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Stroke prevention starts at the workplace

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Nitin K Sethi
Department of Neurosciences, Pushpawati Singhania Hospital & Research Institute (PSRI), New Delhi, India

Correspondence: Nitin K Sethi, MD, MBBS, FAAN, Chairman Neurosciences and Senior Consultant, Pushpawati Singhania Hospital & Research Institute (PSRI), New Delhi, India, Email sethinitinm@hotmail.com

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Introduction

Stroke is the leading cause of disability in the world. Stroke incidence is increasing in India. One meta-analysis determined crude incidence of stroke in India ranged from 108 to 172/100,000 people per year.[1] Another meta-analysis revealed large variation in the crude prevalence ranging from 26 to 757/100,000 people per year, and one-month case fatality rates from 18% to 42%.[1] Thrombolytic and mechanical thrombectomy therapy has changed the treatment of ischemic stroke from a ritualistic predominantly supportive care to an active aggressive one where every second counts and the goal is to minimize neurological deficit and optimize the individual's recovery. In India comprehensive stroke centers are usually found in large academic and private medical hospitals which have neurologists and neurosurgeons trained to administer acute stroke care including thrombolysis and mechanical thrombectomy. There is tremendous disparity in stroke care across India. In smaller towns and cities across India, resources are limited, and even basic stroke care is lacking. Lack of awareness of stroke and its risk factors further increases stroke burden and morbidity. Stroke prevention by addressing stroke risk factors hence assumes even greater significance in India.

Methods

To celebrate World Stroke Day (WSD) 2023, a stroke awareness camp was organized by the department of neurosciences. Since WSD fell on Sunday Oct 29th, the camp was organized on Friday Oct 27th from 10 am to 2 pm. Our objective was to screen hospital employees for stroke risk factors and spread stroke awareness. Leading up to the camp, we requested the human resources (HR) head of the hospital to send an e-mail to all hospital employees informing them of the camp and encouraging their participation. We also reached out to Chairmen of different departments informing them of the camp and requesting them to encourage their staff to attend. Flyers were e-mailed to all hospital employees. A day before the camp (Oct 26th), flyers were manually inserted in between pages of the local newspaper to advertise the camp and the services provided. Four stations were set up in the patient waiting area outside the neurosciences department. The first station was the intake/triage station and was manned by the neurosciences registered nurse (RN). Every attendee registered at this station and vitals were then taken by the RN. These included pulse rate, blood pressure and respiratory rate, oxygen saturation by pulse oximetry, weight, and body mass index. At the second station, every attendee was guided by a staff member to use a Stroke Risk app by scanning the QR code with their hand-held smartphone. This easy-to-use app helped assess that individual's stroke related risk by factoring in information such as age, gender, medical conditions such as essential hypertension, diabetes, dyslipidemia, health factors such as smoking, alcohol intake, diet, tobacco consumption and lifestyle such as daily exercise. At the third station, the data generated by the Stroke risk app was reviewed by a neurologist and the patient was counselled on stroke risk reduction. Each attendee was also educated on stroke identification and given flyers that listed F.A.S.T. warning signs. These flyers were available in both English and Hindi (Figure 1 & Figure 2). Attendees who had suffered a stroke were directed to the fourth station, where they could talk with a stroke rehabilitation specialists. At this station, the stroke patient and caregiver were educated on stroke rehabilitation physiotherapy. During the event, all the participants were provided a packed lunch.

Figure 1 F.A.S.T Flyer in Hindi language.

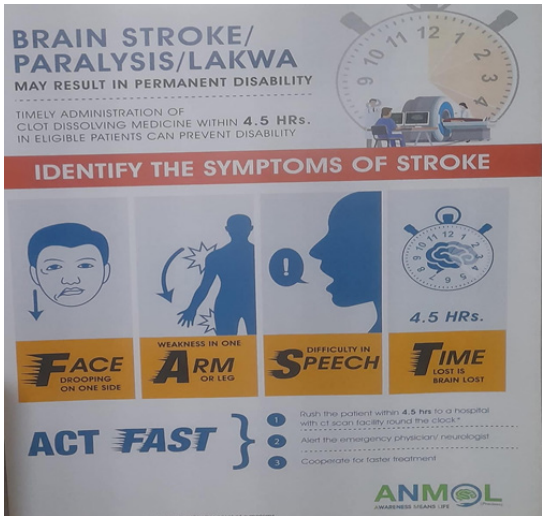

Figure 2 F.A.S.T Flyer in English language.

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Discussion

It has increasingly been recognized that one of the most efficient ways to increase public awareness about stroke and its risk factors is through health workers since they work in close contact with patients in both acute care settings such as hospitals and also in the community.[2] Our goal when we decided to celebrate WSD 2023 was to screen our entire hospital staff for stroke risk and to increase their awareness of stroke risk factors. In total we screened 130 hospital employees. These included ward boys/girls (staff entrusted with maintaining the cleanliness of the hospital), staff nurses including OR nurses, security guards, hospital cafeteria staff, administrative staff, and physicians. We found that even among healthcare workers stroke knowledge and awareness was poor. Many were unaware that untreated hypertension and poor glycemic control increases the risk of stroke. We identified a significant number of attendees who smoked cigarettes or chewed tobacco both significant risk factors for cardiovascular disease and stroke.[3,4] These individuals were counseling to quit smoking and tobacco and guided to appropriate resources to help achieve this.

Stroke awareness spreads by word of mouth. Each attendee was encouraged to educate their family members and friends about stroke, stroke risk factors and stroke identification signs. We encouraged all the attendees to share the F.A.S.T flyers with friends and family members. There are severe initiatives which have been launched at national and international level by governments and organizations such as American Academy of Neurology and American Heart Association to improve public awareness of the symptoms of the stroke and to treat it as a medical emergency.[5]

We found that educating our own hospital employees about stroke, assessing them for stroke risk factors, and referring them to an appropriate specialist in the hospital network was an effective and cost-effective intervention. Healthcare workers are an ideal target group for stroke awareness and education initiatives. Preventing stroke in healthcare workers helps ensure a healthy workforce. Healthcare workers come in close contact with patients in the acute care setting and in the community. They are respected in their communities and family members and community dwellers are more likely to listen to and heed their advice.

Stroke prevention remains the most cost-effective, practical approach to reducing the incidence of stroke and improving the health of our communities. This prevention starts at our place of work and home.

Acknowledgments

None.

Conflicts of interest

The author declares there is no conflict of interest.

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