

The Indifference of Daily Wearing of Corrective Linen in Relation to Platelet Activity in Women of Second Adulthood with First Degree Hypoid Obesity

A.A. Bikbulatova and I.N. Medvedev

Russian State Social University, Moscow, Russia.

<http://dx.doi.org/10.13005/bpj/1571>

(Received: 16 September 2018; accepted: 19 November 2018)

Despite the long and systematic efforts of modern medicine, obesity in women in developed countries is still a fairly common condition. Particular attention to this problem is caused by an increase in recent years in the number of cases of this pathology among women of working age who do not have the opportunity to regularly visit fitness halls and comply with various dietary restrictions. In this connection, the problem arises of cosmetic correction of their figures with minimal costs and efforts on the part of women. An exit from the given situation can be wearing corrective clothes, capable to lower volumetric sizes of a body by mechanical influence on it in problem sites. In the work, an evaluation was made of the safety of prolonged wearing of the author's version of the trousers, taking into account hematological and haemostasiological indices. It was found that in women with obesity of grade 2, who received this correction, there was a persistent retention of the measured values within the limits of the norm. The use of the author's version of corrective clothing in women with obesity was accompanied by a visual decrease in the size of their body at the place of wearing the used product. At the same time they had a stably normal level of platelet aggregation, corresponding to the values of control. The obtained results allow to consider the author's corrective clothing as a full and safe component of visual correction of obesity manifestations in women.

Keywords: Second mature age, Obesity, women, Platelets, aggregation, corrective clothing.

The gradual improvement of the quality of life of the modern population and the progressive decrease in the share of manual labor in production lead to an increase in the prevalence of obesity¹. The excessively large body weight can be experienced quite acutely by the female part of the population, which often tries to reduce the level of obesity, resorting to various dietary influences and all sorts of regular physical exertion^{2,3}. At the same time, there is a fairly large proportion of women psychologically suffering from a cosmetic defect associated with excessive fat deposition in different parts of the body, but for various reasons does not

consider it acceptable for them to adhere to dietary influences and perform regular physical activities⁴. Such a category of women sees for themselves the optimal option for a way out of the situation, long-term wearing of corrective underwear that can visually reduce the volume of problematic parts of the body and create the illusion of greater harmony^{5,6}.

There is a point of view that the currently used versions of corrective linen are not always indifferent to health and sometimes can weaken the blood circulation in the underlying tissues⁷. In this connection, it is necessary to continue to search

for effective options for corrective clothing, while taking into account its influence on blood values that are significant for microcirculation, including the activity of platelets. The ideal of corrective clothing can be considered its variants, which do not have any side effects^{8,9}.

Earlier, in clinical trials^{10,11} and in experiments^{12,13,14} it was shown that many non-drug effects on the body affect its blood, including the aggregation of its cells¹⁵. In previous studies, it was also found that the use of non-pharmacological agents can reduce the level of platelet activity to a greater or lesser extent¹⁶. Considering that for the bulk of working women with obesity, a low commitment to regular exercise is characteristic¹⁷. In this connection, different versions of corrective clothing may be very promising for them¹⁸. The most important requirement to it should be the preservation of health in women who carry it¹⁹, including the preservation of a stable normal and very significant level of platelet aggregation for microcirculation. In this connection, the goal is to assess the dynamics of platelet aggregation activity important for microcirculation in women of the second adulthood with first degree obesity and obesity, daily wearing the author's version of corrective clothing for 6 months.

MATERIALS AND METHODS

The work was performed on people living in Central Russia (Moscow and Moscow region). In the study, 33 clinically healthy women of the second adulthood (mean age 42.1 ± 2.2 years). They formed a control group. Also, 45 clinically healthy women of the same age (mean age 43.2 ± 1.8 years) with obesity of 1 degree in the gynoid type, who made up the observation group, were taken under observation. The diagnosis of obesity was in all cases set according to generally accepted criteria. The accompanying chronic diseases (chronic bronchitis, chronic tonsillitis, chronic cholecystitis) in some individuals from the observation group were in a state of prolonged persistent remission. The main criterion for selection in the observation group was the desire for women to look more slim without diet and exercise. In the control group, clinically healthy women were selected without any chronic diseases. This research is approved by the local Ethics Committee of the Russian State Social

University on May, 14th, 2015 (Record '15). All the examined persons gave written informed consent on participation in conducted research.

In our research we determined the activity of the processes of lipids' peroxidation (LPO) in blood plasma which was registered according to the content of thiobarbituric acid-active products in it with the help of a set produced by the firm "Agat-Med" (Russia) and to the level of acylhydroperoxides (AHP)²⁰. We also registered antioxidant activity of blood²¹.

The concentration of P-selectin and PECAM-1 molecules (Bender MedSystems GmbH, Austria) was determined by plasma enzyme immunoassay.

After platelets' washing and resuspending we estimated quantitatively the levels of cholesterol (CS) by enzymatic colorimetric method with the help of a set produced by the firm "Vital Diagnostikum" (Russia) and common phospholipids (CPL) according to the quantity of phosphorus contents in them²².

The evidence of intraplatelet LPO processes was determined in washed and resuspended platelets according to concentration of malon dialdehyde (MDA) in the reaction of thiobarbituric acid reduction and quantity of AHP²⁰.

Platelets' quantity in capillary blood was calculated with the help of Gorjaev's box. Platelets' aggregation (AP) was estimated by visual micromethod with application of ADP (0.5×10^{-4} M), collagen (dilution 1:2 of the basic suspension), thrombin (0.125 un/ml), adrenaline (5.0×10^{-6} M) and hydrogen peroxide (7.3×10^{-3} M) as inductors²³.

All women of the observation group for 6 hours a day for 6 months each carried the corrective clothing developed by the author, designed to correct the figure and reduce its visual perception. The female figure corrective figure used consisted of interconnected front and back panels made of fabric, forming, when connecting the trousers, in which the leg openings and the waist opening were edged with an elastic band. In the front middle seam of the applied article, a connecting element is made, consisting of a vertical row of hooks and several vertical rows of loops responding to them. The panels were completely made of elastic fabric, with an opening in the perineum on each panel²⁴.

Women of the observation group were examined and examined at the end and after 3 and

6 months of daily wearing corrective clothing. Women control is inspected and examined once.

Received in our research results were processes by Student's (t) criterion.

RESULTS

During the entire period of wearing corrective clothing, in no case have complaints of discomfort or worsening of the initial well-being. In all cases, women were satisfied with the achievement of a more slender figure in the initially problematic areas (hips).

Daily wearing of corrective clothing was accompanied by the retention of observed low-level lipid peroxidation in observed women with obesity. So, in 3 months the amount of AGP and thiobarbituric acid in the plasma remained unchanged at $1.72 \pm 0.046 D_{233}/1 \text{ ml}$ and $3.25 \pm 0.040 \mu\text{mol/l}$ (in the control $1.74 \pm 0.032 D_{233}/1 \text{ ml}$ and $3.22 \pm 0.037 \text{ imol/l}$, respectively). By 6 months wearing corrective clothing, the content of AHP in the plasma of the observed women was 1.76 ± 0.041

$D_{233}/1 \text{ ml}$ with the level of thiobarbituric acid-active compounds $3.21 \pm 0.038 \mu\text{mol/l}$ in the background against the stability of the antioxidant activity of the plasma ($32.0 \pm 0.44\%$ in the end and $32.4 \pm 0.40\%$ at the end of the observation). As a result of wearing the author's version of the corrective clothing, the concentration of normal concentrations in the plasma of adhesion molecules taken into account was noted in women (Table 1). For half a year of observation in obese women, the levels of P-selectin and RESAM-1 remained at the same level, significantly not differing from the level of control.

As a result, 3 months. daily wear of corrective clothing in membranes of platelets of obese women noted the preservation at the control level of $0.81 \pm 0.008 \mu\text{mol}/10^9$ platelets and $0.73 \pm 0.007 \text{ imol}/10^9$ platelets (at the end of $0.80 \pm 0.010 \mu\text{mol}/10^9$ platelets and $0.74 \pm 0.006 \mu\text{mol}/10^9$ platelets, respectively). Continuation of the use of corrective clothing did not affect the state of lipid composition of platelets ($0.81 \pm 0.007 \text{ imol}/10^9$ platelets, $0.73 \pm 0.009 \mu\text{mol}/10^9$

Table. The dynamics of hematological indicators in obese women, who daily carried the author's version of corrective clothing

Parameters	Clinically healthy women with obesity, wear corrective clothing, n=45, M±m			Control, n=33, M±m
	initial state	3 months	6 months	
acylhydroperoxides of plasma, $D_{233}/1 \text{ ml}$	1.75 ± 0.036	1.72 ± 0.046	1.76 ± 0.041	1.74 ± 0.032
thiobarbituric acid-products of plasma, $\mu\text{mol/l}$	3.19 ± 0.049	3.25 ± 0.040	3.21 ± 0.038	3.22 ± 0.037
antioxidant activity of plasma, %	32.0 ± 0.44	31.9 ± 0.35	32.4 ± 0.40	32.3 ± 0.44
cholesterol of platelets, common phospholipids of acylhydroperoxides of platelets, $D_{233}/10^9$ platelets	0.80 ± 0.010	0.81 ± 0.008	0.81 ± 0.007	0.81 ± 0.012
malonic dialdehyde of AP with ADP, s	0.74 ± 0.006	0.73 ± 0.007	0.73 ± 0.009	0.74 ± 0.007
AP with collagen, s	3.08 ± 0.014	3.10 ± 0.010	3.05 ± 0.013	3.12 ± 0.014
AP with thrombin, s	1.35 ± 0.010	1.39 ± 0.009	1.36 ± 0.012	1.35 ± 0.008
AP with ristomycin, s	42.2 ± 0.14	42.5 ± 0.15	42.6 ± 0.07	42.4 ± 0.12
AP with CH_2O_2 , s	33.0 ± 0.16	32.8 ± 0.19	32.8 ± 0.17	32.6 ± 0.13
P-selectin, ng/ml	57.0 ± 0.12	56.5 ± 0.14	56.7 ± 0.10	56.4 ± 0.09
PECAM-1, ng/ml	45.8 ± 0.14	45.9 ± 0.15	46.1 ± 0.11	45.7 ± 0.12
	46.9 ± 0.22	46.6 ± 0.19	47.1 ± 0.18	46.7 ± 0.23
	92.8 ± 0.36	93.4 ± 0.30	94.8 ± 0.28	93.6 ± 0.32
	98.9 ± 0.47	98.5 ± 0.53	98.2 ± 0.46	98.4 ± 0.44
	47.1 ± 0.32	47.3 ± 0.35	47.0 ± 0.29	47.3 ± 0.31

Note: the reliability of the differences between the control and the results of three surveys of the observation group was not found

platelets), retaining its values at the control level (CS 0.81 ± 0.012 $\mu\text{mol}/10^9$ platelets and CPL 0.74 ± 0.007 $\mu\text{mol}/10^9$ platelets).

Initially had low activity platelets observed obese women, LPO remained at a level close to the end of 3 months daily wearing corrective clothing. After 6 months. the continuous use of LPO products in platelets of women in the study was also preserved without dynamics (AHP 3.05 ± 0.013 $D_{233}/10^9$ platelets and MDA 1.36 ± 0.012 $\text{nmol}/10^9$ platelets, respectively) and corresponding to the control level (AHP 3.12 ± 0.014 $D_{233}/10^9$ platelets, MDA 1.35 ± 0.008 $\text{nmol}/10^9$ platelets, respectively).

Daily use of corrective clothing in women was not accompanied by significant dynamics of platelet hemostasis activity. The number of platelets in their blood is still at the normal level. At the same time, initially normal platelet aggregation in women with obesity as a result of wearing the author's version of corrective clothing remained within the norm. As a result of the daily wearing of corrective clothing, the stability of the AT in response to all tested inductors at a level close to the control was recorded in the observed women. In this case, the most active response of platelets in them was identified for collagen, ADP and ristomycin. Less active was the AP with H_2O_2 and thrombin. The maximum duration of development of AP was observed in women with obesity, wearing the author's version of corrective clothing, in response to adrenaline – 94.8 ± 0.28 s (Table 1).

DISCUSSION

Recently, corrective clothing has become increasingly popular among mature women with varying degrees of obesity^{25,26}. Her wearing is a recognized alternative to dietary restrictions and regular, sometimes very pronounced physical exertion in the matter of achieving a more slender, visual perception of a woman's figure. Applied corrective clothing, worn on the hips in the form of trousers, was able to guarantee a tight silhouette and comfort during wearing²⁷. Women in her felt free, comfortable and more confident in themselves, spending a lot of time on their feet. At the same time, this corrective clothing remained invisible

under the clothes, providing an external change of the woman for the better^{28,29}.

It is known that in society there are some unsubstantiated fears about the possibility of negative influence of corrective clothing on microcirculatory processes in tissues. To completely eliminate all doubts in this regard, the present study was conducted.

It was found that the daily wearing of corrective clothing does not affect the initially normal intensity of lipid peroxidation in women's blood plasma. This completely eliminated the risk of negative stimulation of the blood platelets^{30,31}. At the same time, the preservation of the initially low activity of LPO in the platelet membranes provided them with the optimality of the activity of the enzyme systems of blood plates and structures on their surface. Revealed in women with obesity, daily wearing corrective clothing, a decrease in the plasma level of P-selectin and PECAM-1 makes a serious contribution to the stability of the physiological level of platelet activity. This also indicates the minimization of their risk of episodes of blocking the capillary bed with platelet microthrombi and the preservation of optimal conditions for metabolism in tissues against the background of wearing the author's version of clothing³².

The found preservation of the AP time in the observed women, who daily carried corrective author's clothes, can be regarded as a consequence of the maintenance of the invariability of LPO intensity in plasma and platelets and the optimum state of thrombocyte membranes^{33,34}. This ensures stability of normal functioning of receptor and postreceptor mechanisms in platelets³⁵. A sufficiently long time of development of AP under the influence of ristomycin in obese women in the presence of corrective clothing should be attributed to the invariably low level of von Willebrand factor in their blood³⁶. The relatively high resistance of their platelets to hydrogen peroxide was indicated by the preservation of the optimal duration of AP with H_2O_2 . This indicated a constant high activity of the antioxidation system in platelets. The found stability of the time of AP against the background of the daily wearing of corrective clothing is obviously associated in women with obesity, not only with a low activity of LPO in the platelet

membranes, but also with the basal activity of the enzymes of their thromboxane formation. This was indicated by the preservation of a high duration of AP with weak inducers, which is realized through the mechanism of thromboxane formation.

It becomes clear that for 6 months of applying corrective clothing in obese women, low activity of LPO processes in plasma and platelets is preserved, ensuring the stability of their normal aggregation and its compliance with the level of control^{37,38,39}. This indicates the complete safety of the tested version of corrective clothing in terms of platelet aggregation rates^{40,41}, which largely determine the rheological properties of blood in the capillaries^{42,43}. In this regard, we can assume that wearing an author's version of corrective clothing is indifferent to significant platelet activity for microcirculation and can be worn by women for a long time.

CONCLUSION

In recent years, among working women with signs of obesity, the popularity of wearing corrective clothing is growing. Its use is an affordable alternative to dietary restrictions and regular very active physical activity in order to achieve a more slender figure. Given that the use of this clothing should occur daily, the issue of its safety in relation to the very significant platelet aggregation for microcirculatory processes is very topical. It was found that a 6-month daily wearing of corrective clothing keeps well-being in obese women and does not cause discomfort. Its use does not affect lipid peroxidation in plasma and platelets. In addition, daily for six months wearing women with obesity corrective clothing is accompanied by the preservation of normal aggregation activity of platelets. The obtained results make it possible to consider the use of the author's version of corrective clothing for full-fledged and safe variants of correction of a female figure for obesity that does not disrupt microcirculation in tissues during prolonged use.

REFERENCES

1. Vorobyeva, N.V. Physiological Reaction of Erythrocytes' Microrheological Properties on Hypodynamia in Persons of the Second Mature Age. *Annual Research & Review in Biology*, **20**(2) : 1-9. doi: 10.9734/ARRB/2017/37718 (2017)
2. Kutafina, N.V. Platelet Parameters of Holstein Newborn Calves. *Annual Research & Review in Biology*, **15**(2):1-8. doi: 10.9734/ARRB/2017/35214 (2017)
3. Glagoleva, T.I. and Zavalishina, S.Yu. Aggregative Activity of Basic Regular Blood Elements and Vascular Disaggregating Control over It in Calves of Milk-vegetable Nutrition. *Annual Research & Review in Biology*, **12**(6): 1-7, DOI: 10.9734/ARRB/2017/33767 (2017)
4. Zavalishina, S.Yu. Physiological Features of Hemostasis in Newborn Calves Receiving Ferroglukin, Fosprenil and Hamavit, for Iron Deficiency. *Annual Research & Review in Biology*, **14**(2): 1-8. DOI: 10.9734/ARRB/2017/33617 (2017)
5. Solodushenkova, T.S. Multifunctional medical clothing. In the collection: Interaction of science and society: problems and perspectives. Collection of articles of the International Scientific and Practical Conference, 104-106 (2017)
6. Slesarchuk, I.A. and Gubareva, L.A. Investigation of the possibilities of creating therapeutic and preventive clothing that controls the state of the human body. Territory of new opportunities. *Bulletin of the Vladivostok State University of Economics and Service*, **4** (31): 165-170(2015)
7. Chizhova, N.V., Chalenko, E.A. and Shpachkova, A.V. Designing of corset linens. Moscow, 64. (2013)
8. Chizhova, N.V., Chalenko, E.A. and Bordacheva, A.A. Technological processes of manufacturing corset-linen products, 162 (2013)
9. Ivkin, M.P. Perfection of methods of ergonomic designing of corset products taking into account features of a constitution of female figures. The dissertation author's abstract on competition of a scientific degree of the candidate of engineering sciences. Moscow State University of Design and Technology. Moscow, 24 (2010)
10. Maksimov, V.I., Parakhnevich, A.V., Parakhnevich, A.À., Glagoleva, T.I. and Kutafina, N.V. Physiological Reaction of Erythrocytes' Micro Rheological Peculiarities in Milk Fed Piglets after the Negative Impact of the Environment. *Annual Research & Review in Biology*, **17**(1): 1-8. doi: 10.9734/ARRB/2017/35867 (2017)
11. Maksimov, V.I., Parakhnevich, A.V., Parakhnevich, A.À., Glagoleva, T.I. and Kutafina, N.V. Rheological Properties of Erythrocytes of Healthy Piglets during the Transition from Dairy to Vegetable Nutrition. *Annual Research & Review in Biology*, **16**(4): 1-7. doi: 10.9734/

- ARRB/2017/35865 (2017)
12. Zavalishina, S.Yu. Physiological Dynamics of Spontaneous Erythrocytes' Aggregation of Rats at Last Ontogenesis. *Annual Research & Review in Biology*, **13**(1): 1-7. DOI: 10.9734/ARRB/2017/33616 (2017)
 13. Zavalishina, S.Y. Restoration of Physiological Activity of Platelets in New-Born Calves With Iron Deficiency. *Biomed Pharmacol J*, **10**(2):711-716. DOI: <http://dx.doi.org/10.13005/bpj/1160> (2017)
 14. Skoryatina, I.A. and Zavalishina, S.Yu. Impact of Experimental Development of Arterial Hypertension and Dyslipidemia on Intravascular Activity of Rats' Platelets. *Annual Research & Review in Biology*, **14**(5): 1-9. DOI: 10.9734/ARRB/2017/33758 (2017)
 15. Zavalishina, S.Y. and Nagibina, E.V. Dynamics of microrheology characteristics of erythrocyte in children 7-8 years with scoliosis with therapeutic physical training and massage. *Technologies of Living Systems*, **9**(4):29-34. (2012)
 16. Skoryatina, I.A. and Zavalishina, S.Yu. A Study of the Early Disturbances in Vascular Hemostasis in Experimentally Induced Metabolic Syndrome. *Annual Research & Review in Biology*, **15**(6): 1-9. doi: 10.9734/ARRB/2017/34936 (2017)
 17. Tashpulatov, S.Sh. and Andreeva, E.G. Theoretical foundations of the technology of manufacturing of garments. Tashkent, 224 (2017)
 18. Rogozhin, A.Yu., Guseva, M.A. and Andreeva, E.G. Simulation model of the process of shaping the surface of clothing. *Design and technology*, **63** (105): 47-49 (2018)
 19. Andreeva, E.G., Mokeyeva, N.S., Glushkova, T.V., Kharlova, O.N. and Chulkova, E.N. Rehabilitation and prevention of disability: clothes and corrective devices: Handbook. Moscow, 90. (2010)
 20. Csovari, S., Andyal, T. and Strenger, J. Blood antioxidative parameters and their diagnostic value in elderly patients. *Laboratory business*. **10**:9-13. (1991)
 21. Volchegorskij, I.A., Dolgushin, I.I., Kolesnikov, O.L. and Cejlikman, V. Je. Experimental modeling and laboratory assessment of adaptive reactions of the organism. Cheljabinsk, 167 (2000)
 22. Kolb, V.G. and Kamyshnikov, V.S. Handbook of Clinical Chemistry. Minsk: "Belarus", 367 (1982)
 23. Maksimov, V.I., Parakhnevich, A.V., Parakhnevich, A.À., Glagoleva, T.I. and Kutafina, N.V. Erythrocytes' Microrheological Features of Piglets during the Phase of Dairy-vegetable Nutrition after Damage or Common Supercooling. *Annual Research & Review in Biology*, **16**(3): 1-8. doi: 10.9734/ARRB/2017/35864 (2017)
 24. Kayumova, R.F. and Bikbulatova, A.A. Correcting the figure of women's clothing. Patent for the utility model RU 27993, 17.07.2002.
 25. Bikbulatova, A.A. and Andreeva, E.G. Method of determining requirements for therapeutic and preventive garments. *Sewing industry*, **1** : 37-40 (2013)
 26. Bikbulatova, A.A. and Martynova A.I. To the question about the psychological comfort of clothing for special purposes. In the collection: from Science to service. New materials and technological processes at the enterprises of service. Materials X international scientific-practical conference, 108-110 (2005)
 27. Bikbulatova, A.A. and Andreeva, E.G. Designing clothing for people with disabilities (the formation of the educational program). *Natural and technical Sciences*, **10**(88) : 361-364 (2015)
 28. Bikbulatova, A.A. and Andreeva, E.G. Dynamics of Platelet Activity in 5-6-Year Old Children with Scoliosis Against the Background of Daily Medicinal-Prophylactic Clothes' Wearing for Half A Year. *Biomed Pharmacol J*, **10**(3). Available from: <http://biomedpharmajournal.org/?p=16546> (2017)
 29. Bikbulatova, A.A. Dynamics of Locomotor Apparatus' Indices of Preschoolers with Scoliosis of I-II Degree Against the Background of Medicinal Physical Training. *Biomed Pharmacol J*, **10**(3). <http://biomedpharmajournal.org/?p=16762> (2017)
 30. Glagoleva, T.I. and Zavalishina, S.Yu. Physiological Peculiarities of Vessels' Disaggregating Control over New-Born Calves' Erythrocytes. *Annual Research & Review in Biology*, **19**(1): 1-9. DOI: 10.9734/ARRB/2017/37232 (2017)
 31. Skoryatina, I.A. and Zavalishina, S.Yu. A Study of the Early Disturbances in Vascular Hemostasis in Experimentally Induced Metabolic Syndrome. *Annual Research & Review in Biology*, **15**(6): 1-9. doi: 10.9734/ARRB/2017/34936 (2017)
 32. Sizov, À.À. and Zavalishina, S.J. Russian Criminal Legislation in Prevention of Sexually Transmitted Diseases in the Territory of the Russian Federation. *Biology and Medicine (Aligarh)*, **7**(5): BM-142-15, 5 (2015)
 33. Maksimov, V.I., Parakhnevich, A.V., Parakhnevich, A.À., Glagoleva, T.I. and Kutafina, N.V. Physiological Reaction of Erythrocytes' Micro Rheological Features in Newborn Piglets on Unfavourable Environmental Factors. *Annual*

- Research & Review in Biology*, **16**(1): 1-8. doi: 10.9734/ARRB/2017/35866 (2017)
34. Belozeroва, T.B. and Agronina, N.I. Independent Quality Estimation of Social Services: Rendering to Patients and Invalids. *Prensa Med Argent*, **103**:4. doi: 10.4172/lpma.1000255 (2017)
 35. Oshurkova, Ju.L. and Glagoleva, T.I. Physiological Activity of Platelet Aggregation in Calves of Vegetable Feeding. *Biomedical & Pharmacology Journal*, **10**(3) : 1395-1400 (2017)
 36. Bikbulatova, A.A., Karplyuk, A.A. and Tarasenko, O.V. Model of Activities of the Resource Training Center of the Russian State Social University in Terms of Professional Orientation and Employment of Persons with Disabilities. *Psikhologicheskaya nauka i obrazovanie*, **22**(1): 26-33 (2017)
 37. Bikbulatova, A.A. and Pochinok, N.B. Professional Skills Competitions for People with Disabilities as a Mechanism for Career Guidance and Promotion of Employment in People with Special Needs. *Psikhologicheskaya nauka i obrazovanie*, **22**(1) : 81-87 (2017)
 38. Getmanceva, V.V., Pakhomova, T.A. and Andreeva, E.G. The preferences of children clothing. *Sewing industry*, **2** : 34-36 (2010)
 39. Glagoleva, T.I. and Zavalishina, S.Yu. Aggregation of Basic Regular Blood Elements in Calves during the Milk-feeding Phase. *Annual Research & Review in Biology*, **17**(1): 1-7. doi: 10.9734/ARRB/2017/34380 (2017)
 40. Guseva, M.A., Petrosova, I.A., Andreeva, E.G., Saidova, S.A., and Tutova, A.A. Investigation of the system "man-clothes" in dynamics for the design of ergonomic clothing. *Natural and Technical Sciences*, **11** : 513-516 (2015)
 41. Agronina, N.I. and Belozeroва, T.B. Rendering Social Services Assessment by Social Service Organizations in Belgorod and Kursk Regions in Russia. *Prensa Med Argent*, **103**:4. doi: 10.4172/lpma.1000256 (2017)
 42. Skoryatina, I.A., Zavalishina, S.Yu., Makurina, O.N., Mal, G.S. and Gamolina, O.V. Some aspects of Treatment of Patients having Dislipidemia on the Background of Hypertension. *Prensa Med Argent*, **103**:3. doi: 10.4172/lpma.1000250 (2017)
 43. Belozeroва, T.B. and Agronina, N.I. The Development of the Social Service System in Russia. *Prensa Med Argen*, **103**:4. DOI: 10.4172/lpma.1000257 (2017).