



**ASSOCIATION OF ABO BLOOD GROUP WITH HAIR PATTERNS AMONG
UNDERGRADUATE HEALTH SCIENCE STUDENTS AT UiTM PUNCAK ALAM**

By

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ABSTRACT

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The hair was one of the characteristic that is inherited from the parent. Hair can be divided into four type which his straight, wavy, curly and kinky. The hair analysis is extremely valuable in forensic science. ABO blood group is the first blood group system in history. The ABO blood group was said to be inherited from the parent and it is proved by a scientist in 1910. The ABO blood group antigens do not only expressed on the RBCs but also expressed on a variety of human tissue such as epithelial and endothelial cells. The ABO blood group was said to have an association with many of the inherited diseases. This shows that it is not impossible for the ABO blood group to have an association with the hair patterns. There is no previous research done in Malaysia to determine the prevalence of hair patterns and the association between ABO blood group and hair patterns. The purpose of this study is to determine the association between ABO blood group and hair patterns. If there is any association, it may help to improve the analysis of hair in the future. A total of 152 undergraduate health science students at UiTM Puncak Alam is randomly selected to participate in this study. As a conclusion, this study reveals that there is no association of the ABO blood group with hair patterns.

Keyword

Association, Hair patterns, ABO blood group, distribution, Malaysia

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CHAPTER 1

INTRODUCTION

1.1 Background of the study

The ABO blood group is a well-known blood group system that plays a major role in blood transfusion. The ABO blood type of a person was inherited from the parents. Individuals can inherit their ABO blood type from the father or mother or may also have a totally different ABO blood group from the parents by the mixing of the gene from both parents. The ABO blood group system was first found by Karl Landsteiner in the early of 20th century. This discovery made it possible to transfuse blood in a safe manner. Nowadays, the ABO blood group antigens were said to be present not only on Red Blood Cells (RBCs) but also expressed on a variety of human tissue such as epithelial and endothelial cells (Dean, 2005). Due to this statement, the ABO blood group is searched for relation with inherited diseases and characteristics. Some of the research had successfully found an association between the ABO blood group with inherited diseases and characteristics.

Hair is one of the characteristic that is inherited from the parents. Hair is associated with age and charm in woman and virility in a man. Hair can also help in recognition of individuals. The hair can be divided into four hair patterns which are straight, wavy, curly and kinky (Walker, 2015). Kinky hair pattern has been removed from this study because of its rarity in the target population.