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Letter to the Editor

The First Link in the Stroke Care Chain also Needs to be Trained

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Letter to the Editor

We read with interest the article by Kotb *et al.* on a cross-sectional study of knowledge and awareness of cardiovascular risk factors for ischemic stroke in 2956 participants from Saudi Arabia ^[1]. All participants scored less than 50% of the maximum possible score (1–7) ^[1]. The most well-known risk factors were hypertension, diabetes, and hyperlipidemia, which were known to 41%, 23%, and 15% of respondents, respectively ^[1]. The internet and social media were cited by participants as their main sources of information ^[1]. From this, it was concluded that awareness of stroke risk factors is low in the Saudi population. The study is interesting, but several points raise questions.

First, the inclusion criteria were very broad, and no exclusion criteria were defined ^[1]. Were individuals with illiteracy, cognitive impairment, memory problems, behavioral issues, or serious illnesses actually included in the study? How was it ensured that the included participants understood the questionnaires? How many of the participants completed the questionnaires independently?

Second, the influence of gender on the results cannot be accurately assessed because the number of women was three times higher than the number of men ^[1]. To adequately evaluate the influence of gender, equally sized groups of men and women with comparable demographic variables would have been necessary.

Third, the relatively small sample size does not allow for general conclusions about the Saudi population. Were the sample sizes comparable across the five regions studied?

Fourth, the study did not investigate whether there were differences in knowledge and awareness between the rural and urban populations. Nor did it report whether there were differences between older and younger population groups.

Fifth, the survey was conducted during the pandemic (August 2022 to July 2023), but its impact on the results was not examined ^[1]. It is reasonable to assume that the pandemic increased health awareness in general and possibly also awareness of stroke risk factors. It would be interesting to know whether there is a difference between those who were infected or had close relatives who were infected and those who were not.

The sixth point concerns the role of health policy, which was not considered in the discussion of the results ^[1]. What measures is the Ministry of Health taking to improve knowledge and awareness of stroke risk factors? Are there official campaigns to inform the public about stroke risk factors, stroke treatment, and its consequences? Are campaigns being conducted on television, the internet, social media, in print media, or on posters? Is the Ministry of Education involved in educating young people? Children and adolescents also need to be familiarized with the topic, as they may be the first to come into contact with a patient suffering from an acute stroke. Decision-makers in the health and education sectors are called upon to contribute and play a central role in providing effective information about stroke risk factors and stroke treatment.

The seventh point concerns the lack of information on the existing healthcare infrastructure in the country ^[1]. It should be stated whether efficient, nationwide structures for stroke care (alarm system, transport, interventional radiology, stroke units) are already in place to enable the practical application of the knowledge imparted. Training and knowledge transfer are only effective if they can be implemented in practice. Are representatives of these institutions involved in educating the public?

In summary, public education is crucial, as laypersons are often the first to recognize a stroke and call emergency services. Stroke care begins with the correct identification of symptoms and the appropriate response ^[2]. The faster these initial steps are taken, the better the chances of recovery.

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