

Determination of Character of Students of Professional Doctor Education Program for the Period of October 2021 Based On Fingerprint Patterns

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ABSTRACT

Background: Knowledge of fingerprints is growing rapidly nowadays, not only in terms of identifying a person but also in the character of that person. Objective: To determine the character of the medical professional education program students at the University of North Sumatra who are currently undergoing studies at the Department of Forensic and Medicolegal Studies for the October 2021 Period Based on Fingerprint Patterns. **Material and Methods:** This research is a descriptive analytic study with total sampling. Student fingerprints are taken by placing the tips of the fingers on the stamp pads that have been given ink, then affixed to white paper to form fingerprints. This is done for all students. From the fingerprints obtained, they were scanned and zoomed in and then directly observed the fingerprint pattern (loop pattern, arch pattern, and whorl pattern). Then the percentage of each respondent is calculated based on several variables and types of fingerprint patterns. **Results:** that the frequency of Whorl pattern fingerprints is 2 people (7.1%) and women are 5 people (17.9%), with the total number of respondents having Whorl pattern fingerprints as many as 7 people (25%). The frequency of Arch pattern fingerprints was not found in males, while in females there were as many as 1 person (3.6%), with a total of 1 person (3.6%). The frequency of Loop pattern fingerprints was 11 (39.3%) more for males than 9 (32.1%) females with a total of 20 Loop pattern fingerprints (71.4%). with the initials: ZK, APR, RO, KG, A, NA, WA have characters who tend to be honest, critical, perfectionist (high ambition for the perfection of a work, competitive (high competitiveness) and strong willed. Students with initials: MM has a character that tends to hold traditional values, high morals, traditional views regarding their own ambition, career and leadership. Students with initials: : FRS, JJ, MA, MKA, FHH, IKT, ADP, MS, JC, MO, MF, KZ, IDA, RCS, HK, RB, MN, TNS, JM, GG have characters who tend to be serious and have high visual memory. **Conclusion:** Based on the results of research and data analysis in this study, it is concluded that: 1. Students with initials: ZK, APR, RO, KG, A, NA, WA have characters that tend to be honest, critical, perfectionist (high ambition for the perfection of a work result, competitive (high competitiveness) and strong willed. 2. Students with the initials: MM has a character who tends to hold traditional values, high morals, traditional views about their own ambitions, careers and leadership. 3. Students with initials: FRS, JJ, MA, MKA, FHH, IKT, ADP, MS, JC, MO, MF, KZ, IDA, RCS, HK, RB, MN, TNS, JM, GG tend to be serious and have a high visual memory.

The frequency of Whorl fingerprints was 2 people (7.1%) and 5 people (17.9%), with the total number of respondents having Whorl fingerprints as many as 7 people (25%). The frequency of Arch pattern fingerprints was not found in males, while in females there were as many as 1 person (3.6%), with a total of 1 person (3.6%). The frequency of Loop pattern

fingerprints is 11 (39.3%) more for males than 9 (32.1%) females with a total of 20 Loop pattern fingerprints (71.4%) and this is in accordance with The results of Galton's study which stated that the Loop fingerprint pattern frequency was higher than the Whorl and Arch forms, in accordance with the research of Indah Yunitasari, Karlina Pimbasari, and Fanani Hidayat in the Javanese population.

Keywords: fingerprint pattern, character.

Introduction

Identification checks in forensic medical services are very important, especially for unknown victims, identification by definition is an attempt to re-recognize someone who is not known, either alive or someone who has died. The purpose of identification is to determine the identity of a person. Identification plays a role in clarifying the following matters, for dead people, namely bodies that are not known, bodies that have decayed, bodies that have been damaged or charred, bodies of cases of mass accidents / natural disasters, bodies of mutilation cases and identification of living people, namely on someone who memory loss, child abduction, swapped babies and disputed paternity. Identification method is checking a person's identity, ranging from simple to complex methods. Simple methods such as visual identification, ownership (property), a person's identity can be trusted enough through ownership, especially if the ownership is such as clothes, jewelry, personal identification documents such as ID cards, driving licenses, passports, family cards and others that are still attached to the victim's body. . Another simple method is identification through documentation such as self-portraits, family photos, school photos, ID cards, driver's license photos and so on. Other identification methods that are more accurate and certainly more complicated are scientific methods, namely fingerprints, serology, odontology, anthropology, biology. This method has very high accuracy and can also be legally accounted for. Fingerprints and palms play an important role as a person's identity. Humans have carvings on the palms of the hands and soles of the feet. Fingerprint engraving was first investigated by Dr. Harold Cummins who has introduced the science of fingerprints called dermatoglyphics. Dermatoglyphics comes from the Greek, Derma means skin and Glyph means carving. This science is based on the theory of epidermal or lines on the surface of the skin. The science of Dermatoglyphics has a strong theoretical basis, which is supported by many studies that fingerprints are a person's blueprint. Sir Francis Galton was the first to take the marks of the thumb and other fingers to identify a person and classify him. This fingerprint is permanent and does not change for life. The probability of drawing the same fingerprint from two different individuals is 1:64 million. So this sign is considered a sure sign for a person's identity. Sir Francis Galton divides fingerprints into 4 groups of shapes, namely Loop, Whorl, Arch, Composite (Twin Loop).

Currently, the development of fingerprints continues to progress rapidly. At first, the science of fingerprints was only used to identify someone, which was called Dactyloscopy. Research on fingerprints is currently being carried out, including: Indah Yunitasari (2019), conducting research on hand fingerprint patterns and physical characteristics of people with Down's Syndrome in special schools in the city of Jember. In this study, it was found that there was a Simian line on the thumb of the right hand and the frequency of the Ulnar Loop pattern had the highest presentation, namely 84.17%. Trisnawati, M (2018) conducted a study on the combination of Ulnar Loop and Whorl fingerprint patterns on twins in Palembang with the result that 54.06% of twins in Palembang had Whorl fingerprint patterns. Karlina Pimbasari (2017), conducted a study on variations in fingerprint patterns of students of various ethnic groups in the city of Madiun which stated that ten ethnic groups from the eleven ethnic groups studied had a Loop pattern percentage. Fanani Hidayat (2014) conducted a study on variations in fingerprint patterns in the population of Java and Papua. In this study, it was

found that the Javanese population had more Loop pattern fingerprints (52.1%), while the Papuan population found the Whorl pattern (51.6%).

Fingerprints are the inheritance of polygenes. Based on the Galton system, fingerprints can be divided into 3 basic patterns, namely arch or arch (A), figure or loop (L) and circle or Worhl (W). The frequency of the presence of fingerprint patterns varies from finger to finger. The frequency of the Loop fingerprint pattern is higher than the Whorl and Arch forms (Suryo, 2001). In 1943, Cummins and Midlo found that character and temperament correlated with dermatoglyphics analysis, their findings were the forerunner of the fingerprint analysis method associated with each individual's potential, character, motivation and learning style. In the research of I Gede Sujana Eka Putra, et al in 2014 explaining the development of a personality classification system by analyzing fingerprint patterns based on Dermatoglyphics. The existence of a relationship between a fingerprint pattern and a person's character gives rise to the idea of creating a system that can be used to analyze the characteristics of a child based on the type of fingerprint pattern they have. The fingerprint analysis is predictive, with the aim of providing an overview of why everyone is different in expressing their talents and interests, learning styles, capture power, accuracy as the basis of one's personality (Misbach, 2010). Fingerprint discovery in Indonesia needs to find a place to be studied in more depth. This is very important so that the scientific base that supports this fingerprint can be accounted for so that its use in educational applications obtains results that can be applied in real life. Fingerprint can be a new alternative to find out talent and interest maps based on genetic inheritance. Parents will be helped by this discovery. Future education will be able to produce more brilliant individuals if it is more focused on individual needs. Therefore, parents and educators who are suspicious of seeing unusual behavior, such as learning difficulties in children, need to be viewed as a problem of unresolved needs that must be solved. Based on the background and studies above, the researcher is interested in researching how the character of the 2021 Doctoral Professional Education Program students based on fingerprints at the Forensic Department Medical Faculty University of Sumatera Utara Medan.

Material & Methods

This research is a descriptive type of research with an analytical descriptive approach to data on fingerprint types of students of the forensic station medical professional education program for the period October 2021 who are undergoing clerkship at the Forensic Department Medical Faculty University of Sumatera Utara. The location of this research is the meeting room in the Forensic Department Medical Faculty University of Sumatera Utara. Data collection for this study was carried out in October 2021. The population in this study were all Medical Professional Education Program Students for the October 2021 period who were undergoing clinical clerkship at the Department of Forensic Medicine, University of Sumatera Utara, Medan. The sample is part of the population selected by the total population sampling method. The inclusion criteria for the research subjects were students of the Doctoral Professional Education Program for the period of October 2021 who were undergoing a station at the Forensic Department Medical Faculty University of Sumatera Utara, had normal fingers, and had good fingerprints. Exclusion criteria for the study were if there were lesions on the fingers, had had finger surgery, and there were deformities in the fingers after the accident. Due to the COVID-19 pandemic, students of the Doctoral Professional Education Program for the period of October 2021 who are currently undergoing station at the Forensic Department Medical Faculty University of Sumatera Utara were invited to several sessions in an effort to prevent crowds. The research method is to provide an explanation regarding the aims, objectives and benefits of research to respondents, to provide informed consent and to interview using a questionnaire, to record fingerprints by

sticking the tips of the fingers on the ink pad and then pasting them on HVS paper. Then observations were made through scans zoom on the computer on the fingerprint pattern (loop pattern, arch pattern, and whorl pattern).

Results

This research was carried out in the meeting room of the Department of Forensic and Medicolegal Studies, Faculty of Medicine, University of Sumatera to students of the medical professional education program who are undergoing clinical clerkships for the October 2021 period with a total of 28 students with details of male as many as 13 people and the rest are 15 women. The data obtained based on measurements in this study used the total sampling method for data collection with a total sample of 28 people. Of the 28 samples that took part in this study, there were 13 males (46.4%), and 15 females (53.6%)

The frequency of Whorl fingerprints was 2 people (7.1%) and 5 people (17.9%), with a total of 7 respondents (25%). The frequency of Arch pattern fingerprints was not found in males, while in females there were as many as 1 person (3.6%), with a total of 1 person (3.6%). The frequency of Loop pattern fingerprints was 11 (39.3%) more in males than 9 (32.1%) women with a total of 20 Loop pattern fingerprints (71.4%) and this is in accordance with Galton's research results stated that the Loop fingerprint pattern frequency was higher than the Whorl and Arch forms.

Table 1: Data on the results of the recap of the total number of respondents and the fingerprint pattern of students of the medical professional education program for the period of October 2021

No	Initial	Sex	Age	Fingerprint
1	FRS	M	23	Loop
2	JJ	M	22	Loop
3	ZK	F	23	Whorl
4	MA	F	22	Loop
5	MKA	M	22	Loop
6	FHH	M	22	Loop
7	IKT	F	23	Loop
8	ADP	F	23	Loop
9	IDA	F	23	Loop
10	RCS	F	24	Loop
11	HK	F	23	Loop
12	RB	M	23	Loop
13	MN	M	24	Loop
14	A	F	23	Whorl
15	APR	M	24	Whorl
16	MS	M	23	Loop
17	RO	F	23	Whorl
18	JC	F	24	Loop
19	MO	M	23	Loop
20	MF	M	23	Loop
21	KZ	F	22	Loop
22	KG	F	23	Whorl
23	NA	F	22	Whorl
24	MM	F	23	Arch
25	TNS	F	23	Loop

26	WA	M	23	Whorl
27	JM	M	23	Loop
28	GG	M	23	Loop

Table 2: Characteristics of research respondents by gender

Respondent	Total	Percentage
MALE	13	46,4 %
FEMALE	15	53,6 %
TOTAL	28	100 %

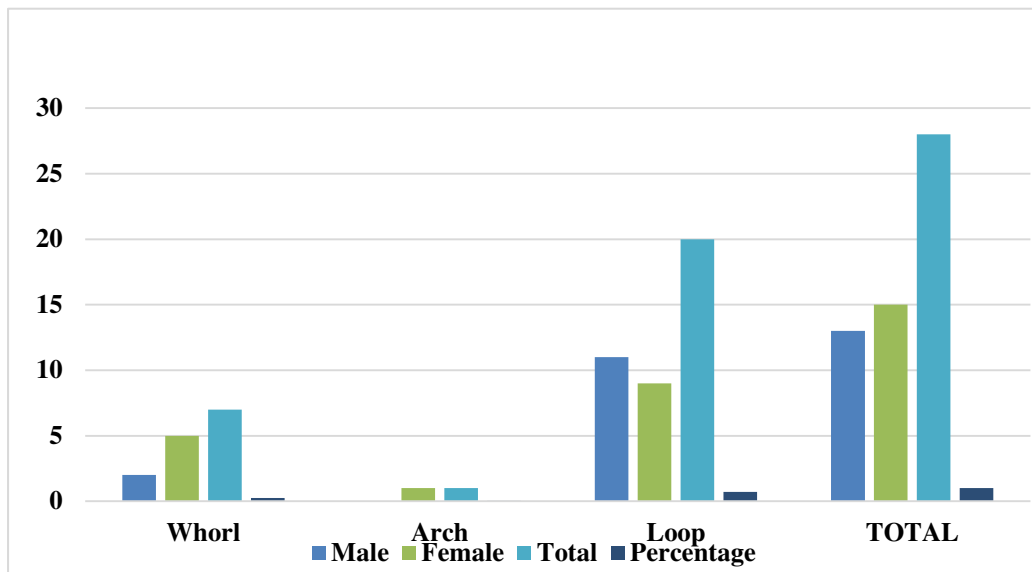


Chart 1:Frequency Distribution Diagram based on fingerprint pattern

Students with the initials: ZK, APR, RO, KG, A, NA, WA, have characters that tend to be honest, critical, perfectionist (high ambition for the perfection of a work), competitive (high competitiveness) and strong willed. Students with the initials: MM, have characters that tend to hold traditional values, high morals, traditional views about their own ambitions, careers and leadership. Students with the initials: FRS, JJ, MA, MKA, FHH, IKT, ADP, MS, JC, MO, MF, KZ, IDA, RCS, HK, RB, MN, TNS, JM, GG tend to be serious and have high visual memory.

Discussion

In this study, the data obtained were based on measurements using the total sampling method with a sample of 28 people. Of the 28 samples in this study, there were 13 men (46.4%), and 15 women (53.6%). From the results of this study, it can be assessed that the frequency of Whorl pattern fingerprints is 2 people (7.1%) and women are 5 people (17.9%), with a total number of respondents who have Whorl pattern fingerprints as many as 7 people (25%). The frequency of Arch pattern fingerprints was not found in males, while in females there were as many as 1 person (3.6%), with a total of 1 person (3.6%). The frequency of Loop pattern fingerprints was 11 (39.3%) more in males than 9 (32.1%) women with a total of 20 Loop pattern fingerprints (71.4%) and this is in accordance with The results of Galton's study which stated that the Loop fingerprint pattern frequency was higher than the Whorl and Arch forms, in accordance with the research of Indah Yunitasari, Karlina Pimbasari, and Fanani Hidayat in the Javanese population. Of all students who were respondents in this study (28

people) with the initials: ZK, APR, RO, KG, A, NA, WA, have characters that tend to be honest, critical, perfectionist (high ambitions for the perfection of a work, Competitive (high competitiveness) and Strong-willed, Students with initials: MM, have characters who tend to hold traditional values, High morals, Traditional view of ambition, career and their own leadership, Students with initials: FRS, JJ, MA, MKA, FHH, IKT, ADP, MS, JC, MO, MF, KZ, IDA, RCS, HK, RB, MN, TNS, JM, GG have characters who tend to be serious and have high visual memory.

Table 3: Character distribution based on the group of fingerprint patterns of each student of the medical professional education program who is undergoing a civil service for the October 2021 period

Students' Initial	Fingerprint	Character (Misbach,2010)
ZK, APR, RO,KG, A, NA, WA	WHORL	<ul style="list-style-type: none"> • Tend to be honest • Critical • Perfectionist (high ambition towards the perfection of a work) • Competitive (high competitiveness) • Strong-willed
MM	ARCH	<ul style="list-style-type: none"> • Tend to hold traditional values • High morals • Traditional view of their own ambition, career and leadership
FRS, JJ, MA, MKA, FHH, IKT, ADP, MS, JC, MO, MF, KZ, IDA, RCS, HK, RB, MN, TNS, JM, GG	LOOP	<ul style="list-style-type: none"> • Tends to be serious • Have high visual memory

Conclusion

Based on the results of research and data analysis in this study, it is concluded that:

1. Students with initials: ZK, APR, RO, KG, A, NA, WA have characters that tend to be honest, critical, perfectionist (high ambition for the perfection of a work result, competitive (high competitiveness) and strong willed
2. Students with the initials: MM has a character who tends to hold traditional values, high morals, traditional views about their own ambitions, careers and leadership
3. Students with initials: FRS, JJ, MA, MKA, FHH, IKT, ADP, MS, JC, MO, MF, KZ, IDA, RCS, HK, RB, MN, TNS, JM, GG tend to be serious and have a high visual memory.

The frequency of Whorl fingerprints was 2 people (7.1%) and 5 people (17.9%), with the total number of respondents having Whorl fingerprints as many as 7 people (25%). The frequency of Arch pattern fingerprints was not found in males, while in females there were as many as 1 person (3.6 %), with a total of 1 person (3.6 %). The frequency of Loop pattern fingerprints is 11 (39.3%) more for males than 9 (32.1%) females with a total of 20 Loop pattern fingerprints (71.4%) and this is in accordance with The results of Galton's study which stated that the Loop fingerprint pattern frequency was higher than the Whorl and Arch forms, in accordance with the research of Indah Yunitasari, Karlina Pimbasari, and Fanani Hidayat in the Javanese population.

Suggestion

Based on the research that has been carried out, the researchers suggest:

1. So that the results of this research can be used by lecturers in the medical professional education program who are undergoing clerkships for the October 2021 period in guiding their students.
2. The results of this study can also be used by parents of medical professional education program students who are undergoing clerkship for the October 2021 period

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