

# NEW PAPERS

## Ethnic differences in knowledge, attitudes, and practices related to dietary salt intake and association with hypertension in Malaysia: a multi-center cross-sectional study



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My country Malaysia is a relatively small country in Asia. We have a multi-ethnic population of 3 races namely Malay who make up 70% of the total population of approximately 33 million, Chinese around 20% and Indians 9% and other smaller ethnic minorities in the states of Sabah and Sarawak in East Malaysia.

We are very fortunate in many ways, with economic, social and political stability but on the flip side we have a high prevalence of cardiovascular disease (CVD) risk factors and CVD mortality. What has been noted is that there are differences in the CV risk factors between the ethnic groups where hypertension seems to be higher for example in Malays (32.2%) than the Indians (30.6%) and Chinese 28.1%.<sup>1</sup> Similarly prevalence of hypercholesterolaemia is highest in the Malays (43.5%) while diabetes is highest in the Indians (18.5%) versus Chinese of 8.5%.

While genetic factors play a role in the different prevalences seen, social-economic, cultural and behavioural factors may also contribute to these differences between the ethnic groups.

A group of us founded an NGO called MyWASSH (Malaysian Society for World Action on Salt, Sugar and Health) in Nov 2021 with the aim to provide education on reduction of salt intake to help reduce the prevalence of hypertension in Malaysia. This was something we wanted to do to support WHO's nine targets announced in 2013 to reduce NCDs, one of which was to reduce prevalence of

hypertension by 25% and another was reduction of population salt intake by 30%. Both prevalence of hypertension and salt intake are high in Malaysia (30% and 7.9 gm per day respectively).

We felt that any educational materials we develop or use to encourage reduction in salt intake will have to be culturally sensitive, given the very different and varied cuisine, food choices, eating and cooking styles of the three ethnic groups. Hence, we wanted to examine and identify differences, if any, of the knowledge, attitude and practice of the three ethnic groups towards salt intake.

We surveyed 5128 adults as part of a blood pressure screening campaign. The 3 races were well represented and women formed more than half (59.6%) of the participants. Having enough women in the survey is important, as often women are the ones who usually make the food choices in shopping as well as being responsible for the cooking of meals at home. Furthermore, we also had more than half (56.7%) being under 40 years old, again an important target group for educational intervention as they eat out more often, and being parents of younger children, perhaps may be more receptive to making changes to ensure better health for their children.

Our results showed that overall, knowledge that eating too much salt causes hypertension was good but it was not good about eating too much salt causing stroke or heart failure, and

there was no difference between the races. A question we asked, which we believe has never been asked in any other studies about knowledge, attitudes and practices (KAP) about salt intake, was prompted from our observations and discussions with patients with hypertension. Many patients believed that drinking more water can neutralise the detrimental effects of a high salt intake. And when asked this question in the survey, nearly two-thirds believed that this was the case and there was a difference between the ethnic groups. What this tells us is that in any educational materials, we need to explicitly state this wrong belief.

Another question we asked was whether participants know the difference between sodium and salt and here only a third said they knew, and again differences were seen between the races with more Indians knowing the difference than Malay and Chinese. This to us is another important piece of information we need to know. Labelling of salt contents on manufactured food has been as sodium but recently we noticed that in the UK, they have changed the labelling to salt and no longer using sodium. I personally believe it should be salt as when we inform the public about the optimal amount to take, we often express it as 5 grams of salt per day and not 2 grams of sodium. Salt to me would be more suitable for the public as we often refer to the 5 grams of salt as a teaspoon of salt and this is easier for the public to visualise. While I acknowledge that salt/sodium chloride is not the only source of sodium we eat, 90% of the sodium we eat is in the form of sodium chloride (salt). I also think that countries should give more thought to the way we label sodium on manufactured foods and come to an agreement about the common term to use, as many countries manufacture and export food to each other. Having different terms for labels will cause confusion to the public.

We found a very positive attitude towards reducing salt intake among the participants where nearly 80% said that it was important or very important to do so. Each of the ethnic groups also had nearly the same positive attitude.

However, when it came to practice it was much poorer. Only about a third read salt labels, with Indians doing better at this. When asked for the amount of sodium/salt they were consuming, more than half said it was the right amount when in reality the mean intake in the country is high. More Chinese compared to the other 2 ethnic groups felt they were eating too much salt.

In many ways it is not surprising that the good knowledge and positive attitude is not translated into practice. There are of course many reasons for that, one of which for example is that currently many manufactured foods in Malaysia do not have sodium label and hence the practice is not to read sodium labels. Malaysia this year has made it compulsory for all manufactured foods to have salt labels and we will now have to do more education on the reading of salt labels.

Overall, our survey showed that Indians generally had relatively high KAP with regard to salt intake relative to the other two major ethnic groups.

We also found that individuals with diagnosed hypertension generally exhibited better knowledge of the health impacts of a high salt diet and understood the importance of lowering salt in their diet.<sup>2</sup>

To conclude, we still have a lot of work to do to reduce salt intake in Malaysia. There is currently a positive will particularly in the Ministry of Health to work faster towards reducing salt intake in the nation by 30%. All stakeholders will need to get on the bandwagon if we are to achieve this goal.

## References

1. National Health and Morbidity Survey Malaysia Technical Report on Non-communicable diseases Volume 1. Ministry of Health Malaysia. 2019;[http://iku.moh.gov.my/images/IKU/Document/REPORT/NHMS2019/Report\\_NHMS2019-NCD\\_v2.pdf](http://iku.moh.gov.my/images/IKU/Document/REPORT/NHMS2019/Report_NHMS2019-NCD_v2.pdf).
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