94 - DERMATOGLYPHIC PROFILE SOMATOTYPICAL IN ATHLETES AND SWIMMERS OF 8 TO 12 YEARS

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Introduction

The history of swimming has been interspersed throughout the years with a history of physical education. During the prehistoric man depended essentially on their movements for their survival. As Catteau (1990, apud SOARES; SANTOS, 2010) it is known only that during the ancient times, the swim was part of ancient survival. According Massaud; Corrêa (2001) swimming is a very important sport for all ages, being the only one who is practicing since the age of the baby until old age. According to this author, "the competitive swimming is practiced in four styles: crawl, backstroke, breaststroke and butterfly or dolphin."

According Tubino (1984), sports training is the set of resources used for the development of technical skills, physical and psychological an athlete or a team, with the ultimate goal put him in the "form" designed at the right time of performance. According to Ritter (1982, apud BOMPA, 2002) children and adolescents adapt more easily to higher cargo volumes with moderate intensity than at low volumes and intensive stimuli, also suggesting that adolescents adjust to the daily training provided they do not use all the energy reserves and have enough time for other sports activities. As Weineck (2005) whereas in different sports exceptional performances can only be achieved when starting a training program early appropriate detection and stimulation of talent have fundamental importance. Of all anthropometric factors as Weineck (2005), height is one of the most important factors, because in several modalities or sport disciplines it brings decisive advantages.

When the child enters the final stages of childhood and early puberty, many changes occur in your body and mind. But mostly, the change is physical, perceptible or not in the eyes of others. According to Bee (1986), is in this period that the child acquires new schemes that are important internal, called operations like addition, subtraction, multiplication, serial ordering. She can then apply what they learn in real life. According to Bee (1986) socialization in children in this phase is explained by Freud with "latency" because the social interest seems to be submerged. It is also at this stage that they gather in large groups, but always with the same sex. Liaisons with parents are less visible, and develop affective bonds with close friends.

The aim of this study was to evaluate the profile of dermatoglyphic and somatotypical basic swimming athletes aged 8 to 12 years According to Fernandes Filho (2003, cited in Almeida et al, 2005) dermatoglyphic method consists of a procedure able to identify some characteristics individual genetic, as the type of muscle fibers and predisposition as to the predominant physical qualities inherent to it. It is based on data collected in dermatoglyphic that can reach a conclusion about the characteristics of the person assessed. According to Fonseca (2008, apud Dias, 2010) in Brazil, several studies using Dermatoglyphics are performed with the aim of identifying models of athletes in several sports. These studies were done to verify that the future mode athlete will be more successful, according to their typology of fibers.

According Marins, Giannichi (1998) somatotype is a classification technique of body composition. It is from this technique it is possible to classify individuals according to their physical characteristics. As Fontoura et al (2009) somatotype represents the body types, and these are related to the proportion of each component body (bone, muscle and fat). According to Mathews (1980) in modern times, W. H. Sheldon and his colleagues have made a valuable contribution to the technique of somatotipar. Sheldon after many years of research, classified into three large male body types: endomorph, mesomorph and ectomorph. It is very important to know the profile somatotype of athletes with whom the technician is working. As Marins; Giannichi (2003) using the somatotype selecionamento allows individuals to certain sports, since there is a certain profile of somatotype specific to each sport.

Methods

The sample group consisted of 33 subjects of both sexes aged between 8 and 12 years, team members based C3's Swim School in the city of Joinville, Santa Catarina. This research was conducted by means of literature, field, quantitative and explanatory.

The research instruments were used: protocol dermatoglyphic Cummins & Midlo (1942, apud Pavel; Fernandes Filho, 2004) to assess the fingerprints; protocol Heath & Carter (1990, apud Pavel; Fernandes Filho, 2004) to identify the somatotype of athletes, and the final height equation for second Havlicek (1977, apud Weineck, 2005).).

The materials used were: stamp pad and paint roller nº 2 brand condor, for collecting digital; chips collection for dermatoglyphic and anthropometry, skinfold calipers Cescorf Mitutoyo Model D66260; digital scale brand Plenna Sport model MEA 07410; stadiometer Cardiomed model PS - 99/TON; tape Cescorf 2m model Vonder; caliper model Quinelato INOX.

It made the realization of the digital collection of the fingers of athletes, verification and analysis of dermatoglyphic characteristics of athletes basic swimming; anthropometric assessments in athletes; calculation of final height based on the height of the father and mother of the athletes through the equations in the literature, evaluate the somatotype of each child to check biotype found; selection of athletes swimming basis according to the analysis of its style and features found with the reference.

Data were collected in a suitable environment for such activity on the premises of C3 Swim School in Joinville, Santa Catarina.

Analysis of Results

The male group (n = 19) studied showed the following data, as Table 1: mean age 11.3 ± 1.163 years, with average body mass of 45.5 ± 12.55 kg, and his height was with the average 149.9 ± 13.09 cm. How mean somatotype was found: Endomorphy (5.5 ± 2.29); Mesomorphy (3.5 ± 1.87) and ectomorphic (2.7 ± 1.80). How dermatoglyphic average found Arco (0.8 ± 1.89), Hook (6.7 ± 2.53) and whorl (2.4 ± 2.52).

The female group (n = 14) studied showed the following data, as Table 1: mean age of 11.4 ± 0.89 years and mean body mass of 49.6 ± 16.40 kg, and his height was with a mean of 150.9 ± 13.13 cm. How mean somatotype was found: Endomorphy (5.2 ± 2.33); Mesomorphy (3.0 ± 2.10) and ectomorphic (2.2 ± 1.85). How dermatoglyphic average found Arco (0.8 ± 1.31), Hook (6.7 ± 2.55) and whorl (2.5 ± 2.90).

Table 1 - Age chronotropic, dermatoglyphic and anthropometric measurements.

Variables	Male (n=19)	Female (n=14)
Age (years)	11,3±1,163	11,4±0,89
Body mass (Kg)	45,5±12,55	49,6±16,40
Height (cm)	149,9±13,09	150,9±13,13
Average Somatotype		
Endomorphy	5,5±2,29	5,2±2,33
Mesomophy	3,5±1,87	3,0±2,10
Ectomorphy	2,7±1,80	2,2±1,85
Average Dermatoglyphics		
Arch (A)	0,8±1,89	0,8±1,31
Hook (L)	6,7±2,53	6,7±2,55
Whorl (W)	2,4±2,52	2,5±2,90

Source: own research

According to Table 2, the frequency depending on the biotype of the male sample was as follows: two central subjects, equivalent to 10.53% of the male sample; ectomórfico endo-1 individual, equivalent to 5.26%; endomorphism balanced two individuals, equal to 10.53%; endo-mesomorphic 7 individuals, equivalent to 36.84% of males; endomorph-mesomorph 0, corresponding to 0%, meso-endomorphic 2 people, equivalent to 10.53%; balanced mesomorphic 0, corresponding to 0%; meso-ectomórfico 0, corresponding to 0%; ectomorph-mesomorph 0, being equal to 0%; ecto-mesomorphic 0, equivalent to 0%; ectomorphic balanced 0, being equal to 0%; ecto-5 endomorphic individuals, equivalent to 26.32% of the male sample.

According to Table 2, the biotype as the frequency of the female sample was as follows: 0 central individuals, equivalent to 0% of female sample; endo-ectomórfico individuals 0, corresponding to 0%; endomorphism balanced one individual, equal to 7.14%; endo-mesomorphic 6 individuals, equivalent to 42.86% of the female subjects; endomorph-mesomorph 0, corresponding to 0%, meso-endomorphic 2 people, equivalent to 14.29%; balanced mesomorphic 0, corresponding to 0%; meso-ectomórfico 0, corresponding to 0%; ectomorph-mesomorph 0, being equal to 0%; ecto-mesomorphic 0, equivalent to 0%, 1 individual ectomorphic balanced, equivalent to 7.14%; ecto-endomorphic 4 individuals, equivalent to 28.57% of the female sample.

Table 2 - Frequency Table as biotype

Biotype	Male (n=19)	Female (n=14)
Central	2 (10,53%)	0 (0%)
Endo ectomorph	1 (5,26%)	0 (0%)
Endomorphism balanced	2 (10,53%)	1 (7,14%)
Endo-mesomorphic	7 (36,84%)	6 (42,86%)
Endomorph-mesomorphic	0 (0%)	0 (0%)
Meso-endomorphic	2 (10,53%)	2 (14,29%)
Mesomorphic balanced	0 (0%)	0 (0%)
Meso-ectomorphic	0 (0%)	0 (0%)
Ectomorph-mesomorphic	0 (0%)	0 (0%)
Ecto-mesomorphic	0 (0%)	0 (0%)
Ectomorphic balanced	0 (0%)	1 (7,14%)
Ecto-endomorphic	5 (26,32%)	4 (28,57%)

Source: own research

According to Table 11, for frequency detection in swimming talents in children of 08 will be 12 years old male, was well analyzed by frequency: 1 (5.26%) with individual height ≥ 171.1 cm as predictive Pires et al (2000, apud FERNANDES, 2002) in the juvenile category, 3 (15.79%) subjects with final height> 174.0 cm according to Araújo et al (1979, apud FERNANDES, 2002) in the juvenile category, and 15 (78.95%) subjects with final height> 178.3 cm according to Araújo (1978, apud FERNANDES, 2002) in the adult category.

With regard to male somatotype, there was no consistent data for individuals classified as meso-ectomórfico as Araújo et al (1979, apud FERNANDES, 2002) for the juvenile category; mesoectomórfico for classification according to Sousa; Birth (2012 , web) for the juvenile category, not met occurrence.

The adult category, as Junior Silveira et al (1996, cited Marins; Giannichi, 2003), the ideal somatotype is classified as mesomorphic balanced, but no individuals were found.

Dermatoglyphics were found in 2 (10.53%) swimmers sprinters, as Machado (2010), in the juvenile category; 2 (10.53%) swimmers sprinters, according to the same reference cited by the author above, juvenile category.

In the adult male category was the occurrence of 1 (5.26%) swimmer middle bottom and bottom, according to Pavel references; Fernandes Filho (2004).

Table 11 - Frequency to detect talent in swimming in children of 08 to 12 years old male.

Variables	Categories					
	Children and Youth		Youth		Adult	
	Retrieved	Frequency	Retrieved	Frequency	Retrieved	Frequency
Final Height*	≥171,1cm	1(5,26%)	>174,0 cm	3 (15,79%)	> 178,3cm	15 (78,95%)
Somatotype**	Mesoectomorphic	0 (0%)	Mesoectomorphic	0 (0%)	Balanced mesomorphic	0 (0%)
Dermatoglyphics***	A=0 L=7 W=3	2 (10,53%)	A=0 L=7 W=3	2 (10,53%)	A=1 L=6 W=3	1 (5,26%)

Source: own research

Categories: Children and Youth (14 to 16 anos), Youth (15 to 18 anos), Adult (no age limits).

* References data as obtained by Pires et al (2000, apud FERNANDES, 2002); Araújo et al (1979, apud FERNANDES, 2002); Araújo (1978, apud FERNANDES, 2002).

** References second data obtained by Araújo et al (1979, apud FERNANDES, 2002); Sousa; Birth (2012, website); Junior Silveira et al (1996, cited Marins; Giannichi, 2003)

*** References second data obtained by Machado (2010), Pavel; Fernandes Filho (2004)

Looking at table 12, for frequency detection in swimming talents in children aged 08 to 12 years old female, was analyzed by frequency as follows: 10 (71.43%) swimmers with final height ≥ 157.8 cm as Araújo (1978 apud FERNANDES, 2002) in the juvenile category; 2 (14.29%) swimmers with final height> 165.0 cm according to Pires et al (2000, apud FERNANDES, 2002) in the juvenile category, and 2 (14 , 29%) swimmers with final height> 171.5 cm as we say Mazza et al (1994, apud FERNANDES, 2002) in the adult category.

Regarding female somatotype were found 2 (14.29%) swimmers with meso-endomorphic profile as Araújo (1978 apud FERNANDES, 2002) in the juvenile category; 1 (7.14%) swimmer with balanced profile endomorphism According to Sousa; Birth (2012, website) in juvenile category, and none (0%) endo-profile swimmer with ectmórfico, according Marins, Giannichi (2003), equivalent to adult category.

In dermatoglyphics were not found swimming sprinters (MACHADO, 2010) in the categories juvenile and juvenile; were also not found swimming sprinters (MACHADO, 2010) in the adult category.

Table 12 - Frequency to detect talent in swimming in children of 08 to 12 years old female.

Variables	Categories					
	Children and Youth		Youth		Adult	
	Retrieved	Frequency	Retrieved	Frequency	Retrieved	Frequency
Final Height*	≥157,8cm	10 (71,43 %)	>165,0 cm	2 (14,29%)	> 171,5cm	2 (14,29%)
Somatotype**	Meso-endomórfico	2 (14,29%)	Endomorfismo balanceado	1 (7,14%)	Endo-ectomórfico	0 (0%)
Dermatoglyphics***	A=1 L=6 W=3	0 (0%)	A=1 L=6 W=3	0 (0%)	A=1 L=6 W=3	0 (0%)

Source: own research

Categories: Children and Youth (14 to 16 anos), Youth (15 to 18 anos), Adult (no age limits).

* References data as obtained by Araújo (1978 apud FERNANDES, 2002); Pires et al (2000, apud FERNANDES, 2002); Mazza et al (1994, apud FERNANDES, 2002).

** References second data obtained by Araújo (1978 apud FERNANDES, 2002); Sousa; Nascimento (2012, web); Marins, Giannichi (2003)

*** References second data obtained by Machado (2010)

With respect to final height, were found more males (78.95%) with the result of the equation above 178.3 cm, because the parents has a high stature, resulting in more individuals in the sample with prediction are high, and is great for swimming mode, since the literature shows, as Araújo (1978, apud FERNANDES, 2002), that the time for adult swimmers is greater than 178.3 cm. In the female sample, were found more girls (71.43%) with a final height of 157.8 cm and 165.0 cm as a result of the final height of the equation, which is not so satisfactory for swimming mode, since the literature shows , according to Mazza et al (1994, apud FERNANDES, 2002), that height for adult swimmers must establish above 171.5 cm. This is due to the fact that parents do not have a stature so high, resulting in a greater final height.

In somatotype factor, was not found in the male sample, individuals with somatotype mesoectomórfico, referring to the juvenile categories, according to Araújo et al (1979, apud FERNANDES, 2002), and juvenile, as shown in Sousa; Birth (2012 , web). Nor were found for individuals with somatotype adult category, which according Junior Silveira et al (1996, cited Marins; Giannichi, 2003) is balanced mesomorphic. This result is due to the fact that individuals have obtained a somatotype tends to feature endo-mesomorphic (n = 7) and ecto-endomorphic (n = 5), which infers about the subjects greater body fat accumulation and development of even smaller muscles, being a feature not compatible for the sport. In the female sample, were found (2 subjects) with somatotype classified as meso-endomorphic, which according to Araújo (1978 apud FERNANDES, 2002) is found in children and youth categories. In the youth category, somatotype ideal, according to Sousa; Birth (2012, website) is the endomorphism balanced, being found (1 subject) to somatotype reference. For the adult category, somatotype reference available in the literature is classified as endo-ectomórfico (MARINS; Giannichi, 2003), but were not found in the sample subjected to consistent data compared. This result is mainly due to the fact that there are more subjects in the endo-mesomorphic somatotype (n = 6) and ecto-endomorphic (n = 4), which suggests: the girls have more body fat accumulation, followed by muscles, and more likely to be thin, which is not compatible with somatotype ideal for swimming mode for this category.

With respect to dermatoglyphic, were found in the male sample in the juvenile category 2 (10.53%) subjects with characteristics of swimmers sprinters (arcs "A" = 0, barrettes "L" = 7 whorls and "W" = 3), and 2 (10.53%) subjects related to sprinters will feature in juvenile category. Both as reference category has Machado (2010). In the adult category, as Pavel; Fernandes Filho (2004) dermatoglyphic swimmer has features to middle bottom and bottom the following reference: A = 1, L = 6, W = 3. Obtained findings compatible to the cited reference 1 (5.26%) subject. These results were low, due to the fact that most have a larger number of loops and whorls than arcs. In the female sample, the literature, as Machado (2010), informs us that the reference to dermatoglyphic features are sprinters (A = 1, L = 6, W = 3), but there were no swimmers sprinters in the categories juvenile , juvenile and adult. This result is due to the fact that most of the girls had a higher number of loops "L" on their digital presence of whorls and low "W" arcs and "A"

Conclusion

The purpose of this research was that in order to detect some talent in the sample, the individual should have three characteristics combined, ie, final height, somatotype and dermatoglyphics as the references to the sport. However, we found no individual with characteristics in the male sample, as well as in individual female sample. Among men, only found individuals with characteristics related to swimming and dermatoglyphic final height, but no features related to somatotype reference. In the female sample, were found characteristic for final height and somatotype not going to dermatoglyphic findings compatible.

Although the category was expected to occur some sugeito with these features because this is a team representative in competitions estatuais.

We conclude that the genetic capacity is a determining factor for the success of the athlete and rare among those who practice the sport. As Ulrich (1973, apud Weineck, 2005) only 6% of all individuals in a normal distribution within the population, have a high value, above average in some characteristic. Being found in little groups wishing to stay in the sports arena, with successful athletes. Thus, a sports talent is extreme variation in expression of characteristics relevant to the sport.

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DERMATOGLYPHIC PROFILE SOMATOTYPICAL IN ATHLETES AND SWIMMERS OF 8 TO 12 YEARS

ABSTRACT

Some questions leave us puzzled: "What makes an athlete better than another?" There are several questions that encourage us to seek answers to the appropriation of a definite talent for sport. In order to change the shape of empirical scientific method selection arises. The aim of this study was to evaluate the profile of athletes somatotypical dermatoglyphic and basic swimming in the age group 8-12 years. The sample consisted of 33 subjects of both sexes between 8 and 12 years, team members based C3's Swim School in the city of Joinville, Santa Catarina. The research instruments were used: protocol dermatoglyphic Cummins & Midlo, protocol somatotype and Heath & Carter equation for the final height. The male group (n = 19) studied had a mean age of 11.3 ± 1.2 years, body weight 45.5 ± 12.55 kg, height 149.9 ± 13.1 cm; somatotipica feature: Endomorphy (5, 5 ± 2.29); Mesomorphy (3.5 ± 1.87) and ectomorphic (2.7 ± 1.80). Dematoglíficas Feature: Arc (0.8 ± 1.89), Hook (6.7 ± 2.53) and whorl (2.4 ± 2.52). The female group (n = 14) studied had a mean age of 11.4 ± 0.89 years, body weight 49.6 ± 16.40 kg, height 150.9 ± 13.1 cm; somatotype: Endomorphy (5.2 ± 2.33); Mesomorphy (3.0 ± 2.10) and ectomorphic (2.2 ± 1.85). How dermatoglyphic average found Arco (0.8 ± 1.31), Hook (6.7 ± 2.55) and whorl (2.5 ± 2.90). We conclude that the genetic capacity is a determining factor for the success of the athlete and rare among those who practice the sport within the study did not receive sugeitos with characteristic referenced in the literature. As Ulrich (1973, apud Weineck, 2005) only 6% of all individuals in a normal distribution within the population, have a high value, above average in some characteristic. Being found in little groups wishing to stay in the sports arena, with successful athletes.

KEYWORDS: Dermatoglyphics, somatotype, swimming.

DERMATOGLYPHIC PROFILE SOMATOTYPICAL DANS ATHLÈTES ET NAGEURS DE 8 À 12 ANNÉES

RÉSUMÉ

Quelques questions nous laissent perplexes: «Ce qui rend un athlète meilleure qu'une autre?" Il ya plusieurs questions qui nous encouragent à chercher des réponses à l'appropriation d'un talent certain pour le sport. Afin de changer la forme de sélection de la méthode scientifique empirique se pose. Le but de cette étude était d'évaluer le profil des athlètes somatotypical dermatoglyphique et la natation de base dans le groupe d'âge 8-12 ans. L'échantillon était constitué de 33 sujets des deux sexes âgés de 8 et 12 ans, membres de l'équipe basée Swim School C3 dans la ville de Joinville, Santa Catarina. Les instruments de recherche ont été utilisés: le protocole dermatoglyphique Cummins & Midlo, le protocole somatotype et l'équation Heath & Carter pour la hauteur finale. Les hommes du groupe (n = 19) a étudié avaient un âge moyen de 11,3 ± 1,2 ans, 45,5 poids corporel ± 12,55 kg, hauteur de 149,9 ± 13,1 cm; fonction somatotipica: endomorphie (5, 5 ± 2,29); mésomorphie (3,5 ± 1,87) et ectomorphic (2,7 ± 1,80). Feature Dematoglíficas: Arc (0,8 ± 1,89), Crochet (6,7 ± 2,53) et verticille (2,4 ± 2,52). Le groupe des femmes (n = 14) a étudié avaient un âge moyen de 11,4 ± 0,89 années, 49,6 poids corporel ± 16.40 kg, hauteur de 150,9 ± 13,1 cm; somatotype: endomorphie (5,2 ± 2,33); mésomorphie (3,0 ± 2,10) et ectomorphic (2,2 ± 1,85). Comment dermatoglyphique moyenne trouvée Arco (0,8 ± 1,31), Crochet (6,7 ± 2,55) et verticille (2,5 ± 2,90). Nous concluons que la capacité génétique est un facteur déterminant pour la réussite de l'athlète et rare chez ceux qui pratiquent le sport au sein de l'étude n'a pas reçu sugeitos avec une caractéristique référencée dans la littérature. Comme Ulrich (1973, apud Weineck, 2005) que 6% de tous les individus dans une distribution normale au sein de la population, ont une grande valeur, supérieure à la moyenne dans certaines caractéristiques. Se trouvant dans des petits groupes qui souhaitent rester dans le domaine sportif, avec des athlètes de succès.

MOTS-CLÉ: Dermatoglyphics, somatotype, nager.

PERFIL DERMATOGLÍFICOS SOMATOTYPICAL EN ATLETAS Y NADADORES DE 8 A 12 AÑOS

RESUMEN

Algunas preguntas nos deja perplejos: "¿Qué hace que un atleta mejor que otro?" Hay varias preguntas que nos animan a buscar respuestas a la apropiación de un determinado talento para el deporte. Con el fin de cambiar la forma de selección empírica método científico surge. El objetivo de este estudio fue evaluar el perfil de los atletas somatotypical dermatoglífico y la natación básica en el grupo de edad de 8-12 años. La muestra estuvo constituida por 33 sujetos de ambos sexos de entre 8 y 12 años, los miembros del equipo basado Escuela C3 Swim en la ciudad de Joinville, Santa Catarina. Los instrumentos de investigación utilizados fueron: protocolo dermatoglífico Cummins & Midlo, somatotipo protocolo y la ecuación de Heath & Carter para la altura final. El grupo masculino (n = 19) estudiados tenían una edad media de 11,3 ± 1,2 años, peso 45,5 ± 12,55 kg, altura de 149,9 ± 13,1 cm; característica somatotipica: endomorfia (5, 5 ± 2,29); mesomorfia (3,5 ± 1,87) y ectomórfico (2,7 ± 1,80). Característica Dematoglíficas: Arc (0,8 ± 1,89), Hook (6,7 ± 2,53) y espiral (2,4 ± 2,52). El grupo de mujeres (n = 14) estudiados tenían una edad media de 11,4 ± 0,89 años, peso corporal 49,6 ± 16,40 kg, altura de 150,9 ± 13,1 cm; somatotipo: endomorfia (5,2 ± 2,33); mesomorfia (3,0 ± 2,10) y ectomorfico (2,2 ± 1,85). Cómo dermatoglífico promedio encontrado Arco (0,8 ± 1,31), Hook (6,7 ± 2,55) y espiral (2,5 ± 2,90). Llegamos a la conclusión de que la capacidad genética es un factor determinante para el éxito del atleta y rara entre aquellos que practican el deporte en el estudio no ha recibido sugeitos con característica de referencia en la literatura. Como Ulrich (1973, apud Weineck, 2005) sólo el 6% de todos los individuos de una distribución normal dentro de la población, tienen un valor alto, por encima del promedio en alguna característica. Ser encontrado en pequeños grupos que deseen permanecer en el recinto deportivo, con atletas de éxito.

PALABRAS CLAVE: Dermatoglifos, somatotipo, la natación.

PERFIL DERMATOGLÍFICO E SOMATOTÍPICO EM ATLETAS NADADORES DE 8 A 12 ANOS

RESUMO

Algumas perguntas nos deixam intrigados: “O que leva uma atleta ser melhor que outro?” São várias perguntas que nos instigam a procurar respostas para a dotação de um talento definido para a modalidade esportiva. No intuito de mudar a forma empírica de seleção surge o método científico. O objetivo deste estudo foi avaliar o perfil dermatoglífico e somatotípico dos atletas de base de natação na faixa etária de 8 a 12 anos. A amostra foi composta por 33 indivíduos de ambos os sexos entre 8 e 12 anos, integrantes da equipe de base da Escola de Natação C3, do município de Joinville, Santa Catarina. Os instrumentos de pesquisa utilizados foram: protocolo de dermatoglifia de Cummins & Midlo, protocolo de somatotipo de Heath & Carter e equação para a estatura final. O grupo masculino (n=19) estudado apresentou média de idade de 11,3±1,2 anos; massa corporal 45,5±12,55 kg; estatura 149,9±13,1cm; característica somatotipica: Endomorfia (5,5±2,29); Mesomorfia (3,5±1,87) e Ectomorfia (2,7±1,80). Característica dematoglíficas: Arco (0,8±1,89), Presilha (6,7±2,53) e Verticilo (2,4±2,52). O grupo feminino (n=14) estudado apresentou média de idade de 11,4±0,89 anos; massa corporal 49,6±16,40kg; estatura 150,9±13,1cm; somatotipo: Endomorfia (5,2±2,33); Mesomorfia (3,0±2,10) e Ectomorfia (2,2±1,85). Como dermatoglifia média foi encontrado Arco (0,8±1,31), Presilha (6,7±2,55) e Verticilo (2,5±2,90). Concluiu-se que a capacidade genética é um fator determinante para o sucesso do atleta e raro entre os que praticam o desporto, dentro do estudo não obteve sugeitos com as característica referenciadas pela literatura. Conforme Ulrich (1973, apud Weineck, 2005) somente 6%de todos os indivíduos, em distribuição normal dentro da população, possuem um alto valor, acima da média, de alguma característica. Sendo pouco encontrado em grupos que pretendem manter-se na arena desportiva, com atletas bem sucedidos.

PALAVRAS-CHAVE: Dermatoglifia, somatotipo, natação.