

最終試験の結果の要旨

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<p>主査および副査の5名は、令和5年6月1日、学位申請者 Anwar Ahmed Salim 君に面接し、学位申請論文の内容について説明を求めると共に、関連事項について試問を行った。具体的には、以下のような質疑応答がなされ、いずれについても満足すべき回答を得ることができた。</p> <p>Question 1: In your study, why did you choose 30 minutes per week for exercise habit? Answer: The exercise habit data was obtained through self-administered questionnaires and the available data was exercise habit of at least 30 minutes per week or no exercise habit. This is a limitation of our data.</p> <p>Question 2: What do you think about categories of exercise habits, such as one hour, two hours, or three hours of exercise per week? Answer: I think by including categories with different levels of exercise habits, we can evaluate the association between exercise habit and Metabolic Syndrome (MetS) risk more accurately.</p> <p>Question 3: In your study, why did you delete the waist circumference (WC) data? Since WC may increase the possibility of MetS detection, what are your thoughts on this? Answer: In this study, all individuals with MetS were excluded at baseline, including those with high WC. BMI was used in the score because of its convenience.</p> <p>Question 4: If you can analyze sleeping time, do you think it would be useful for predicting MetS? Answer: Yes. I think analyzing sleeping time would provide useful information on MetS risk.</p> <p>Question 5: Participants were selected from health checkups. Is there any selection bias? Answer: Selection bias may have some effect on my results. However, the large sample size is the strength of this study.</p> <p>Question 6: Does this study explore information on the intake amount of tobacco and alcohol? Answer: Our study had limitations for the data on the amount of alcohol consumed or the quantity of tobacco smoked per day. Future studies need to categorize participants based on their consumption levels.</p> <p>Question 7: The follow-up period is 5 years, but the range is 3 to 7 years. Please explain. Answer: The 5-year follow-up period was determined based on the median duration available in the dataset.</p> <p>Question 8: Do you think Cox proportional hazard regression should have been used in the analysis? Answer: The use of Cox proportional hazard regression was not possible in our analysis due to the lack of prospective data for years 1, 2, 3, 4, and 5. We only included data in year 1 and year 5.</p> <p>Question 9: What do you think about applying your study to health issues in your country? Answer: I believe this study is important for addressing health issues in low-resource settings like Tanzania.</p> <p>Question 10: What is the prevalence of MetS, life expectancy, and cardiovascular risks in Tanzania?</p>			

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Answer: The prevalence of MetS is 25-30% in urban areas. The life expectancy is 60 years. Cardiovascular risks, factors such as obesity, hypertension, dyslipidemia, and diabetes are on the rise in Tanzania.

Question 11: In your study, there was a very low incidence of MetS. Why?

Answer: The health checkup data, generally participants have a higher level of health awareness and healthier lifestyles, thus may have low MetS risk.

Question 12: What is the AUC if you plot only BMI to assess its predictive ability for MetS incidence?

Answer: BMI is a strong predictor, when used alone the area under the curve (AUC) is 0.78.

Question 13: Did you analyze variables such as marital status, economic status, and social life?

Answer: I didn't include such variables, but future studies need to assess their association with MetS.

Question 14: Are there any variables that have a positive effect on MetS?

Answer: Yes. Low BMI, high HDL, and low blood pressure showed a reduced risk of MetS.

Question 15: Is there a difference in the prevalence of MetS between Japan and Tanzania?

Answer: In Japan, the prevalence is lower, at around 19%, while in Tanzania, it ranges from 25% to 30%. Additionally, the diagnostic criteria used in Tanzania are by the World Health Organization (WHO).

Question 16: It is mentioned that authors contribute equally to this work. What is the ball symbol meaning?

Answer: On the first page of the paper the symbol is just used to mark equal contribution by the authors.

Question 17: Metabolic Syndrome is related to food customs. should it be added to the prediction models?

Answer: Food customs play an important role that is associated with energy intake. Excessive energy intake can lead to obesity and the development of MetS. In future, food customs can be added in prediction models.

Question 18: In Japan, BMI >30kg/m² is severe obesity. Did this study include severe obesity participants?

Answer: I used BMI ≥ 29 kg/m², and consisted of 1,373 individuals, among them 335 developed MetS.

Question 19: Were there individuals with Obesity disease included in this study?

Answer: We did not specifically assess individuals with "Obesity disease". However, they may be included. The focus of our study was all populations, rather than specific obesity-related conditions.

Question 20: If the WC criteria for MetS is changed to 80 cm in women, would the results change?

Answer: If the WC in women is 80 cm, the incidence of MetS would likely increase. However, the effect on the MetS risk score models would likely be minimal.

Question 21: Did the individuals who developed MetS after 5 years, experience a change in their weight?

Answer: I did not specifically assess the change in weight among individuals who developed MetS. However, most individuals who developed MetS may experience an increase in weight.

Question 22: Do you have plans to develop materials or applications using a simple score or equation model that can be used by the public for prevention?

Answer: Yes, I believe it would be valuable to develop materials or applications that utilize a simple score or equation model for the prevention of Metabolic Syndrome. Such tools could be used by the public to assess their risk and make decisions about lifestyle modifications.

以上の結果から、5名の審査委員は申請者が大学院博士課程修了者としての学力・識見を有しているものと認め、博士（医学）の学位を与えるに足る資格を有するものと認定した。