, 2011, 237 pp.



Published by: **TRANS** Asian Research Journals

AJMR:

**Asian Journal of
Multidimensional
Research**

(A Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: 10.5958/2278-4853.2020.00003.8

APPLICATION OF OPERATIONS RESEARCH IN MOVIES

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ABSTRACT

The movie industry prides itself in being one of the most renowned and technologically advanced industry across the globe. Management Science and Movies have seen a fair share of collaboration whilst producing movies from certain genres. Operations Research in seen under various overheads and has been observed to follow various psychological as well as scientific theories and disciplines. This research has been undertaken to analyse and interpret the use of technology used for simulations, illusions and projections in a movie. This research paper discloses the different types of technologies shown in movies and its relevance to the modern

world where we see predictions made in the past years, come to life in the present. Through our findings, we have understood the basis of Operations Research and have concluded that its advent was a boon and that it will always play a crucial role in shaping the way we see movies in the future.

KEYWORDS: *Operations Research, Movies, Artificial Intelligence, Robotics, Sci-Fi.*

INTRODUCTION

When compared with other modes of applications, Operation Research is a relatively new model of scientifically solving and improving end solutions as well as the basic construction of a subject. The movie industry portrays Operation Research in various aspects of its operations. The core of a movie is based on two aspects, the content and the visual dynamics. The visual dynamics which are formulated to stimulate and create an illusion in movies, particularly the genres of action and thrillers highlight the use of Operation Research. It is observed that the same kind of number analysis that has reshaped areas like politics and online marketing is increasingly being used by the entertainment industry. As the stakes of making movies become ever higher, the big shot movie industries like Hollywood lean ever harder on research to minimize guesswork. (The New York Times, 2003)

Today one of the most prospering industry is that of Movies, approximately a \$136 billion-dollar industry, which has a foothold in every remote part of the world and advocates the most preferred medium of entertainment. Movies are and always have captured the entertainment industry because it is closest to the reality of what people are facing in their day to day lives. The emotional and personal relativity to a movie is what makes the movie industry what it is today.

We observe management sciences in every field as a medium of application relative of every business and venture. Similarly, in the movie business, management sciences foster the analytical aspects of the entire venture. Management Science can be defined as the discipline of using mathematical modelling and other analytical methods, to help make better business management decisions. In the business world, management science is used for forecasting through available data, research analysis in qualitative and quantitative measure, estimation, hypothesis development and the like.

Operations Research used in the Movies are used to develop illusions, foster simulations and create visual dynamics to enthrall the audience. It has been used on multiple occasions and has always left an individual viewing the final piece in awe of the projection. This research paper aims to understand its application and the basis under which Operations Research adopts such forces.

OVERVIEW OF THE INDUSTRY

The Movie Industry is one of most exciting and informative businesses in the world, a business where the revenue of a single feature film (such as Titanic), can approach or exceed \$1 billion. There are thousands of screenplays rolling out at each moment as the clock ticks by and this industry attracts maximum level of fresh talent from all nooks and crannies of the world.

Every country, today, has its own specific entertainment industry which broadcasts regional films, whilst there exists Hollywood and Bollywood, movies of which are enjoyed universally. Industry statistics reveal that the past ten years have marked an overall increase of at least 30%

in average consumption and with the advent of the new computer-based technologies, cable markets and direct digital-delivery of motion pictures via satellite as well as the Internet, the figures are expected to increase dramatically over the next five years, creating an accelerated demand for original and re-run motion pictures.

Some of the greatest milestones seen by the movie industry include that of silent movies becoming audio friendly, black and white to colour and off lately, the improvement in technology for production of movies. The cost of production has also increased ten-fold today and the industry continues to flourish under the ever-growing demand of good content and dynamic visuals.

Research Objectives

- ❖ To understand the Application of Operations Research used for simulation and illusion creation in movies.
- ❖ To find the application of Operations Research under different umbrellas in filmography.
- ❖ To elaborate on the semblance between the reality and the advancements of technology and artificial intelligence.
- ❖ To outline the relevance of technology showcased in movies and its impact on the common man.
- ❖ To describe the workings, functions and the applications of Operation Research in movies based out of thrillers, fantasy and sci-fi.

RESEARCH METHODOLOGY

This research paper is qualitative in nature and is based out of past published research papers, news articles and the course material provided. The following research has been made based on the findings through the viewing of various movies which highlight the topic and showcase the applications of various theories and models. The secondary nature of our sources forms the basis of this research paper and the findings have been derived through them as primary data source was not imperative in nature to be conjured for the chosen field of study.

LITERATURE REVIEW

The movie industry is one of the oldest in the world, with the first filming of a movie being in Paris by Lumière brothers in the year 1895. This movie was based on the prototype of a Kinetoscope which enabled the individual to view a moving motion picture, one person at a time, showing the advent of science in the core operations form right in the first movie ever made. (National Science and Media Museum, 2011) Since then, the movie industry has gone through rapid transformations. With various genres coming up, the application of different methodologies studies different fields of management and operations the movie business. Right from the creation of the script to the shooting, the special effects added in through editing up till the release of the film, the entire timeline undergoes various operations which are timed efficiently, keeping in mind the patterns of the market forces and consumer behaviour.

While understanding the application of operations research in the field of movies, it is crucial to understand that the simulation and creation of illusions are backed by the application of various theories. Conceptual Metaphor Theory, which is the understanding of one idea in terms of another for example, the illusion created in terms of reality (Spiderman: Far from Home) and Embodied Simulation comprising of space and objects (Interstellar) are two such theories that govern the basis of the projections and illusions created. They tap the sensory-motor system of

the mind and enhance the fictional subjectivity of the movie(Coëgnarts, 2017) The visual effects that are portrayed in the movies normally focus on the augmentation or modification of live action. Previsualisation, 2D to 3D conversion and computer graphics are used extensively in movies to enhance the visual effects (Squires, 2012)

It was almost **a hundred years** ago when operations research first showed its advent in the form of Artificial Intelligence on the silver screen, and the technology's prevalence has only grown since then. The relationship between humans and artificial intelligence in movies is often deemed to be complicated as the operations research that form its basis are complex in nature. Throughout the years, we've seen film representations of AI that range from benevolent companions seeking to help their human counterparts to hostile machines bent on the total destruction of humankind (Tomlinson, 2018).

Another area of operations research is observed that in prediction and forecasting of the future through movies. The models used to create robots which showcase them in the earliest of films, (Metropolis, 1927 & I-Robot, 2004) show the relevance of such kind of existence in the modern world. It is commendable to see how the predictions made years ago, now portray relevance to the actual technological advances made.

The illusions created in movies are done using various techniques under the overhead of operations research. The Hypnotic Circle created by a white backdrop and beams is used effectively to create swirly projections in the background and the scene is shot at one crucial moment in order to capture the effect at its best. The Time Tunnel of Operation Tic-Toc, created an illusion of 'The infinite corridors of time' much more realistically along with the concept of forced perspective, which refers to an object appearing larger or smaller, closer or farther away and is involved with most of the natural optical illusions seen in fantasy and sci-fi films (Tuttle, 2018)

Human-Robot Interaction, another field of study supports the use of operations research while making of films that involve plots around robots. The algorithm of Wizard-of-Oz is predominantly used in making such kinds of films wherein an experimenter observes the interaction from a hidden location and remotely controls the robot accordingly(Bartneck, 2013). This technique aims at maximising the flow of movements in the most minimum of time and also tries to show the quick stimuli of a robot as opposed to a human. However, while doing so it shows that the robot is shown to have much more intelligence in the movie as opposed to reality.

In many movies, robots are portrayed as wanting to be human, despite their superiority in many aspects, such as strength or computational power. Steven Spielberg's movie "A.I" accepts the main premise that robots lack emotions, and hence Professor Allen Hobby, the main character, builds the robot 'David' that does possess the ability to love. Rational problem-solving and calculations have been the prime focus of the development of computers and hence it comes as no surprise that Sci-Fi authors consider emotions to be a feature that all robots would lack. Such movies are made using computer programs by implementing the "OCC Model of Emotions" which distinguishes emotions involving a focus on events from those focused on actions to those focused on objects (Ortony, Clore, & Collins, 1988)

Based on the application of Operations Research in movies, there have been various schools of thoughts that have been developed and different theories have been advocated over the due

course of time. Our findings highlight the important aspects noticed while researching the chosen field of study.

FINDINGS

Operations Research highlighted through artificial intelligence in simple words means the technology using which the machines start to relate to the things around them in a setting with traits similar to that of a human being. The future of the technology today is that of Artificial Intelligence. We can already see robots coming up and taking over in various fields like manufacturing, assisted driving, services provided and the like.

AI is a major element in depiction of Operations Research in movies. The first movie to showcase artificial intelligence as core of the plot was Metropolis, 1927, directed by Fritz Lang, which was released in the German cinema. The trend then took on and the subsequent years saw the release of many other movies based on the artificial intelligence like The day the earth stood still, Wall-E, Star Wars, Star Trek & Tron.

Today, the Marvel Cinematic Universe (MCU) who is the leader in making blockbuster films that are globally acclaimed showcase plots which primarily revolve only around artificial intelligence. These movies drive the audience's desires in wanting the level of technology showcased in the movies at their disposal. Often these movies are projections of what the technology might become in the coming years and sometimes its matches the reality.

A very significant role of the MCU was that of JARVIS (Just A Rather Very Intelligent System). It is a natural-language user interface computer system showcased in almost every other movie produced by the umbrella brand. The presence of this hypothetical user interface computer system can be felt today in the real world where we have devices like Amazon's Alexa, Google Home, Siri and Google Voice Assistant.

Similarly, the movie I, Robot (2004) showcased an environment in which the humans and the robots co-existed. Later in the year, 2016 a social humanoid robot was developed by Hong Kong based company Hanson Robotics which was a benchmark in the history of technology. Later in October 2017, Sophia the robot became the first robot citizen of any country and was given a title in the United Nations. On such similar grounds it is not wrong to say that the movies we see today which depict the progress in the field of technology may be reality someday.

Another great example from MCU is showcased in the movie Captain America: The Winter Soldier, in a scene with Jasper Sitwell (Maximiliano Hernández) where he explains the algorithm of Dr.Zola (Toby Jones) to Captain Steve Rogers (Chris Evans). The explanation given is that the 21st century is a digital book and the algorithm collects each person's data such as bank records, medical histories, voting patterns, e-mail ID's, phone calls and even SAT scores. Zola's algorithm evaluates people's past to predict their future and makes a list of the people who are now or will be a threat to Hydra in the future. The point brought up in this part is very real and relatable because nowadays everything is in digital form and everyone is connected to the internet in one way or the other and they share data without knowing its consequences. This data is being accessed by organisations that study human behaviour and sell this data to big production and manufacturing companies for setting up their plans and targeting customers. At times, this data is highly confidential and if it lands in the hands of wrong people then it could hamper with the country's security.

Recently, the social media conglomerate, Facebook faced allegations for sharing private and confidential data of its users to other companies and took a hit because of its actions. But today it is not difficult to access data of a person as all of it is available in one place or the other and it is not wrong to say that it is not far enough in the future that soon this type of assessment of such data maybe carried out by agencies in matters of national security.

CONCLUSION

Often the portrayal in majority of the Sci-Fi movies is not that far from reality and there is a high possibility of such things happening in the near future as the technology is progressing at such a high rate that new forms of technology and its improved versions are emerging at a much faster rate. Many researchers and optimists have conducted studies which show that in the next 15-20 years, there are high possibilities that Artificial Intelligence will take over. Soon there will come a time when robots with AI will be scattered all over the face of the Earth and co-exist with humans. The gap between robots and humans is reducing day by day as scientists and researchers are dedicated to take technology to heights never achieved before. All of this has been possible because of the advent of Operations Research which although does not seem in the forefront, forms the backbone of many developments and ideologies. The years of research and progress in technology is on the verge of a major shift as economies are now looking to grow exponentially solely based on advancements in technology. Imaginary user interface computer systems, robotic humanoids and other machines may soon become a part of our reality and there will come a time when Operations Research will take a back seat only when it has advocated itself to the fullest, bearing fruits and advancement in the way we see our reality of today.

LIMITATIONS

- ❖ While carrying out our research, there was no concrete and elaborate data based on operations research in movies. This limited our analysis and interpretations. Majority of the data available was based on the storyline and other aspects of the movie, however the application of operations research was overlooked. With more resources our research paper would've been more concise and cohesive in nature.
- ❖ As there was no perfectly structured bias, the research objectives were formulated very broadly.
- ❖ Biases may have played into the conclusions of previous research papers forming our source for data.
- ❖ Since secondary resources are being used, the authenticity of information on the internet is questionable. Consideration of resources chosen is thus imperative.
- ❖ There are chances of attribution, exaggeration in prior research studies which hampers the credibility of our research papers, however, the information provided by us thus far, is true and to the best of our knowledge as it has been picked up from verified sources.

REFERENCES

- Bartneck, C. (2013). Robots in the Theatre and the Media. *Proceedings of the Design & Semantics of Form & Movement*.
- Coëgnarts, M. (2017). Cinema and the embodied mind: metaphor and simulation in understanding the meaning in films. *Palgrave Communications*.
- James Jagger. (n.d.). The movie industry.

Museum, N. S. (2011). A very short history of cinema.

National Science and Media Museum. (2011). A very short history of Cinema.

Ortony, A., Clore, G., & Collins, A. (1988). The Cognitive Structure of Emotion. *Cambridge University Press*.

Squires, S. (2012). *The Value of Visuals*. Retrieved from effectscorner.blogspot.

The New York Times. (2003).

Tomlinson, Z. (2018). *InterestingEngineers.com*.

Tuttle, J. (2018). The Millions. *ZME Science*.



Published by: **TRANS** Asian Research Journals

AJMR:

**Asian Journal of
Multidimensional
Research**

(A Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: 10.5958/2278-4853.2020.00004.X

PUNJABI JUTTI AND CONTEMPORARY ADAPTATIONS

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ABSTRACT

The use of footwear is as old as civilization. Numerous experimentations through the hands of Indian artisans of various regions, the form of desi jutti or traditional footwear emerged and circulated in numerous designs during ages. Today's transforming approach of arts has been entered in every field of life to revive and modify our traditional handicrafts to justify our present needs and fashions. This paper is an effort to review the origin and glorious past of the handicraft of desi jutti as well new interventions in the handicraft industry, which affected, altered and fluctuated its original form using contemporary designs, materials and modern techniques. This paper is based on review of literature, interview and observation methods. Data is collected through thirty artisans in Ludhiana. Interviews and discussions also have been done with embroiders, boutique workers, sellers as well as experts. Denim is an artificial material and knitted by warp and weft (Zhai, 2011, 1646). Frequent material or adornments can be harmonized to the denim shoe upper (Zhai, 2011, 1645). Brocade, velvet, mashru, cotton and canvas are the fabrics which can be easily dye, decorate, paint and composite material. The work of embellish the upper part of jutti is distinct process and is done by the embroiders and later, craftsmen attach the decorative upper part with the main body of leather jutti with a glue pasted on it and finally, a beautiful product comes in front of us in various designs. Traditional and modern embroiders as well as boutiques are also involved in the designing of juttisto fulfill the needs of customers. Costumers' demands also influence the designs and manipulate them. Juttis are also made to match the ceremonial dresses of the consumers.

KEYWORDS: Historical, Change, Contemporary, Design, Materials, Machines, Ornamentation

1. INTRODUCTION

This study is an attempt to peruse the new intervention of design in the handicraft industry of Punjabi *desijutti* which affected, altered and fluctuated its original form using new materials and modern techniques. Artisans trained in traditional designs over generations, are facing new intervention of design originated as the result of industrial modernity, to revive traditional craft experimenting and treating the conventional as well new materials and computer machines. Design intervention is a practice that encompasses conniving fresh products; restyling surviving products, with changes in shape, size, colour, surface manipulation, function and utility; exploring new markets and reviving erstwhile markets, applying outmoded skills to meet new occasions and encounters and the introduction of new resources, new manners, new gears and skills (Kapur and Mittar, 2014, 3- 4)

Before the advent of Mughals in India, leather and natural fiber were used in making footwear for common people while wooden footwear was popular named as *kharaon* or *paduka* among ascetics. *Jutti* or *jutee* is an Urdu word for a shoe with a closed upper or '*uparla*' attached to a sole, was first introduced by the Mughals and was extremely popular amongst the royalty. It was also called *Salim Shahis* because being made popular by *Salim Shah* in the early 16th century. Punjabi *desijuttis* were originally made of pure leather with exquisite embroidery and embellishments. *Desi* (traditional) *Jutti* of Punjab manufactured with flat sole has no distinction of right or left foot with curled upturn toe. Over the centuries, its style and designs have evolved greatly. Today, individual artisans manufacture these leather *juttis* in an extensive range of colors and designs.

The upper part of the traditional footwear or *jutti* (*jutee*) of leather or *khal* was ornamented with golden, silver and tinsel wires embroideries and precious stones in traditional designs on leather, silk and velvet fabrics but now old- new designs and motifs entered in this field experimenting with new materials through the hands of modern designers, embroiders and craftsmen. The upper part of the *jutti* consists of any textile or leather. The work of embellish the upper part of *jutti* is distinct process and is done by the embroiders and later, craftsmen attach the decorative upper part with the main body of leather *jutti* with a glue pasted on it and finally, a beautiful product comes in front of us in various designs.

2. METHODOLOGY

This paper is based on review of literature, interview and observation methods. Data is collected through thirty craftsmen, embroiders and boutique workers of Ludhiana. Some data is also collected through the online *jutti* shops for analyzing materials and designs used in the product. Historical data is also collected through museums. The exploratory method is applied for writing the paper.

3. Glorious Past of the Traditional Footwear

Traditional footwear of leather or *khaljutti* adequately ornamented with golden-silver threads and precious stones tells the story of its magnificent past. From the Mughals till today, traditional *desijutti* is favorite of the royals as well as common both because of its comfort and ethnic look. The work of *Zardozi* Embroidery was popular for decorating traditional footwear. There are various references in Hindu- Vedic epics about the tradition of gold-silver thread embroidery on fabrics. But the term '*zardoz*' or '*zardos*' came from Persian vocabulary as 'gold wire is

termed *zari*, a Persian word for gold (Gupta, 1996, 73). Fabrics ornate with gold suggest magnificent lavishness conjuring historic grandeur (Gupta, 1996, 33). *Zari* or *zardosi* embroidery is the traditional embroidery and was the most popular among royals from the very beginning. The work of *zari* embroidery with golden-silver wires touched its altitude during Sultanate period in Delhi (Gupta, 1996, 37). During Muhammad Tughlak, '*zardozi*' became the court dress and the work of *zardozi* extended in Gujrat, Rajasthan and Bengal with the change of political centers (Gupta, 1996, 39- 40).

Mughal dresses along with footwear (fig. 1) were also made of golden- silver *zardozi* embroideries as there are various Mughal miniatures (British Museum, nos. 1949,1210,0.10 and 1974,0617,0.10.10 and 1920,0917,0.13.6. Also see Cleveland Museum, nos. 1917.1066, 2013.293, 2013.323, 2013.324 and 2013.313. Also see Asian art museum, no. 1998.94), in which examples of Mughal *zari* embroidered footwear also depicted with various designs and colours. Detailed descriptions are also available in *Ain-a- Akbari* and *Tuzuk-i- Jahangiri* about Mughal *zardozi* centers. Centers of *zardozi* also changed with Mughal capitals time to time. As influences of Mughal lifestyle were vast in whole India, the work of *zardozi* extended to other regional centers and became popular in whole India.

During Mughals, Agra, Delhi, Gujarat, Lucknow, Rajasthan and Punjab were the main centers of traditional footwear. The *Kafsh* was worn by nobles and kings. The *Charhvan*, with a curling tongue fixed to the toe, the *Salim Shahi*, decorated in gold, the *Khurd Nau*, was very lightweight, made of kid leather. Lucknow was the most famous center for the *zardosi* (fig. 1) done on footwear upper in Mughal times and the art of *aughi*, embroidery on leather and velvet footwear, was also very popular. Since the 17th century onwards, through the reign of Emperor Jahangir, *mojiris* with inverted toes were acquainted (Neubauer, 2003). Currently, Kolhapuri *chappal* of Maharashtra, *Mojri* of Rajasthan along with Punjabi *jutti* are also very eminent in the form of customary racial footwear. Innumerable treatments were widespread in *zardozi* work (Chattopadhyaya, 1964, 10).



Figure1. Zardosi footwear, Museum no. 0515(IS), Victoria and Albert Museum, 1855, Lucknow

4. Punjabi Jutti

The major centers of this traditional craft in Punjab are Kasur, Narowal, Chakwal now in Pakistan, Muktsar, Patiala, Amritsar, Malerkotla and Pathankot etc. There are numerous varieties of *desijutti* produced in Punjab (Metropolitan Museum, Accession nos. C.I.40.139.14a, b and C.I.66.55.1a, b and C.I.48.69.11a, b. Also see Asian museum Object nos. 1998.63.13 and 1998.63.12 and 1998.63.5 and 1998.63.19) at various centers (fig. 2) and every center has its own distinctness of design like, the city Kasur is famous for its traditional embroidery (Singh, 2011, 61), Narowal; for ornamentation (Singh, 2011, 62), Chakwal-Pothohari; or *chakwali jutti* for high heel and long tip and back side of leather is applied in it (Singh, 2011, 62), Muktsari *jutti*; for *tilla*, *zari*, *phulkari*, and Patiala; for its *Patialashahi* with heavy embroidery or *kadavi*(embroidery) and bright colors. *Mundi* or *desijutti* is with no particular distinctness of right-left, *Ghoni jutti* (Singh, 2011, 67), without nob, *Nokdar jutti* (Singh, 2011, 67), is with nob, *Khosa* or *khussajutti* is with broad and long nob, *Lukki* or *lak marvijutti* is with broad front and end and middle remains narrow.



Figure2. Traditional Punjabi Jutti with long nob, Object ID: 1998.63.5, Asian Art Museum

The basic material used for *jutti* is leather of different types. *Dhodi jutti* (Singh, 2011, 66) is made of hard leather like buffalo, cow, camel, *Kuram jutti* (Singh, 2011, 66) of black leather, *Nari jutti* (Singh, 2011, 66) of soft leather of goat, *Dukhli jutti* (Singh, 2011, 66) is made of double leather (used inside-outside of *jutti*). The raw materials used for making *jutti* have under

gone changes. For the decoration of upper part, silk threads of different colours, metal threads and wires of gold, silver, copper as well as precious stones and pearls were used to decorate the *jutti* of royals. Thick cotton thread of white colour is used for stitching *jutti*. The main body of *jutti* always remains of leather, but now it depends on availability of leather, and some substitutes of leather are also available in market. Upper part of *jutti* is used to decorate, which gives it distinctness and variety to fulfill the demands of various classes.

5. New Interventions in the Craft of Desi Jutti

5.1 Changes in Basic Materials

Previously, first buffalo, cow, sheep, calf and sambher hides were applied, but at the present as leather is infrequent commodity in Patiala, raxin, velvet Japani, canvas, hardboard, sheet sole (rubber), leather board, which are imported from Delhi are chiefly used. Different raxin ranges are available – Taiwan, Aero plane pillow Drammer, Milar, Marble, Crepe, Soft foam, Ice nappa, Leather nappa, Nappa, Capsule foam, Wrinkles and Gumeri, foam etc., out of which Taiwan is of good quality and most commonly used. The raxin *jutti* has reduced the gap between rich and poor and is finished in such a way that it looks and smells like leather (Kaur and Joseph, 2010, 172). Denim fabric, canvas, plastic, rubber, Banarasi silk, raxin and velvet are the new materials used for making the body of Punjabi *jutti* replacing the leather due to unavailability and the art of currying leather was hard manual labor, needing great skill and a range of special hand tools. Easily available fabrics invite the designers to innovate their imaginations on the upper part of *jutti* to compete modern footwear on the global level. Denim is a woven material and produce in different styles. Compared with natural leather, synthetic and artificial leather, denim material as fabric is precise in beautification. Diverse necessities and directives are for denim from those for leather during manufacturing (Zhai, 2011, 1643). Denim is an artificial material and knitted by warp and weft (Zhai, 2011, 1646). Frequent material or adornments can be harmonized to the denim shoe upper (Zhai, 2011, 1645). Brocade, velvet, mashru, cotton and canvas are the fabrics which can be easily dye, decorate, paint and composite material. Traditional motifs, and colours has been altered in modern motifs and colours under the influence of abstraction. Handmade and machine made embroideries on decorative materials like silk and brocade are also in fashion to match modern dresses.

5.2 Embroidery Machines

Though, craft is a form of product for the craftsmen and for folks, who command a craft item for ingesting, with a precise ethnic, ceremonial or efficacy context, they prerequisite to be visibly discerned from machine-made produces. The input of handiwork and time endowed in generating a craft, conveys such tenets within it, which a machine-made, bulk created product can never accomplish (Chowdhury, 2012). The use of embroidery machine is a new intervention in the field of this handicraft, which manipulated its basic concepts and methods and materials. *Zardozi* embroidery with metal threads was popular to decorate *juttis* but traditional skill hurt by machineries; and big manufacturers and dealers got profit. From the second half of nineteenth century, sewing machines are used to stitch fabric. Embroidery machines are big revolution in the field of tailoring and designing. Machine and hand embroidered upper parts of *juttis* are mostly made in Sanaur village near Patiala. Females are principally involved in hand embroidery in Sanaur, though men folk are involved in machine embroidering the upper part of *juttis*. Machine *jutti* embroidery industry had ongoing around 5-6 years back here (Kaur and Joseph, 2010, 171-172).

5.3 New Materials Emerging Modern Designs

Today, 'Design intervention' has been entered in every field of life to modify the products. Traditional artisans are also influenced towards new materials and designs. Instead of golden, silver and silk threads and metal wires for the decoration of upper part, now, new materials are also used to decorate *juttis* by the *jutti* embroiders. Ceramic beads, bells, small mirrors, cowry shells, *tilla*, *zari*, *phulkari* and brass nails are popularly used to decorate *jutti* to merge traditional and contemporary concepts. Traditional and modern embroiders as well as boutiques are also involved in the designing of *juttis* to fulfill the needs of customers. Customers' demands also influence the designs and manipulate them. *Juttis* are also made to match the ceremonial dresses of the consumers.

Today, cheap metal wires are used in this embroidery on different fabrics and leather replacing costly wires. The preparatory process of the wire is not only industrialized, but there is also a radical amendment in the raw materials, which have been substituted from time to time for the gold leaf which was gilded in the silver mould (Gupta, 1996, 73). Today, regional and tribal styles of embroideries and printing in their popular motifs are used to decorate modern *juttis* (fig. 3) in which tie and dye called *bandhani*, *zardosi*, *kashidakari*, *chikankari*, *phulkari* and mirror embroideries are common. Rajasthani embroidery is also used to make decorative footwear (Dhamija, 1964b, 42).

Handmade and machine-made, both type of *phulkari* or *gulkari* embroidery inspired by flowers have roots on the land of Punjab. Geometrical forms in same technique is called *bagh* or square garden. Both, geometrical and floral motifs are popular to embellish *juttis*. It has infinite number of patterns testifying to the creative ability of the needlewomen, make up of parallel, straight down and slanting stitches. A piece of variability has a distinct label as *bagh*, and every *bagh* in turn has a different name like *shailmar bagh*, *Lahori bagh*, *kakri bagh*, *mircha bagh*, *dunya bagh*, grounded on the different patterns which offers the particular design its appellation. The remarkable fact is that with the skillful manipulation of the darning stitch so miscellaneous ranges of intricate designs are shaped, with an entire effect of floral grandeur (Chattopadhyaya, 1964, 6).

Kashida or Kashmiri embroidery done with crochet or *aari* is the traditional embroidery of Kashmir from the Mughal times mainly used to decorate shawls, is also used popularly on *juttis*. Indo-Persian motifs called *buta*, Kashmir cone (Irwin, 1955, 130-135). **Kashmiri *kashida* as well as *kashida* and *sujan* of Bihar, *Jamdanis* of Dacca, *kantha* of Bengal and embroideries from Manipur, Bihar, Murshidabad are too in fashion for the upper of *jutti*.**

Chikankari of Lucknow; a style of white threaded needlework on light coloured textile exclusively on muslin, is a customary stitching of Dacca and Bengal, brought to Lucknow, Delhi and Rampur during late Mughals (Dhamija, 1964a, 25). Patterns used in embroidery also based on different types of stitches. Now, it is also used to decorate *juttis* in most common motifs of the creeper / vine with many types of flowers thrown in. Grains of different types and other motifs like the coriander leaf stalk, grass stalk, mango designs, palm leaf motif and animal as well as bird motifs are also common.

Guajarati Embroidery and Mirror Work of Kutch is also popular for *juttis*. The Cutch embroidery is distinguished for its intricate decorativeness called *Kanbi* after the cultivator, the *Kanbi*, and *Ahir* the cowherd, the derivation of the word being from Sanskrit meaning milkman (Chattopadhyaya, 1964, 6). The Shisha or glass embroidery was originated in the 17th-century in

India. Contemporary *shisha* work almost entirely consists of mass-produced, machine-cut glass shisha with a silvered backing, in varying shapes and sizes. In the dresses of Gujarat, we can easily see shisha or mirror embroidery. Now we can see this mirror work on *juttis*. The practice of motifs in the embroidery is not restricted to rustic subjects, for one finds them lifted out of spectacle, like cheerily tapestried elephants, blinds, fans, twirling peacocks and the ample shaded parrots (Chattopadhyaya, 1964, 6)



Figure3. Regional Embroideries and Designs

Mirror or Kathiawar embroidery is done by Kathiawar women, with the lavish use of mirrors and bright colours depicting different themes. They are *Heer- Bharat*, *Abhla Bharat*, Chain Stitch embroidery of Bhavnagar range, interlacing stitch known as *Sindhi*, applique work and lastly *MotiBharat* bead work (Dhamija, 1964c, 48- 49). Because of the popularity of computer embroidery machines, now it is easy to do embroidery on different types of leather through machines in very less time. Along with hand-made embroidery, machine-made embroidery on leather *jutti* is also in fashion.

The tradition of painting is as old as human being himself. Now, art of painting inspires every product to decorate. Fashion to paint different motifs on *juttis* is now very popular among young generation. **Tradition of dyeing and printing in India also goes back to Indus valley civilization, centered in Barmer, Jaisalmer, Udaipur, Jaipur and Chittorgarh (Dhamija, 1964d, 22- 24).** Bagru and Sanganer are the villages of Rajasthan's historic block printing. Craftsmen use hand carved wooden blocks to stamp designs onto the cloth with natural techniques. It also gives formal look to the traditional footwear and on low prices customers get beautiful and simple *juttis* (Mishra, 1964, 25). **Now, Denim, silk, hemp, cotton etc. are the natural fabrics used for *shibori* and cellulose fibers such as cotton, hemp, rayon, and linen are used for tie and dye or *bandhani*. Natural prints of two colours (Jayakar, 1951, 42- 43) are created on the different natural fabrics in different popular ways and those fabrics are used on the upper part of**

jutti to give the traditional footwear a formal appearance. Different flowery and geometrical motifs along with their intermixtures, numerous patterns are created and used to decorate traditional footwear. Paisley motifs or *bootah* or floral motifs are also very ancient and are used to embellish *juttis*.



Figure4.Traditional prints used for footwear

Kalamkari or qalamkari is a type of hand-painted or block-printed cotton textile, produced in Iran and India. Its name originates in the Persian, which is derived from the words qalam (pen) and kari (craftsmanship), meaning drawing with a pen practiced in Andhra Pradesh, particularly in Kalahasti and Machilipatnam, now also popular for Punjabi *juttis*.

Gujarat was the soul of the cotton printing belt and, from as early as the first century A.D., Gujarat with its anchorage of Barygaza (Broach) on the river Narmada was exporting Indian cotton prints (Jayakar, 1951, 40). The use of wooden blocks in printing the design before the cloth was waxed has been in use in Gujarat from the eighteenth century. The practice of blocks, yet, must be very much older and block making center is Ahmadabad. (Jayakar, 1951, 42)(Fig. 4).

Blend of Indo-western also appear in *juttis*. It is very easy to paint, print, dye and stitch denim. So it is very popular fabric among embroiders, dyers, painters as well as youngsters to match modern western dresses with traditional footwear. Tassel or Pompoms or Needle Dust made of Waste thread pieces are also used to decorate *juttis* and other dresses. It also gives a formal look to the traditional footwear. *Ghungroos* or small bells are attached to give an informal look to the

juttis. It gives traditional appearance to modern and altered footwear. The *dori* made of different fabrics for tie is also in fashion and is used in *juttis* to match ethnic- modern dresses.

6. CONCLUSION

Machine made products consuming less time and manpower create much effect and because of less production cost, are popular among common. Globalisation has been capable to link spaces, but has ensued in splitting the bygone from the contemporaneous. Machines, new tools and modern materials and design intervention are connected and influenced each other. Unavailability of traditional materials and rising cost of traditional materials and demands of modern consumers are also interconnected and influence each other. Experimentation in traditional designs and materials also helpful to compete global needs and helpful to maintain importance of traditional craft in innovative way. Now artisans can create unlimited designs through various modern materials. There are numerous varieties of Punjabi *jutti* in markets. It is a merger of tradition with modernity, but it creates problems to traditional skilled artisans.

REFERENCES

- Chattopadhyaya, Kamaladevi. (1964). Origin and development of embroidery in our land, *Marg*, XVII (2), pp. 5- 10.
- Chowdhury, R. (2012). An Analytical Study of Impact of Regulation and Audit-societies on Craft Ecology. Kolkata: National Institute of Fashion Technology.
- Dhamija, Jasleen. (1964a). Chikankari. *Marg*, XVII (2), pp. 25- 26.
- Dhamija, Jasleen. (1964b). Rajasthan embroidery. *Marg*, XVII (2), pp. 40- 43.
- Dhamija, Jasleen. (1964c). Kathiawar. *Marg*, XVII (2), pp. 48- 49.
- Dhamija, Jasleen. (1964d). Survey of arts and crafts of Rajasthan. *Marg*, XVIII (1), pp. 21- 24.
- Gupta, Charu Smita. (1996). Zarzodi glittering gold embroidery. New Delhi: Abhinav Publications. Print.
- Irwin, John. (1955). The Kashmir shawl origin and technique. *Marg*, VIII (2), pp. 121- 136.
- Jayakar, Pupul. (1951). Cotton prints of Gujerat & Kathiawar. *Marg*, 4 (4), pp. 40- 43.
- Kapur, Harita and Mittar, Suruchi. (2014). Design intervention & craft revival. *International Journal of scientific and research publications*. 4: 10. 1-5. ISSN 2250- 3153. Online.
- Kaur, Prabhjot and Joseph, Ruby. (2010). Dying art of Punjabi jutti in Patiala. *Asian journal of Home Science*. 5: 1. 170- 175. Online.
- Mishra, Lalita. (1964). Sanganer printing, *Marg*, XVIII (1), pp. 25.
- Jutta, Jain-Neubauer. Reviewed by Radhakrishna, Sabita. (Jan 05, 2003). Feet and Footwear in Indian Culture. Published in 'The Hindu'. Online edition of India's National Newspaper
- Singh, Gurinderbeer. (2011). *Jutti, Sankalp te sabhiyachar*. (Gurmukhi). Amritsar: Ravi Sahit Prakashan.
- Zhai, Jingjing. (2011). The Denim's characteristics as upper material of footwear. *Advanced materials research*, ISSN: 1662-8985, Vols. 332-334. 1643- 1646. Online.



Published by: **TRANS** Asian Research Journals

AJMR:

**Asian Journal of
Multidimensional
Research**

(A Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: 10.5958/2278-4853.2020.00005.1

ORAL SPEECH AND WRITING OF THE CHILD, THEIR DEVELOPMENT IN THE PSYCHOPHYSIOLOGICAL PROCESS

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ABSTRACT

The article mentions the oral speech and writing of the child, their development in the psychophysiological process. Human consciousness plays an active creative role in the development of surrounding reality. The human mind is a process with a specific purpose. The human being is connected with the outside world, and the outside world defines all human activity, but does not define a person. That is why a person strives to change the outside world through his practical activities and seeks to know the laws of the development of reality. The task of highlighting certain words and their sequences, as well as the need to distract from the word and to distinguish the letters that make up the word, presents a great challenge for the child. For this reason, a child may have difficulty understanding how long a word is given to a child by the child, or how it sounds. As a result, the child learns to write letters and words easily. No longer will the child pay particular attention to writing the correct graphic mark for each sound, the child will begin to perform spontaneous writing operations, the process of writing will be automated and the elements of the writing process become complex. In conclusion, writing is complex because of the complexity of mental activity and its individual relationships are often not well understood. Even experienced observers cannot say exactly what role human writing plays in visual or motor imagery, the “whispering” of written text, or the importance of sensitive audio analysis of recorded material.

KEYWORDS: *Consciousness, Philosophy, Oral Speech Of The Child, Writing, Psychological Process, Writing Skills.*

INTRODUCTION

Mankind has achieved a great deal in its relatively short history. Today, human beings are increasingly penetrating the mysteries of living and inanimate nature. With the steady increase in the role of subjective factor in the construction of society, the philosophy of the human factor in the social development process is well documented.

When we think of a human being, his activity is unconsciously linked. Human consciousness is a complex and multifaceted phenomenon.

The views and visions of him depend on the approach and interpretation of people based on various life experiences. Philosophical interpretation of the mind allows to analyze together all forms of manifestation of the spiritual and spiritual life of the person.

There are many disciplines involved in the field of consciousness, each of which examines the mind from its own point of view and contributes to discovering the essence of psychology. Therefore, the problem of consciousness is concentrated in the efforts, achievements and achievements of social, technical, biological and other natural sciences. Human consciousness plays an active creative role in the development of surrounding reality. The human mind is a process with a specific purpose. The human being is connected with the outside world, and the outside world defines all human activity, but does not define a person. That is why a person strives to change the outside world through his practical activities and seeks to know the laws of the development of reality. The role of the mind is that it reflects, understands, knows, and uses the laws of the objective world. [1 B.169]

According to psychologists, as a person grows up, many functions begin to fall out of consciousness and become automatic. And as time goes on, we begin to perform some actions unconsciously and unconsciously. This does not exclude the active involvement of the mind in various areas of human activity, that is, self control of activities. [2.B.205] As evidence of our opinion, we focus on the child's oral speech and writing, their development in the psychophysiological process.

It is well-known that the child receives information during the second year of life [3.B.12]. During the first year of his life, the child constantly listens to the speech he is being told. Understanding one's speech develops a child's ability to hear and read words independently. This practice allows the child to repeat the speech sounds and name individual objects in the middle of the second year of life. The child gradually develops the ability to name objects.

By the age of 4-5, children begin to talk to children. The prospect of renting is relatively rich and fluid. However, even a fluent and well-spoken child may not know for a long time that it is made up of separate words, and how words are acted upon by the speech apparatus. Only when a child is in school - when he begins to learn grammar of the language, he will pay attention to the above.

When a child develops verbal communication with a "live connection" to adult speech, the development of writing and writing is quite different. Writing is a process of special conscious preparation, the result of conscious effort.

As we all know, writing in a child does not begin with the use of communication as a means of communication. In the first literacy class, the reader spends a lot of time designing the technical basics of writing - to turn the sounds into words and to express them in letters. After only 1.5-2

years of training, writing becomes a means of communication and the child's writing skills are improved.

Observations by Russian psychologists Morozova, Luria, Mossava, Bojović and others show that a 6-7-year-old child with well-developed speech can easily identify individual words and the sounds that make up their speech. Cannot separate. In this case the child only understands the meaning of the word but does not pay attention to the formality of the word. When children are asked to count the words "There are two chairs and sofas in the room", they often answer, "Three: two chairs and a sofa!" In order to draw the child's attention to the formality of the sentence (a prerequisite for reading and writing), it is necessary to use a number of special techniques:

- To pronounce the word separately;
- Separate voice and sound and. h.

The task of highlighting certain words and their sequences, as well as the need to distract from the word and to distinguish the letters that make up the word, presents a great challenge for the child. For this reason, a child may have difficulty understanding how long a word is given to a child by the child, or how it sounds. For example, when a child is asked what sound the clock begins to say, the child quickly says "yes". Therefore, it may take longer for the child to concentrate on the meaning of the word in the initial literacy classes. [2.B.14]

During the first literacy period a child experiences various psychological processes. When a student reads and writes for the first time, his or her initial contact with the live speech is completely changed. The child should now analyze the vocabulary of the word instead of directly grasping the meaning of the word. This analysis is divided into a number of stages:

- select the letter that should be typed in the letter;
- Sound analysis to be recorded;
- Remember this letter;
- finding each letter;
- Correctly spell out letters and write words.

In addition, the spelling of each letter is subdivided into individual elements. A student who is just beginning to read, read and write the individual elements that make up the letter will see that each element of the letter is written correctly. As Guryanov EV has shown in his research, a child learns to write only through a combination of conscious actions. [3....] As his writing skills evolve, the graphic representation of his writing gradually changes. As a result, the child learns to write letters and words easily. No longer will the child pay particular attention to writing the correct graphic mark for each sound, the child will begin to perform spontaneous writing operations, the process of writing will be automated and the elements of the writing process become complex. A child's conscious behavior involves more difficult, holistic actions: recording words, phrases, or even thoughts. A process that is a product of complete conscious action - the process of writing becomes an automated, often ignored process. Only in exceptional cases, such as writing words with complex vocal structures or verbal text checking, the child returns to systematically dividing the word into sounds, which becomes a conscious process, and the child now performs auxiliary but unconscious operations (voice analysis, its graphic representation).

Writing is the development of sophisticated skills that bring together the elements that are the components of the whole, and the “writing” of the word. Careful analysis of the writing process in children and adults shows that the psychological content of the writing process, that is, their involvement in specific psychological processes, is not the same. As an example, let's look at the record of a freshman. It is understood that the student's letter carefully listens to the words and whispers them. We can compare this to a straightforward record of a person who has good writing skills: he does not play a key role in listening to words and whispering. An adult letter does not even have a full letter containing separate letter elements. A person who has good writing skills can write a whole series of letters at one time or in a single keyword. More and more writing begins to describe complex and generalized kinesthetic schemes (when writing familiar words, signing). This means that as a person develops writing skills, writing becomes an automated skill.

Well-known psychologist E.Guryanov has conducted numerous practical experiments related to the writing process in his research. In particular, Guryanov wrote children of different abilities on paper on a metal plate. This metal plate was connected to a special device. Each print pressure created by students is converted into a curve. As a result, one word is expressed in three different readings in the thickness of three different types of curves, namely:

Figure 1: Grade 1 student: top curve;

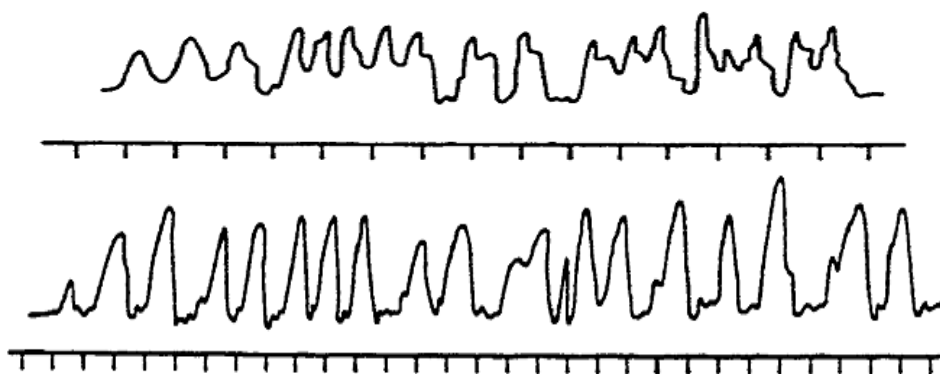


Figure 2: Grade 3 student: middle curve;

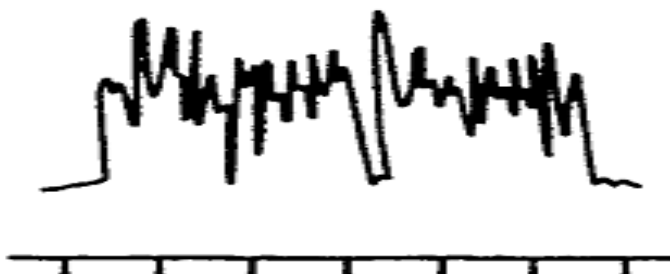


Figure 3: student: normal curve.

For a student who is just beginning to write (first grade), you can see that the record is made up of isolated pressures. For a third-grader, we see that the process has begun to develop and the student has already mastered it.

By looking at the above curves and comparisons, one can see how the written process in human's changes over successive stages of psychophysiological development.

In conclusion, writing is complex because of the complexity of mental activity and its individual relationships are often not well understood. Even experienced observers cannot say exactly what role human writing plays in visual or motor imagery, the "whispering" of written text, or the importance of sensitive audio analysis of recorded material. This is why it is so important to study the psychology of the writing process carefully. It helps us to find out what a child, or a reader, is experiencing, and how to handle it.

REFERENCE:

1. Tulenov J., Tulenova G., Tulenova K.. Falsafa. –T.: "Fan va texnologiya", 2016.
2. Nazarov Kva and others. Philosophy. -T.: Uzbekistan, 2005.
3. Luria A.R. Writing and Speech. –M.: Academy, 2002.



Published by: **TRANS** Asian Research Journals

AJMR:

**Asian Journal of
Multidimensional
Research**

(A Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: 10.5958/2278-4853.2020.00006.3

THE ROLE OF PARENTHESES IN SEMANTICS AND SYNTAX

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ABSTRACT

This article analyzes parentheses units and their features. The role of parentheses in semantics and syntax has been explored from the point of view of the text. Their spiritual characteristics and types are described in excerpts from the text. At the same time, in the intonation flow of the sentence, the parenthesis, which is sometimes two or three times more common than the parentheses, that is, the parentheses, is expressed with special intonation. Nevertheless, the main factor that distinguishes these two parentheses is that they are, as previously mentioned, meaning. The form and semantic structure of the main sentence play an important role in the introduction of parentheses into the literary text. Because parentheses are characterized by the interpretation of a section, a compound, a sentence, and sometimes a complex unit in the form of a micromatn. It should be noted that, although there seems to be an introductory relationship between the components of the phrases in the joint sentence, they have the corresponding lexical-grammatical indicators of the subordinate. Therefore, in our view, joint prediction parenthesis cannot be equated to anecdotes. It is well known that the main essence of parentheses is to add to the main idea that is expressed, to fill in the idea, to express information that is subjective. As described in the preceding section, by the nature of these data, parentheses are divided into two major groups, in the form of inputs that represent the subjective-modal relationship and inputs that express the objective-explanatory relation. On the basis of these considerations, it is advisable to consider predicate parenthesis phrases as a very distinctive type of joint discourse. As parentheses enter into the main sentence with the main sentence, in addition to the relevant units in the wider text, it is directly linked to the parts of the main sentence, the whole sentence, and the micromatn.

KEYWORDS: *Paranthesis, Semantics, Syntax, Subjective Attitude, Objective Attitude, Text, Semantic Meaning.*

INTRODUCTION

It is well known that the main essence of parentheses is to add to the main idea that is expressed, to fill in the idea, to express information that is subjective. As described in the preceding section, by the nature of these data, parentheses are divided into two major groups, in the form of inputs that represent the subjective-modal relationship and inputs that express the objective-explanatory relation. While there are distinct differences in the formal-grammatical and intonation relations between these two groups of parentheses in the main sentence, it is repeatedly emphasized in linguistics that "their separation is based on meaning." Take, for example, the following two examples of parentheses: Honestly, I do not like that person (O. Yakubov, the novel *Diyonat*). His chest fluttered with all sorts of buttons and buttons, his voice trembling. During this time (when there were times like this one), Azizhan is not in a hurry to leave (Said Ahmad, The *Horizon* novel). In the first example, to be honest, in the second example there are two or three parentheses, the first of which expresses the speaker's opinion, and the second provides additional objective information. Accordingly, the first parenthesis is interpreted as an input unit and the second one as an input unit. True, there is a difference in the structure of the sentence, one in the preposition, the other in the interposition, and the first is directly related to the main sentence, and the second is directly related to the form in the sentence. At the same time, in the intonation flow of the sentence, the parenthesis, which is sometimes two or three times more common than the parentheses, that is, the parentheses, is expressed with special intonation. Nevertheless, the main factor that distinguishes these two parentheses is that they are, as previously mentioned, meaning.

I.Tashaliev, who researches the structure of the Uzbek language in the study of structural structures and their lexical-grammatical features, emphasizes the structural features of the appendices and distinguishes them into 5 types, as many other linguists: 1) word-input, 2) compound, 3) gossip, 4) complex entries, and 5) characters. Although the researcher does not directly link them to the main sentence, the researcher emphasizes that they have a particular connection with the main sentence or part of it. It is well known that the main scope of parentheses is fiction. For this reason, they are incorporated into the text by the writer for a specific purpose. The form and semantic structure of the main sentence play an important role in the introduction of parentheses into the literary text. Because parentheses are characterized by the interpretation of a section, a compound, a sentence, and sometimes a complex unit in the form of a micromatn. However, it is important to note that no matter what the syntactic unit of parentheses directly relates to, the basic structural and substantive essence of parentheses is only visible in the background.

It is worth noting here two issues. First and foremost, much has been said about the meaningful, logical and lexical-grammatical links between the main sentence and the parenthesis. For example, I.Tashaliev describes linguists who acknowledge the existence of a specific grammatical link between main sentence and parenthesis, which is "introductory communication" (AM Mukhin), "sympathetic (Greek) cooperation, assistance" (MA Avlasevich), which is called by the following terms: "Applied communications" (Raspopov IP), "commentary link" (G.Abdurahmanov), "coordination link" (A.Sayfullaev). A.Nurmanov identifies the types of meaning-syntactic relations, distinguishes the introductory relationship as the fourth type in subordinate (unilateral), coordinate (bilateral), copulative (associative) relations, and the first three types with syntactic means - says that the type of introductory relationship does not have this feature.

Emphasizing the issue of syntactic position in speech analysis, A. Mukhin points out that the introduction, in general, of the parentheses component's syntax is in the introductory relationship with the main sentence, and that communication is essentially one-sided. Researcher of the Russian syntax TPLomtev by AM Peshkovskii: "The inputs, inputs (as well as pronouns) do not have a syntactic connection with the other words in the sentence; therefore they are not an element of the sentence structure. criticizes both popular opinion and the arguments presented by AM Mukhin to substantiate the fact that these units can be part of the sentence structure. TL Lomtev writes: "Being an element of the structure of the speech is an expression of some semantics. The question of membership in the speech structure is the question of membership. Highlights the need to use "introductory". I.Tashaliev, who researches the structure of the Uzbek language in the study of structural structures and their lexical-grammatical features, emphasizes the structural features of the appendices and distinguishes them into 5 types, as many other linguists: 1) word-input, 2) compound, 3) gossip, 4) complex entries, and 5) characters. Although the researcher does not directly link them to the main sentence, the researcher emphasizes that they have a particular connection with the main sentence or part of it. It is well known that the main scope of parentheses is fiction. For this reason, they are incorporated into the text by the writer for a specific purpose. The form and semantic structure of the main sentence play an important role in the introduction of parentheses into the literary text. Because parentheses are characterized by the interpretation of a section, a compound, a sentence, and sometimes a complex unit in the form of a micromatn. However, it is important to note that no matter what the syntactic unit of parentheses directly relates to, the basic structural and substantive essence of parentheses is only visible in the background.

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If there is a link between equivalence (conjugate joint sentences) and subordination (conjugate joint sentences) in ordinary joint phrases, parenthesis is used in joint sentences, that is, in the

introductory relationship. It is well known that constructions consisting of other words and author's words are regarded as joint phrases. Some researchers even point out that even in such a cursory phrase, there is a tendency for predicative parentheses, and that there are elements of specific introductory relationships. For example, AF Prystikina mentions that the author's input in constructing a sentence is based on the principle of input. There is a certain sense in this idea. For example, Valyusha, he said, "You go home (Tahir Malik, the novel "The Devil") is a joint phrase in which the author's sentence is included. But the quotation might also be included in the author's words: He said, "Go home, Valyusha." It should be noted that, although there seems to be an introductory relationship between the components of the phrases in the joint sentence, they have the corresponding lexical-grammatical indicators of the subordinate. Therefore, in our view, joint prediction parenthesis cannot be equated to anecdotes.

CONCLUSIONS

On the basis of these considerations, it is advisable to consider predicate parenthesis phrases as a very distinctive type of joint discourse. As parentheses enter into the main sentence with the main sentence, in addition to the relevant units in the wider text, it is directly linked to the parts of the main sentence, the whole sentence, and the micromatn. Speaking about such communication, I. Tashaliev focuses, for example, on the syntactic position of words and analyzes in the form of identifiers, insertions, and inserts. We, however, prefer the emphasis on the status of the parts of a sentence or the phrase in which it is related, and not so that it is possible to correctly define the syntactic status of the parentheses in the text. At the same time, certain specific semantic-grammatical features are more pronounced. Therefore, it is advisable to consider each of these cases separately.

REFERENCES

- Tashaliev I. Introductory Constructions in Modern Uzbek Literary Language: Philol. science. name ... diss. - Tashkent, 1972.-B. 199 - 213.
- Gulyamov A., Askarova M. Modern Uzbek Literary Language. Syntax. 3rd Edition. — Tashkent: Instructor, 1987.-B. 155.
- Tashaliev I. The thesis shown.B.- 89 - 90.
- See also: Gulyamov A., Askarova M. The work shown.B. 157; Grammar of the Uzbek language. Volume II Syntax. —Tashkent: Science, 1976.-B. 270 -271; Prokopovich N.N. Syntax русского языка. —М.: High School, 1974. - p. 96.
- Tashaliev I. The thesis shown.-B. 24 - 28.
- Mahmudov N., Nurmonov A. Theoretical Grammar of the Uzbek Language (Syntax). — Tashkent: Instructor, 1995.-B. 30.
- Mukhin A.M. Syntactic analysis and the problem of language levels. —L.: Nauka, 1980.- S. 283.
- Lomtev T.P. The structure of sentences in modern Russian. М.: Moscow State University, 1979.-S. 51-53.
- Dictionary of foreign words. 16th ed. —М.: Russian language, 1988. —p. 204.

- Uzbek Grammar. Volume II Syntax. —Tashkent: Science, 1976.-p. 202; Cheremisina M.I., Kolosova T.A. Reviews on the theory of slojnogo prediction. — 1. Kurbanova M., Sayfullaeva R., Bakieva G., Mengliev B. Structural syntax of the Uzbek language. - Tashkent, 2004.-B. 58.
- Predictive units and their relationship. —Tashkent, 1989.—B. 42.
- Kadyrov M., Nematov H., Abduraimova M., Sayfullaeva R. Mother tongue. Textbook for 8th grade. —Tashkent: Cholpon, 2006.-B. 109.
- Priyatkina A.F. The work is being shown.-B. 161.
- Toshaliyev I. The thesis shown.-B. 106 - 107.



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AJMR:

**Asian Journal of
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Research**

(A Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: 10.5958/2278-4853.2020.00007.5

SCIENTIFIC AND PEDAGOGICAL WAYS TO INSTILL IN STUDENTS THE NATIONAL AND UNIVERSAL VALUES THROUGH “KURASH”

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ABSTRACT

This article comments on the fact that wrestling is an Uzbek national sport and worth. They expressed the scientific and pedagogical methods of wrestling, their educational value and thereby the national value of the students' minds. Development strategy of students in the spirit of national and universal values, education of physically healthy, mentally and mentally developed young people with independent thinking, devotion to the Motherland, deepening of democratic reforms and strengthening of social activity in the process of development of civil society. also plays an important role. Wrestling consists of working out ways to promote students' national and universal values through sports and creating scientifically grounded recommendations and manuals. Pedagogical experimentation with the purpose of determining the effectiveness of the recommendations developed is a mathematical analysis of the results. In today's rapidly growing globalization of information technologies, the problem of preserving national traditions, values and traditions among the peoples of the world and their effective use in the upbringing of young people remains an urgent problem. Of course, Uzbekistan is no exception.

KEYWORDS: Student, Wrestling, Value, National Sports, Higher Education, Healthy Lifestyle, Research.

INTRODUCTION

On 2 October 2017, the President of the Republic of Uzbekistan Shavkat Mirziyov adopted a resolution "On measures to further develop Kurash national sport." The resolution envisages the development and approval of comprehensive measures on further development of Kurash national sport.

Special attention was paid to the implementation of large-scale work by the President of our country to promote healthy lifestyles in our society, to create the modern conditions for regular

physical training and mass sports for the population, especially the younger generation, and further development of physical culture and mass sports. and other important tasks.

In today's rapidly growing globalization of information technologies, the problem of preserving national traditions, values and traditions among the peoples of the world and their effective use in the upbringing of young people remains an urgent problem. Of course, Uzbekistan is no exception. Physical education and sports are one of the main tools in the education of youth on the basis of national and universal values. Especially important is the fact that the history of national sports (wrestling, turon-solo, ulak kupkari, etc.) reflects national features in their content, and their effective use in the upbringing process is especially important. Development strategy of students in the spirit of national and universal values, education of physically healthy, mentally and mentally developed young people with independent thinking, devotion to the Motherland, deepening of democratic reforms and strengthening of social activity in the process of development of civil society. also plays an important role.

Through national sports, young people are more effective at instilling national values such as nationalism, patriotism, loyalty to their nation, homeland, pride in their national identity and at the same time respecting other nationalities. National sports are the kinds of sports that have now reached the level of sports through the historical development of games of a particular ethnicity. Those who have the status of Uzbek national sports are Kurash, belbog'li kurash, goalkeeper (horse), Turon single, and martial arts.

Kurash is a pearl of Uzbek national sports. Today, not only wrestling is a national value, but it has become a universal value. World Championships, Asian Championships, Summer Asian Games (Indoor Sports and Martial Arts, Beach), International tournaments and other competitions.

Wrestling has been conducted in foreign countries and in the Republic of Uzbekistan. In particular, the following scientific and methodical works on struggle in the Republic were carried out. On technical and tactical development and popularization of wrestling A.K.Atoev, F.A.Kerimov, O.Toymurodov, J.Tashpulatov, U.I.Ibragimov, J.Tursunov, K.T.Yusupov, A.Abidov, D.Nurjin, I.H.Boymurodov, B.D.Berdikulov, X.Rh.Ahmedov.

The following scientists are U.Korabaev, M.Murodov, J.Tulenov, G.Tulenova, A.Kh. Mavrulov, A. Begmatov, M. Kakhharova, E. Yusupov, O. Gaybullaev, HT Rafiev, P. Pakhriddinov, U. Ibragimov, F.K. Akhmedov, R. Abdumalikov, P. Khodjaev, D.K. Yarashev and M. Dusembetov based their values on national sports and national games and learned how to use them in the process of education.

Problems of increasing the level of pedagogical vocational training of university students are known scientists B. R.Adizov, R. Dzhurayev, N. Saidakhmedov, N.N. Azizkhodjaeva, B. Juraeva, G. Nasriddinova, B. Rakhimov, F.K. Akhmedov, S.Nishonova, N.Nishonaliev, A.Zununov, O.Musurmonova, Sh.Mardonov, D.J. Sharipova, M.N. Kuronov, E.A. Seitkhalilov, U.K. Tolipov, Sh.S. Conducted scientific research by K.D. Yarashev, Sh.Mardonov, N.Ortikov, O.Jamoliddinova. The results of the research show that the educational value of wrestling and the inculcation of values to students are not fully understood.

The objectives of the study. To study the historical development of kurash;

To determine the place and importance of the sport in the system of physical education and sport;

Scientific substantiation of the educational significance of wrestling;

Wrestling consists of working out ways to promote students' national and universal values through sports and creating scientifically grounded recommendations and manuals. Pedagogical experimentation with the purpose of determining the effectiveness of the recommendations developed is a mathematical analysis of the results.

The scientific novelty of the research is: Taking into account the best practices and national practices in the development of methods for the use of martial arts by students to promote national and universal values;

Development and implementation of the national and universal values in the teaching of wrestling;

Scientific substantiation of pedagogical requirements and criteria for training in kurash;

- Experimental validation of the effectiveness of national and universal values for students through the sport of wrestling;

High school students will be provided with training to increase their effectiveness in the sport of wrestling.

1. Developing and implementing methods, methods of teaching national values to students' mind during the sport of wrestling;

2. Achieve the effectiveness of students' professional development through the acquisition of knowledge and skills in wrestling;

3. Students struggle through their common humanistic characteristics, such as nationalism, patriotism and humanism;

4. The future teacher (s) will be armed by instilling in students the national and universal values.

Scientific and practical significance of the research results.

To study the historical development of kurash;

To determine the place and importance of the sport in the system of physical education and sport;

Scientific substantiation of the educational significance of wrestling;

Wrestling consists of working out ways to promote students' national and universal values through sports and creating scientifically grounded recommendations and manuals. Pedagogical experimentation with the purpose of determining the effectiveness of the recommendations developed is a mathematical analysis of the results.

Methods and recommendations for instilling students' national and universal values through the sport of wrestling can be used by all universities of the country.

There is still an urgent need to do large-scale work on restoring values and defining their role in education.

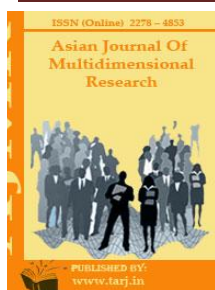
The qualities of the struggle, which are our national values, are classified by the authors as follows:

- Kurash Uzbek sport;

- Kurash is a modern world sport;
- Struggle is the most effective and exemplary means of education;
- based on the principles of philosophy, philosophy and humanistic ideas;
- the struggle brings the peoples of the world closer together;
- Wrestling is a sport that requires qualities such as courage, courage and honesty;
- Wrestling forms independent thinking and free thinking, fosters confidence in one's knowledge and power;
- Wrestling requires a high level of physical maturity;
- The meaning of the life and activity of great historical figures of Kurash;
- The interpretation of the struggle in the folklore and the views of thinkers is unique;
- Wrestling is an integral part of celebrations and public events;
- Wrestling requires and nurtures high moral qualities;
- Wrestling is a means of nurturing young people in the spirit of national and universal values;
- Kurash pride of the nation;
- Kurash is a lifelong national sport that has existed since ancient times in the Uzbek nation.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan "On measures for further development of national sports Kurash". October 2, 2017
2. Akhmedov F.K, Abdulakhatov A.R "Uzbek Kurash is a masterpiece of national and universal values". Tashkent 2017
3. H.Bobobekov [and others]. "The prestige of Uzbek Kurash" Tashkent, 2002.



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AJMR:

**Asian Journal of
Multidimensional
Research**

(A Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: 10.5958/2278-4853.2020.00008.7

OPTIMIZATION OF PREVENTION OF CARIES DEVELOPMENT DURING ORTHODONTIC TREATMENT

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ABSTRACT

Despite the emergence at present of a huge arsenal of tools offered to ensure oral hygiene and the prevention of caries, this problem, as before, remains central to orthodontics. The solution to this problem may depend on the identification of individual characteristics of the sensitivity of the patient's body with dentoalveolar anomalies to the effects of specific factors that can cause caries when using braces and the timely application of adequate preventive measures. Currently, many fundamental aspects of prevention in the process of orthodontic treatment have not yet been fully resolved. There is no data on the use of the deep fluorination method in orthodontics. The issues of evaluating the resistance of tooth enamel and the effectiveness of remineralizing agents using the electrometric method in the process of orthodontic treatment are not adequately covered. At the same time, the technology of applying braces has significant drawbacks, in particular, the occurrence of bacterial corrosion of the composite around the bracket, the carious process, hypoesthesia, gingivitis. In addition, metal locks and ligatures often injure the mucous membrane of the oral cavity and make it difficult to carry out hygiene procedures, which leads to inflammatory periodontal diseases and enamel demineralization.

KEYWORDS: Bracket, Carious Process, Hypesthesia, Gingivitis, Jaw Bones.

INTRODUCTION

The use of fixed orthodontic equipment has greatly expanded the possibilities of treating dentoalveolar anomalies. Its use is effective for normalizing the shape and size of dentitions, correcting the growth and development of the apical bases of the jaw and jaw bones, creating optimal myodynamic balance of muscles, as well as improving the aesthetics and functioning of the dentition. At the same time, the technology of applying braces has significant drawbacks, in particular, the occurrence of bacterial corrosion of the composite around the bracket, the carious

process, hypoesthesia, gingivitis. In addition, metal locks and ligatures often injure the mucous membrane of the oral cavity and make it difficult to carry out hygiene procedures, which leads to inflammatory periodontal diseases and enamel demineralization.

Caries develops in 15-85% of carriers of the bracket system. If the orthodontist fails to achieve optimal oral hygiene from the patient, to predict the risk of tooth decay and take timely preventive measures, this can end in failure, both for the patient and the orthodontist. The patient may experience damage to the tissues of the teeth and periodontium, and the attending physician may be sued for damages. In such situations, American courts, for example, force the orthodontist to pay compensation in the amount of 100-200 thousand US dollars. For the prevention and treatment of lesions of hard tooth tissues, a method of deep fluorination with tifenfluorides was proposed, which for a long time emit fluorine in high concentration, contributing to reliable remineralization.

Currently, many fundamental aspects of prevention in the process of orthodontic treatment have not yet been fully resolved. There is no data on the use of the deep fluorination method in orthodontics. The issues of evaluating the resistance of tooth enamel and the effectiveness of remineralizing agents using the electrometric method in the process of orthodontic treatment are not adequately covered. There are no effective motivational teaching methods and self-monitoring of the quality of toothbrushing for orthodontic patients. In this regard, the urgent task is the further development of preventive measures in the process of orthodontic treatment.

Objective: to develop and implement a set of preventive measures aimed at preventing the development of complications during orthodontic treatment of patients using non-removable equipment.

SUBJECT OF STUDY

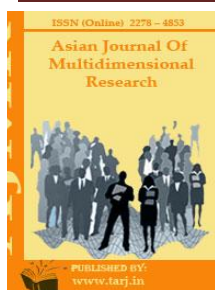
1. Clinical and medical history examination;
2. Biochemical research methods (pH, calcium, phosphorus and their ratio);
3. Instrumental studies: cephalometry, x-ray studies,
4. Statistical methods of processing the obtained materials with a correlation analysis of them.

The results of the study will help to establish risk factors for caries during orthodontic treatment. In the process of orthodontic treatment, an assessment will be given of the condition of the hard tissues of the teeth around the fixed and non-fixed braces. The effectiveness of the complex of preventive measures in patients with a reduced and increased risk of developing dental caries at the stages of treatment with orthodontic appliances will be studied.

LIST OF REFERENCES

1. Abdulkhakov, R. A. Epidemiology of Helicobacter pylori / R. A. Abdulkhakov, S. R. Abdulkhakov // Practical medicine. - 2006. - No. 4. - S. 2-3.
2. Avdeeva, E. A. Diseases of teething: classification, clinic, diagnosis, treatment: teaching aid / E. A. Avdeeva, V. L. Evtukhov. - Minsk: BSMU, 2013. -- 24 p.
3. Avunduk, A. Gastroenterology / A. Avunduk; per. from English - Moscow: Publishing house "PRACTICE", 2013. - 752 p.
4. Agapov, N. I. Clinical dentistry of childhood / N. I. Agapov. -Moscow: Medgiz, 1953.- 348 p.

5. Agapov, N. I. Symptomatic value of anomalies of the dental system / N. I. Agapov; edited by P. Dauge, M. Kovarsky, A. Evdokimov. - Moscow: State Medical Publishing House, 1926. - 139 p.
6. The algorithm for providing dental care to patients with concomitant pathology / E. N. Anisimova [et al.] // Dentistry. - Moscow - 2016. - T. 95. No. 5 - P.27-31.
7. Alimov, A. Sh. Clinical and experimental justification for the use of the Diplen-GAM bioresorbable membrane for the removal of dystopian, retenated lower third molars: abstract. dis. ... cand. honey. Sciences: 14.00.21 / Alimov Ali Shirvanievich. - Moscow, 2009. -- 26 p.
8. Anatomical reasons for the development of retention of third molars in the lower jaw / I. V. Gaivoronsky [et al.] // Kursk Scientific and Practical Bulletin "Man and Health". - 2015. - No. 2. - S. 61-65.
9. Andreev, D. N. Factors of micro- and macroorganisms affecting the effectiveness of anti-Helicobacter therapy / D. N. Andreev, Yu. A. Kucheryavy // Consilium Medicum. - 2013. - T. 15, No. 8. - S. 5-9.



Published by: **TRANS** Asian Research Journals

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**Asian Journal of
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Research**

(A Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: 10.5958/2278-4853.2020.00009.9

PLATELET-RICH AUTO PLASMA IN THE TREATMENT OF INFLAMMATORY PERIODONTAL DISEASE

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ABSTRACT

The success of treatment with generally accepted methods is extremely low, often the transition of acute inflammatory processes to subacute and chronic occurs, and recovery processes are difficult. Medical treatment of periodontitis remains the main and at the present time. This pathology is extremely difficult to treat, and it is almost impossible to eliminate the further development of the disease, which requires the introduction of new methods of treatment in dental practice. At present, periodontics are showing great interest in the use of platelet autoplasm (TAP) in the treatment of periodontal tissue lesions, which received the original name Plasmolifting™. Given the widespread prevalence of inflammatory diseases of periodontal tissues and the adverse effect on the body as a whole, there is a need to develop new both diagnostic and therapeutic complexes that could help the doctor recognize the etiological and pathogenetic factors of the disease, as well as conduct their correction at the initial stage of the onset of the disease. It is important to note that Plasmolifting™ technology does not require the use of calcium chloride and double centrifugation, while remaining as efficient, convenient and safe as possible. Platelet autologous plasma has several useful properties: it accelerates tissue regeneration, has an anti-inflammatory effect, and reduces pain, which opens up great prospects for its use in dentistry. This problem remains unresolved, since studies demonstrating the use of platelet autoplasm in the treatment of periodontitis are currently insufficient to understand the principle of its action. In connection with the above arguments, the solution of the above problems by performing the planned research work is timely and relevant.

KEYWORDS: Treatment, Chronic Generalized Periodontitis, Platelet Autoplasm.

INTRODUCTION

Inflammatory diseases of periodontal tissues (CDW) occupy a high position in the series of dental diseases, this is confirmed by the results of a WHO study, which noted that about 98% of people in the world suffer from CDW. The data provided by A.I. Grudyanov, O.A. Frolova and O.O. Yanushevich in 2009 showed that the urgency of the problem is due not only to the high prevalence (95-98% of the population) and the intensity of periodontal tissue diseases, but also to the insufficient effectiveness of the therapy for this pathology. The development of periodontal disease is initiated by a number of local and general factors. The emergence of periodontitis is facilitated by such microorganisms as: *Porphyromonas gingivalis*, *Treponema denticola*, *Tannerella forsythensis* (*Bacteroides forsythus*), *Fusobacterium* spp. and others, they are considered "marker" periodontitis microorganisms. Given the widespread prevalence of inflammatory diseases of periodontal tissues and the adverse effect on the body as a whole, there is a need to develop new both diagnostic and therapeutic complexes that could help the doctor recognize the etiological and pathogenetic factors of the disease, as well as conduct their correction at the initial stage of the onset of the disease.

Purpose of the study.

To study the effectiveness of treatment of chronic generalized periodontitis using platelet-rich autoplasm (PRP) Research Objectives:

1. To identify the prevalence of CDW with an assessment of the need for treatment in different age groups.
2. Compare the results of using platelet-rich autoplasm and standard treatment methods for CDW.
3. To study the bacterial contamination by colonies of microorganisms in the oral fluid and the contents of the periodontal sulcus in CDW before and after treatment with platelet-rich autoplasm.
4. Develop a usage algorithm and practical recommendations for the use of platelet-rich autoplasm in the complex treatment of CDW.
5. To determine the clinical and economic effectiveness of the treatment of CDW with the use of platelet autoplasm.

It is important to note that Plasmolifting™ technology does not require the use of calcium chloride and double centrifugation, while remaining as efficient, convenient and safe as possible. Platelet autologous plasma has several useful properties: it accelerates tissue regeneration, has an anti-inflammatory effect, and reduces pain, which opens up great prospects for its use in dentistry. The use of platelet-rich autoplasm (platelet-rich plasma (PRP) allows to obtain a concentrated suspension of platelets, which, when adhering, eject growth factors from their granules. It has been proven that the use of TAP improves the oxygenation of periodontal tissues, which stimulates the bactericidal and phagocytic ability of the body's immune cells, as well as supports collagen synthesis and other proteins (Makhmutova AF, 2009). The use of TAP has significant advantages: ease of use; absence of a rehabilitation period after the procedure; natural nostrum; low number of side effects; possibility of use with other types of therapy; the risk of transmission of infectious diseases is excluded (Akhmerov R.R. et al., 2007; 2011; Ivanov P.Yu., 2012; Gfatter R., 2000; Marx R.E., 2004). Since traditional methods of treating inflammatory

diseases of periodontal tissues do not increase the resistance of periodontal tissues to the action of pathogenic risk factors, the use of platelet autoplasm in the treatment of chronic forms of the disease is relevant. The above problems are also relevant in the Republic of Uzbekistan, in the literature there are few scientific works devoted to this problem. This problem remains unresolved, since studies demonstrating the use of platelet autoplasm in the treatment of periodontitis are currently insufficient to understand the principle of its action. In connection with the above arguments, the solution of the above problems by performing the planned research work is timely and relevant.

At the end of the work, it is planned to develop and put into practice methodological recommendations, scientific articles will be published in scientific journals of the republic and abroad. Presentation is planned in congresses, conferences, seminars and other scientific forums.

A patent application will be filed for the effectiveness of platelet autoplasm in the treatment of CDW, the deposit of scientific development, and certificates for a computer program for the created scientific and innovative development will be obtained.

The research results will be implemented in the educational process of medical universities in the field of dentistry.

LIST OF REFERENCES

1. Karabushina I.G. Inflammatory periodontal diseases with irritable bowel syndrome and chronic non-ulcer colitis: clinical, microbiological and morphofunctional aspects of development: author. dis. Cand. honey. sciences. Volgograd, 2004. -22 p.
2. Karaulov A.V., Sokurenko S.I., Kalyuzhin O.V. Directional regulation of immune reactions in the prevention and treatment of human diseases // Immunology, Allergology, Infectology. - 2000. No. 1. - S. 713.
3. Kisileva E.A., Korostylev A.A. Clinical and laboratory rationale for the use of immunocorrection in the complex treatment of chronic catarrhal gingivitis // Dentistry. - 2007.V. 86. - No. 1. -FROM. 34-37.
4. Clinical trials of drugs / Ed. IN AND. Maltseva, T.K. Efimtseva, Yu.B. Belousova, V.N. Kovalenko. K: MORION, 2002 .-- 352 p.
5. Kobzeva Yu.A. The use of tactivin containing colapol T-KP-2 in the complex treatment of periodontitis in patients with diabetes mellitus: author. dis. Cand. medical sciences. Volgograd, 2001 .-- 19 p.
6. Kovalevsky A., Romantsov M. Methylglucamine acridone acetate in the treatment of periodontitis (materials of a multicenter placebo-controlled study) // Doctor. 2005. - No. 10. - S. 50-52.



Published by: **TRANS** Asian Research Journals

AJMR:

**Asian Journal of
Multidimensional
Research**

(A Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: 10.5958/2278-4853.2020.00010.5

FREQUENCY OF DENTAL JAW ANOMALIES IN CHILDREN RESIDING IN VARIOUS ECOLOGICAL CONDITIONS

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ABSTRACT

2248 children of Bukhara and Zarafshan are examined. Results of research have revealed, that in a Zarafshan Toothmaxillary anomalies, illnesses paradontes meet twice more, than in a Bukhara. We recommend treatment-and-prophylatic action to begin as soon as possible, i.e. to begin with embryo the period of development of the child. In recent years, studies have been conducted to study the prevalence of dental caries, periodontal disease, and dentofacial anomalies among children and adults. However, some key points of this problem, such as the relationship between the level of pollution of others in different territories, differing in the degree of pollution of environmental objects, have not yet been clarified.[2,4] The state of hard tissues of teeth was also studied taking into account changes in the surface of tooth enamel in the form of spots, hypoplasia, fluorosis and spalls. Depending on the number of decayed, missing and filled teeth, 5 degrees of caries were determined: very low (0.0-0.1), low (1.2-2.6), moderate (2.7-4.4), high (4.6-6.5), very high (4.5-6.5), very high (6.6 or more). The results obtained indicate that the highest levels of contamination with the studied harmful substances in the atmosphere of Zarafshan in 2013-2017. ranged from 0.3 to 19.6 mg / m, which exceeded the MPC by 10.6–13.5 times, and were assessed as “causing concern” and “dangerous”. In Bukhara, pollution was less pronounced and was assessed as “permissible” and “causing concern”. More dysfunctional is Zarafshan. Common air pollutants - dust, sulfur dioxide, nitrogen dioxide, carbon monoxide, hydrocarbon - in this area are added aggressive substances such as phenol ethyl acetate, formaldehyde. It should be noted that the leading ingredient in the level of air pollution in both Zarafshan and Bukhara was inorganic dust, suspended solids, the presence of which is a consequence of dust storms characteristic of these regions of the republic.

KEYWORDS: Anomaly, Deformation, Diastema, Parodontal Diseases.

INTRODUCTION

To date, extensive experience in the treatment and prevention of dental diseases. It is proved that embryonic prophylaxis of dentoalveolar anomalies is possible during complex measures aimed at preventing and eliminating etiological and pathological factors.[3]

In this case, the most difficult is the adequate impact on the general condition of children, the elimination of factors negatively affecting the fetus and its dentition in the antenatal period.[1,5]

In recent years, studies have been conducted to study the prevalence of dental caries, periodontal disease, and dentofacial anomalies among children and adults. However, some key points of this problem, such as the relationship between the level of pollution of others in different territories, differing in the degree of pollution of environmental objects, have not yet been clarified.[2,4]

The purpose of this study was to study the condition of teeth, periodontal disease and the frequency of dentoalveolar anomalies in children living in ecologically polluted areas, and to develop therapeutic and preventive measures.

MATERIAL AND METHODS

2248 children aged 6 to 14 years and older, students of schools No. 7, 16 of Bukhara and No. 1, 3 of Zarafshan, as well as 86 pregnant women from these cities were examined. When examining the children, the shape of their faces in the face and the profile of the closed teeth were studied and when the dentition was closed in central occlusion. When examining the oral cavity, attention was paid to the condition of the frenum of the lip and tongue. We found out the timing and causes of tooth extraction, the anomaly in the position of individual teeth, dentitions and bite according to the classification of Kalvelis. The state of hard tissues of teeth was also studied taking into account changes in the surface of tooth enamel in the form of spots, hypoplasia, fluorosis and spalls. Depending on the number of decayed, missing and filled teeth, 5 degrees of caries were determined: very low (0.0-0.1), low (1.2-2.6), moderate (2.7-4.4), high (4.6-6.5), very high (4.5-6.5), very high (6.6 or more).

According to the degree of disease activity, compensated, subcompensated and decompensated forms of the carious process were distinguished (Vinogradova T.F. 1972). When classifying carious lesions of tooth tissues. The hygienic condition of the oral cavity of children was assessed by the Fedorov-Volodkina Hygiene Index (1971), Green-Vermillion.

Statistical processing of the material was carried out by traditional methods of variation statistics. When organizing and conducting, the principles of evidence-based medicine were observed.

RESULTS AND DISCUSSION

A hygienic assessment of the degree of air pollution in the cities of Bukhara and Zarafshan was carried out together with the city centers of the State Epidemiological Supervision. The results showed that the main sources of harmful emissions in Zarafshan are the quarry of the mining and smelting complex "Muruntau", enterprises for the production of nonwoven materials, building materials, a city printing house, and in Bukhara, a graphite-gypsum plant, industrial heating network, a plant for reinforced concrete products, a textile mill, silk factory, furniture factory.

The level of actual air pollution in these two cities was estimated by the most common harmful substances: sulfur dioxide, nitrogen dioxide, carbon monoxide, ammonia, phenol, hydrogen fluoride, formaldehyde, carbon disulfide, hydrogen sulfide, suspended solids, lead. The results obtained indicate that the highest levels of contamination with the studied harmful substances in

the atmosphere of Zarafshan in 2013-2017. ranged from 0.3 to 19.6 mg / m, which exceeded the MPC by 10.6–13.5 times, and were assessed as “causing concern” and “dangerous”. In Bukhara, pollution was less pronounced and was assessed as “permissible” and “causing concern”.

More dysfunctional is Zarafshan. Common air pollutants - dust, sulfur dioxide, nitrogen dioxide, carbon monoxide, hydrocarbon - in this area are added aggressive substances such as phenol ethyl acetate, formaldehyde. It should be noted that the leading ingredient in the level of air pollution in both Zarafshan and Bukhara was inorganic dust, suspended solids, the presence of which is a consequence of dust storms characteristic of these regions of the republic.

All 2248 children examined were divided into three groups (Table 1): the first group consisted of children living in Bukhara, the second in Zarafshan, the third group was a control.

The hygiene index for children living in Bukhara was 2.35 ± 0.19 ($P < 0.05$), in the city of Zarafshan 7.6 ± 0.85 ($P < 0.01$) (Table 2).

A study of the frequency and types of dentoalveolar anomalies and deformities in the examined children shows that 260 children had sagittal anomalies in Zarafshan and 254 children in the vertical direction, which makes 36.4 and 37.6%, respectively.

When analyzing the types of dentoalveolar anomalies in the sagittal direction, it was established in the sagittal direction that prognathia is the leading place (73.6%), and with an anomaly in the vertical direction, a deep bite prevails (69.7%).

TABLE 1. DISTRIBUTION OF EXAMINED CHILDREN BY AGE, GENDER AND BITE FORMATION PERIODS

<i>A place residence</i>	<i>Early shift</i>		<i>Late shift</i>		<i>Constant</i>	
<i>Bukhara city</i>	520		312		291	
<i>Floor</i>	<i>M</i>	<i>W</i>	<i>M</i>	<i>W</i>	<i>M</i>	<i>W</i>
	252	268	130	182	101	190
	48,5±3.4%	51.5±2.7%	41.7±5.1%	58.3±2.7%	34.8±4.9%	65,3±1,6%
<i>Zarafshan city</i>	530		302		293	
<i>Floor</i>	<i>M</i>	<i>W</i>	<i>M</i>	<i>W</i>	<i>M</i>	<i>W</i>
	263	267	127	175	143	150
	49.6±2.6%	50.3±2.4%	42.1±5.4%	57.9±2.1%	48.8±2.9%	51,2±2,7%
<i>Total</i>	1050		614		584	

TABLE 2 ORAL HYGIENE INDEX IN EXAMINED CHILDREN

Groups	Location	Amount of children	Before and after hygiene and dental training			
			Before		After	
			Fedorov-Volodkina Index	Fedorov-Volodkina Index	Fedorov-Volodkina Index	Fedorov-Volodkina Index
I	Bukharacity	1076	2,4±0,2	2,7±0,8	1,3±0,9	1,9±1,6
	Zarafshancity	1075	7,6±0,9*	5,6±0,9*	5,2±0,6*	4,3±0,7*
II	Bukharacity	47	1,2±0,3	1,1±0,1	1,1±0,2	1,2±0,1
III	Zarafshancity	50	1,9±0,8*	1,7±0,7	1,8±0,7*	1,6±0,6*

Note: * - a sign of reliability between places of residence.

It should be noted that the analysis of the age structure of children with dentoalveolar anomalies indicates that malocclusion in the sagittal direction both in girls and boys is mainly found at the age of 7-10 and 11-15 years.

The prevalence of anomalies in the position of the anterior teeth is twice as high among children living in the contaminated area - 23.8% and 11.8%, respectively.

The following preventive measures were recommended based on the results: Antenatal prophylaxis: reorganization of the oral cavity of a pregnant woman; prevention of mental and physical injuries of pregnant women, especially at the 5-6th week, since at this moment the rudiments of milk and some permanent teeth are laid; timely treatment of toxicosis of 1 and 2 half of pregnancy; the appointment of a balanced diet.

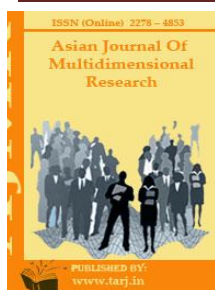
Postnatal prophylaxis: compulsory breastfeeding; prevention of rickets; elimination of bad habits; obligatory check of the frenum of the lip and tongue; during the period of teething and change of milk teeth, eating solid food; timely prosthetics with early tooth loss to prevent deformation of the dentition; balanced nutrition of children in kindergarten, at home and at school (a sufficient amount of fats, proteins, carbohydrates and vitamins).

In the period of milk and early tooth changes, children were prescribed: a set of myogymnastic exercises; polished mounds of unfinished milk fangs; normalization of nasal breathing.

Thus, a comprehensive survey of 2248 children in Bukhara and Zarafshan revealed various levels of prevalence of dentoalveolar anomalies among children, depending on their place of residence, which differ in the degree of air pollution. The highest levels of dentoalveolar anomalies are observed among children living in ecologically unfavorable territories, aged 7-10 and 11-15 years, which dictates the need for therapeutic and preventive measures as early as possible, i.e., starting from the embryonic period of development of the child.

LIST OF REFERENCES

1. Abduazimov A.D., Shaahmedova F.A. The prevalence of dentoalveolar anomalies in schoolchildren // Dentistry. 2001. No. 1 (11) .- P.36-38.
2. Zhumatov U.Zh. The formation of the dentition in the conditions of combined exposure to harmful substances // Dentistry.-2000.-No. 1 (7) .- P.57-58.
3. Leus P.A. The value of some indices in epidemiological studies of periodontal diseases // Dentistry.-1990.-№ 1.-P.80-83.
4. Yusupov S.Kh. Status and development prospects of the dental service in the Republic of Uzbekistan: Abstract. dis ... Dr. med.Sci. - Tashkent, 2000.
5. Pozovskaya EV Variable variability of the dentoalveolar system of a person. // Modern problems of science and education - 2018.-№4.-P.42-46.



Published by: **TRANS** Asian Research Journals

AJMR:

**Asian Journal of
Multidimensional
Research**

(A Double Blind Refereed & Reviewed International Journal)



DOI NUMBER: 10.5958/2278-4853.2020.00011.7

ASSESSMENT OF SOME INDICATORS OF ORAL LIQUID IN CHILDREN WITH THE PATHOLOGY OF THE TEMPOROMANDIBULAR JUNCTION

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ABSTRACT

The problem of the relationship between dental and somatic health in children and adolescents is of interest to researchers and does not lose relevance. Firstly, this is due to a tendency to increase the frequency of somatic and dental diseases in children. Secondly, this is due to the fact that modern concepts of the development of diseases, new clinical forms of pathologies arise, research methods, diagnostics and treatment are improved. During the interaction of lysozyme with a substrate of Micrococcus lysodeikticus, substrate bleaching is observed, which is recorded spectrophotometrically. The degree of enlightenment is proportional to the activity of lysozyme, which was expressed in units / ml of oral fluid [Levitsky AP, 2005]. Catalase activity in the oral fluid was evaluated using a method based on the ability of hydrogen peroxide, which did not react with catalase, to combine with molybdenum salts into a stable orange complex. Thus, in children with TMJ disease, imbalances in the prooxidant-antioxidant system are observed; a decrease in catalase activity and an increase in the level of malondialdehyde, a decrease in antimicrobial protection and an increase in the degree of contamination of pathogenic and conditionally pathogenic microflora. In children with TMJ pathology, a significant decrease in the lysozyme content in the oral fluid and a simultaneous increase in urease activity relative to these healthy children were recorded. This suggests that in children with TMJ, there was a decrease in the level of antibacterial protection of the oral fluid, as a result of which the degree of contamination of the oral cavity with pathogenic and conditionally pathogenic microflora increased.

KEYWORDS: Maxillofacial, Temporomandibular Joint, Children with the Disease.

INTRODUCTION

In the structure of dental diseases, dentoalveolar anomalies and deformations have a significant proportion. It has been established that one of the factors that support a significant frequency of morphological and functional disorders in the dentoalveolar system in the pediatric population are somatic diseases. An analysis of literature indicates that the state of the dentofacial complex in children with a disease of the temporomandibular joint (TMJ) is not well understood (3, 5, 7). It is necessary to evaluate changes in homeostasis, the state of local factors of nonspecific oral protection in children with TMJ pathology. Studies in this direction will allow to develop a set of measures aimed at reducing reactive inflammatory changes in the mucosa of the prosthetic bed and periodontal tissues during orthodontic treatment of children with TMJ. This will improve the quality of orthodontic care for this category of children (4.8). It has been established that in children with TMJ pathology, there is a depletion of the reserve capabilities of antioxidant, antimicrobial protection against the background of increased lipoperoxidation and contamination of the mouth with pathogenic and conditionally pathogenic microflora, as well as a decrease in the stability of the pH of the oral fluid and a decrease in the level of cellular metabolism (7.9). Based on the foregoing, the purpose of this study was to study the biochemical parameters of oral fluid in children with TMJ disease.

MATERIAL AND RESEARCH METHODS

Examination of sick children included a survey, examination, assessment of the state of hard tissues of teeth, noted the presence of anomalies and deformations of the dentition, the state of the TMJ. When collecting an anamnesis, complaints were clarified when pain or noise in the temporomandibular joint first appeared, how often do they occur, was treatment carried out? how effective it was. An examination of the oral cavity was carried out in a dental office, with artificial lighting using a standard set of dental instruments - a mirror and a dental probe. Data on the displacement of the lower jaw in the vertical, sagittal, and transverse planes were obtained during external examination of the face with closed dentition in the position of relative physiological rest and with maximum opening of the mouth. Patients were examined according to a single protocol, which included: determining the type of occlusion, the ratio of the first permanent molars according to Engle's classification, KPU index, IROPZ index of 1 and 2 molars according to V.Yu. Milikevich, 1984. Palpation of the TMJ was performed through the skin, in front of the tragus of the ear or through the front wall of the external auditory canal when the lower jaw was closed and with its movements. Palpating the masticatory muscles, painful and compacted areas, the presence of trigger points were determined. The degree of dysfunction of the temporomandibular joint was determined using the Helkimo clinical index. Questioning of the subjects was carried out using a specially designed questionnaire to identify TMJ pathology; the assessment was carried out in points. Рентгенологическое исследование ВНЧС у 45 больных детей в возрасте от 6 до 15 лет с внутренними нарушениями ВНЧС проведено в г Бухаре. An examination of the oral cavity was carried out in a dental office, with artificial lighting using a standard set of dental instruments - a mirror and a dental probe. Data on the displacement of the lower jaw in the vertical, sagittal, and transverse planes were obtained during external examination of the face with closed dentition in the position of relative physiological rest and with maximum opening of the mouth. Patients were examined according to a single protocol, which included: determining the type of occlusion, the ratio of the first permanent molars according to Engle's classification, KPU index, IROPZ index of 1 and 2 molars according to V.Yu. Milikevich, 1984. Palpation of the TMJ was performed through the skin, in front of the

tragus of the ear or through the front wall of the external auditory canal when the lower jaw was closed and with its movements. Palpating the masticatory muscles, painful and compacted areas, the presence of trigger points were determined. The degree of dysfunction of the temporomandibular joint was determined using the Helkimo clinical index. Questioning of the subjects was carried out using a specially designed questionnaire to identify TMJ pathology; the assessment was carried out in points. The determination of urease activity in the oral fluid was carried out by a method based on the ability of this enzyme to break down urea to ammonia, which gives a yellow color with the Nessler reagent. The color intensity of the sample is directly proportional to the activity of urease, which was expressed in micromoles of ammonia formed in 1 minute in 1 ml of oral fluid [L. Gavrikova, 1996]. Determination of lysozyme activity in the oral fluid was carried out by a bacteriological method based on the ability of lysozyme to lyse bacteria. During the interaction of lysozyme with a substrate of *Micrococcus lysodeikticus*, substrate bleaching is observed, which is recorded spectrophotometrically. The degree of enlightenment is proportional to the activity of lysozyme, which was expressed in units / ml of oral fluid [Levitsky AP, 2005]. Catalase activity in the oral fluid was evaluated using a method based on the ability of hydrogen peroxide, which did not react with catalase, to combine with molybdenum salts into a stable orange complex. The color intensity is proportional to the activity of catalase, which was expressed in millicats / l of oral fluid [Girin S.V. 1999]. The content of malondialdehyde was determined by reaction with 2-thiobarbituric acid. In this case, a colored trimethyl complex is formed. The concentration of malondialdehyde is proportional to extinction in the reaction medium of the test sample, expressed in micromoles / l of oral fluid [Steel I.D. 1977]. Elastase activity was evaluated by hydrolysis of the synthetic substrate N-t-BOC-L-alanin-p-nitrophenyl ester (Germany Sigma). Under the action of elastase, p-nitrophenol is cleaved from the substrate, giving a yellow color, the intensity of which is proportional to the activity of the enzyme. Elastase activity was expressed in nanocats per 1 liter of oral fluid, 1 Katal is an elastase activity that catalyzes the cleavage of 1 mole of p-nitrophenol [Visser L, 1972].

Statistical processing of the material was carried out using the software package Statistica 6.0. Quantitative indicators were checked for compliance with the normal distribution using t-student test. To compare the samples with a distribution close to normal, Student's criterion was used.

RESEARCH RESULTS AND DISCUSSION

The debut of the work was a wide clinical study of a large group of children with TMJ pathology, which allowed us to identify the following significant patterns. When assessing the genealogical history in children of this group, there was a burdened heredity not only for diseases of the gastrointestinal tract (80.8%), but also for diseases formed against the background of undifferentiated connective tissue dysplasia (NDST), namely varicose veins of the lower extremities (57.7%), myopia (40.4%), which is consistent with the research data of V.V. Chemodanov (2010) on the important role of NDCT in the development of chronic pathology in children. Almost a fifth of children with TMJ disease (23.1%) were born by caesarean section. A large mass at birth (more than 4000 gr.) Was noted in every fifth child (19.2%) of the main group of the survey, which is significantly more than in children of the comparison group ($p < 0.05$). The duration of breastfeeding in children of the main group was significantly less than in children of the comparison group and the control group, in addition, only 9.6% of children. Consequently, the clinical and medical history markers revealed at stage I make it possible to speak with high probability of the presence of genetically determined NDCT in children with

TMJ pathology.

Using laboratory research methods, we studied biochemical parameters characterizing the state of homeostasis and the level of nonspecific resistance in the oral cavity in children with TMJ.

An important mechanism of homeostasis in the oral cavity is the equilibrium in the prooxidant-antioxidant system. In the process, the activity of catalase, MDA, elastase, lysozyme and urease, which are presented in table 1, was studied.

TABLE 1 THE DYNAMICS OF CHANGES IN THE BIOCHEMICAL PARAMETERS OF THE ORAL FLUID IN HEALTHY CHILDREN AND WITH A TMJ DISEASE (MKAT / L, MKAT / L AND U / ML,, MKAT / L)

Indicators	Children with TMJ disease n = 48	Healthy children (control) n = 15
Catalase activity	0,122±0,021*	0,324±0,024
Malondialdehyde	0,305±0,032*	0,129±0,016
Elastase activity	2,97±0,16*	1,72±0,14
Lysozyme activity	0,025±0,004*	0,093±0,008
Urease activity	0,417±0,034*	0,096±0,011

Note: * - significance of differences $P < 0.05$ when compared with control

The data in the table demonstrate that the activity of catalase in children with TMJ in the initial clinical and laboratory study was on average 2 times lower than in children who are practically healthy. This indicates the depletion of the reserve capabilities of the antioxidant system in children with TMJ disease. Considering that in the genesis of the development of TMJ pathology in children, membrane-pathological processes at the level of cellular factors are of great importance, and the process of lipid peroxidation (LPO) was studied in the course of the study, the level of malondialdehyde (MDA) in oral fluid. The obtained research results showed that in children with TMJ pathology, the content of MDA was significantly higher than in practically healthy children. This testified to the local “in the oral cavity” intensification of lipid peroxidation processes in children with TMJ. The results of a study of the degree of inflammatory processes in the oral cavity, the intensity of which characterizes the activity of the leukocyte proteolytic enzyme elastase in the oral fluid, are presented in Table 1. An increase in elastase activity in the oral fluid was noted in biochemical analysis of oral fluid in children with TMJ. The study examined the level of antimicrobial protection by the content of lysozyme in the oral fluid, the results are summarized in table 1. The data in the table indicate that in children with TMJ, the activity of lysozyme in the oral fluid was 2.4-3 times less than in children without somatic diseases. The state of antimicrobial protection in the oral cavity was also evaluated by the activity of urease in the oral fluid, which is produced by pathogenic and conditionally pathogenic microflora. The results of a study of the activity of urease in the oral fluid in children with TMJ pathology and practically healthy ones are presented in Table 1. As can be seen from the presented results of the studies, the activity of urease in the oral fluid of children with TMJ pathology was on average 2 times higher than that in healthy children ($P < 0,05$). Thus, a decrease in catalase activity and a high content of MDA in the oral fluid in children with TMJ pathology indicated a violation of the reserve capabilities of the antioxidant system and intensification of lipid peroxidation in the oral cavity. In children with TMJ pathology, a significant decrease in the lysozyme content in the oral fluid and a simultaneous increase in urease activity relative to these healthy children were recorded. This suggests that in children

with TMJ, there was a decrease in the level of antibacterial protection of the oral fluid, as a result of which the degree of contamination of the oral cavity with pathogenic and conditionally pathogenic microflora increased.

The results of clinical and laboratory studies dictate the need to develop rational preventive measures that will accompany the treatment of children with TMJ.

Thus, in children with TMJ disease, imbalances in the prooxidant-antioxidant system are observed; a decrease in catalase activity and an increase in the level of malondialdehyde, a decrease in antimicrobial protection and an increase in the degree of contamination of pathogenic and conditionally pathogenic microflora.

LIST OF REFERENCES

1. Averyanov S.V. The concept of etiology, pathogenesis and prevention of dentofacial anomalies in the children population living in the zone of ecological distress: abstract. dis. Dr. honey. Sciences: code special. 01/14/14 / GOUVPO "Perm. State. Medical acad." Perm, 2010.46s.
2. Alimsky A.V. Age-related dynamics of the growth of prevalence and changes in the structure of dentoalveolar system anomalies among preschoolers and schoolchildren // Dentistry. 2002. No. 5. S. 67-71.
3. The relationship of the functional state of the dentofacial and autonomic nervous systems / O. G. Bugrovetskaya [et al.] // Manual. therapy. 2010. No. 2 (38). S. 18-23.
4. The influence of environmental factors on the prevalence of dentofacial anomalies, and their correlation with diseases of periodontal tissues in schoolchildren of Dnepropetrovsk / O.V. Money [et al.] // VKn. stomatol. 2004. No. 3. P. 72-75.
5. Kolesnik K.A. The prevalence of dentoalveolar anomalies and deformities in children with endocrine diseases // Tavrichesky honey. biol. Vestn. 2009. No. 4 (48). S. 81-83.
6. Kupriyanov I.A. The role of connective tissue dysplasia in the development of the pathology of the maxillofacial region occlusion system: author. dis. Dr. honey. Sciences: 14.00.15; 14.00.21 / Novosibirsk. state honey. Acad. Novosibirsk, 2006.39 s.
7. Perova EG The nature of dentoalveolar anomalies and deformities in children with various conditions of the musculoskeletal system // Institute of Dentistry. 2010.Vol. 1, No. 46. S.74-75.
8. Proskokova S.V., Arsenina O.I. The prevalence of dentoalveolar anomalies and deformities in children of the Khabarovsk Territory who were under the influence of environmentally unfavorable factors // Orthodontics. 2010. No. 2 (50). S. 11-13.
9. Dental management of patients with endocrine disorders / F.L. Carlos [et al.] // J. Clin. Exp. Dent. 2010. Vol. 2, No. (4). P. 196-203.

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