144 - CORRELATION BETWEEN DERMATOGLYPHY AND THE BASIC TYPOLOGICAL PECULIARITIES OF COLLEGE STUDENTS' CENTRAL NERVOUS SYSTEM

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Introduction

The utilization of finger prints in the individual identification has become diffused, because clinical-medical investigations had a great interest in it because of the discovery of the association of congenital anomalies determined by chromosomical mutations (Saldanha, 1968).

Thanks to it's absolute security, dactyloscopy today, is applied to several sectors of human activity. Accepted as a science's area, it got status either from prescription and prevision.

According to Richards apud Sinclair (2005) "dermatoglyphy is important to discover anomalies and diseases, because the fingers and hands' development is made at important stages of the fetus development".

Dermatoglyphy has been widely studied in Brazil along the last years. Studies made by Fernandes Filho (1997), Medina (2001), Silva Dantas (2002), Cunha Júnior et al. (2003), among others, have been investigating the dermatoglyphic characteristics in high performance athletes of many sport modalities.

About the temperament Novais apud Kalinine (2003,pg.12), observes that it is **"**the group of morphological physiological peculiarities that differ the individuals from each other and act on the character**"**, and concludes, "it is the spontaneous way of being, thinking and feeling, acting and reacting of each one".

Despite showing some limits, nature's temperament can show changes during the learning process and through life's experiences. According to Allport (1969, p.68) "the alteration is possible, but not unlimited.

For Kalinine (2001), the basic typological peculiarities of the central nervous system, when considered over the biological view, are the causers of the human being temperament. They are fundamental to help a better understanding of the human actions and their daily activities at work, sports and social life.

Based on the facts presented so far, this study has as its objective verifying if there is a correlation between dermatoglyphy and the central nervous system's basic typological peculiarities in university students.

Methodological Procedures

Research Ethic

This research is made according to the “Normas de Realização de Pesquisas em Seres Humanos”, RESOLUTION Nº 160, from October 10th of 1996, in the paragraph II.2, of the Conselho Nacional de Saúde _ that determines about the research that, individual or collectively, involves the human being, in a direct of indirect way, in its totality or part of them, including the dealing of information or materials.

Study Model

This study which is descriptive, being a status study, allows the observation, analysis and objective and complete description of the phenomenon (Thomas and Nelson, 2002). The descriptive research is based on the observation, register and analysis and in the correlation of facts or phenomenas (variable), without having manipulation of them.

It also shows a co relational typology that, according to Thomas and Nelson (2002), explores the existing relation among the varieties. The co relational research basic methods are collecting data over two or more characteristics of the same person, and determining the relation between the characteristics and the possible predictions made by them.

Sample and Population

The population was composed by students of both sex of the Physical Education Course.

This study's sample was made of 163 students of both sexes from the Physical Education Course of UNOESC, at Joaçaba-SC, who signed the Termo de Consentimento livre e esclarecido.

Dermatoglyphic Method (CUMMINS AND MIDLO, 1942).

To analyze the genetic characteristics trough the finger prints data, it was chosen the Dermatoglyphic Method, proposed by CUMMINS, MIDLO (1942), referenced by FERNANDES FILHO (1997).

To get the data, it was used papers of medium density and roughness machines (size A4) and a finger print collect cushion, Brand Impress - Model: 250, Year of fabrication: 2001, and it was made the following procedure:

1) Covering the phalanx with the ink, from the side of the ulnar surface, from the sides to the nails; for the phalanx impression it must be pressed, carefully, without moving, turning the finger, from a side to the other of the nail, in the direction of the indicator.

After getting the finger prints, happen the preliminary reading process, whose standards are:

- Identification of the fingers distal phalanges drawings;
- Arc “A”- drawing without deltas, it is characterized by the absence of triradii, or deltas, and it's made of crests, which crosses, transversally, the digital cushion;
- Fastener “L”- it has the drawing of a delta. It's a half-closed drawing, in which the skin crests start in one side of the finger, turn around, in the form of an L in relation to the other, but without approaching it, from where it begins.
- Whorl “W”- drawing of two deltas. It's a closed picture, in which the central lines are gathered in the center of the drawing.



Typological peculiarities of the central nervous system

The instrument used was the questionnaire of STRELAU (1984), that served to identify the basic typological peculiarities

of the nervous system (Força dos Processos de Excitação - FPE; Força dos processos de Inibição - FPI; Mobilidade - M; Equilibrio - E).

The questionnaire of STRELAU (1984), shows levels of veracity, objectivity and validity r > 0,9 , deserving to be detached from other methodologies. It allows to reveal human beings with blood, fiery temper, imperturbable and melancholic temperament with p < 0,05 (VIATKIN, 1984).

In this research it was used the Portuguese version, that was validated trough the application of the Russian and the Portuguese version with 10 people, which knew both languages. The result that this application showed was a r = 0,96 and p < 0,001 (KALININE, 2001).

Statistic Treatment

For the statistic treatment it was used the central tendency statistic and non parametric math methods (Pearson Correlation). The significance level adopted will be of á 0,05.

Results and Discussion

The results obtained in the present study are exposed in the picture below.

Picture 1 - Results of the co relational analysis between the dermatoglyphic indexes and the basic typological peculiarities of the central nervous system from students of both sex of the Physical Education Course at UNOESC in Joaçaba-SC - 2005.

		FPE	FPI	M	A	L	W	D10
FPE	Person Correlation	1,000	,587**	,407**	-,033	-,035	,028	,017
	Sig. (2-tailed)	,	,000	,000	,675	,658	,718	,832
	N	163	163	163	163	163	163	163
FPI	Person Correlation	,587**	1,000	,277**	,006	,033	-,062	-,071
	Sig. (2-tailed)	,000	,	,000	,942	,672	,432	,366
	N	163	163	163	163	163	163	163
M	Person Correlation	,407	,277**	1,000	,000	,014	-,037	-,048
	Sig. (2-tailed)	,000	,000	,	,996	,858	,636	,544
	N	163	163	163	163	163	163	163
A	Person Correlation	-,033	,006	1,000	1,000	-	-	-564
	Sig. (2-tailed)	,675	,942	,	,	,268**	,216**	,000
	N	163	163	163	163	,001	,006	163
						163	163	
L	Person Correlation	-,035	,033	,000	-	1,000	-846**	-
	Sig. (2-tailed)	,658	,672	,996	,268**	,	,000	528**
	N	163	163	163	,001	163	163	,000
					163			163
W	Person Correlation	,028	-,062	0,14	-,216	-	1,000	,900**
	Sig. (2-tailed)	,718	,432	,858	,006	,846**	,	,000
	N	163	163	163	163	,000	163	163
						163		
D10	Person Correlation	,017	-,071	-0,48	-	-528**	,900**	1,000
	Sig. (2-tailed)	,832	,366	,544	,564**	,000	,000	,
	N	163	163	163	,000	163	163	163
					163			

** correlation is significant at the 0.01 level (2-tailed).

The results show that there is no co relation between dermatoglyphy and the basic typological peculiarities of the central nervous system from the studied sample.

It is worth mentioning that the obtained results do not corroborate with the related results from Kijima's study with prisoners quoted by Cummins and Midlo (1961). This can be given, among other factors, by the utilization of different protocols to determine the aspects related to the temperament formation, by the different characteristics of the studied sample and the statistic treatment used.

Conclusion

Based on the obtained results, the present study concludes that there was no co relation between the dermatoglyphic indexes and the basic typological peculiarities of the central nervous system of the students of both sex from the Physical Education Course at UNOESC in Joaçaba-SC.

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CORRELATION BETWEEN DERMATOGLYPHY AND THE BASIC TYPOLOGICAL PECULIARITIES OF COLLEGE STUDENTS' CENTRAL NERVOUS SYSTEM

ABSTRACT:

For Saldanha (2002), the utilization of finger prints in the individual identification has become diffused, because clinical-medical investigations had a great interest given the discovery of congenital anomalies determined by chromosomic mutations. Dermatoglyphy is accepted as a science's area and has either the status of prescription and prevision. About the temperament Novais

apud Kalinine (2003, p.12) says that it is "the group of morphological physiological particularities that differ the individuals from each other and act on the character", and concludes, "it is the spontaneous way of being, thinking and feeling, acting and reacting of each one". This study's objective was verifying if there is a link between "dermatoglyphy" and the basic typological peculiarities of the central nervous system. The experience was made in Joaçaba-SC, at UNOESC, and involved 163 of their Physical Education Course students of both sex. It's a descriptive study, with a co relational typology. To determine the dermatoglyphic characteristics it was used the Dermatoglyphic Method proposed by Cummins and Midlo (1942), while the central nervous system basic typological peculiarities determination was made using the STRELAU's questionnaire (1984). For the statistic treatment it was used the Pearson Correlation and the significance level used was á= 0,05. The obtained results don't show any correlation among the dermatoglyphic indexes and the basic typological peculiarities of the central nervous system of the used sample, to the significance level of á= 0,05. Based on the results, it can be concluded that there is no correlation between the dermatoglyphy and the basic typological peculiarities of the central nervous system of the students involved.

CORRELATION ENTRE LA DERMATOGLIPHIE ET LES PARTICULARITÉS TYPOLOGIQUES BASIQUES DU SYSTÈME NERVEAU CENTRAL DES UNIVERSITAIRES

RÉSUME:

Pour Saldanha (2002), l'utilization des empreintes digitales dans l'identification individuel a devenu divulgué alors l'investigations cliníque-medicals ont eu grand interêt pour l'occasion de la découverte de l'association des anomalies congenitals determinée pour les mutations cromossomiques. La dermatogliphie est accepte comme une science et elle a obtenu le status de la precaution aussi comme de la prevision. Par rapport au temperament (caractère) Novaes apud Kalinine (203, p 12) fait l'observation qu'est l'ensemble des particularités phisiologiques morphologiques que fait la diferenciation entre les individus que sont en activités sur les caractères et conclu, c'est la manière spontanée d'être de penser et sentir, d'agir et reagir de chaque un. L'objectif de cet étude a été de verifier ce il y a correlation entre la dermatogliphia et les specialités typologiques basiques du système nerveau central. L'echantillon a constitué pour 163 élèves (académiques) des deux sexes du cours d'education phisique de l'université (UNOESC) en Joaçaba - SC. L'étude a été descritif avec une typologie correlationel. Pour déterminer les caractéristiques dermatogliphiques ils ont utilisé le méthode Cummins Midio (1984), cependant que pour la determination des especialités basiques du système nerveau central ils ont utilisé le questionaire de Strelau (1984). Pour le traitement statistique qu'ils ont utilisé la correlation de Pearson et le niveau de significance de 0,05. Les resultats obtenu n'ont pas apresenté correlation entre les índices dermatogliphique et les particularités typologiques basiques du système nerveau central de l'echantillon a recherché pour le niveau de significance de 0,05. Avec les résultats on peut conclure qu'il n'y a pas de correlation entre la dermatogliphie et les specialités typologiques basiques du système nerveau central de les académiques d'education phisique de l'université (UNOESC) du campus Joaçaba - SC.

LA CORRELACIÓN ENTRE DERMATOGLIFIA Y LAS PECULIARIDADES TIPOLÓGICAS BÁSICO DEL SISTEMA NERVIOSO CENTRAL DE ACADEMICOS

RESUMEN:

La utilización de las huellas digitales en la identificación individual se ha tornado muy difundida, pues las investigaciones clínico-médicas tuvieron gran interese por causa de las descubiertas de anomalías congénitas determinadas por mutaciones cromosomazas (Saldanha, 1968).

Gracias a su seguridad absoluta, la dactiloscopia hoy, es aplicada a varios sectores de la actividad humana. Fue acepta como ramo de la Ciencia, obtuvo status tanto como prescripción como el de previsión.

De acuerdo con Richards apud Sinclair (2005) “la dermatoglifía es importante para descubrir anomalías y enfermedades, pues la líneas de los dedos y la de la las manos se desarrollan en momentos concretos del estado del feto”.

La dermatoglifía ha sido ampliamente difundida en Brasil a lo largo de los últimos años. Estúdios realizados por Fernandes Filho (1997), Medina (2001), Silva Dantas (2002), Cunha Júnior et al. (2003), entre otros, han investigado lãs características dermatoglifícas de atletas de alto rendimiento en diversas modalidades deportivas.

En relación al temperamento Novais apud Kalinine (2003 p.12), observa que “es el conjunto de las particularidades fisiológicas morfológicas que diferencian los individuos entre ellos mismos y actúan sobre su carácter”, y concluye: “es la manera espontánea de ser, del pensar, del actuar y del reaccionar de cada persona”.

A pesar de presentar límites, la naturaleza del temperamento, puede presentar cambios en el decorrer del proceso de aprendizaje y a través de las experiencias de vida. De acuerdo con Allport (1969, p.68) “la alteración es posible pero no limitada”.

Para Kalinine (2001), las peculiaridades tipológicas básicas del sistema nervioso central, cuando observadas del punto de vista biológico, son formadoras del temperamento del ser humano. Son fundamentales para auxiliar para un mejor entendimiento de las acciones del hombre y en sus actividades cotidianas, en el trabajo, deportes, y en la vida social.

Con base en los hechos hasta ahora presentados, el presente estudio tiene como objetivo verificar si existe correlación entra la dermatoglifia y las peculiaridades tipológicas básicas del sistema nervioso central en universitarios.

CORRELAÇÃO ENTRE A DERMATOGLIFIA E AS PECULIARIDADES TIPOLÓGICAS BÁSICAS DO SISTEMA NERVOSO CENTRAL DE UNIVERSITÁRIOS

RESUMO:

Para Saldanha (2002), a utilização das impressões digitais na identificação individual tornou-se difundida, pois investigações clínica-médicas tiveram grande interesse devido descoberta da associação de anomalias congênitas determinada por mutações cromossômicas. A dermatoglifia é aceita como ramo da Ciência e obteve o status tanto de prescrição como de previsão. Em relação ao temperamento Novais *apud* Kalinine (2003, p.12) observa que é “o conjunto das particularidades fisiológicas morfológicas que diferenciam os indivíduos entre si e agem sobre o caráter”, e conclui, “é a maneira espontânea de ser, de pensar e sentir, de agir e reagir de cada um”. O objetivo do estudo foi verificar se existe correlação entre a dermatoglifia e as peculiaridades tipológicas básicas do sistema nervoso central. A amostra constituiu-se de 163 acadêmicos de ambos os sexos do Curso de Educação Física da UNOESC de Joaçaba-SC. O estudo foi descritivo com uma tipologia correlacional. Para determinar as características dermatioglíficas utilizou-se o Método Dermatoglífico proposto por Cummins e Midlo (1942), enquanto que para determinação das peculiaridades tipológicas básicas do sistema nervoso central utilizou-se o Questionário de STRELAU (1984). Para o tratamento estatístico foi utilizada a Correlação de Pearson e o nível de significância adotado foi de á 0,05. Os resultados obtidos não apresentaram correlação entre os índices dermatoglíficos e as peculiaridades tipológicas básicas do sistema nervoso central da amostra pesquisada, para o nível de significância adotado de á 0,05. Com base nos resultados, pode-se concluir que não existe correlação entre a dermatoglifia e as peculiaridades tipológicas básicas do sistema nervoso central de acadêmicos de Educação Física da UNOESC de Joaçaba-SC.