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Healthcare Cyberletter

Public Perceptions about Stroke

Health, Healthcare and Lifestyles
Produced by: Gallup Pakistan Jointly with Gilani Research Foundation

February-March Edition
(A national survey on Public Perceptions about Stroke)

In this Issue

From the Editor

Dear Reader,

Gallup Pakistan would like to present findings of a nation wide study on public perceptions about Stroke. We look forward to your comments and suggestions.

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Highlights

- **Awareness about stroke:** 82% of Pakistanis say they have heard or read about stroke.
- **Perception on symptoms or warning signs of stroke:** 49% of Pakistanis think "any part of the body (legs, face, arms,) becoming weak" would be a symptom present in someone who has a stroke.
- **Perceptions on causes of stroke:** 55% of respondents think having "physical or mental stress" is the primary cause of having a stroke.
- **Popular reaction to someone having a stroke:** 85% of respondents said they would take the person to the hospital immediately if someone had an attack of stroke in front of them.

INTRODUCTION

Pakistan is undergoing Epidemiological Transition like many developing countries of the world. As the economy is getting more industrialized and urbanized, the burden of Non-Communicable Diseases like Cardiovascular Diseases, Cancers, Diabetes and Stroke is increasing. Moreover, we have not been able to control infectious diseases like Tuberculosis, Malaria and other infections. Pakistan thus faces a 'double burden' of disease with communicable as well as non-communicable diseases causing morbidity and mortality. According to an estimate nearly 54.9% of the deaths are caused by NCDs in the country.[1]

In medical literature Stroke is defined as "a clinical syndrome characterized by rapidly developing symptoms and/or signs of focal and at times global (for patients in coma) loss of cerebral functions, with symptoms lasting more than 24 hours or leading to death with no apparent cause other than that of vascular origin." [2]

For sample size and details, see Methodology Note ahead

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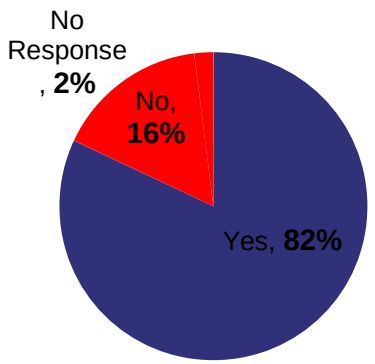
According to World Health Organization report 2002, total mortality due to stroke in Pakistan was 78512. [3] By 2020, stroke mortality will have almost doubled mainly as a result of increase in the proportion of older people and the future effects of current smoking patterns in developing countries. [2]

Stroke causes a huge burden on economy especially in developing countries with already limited resources. The burden is not only in terms of the resources spent on treating the morbidity associated with stroke but also loss of productivity due to disability resulting from stroke. If diagnosis of stroke is made earlier and immediate medical help is sought, morbidity related to stroke might decrease. Above all, if people are aware of the preventable risk factors of stroke like tobacco use, hypertension, hypercholesterolemia and factors related to diet and physical activity and try to avoid or control these risks, the burden of stroke will decrease. All this requires awareness among the public about risk factors, warning signs or symptoms of stroke. We conducted a survey of nationally representative sample of adult men and women in Pakistan to assess the present level of awareness about stroke. The survey findings are discussed ahead.

Sources:
1. Nishtar S. Health Indicators of Pakistan-Gateway Paper II. Islamabad, Pakistan: Heartfile; 2007.
2. Aly Z, Abbas K and Kazim SF et al. Awareness of stroke risk factors, signs and treatment in a Pakistani population. J Pak Med Assoc 2009; 59: 495-99.
3. WHO. The Atlas of Heart Disease and Stroke. Available at: http://www.who.int/cardiovascular_diseases/en/cvd_atlas_29_world_data_table.pdf

SECTION 1: AWARENESS ABOUT STROKE

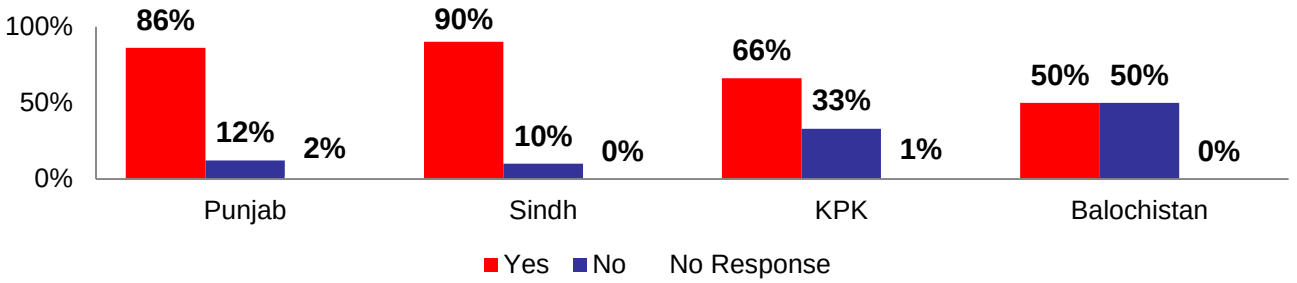
"Have you ever heard or read about stroke?"



Source: Gallup and Gilani National Survey (February, 2013)

When respondents were asked "have you heard or read about stroke?", 82% said 'yes' and 16% said 'no'. However, 2% did not give a response.

Comparison between provinces



Source: Gallup and Gilani National Survey (February, 2013)

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Comparison among provinces reveals that, though a large proportion of people in Sindh and Punjab had heard of Stroke, only 66% of respondents in KPK and 50% of respondents in Balochistan were aware of Stroke. There is a need to create awareness about this important health condition in these provinces.

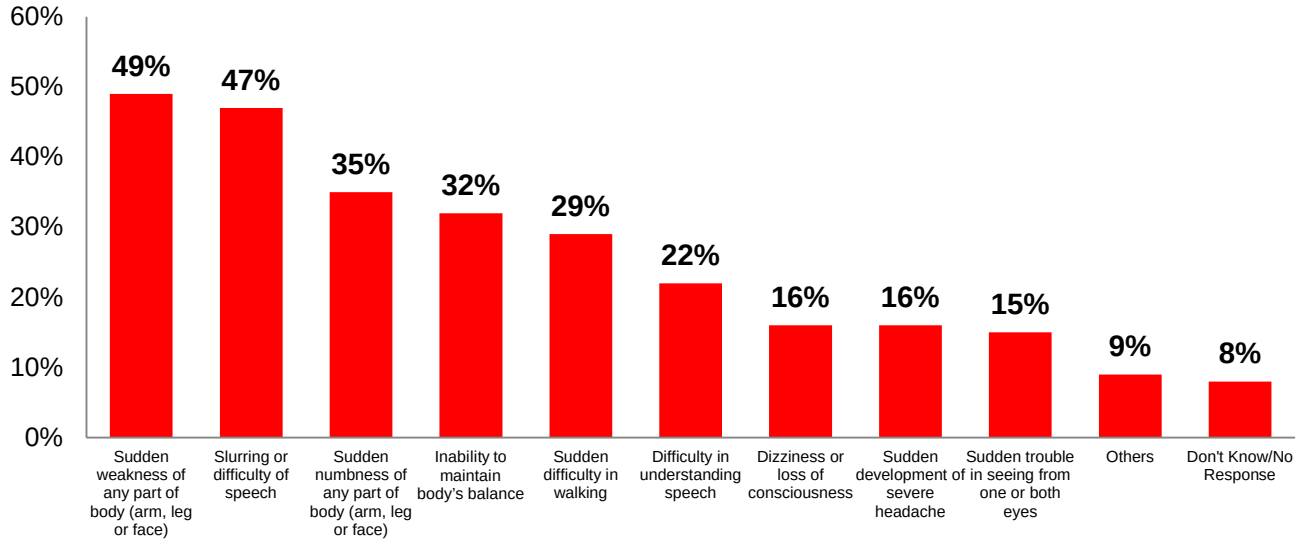
The rest of the questions were asked from the respondents who had heard or read of stroke.

SECTION 2: . PERCEPTIONS ON SYMPTOMS OR WARNING SIGNS OF STROKE

A list of symptoms or warning signs of stroke was presented to the respondents as a show card and they were asked to pick all they thought would appear in a person having an attack of stroke. The list was made according to the guidelines established by the American Stroke Association and published previously. [4]

The sample respondents identified sudden weakness of any part of body (arm, leg or face) most frequently (49%), followed by slurring or difficulty in speech (47%) as a symptom of stroke. Sudden numbness of any part of body (arm, leg or face) was identified by 35% respondents. The rest of the symptoms were identified by relatively fewer respondents.

"If someone has a stroke, which of the following mental or physical symptoms do you think will be present?"



Source: Gallup and Gilani National Survey (February, 2013)

Note: Multiple responses were allowed and responses might not add to 100%. This question was only asked from people who had ever heard or read of Stroke.

Source:
4. Hickey A, Hanlon AO, McGee H and Donnellan C et al. Stroke awareness in the general population: knowledge of stroke risk factors and warning signs in older adults. BMC Geriatrics 2009; 9:35. doi:10.1186/1471-2318-9-35

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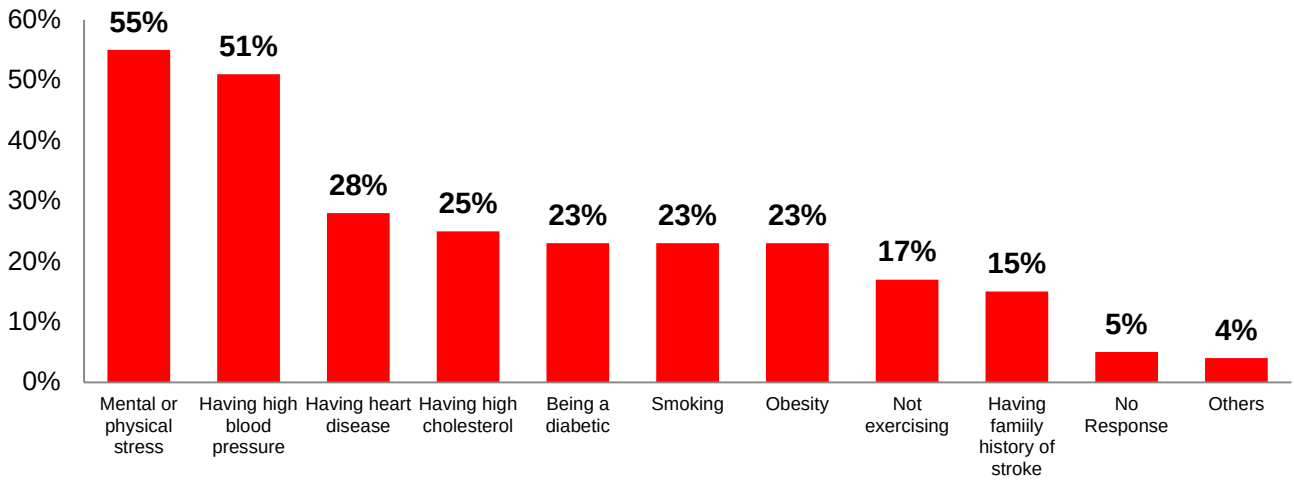
SECTION 3: PERCEPTION ON CAUSES OR RISK FACTORS OF STROKE

In literature, many risk factors have been described for developing Stroke. They may be inherent or non-modifiable factors like age and gender or physiological conditions like high blood pressure, high serum cholesterol, fibrinogen or existing medical conditions like glucose intolerance, ischemic heart disease, atrial fibrillation and previous stroke or Transient Ischemic Attacks (TIA) etc. Apart from these many modifiable behavioral factors like smoking, alcohol use, unhealthy body weight, physical inactivity and stress are also associated with risk of stroke. [5] We presented a list of known risk factors for stroke (as reported in the literature)[4] to our survey respondents and asked them to identify the factors they thought could lead to stroke.

Almost half of the respondents could identify mental or physical stress and high blood pressure as a cause of stroke. But the knowledge of other important risk factors was poor. It is a cause of concern that only about a quarter of men and women could associate smoking, unhealthy body weight and physical inactivity with stroke. Similarly not many people knew that having diabetes, heart disease or high blood cholesterol level could predispose a person to having a serious condition like stroke. It is important to create awareness among the general public about these risk factors. This is especially important as the burden of these risk factors is increasing in our population and people need to modify their habits and control these conditions in order to lead a healthier life.

"What do you think are the diseases/habits/things which can cause stroke?"



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5. Truelsen T, Begg S and Mathers C. The global burden of cerebrovascular disease. Available at: http://www.who.int/healthinfo/statistics/bod_cerebrovasculardiseasestroke.pdf

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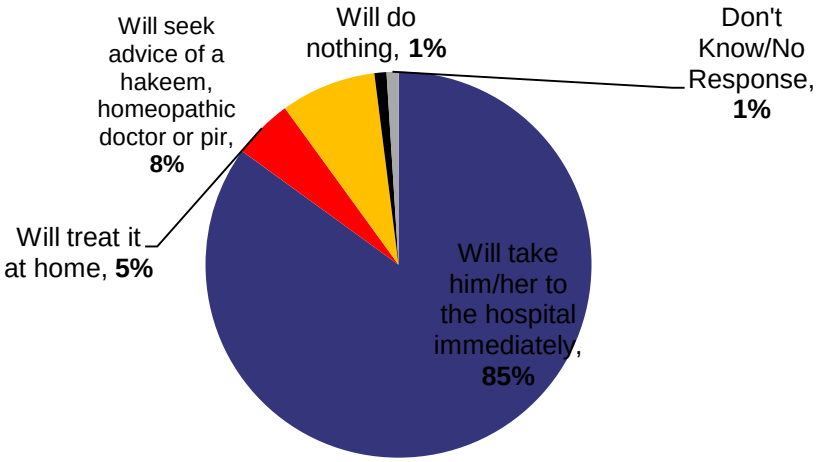
SECTION 4: POPULAR REACTION TO SOMEONE HAVING A STROKE

"If God forbid, someone has an attack of stroke in front of you, what would you do?"



Source: Gallup and Gilani National Survey (February, 2013)

Note: This question was asked from only those respondents who had ever heard or read of Stroke.

Early referral to a medical facility is crucial in order to minimize damage to brain due to stroke. If more people are aware of the warning signs of stroke and are able to take anyone they suspect of having a stroke immediately to the hospital, morbidity and disability due to stroke might decrease. When asked that how would people react if they see someone having a stroke attack, it is encouraging to see that 85% said they would take that person immediately to a hospital. But the rest of 15% said they would take other measures which included referral to traditional healers as well.

Please note that these are peoples' response to a hypothetical scenario and cannot indicate their actual practice in such situations. Moreover, the problems faced in transporting a patient to the nearest health facility, affordability and access to medical care as well as availability of effective stroke management in hospitals and other medical facilities are issues that need to be dealt with in order to improve prognosis of stroke patients in Pakistan.

SOME OF THE OTHER STUDIES ON STROKE IN PAKISTAN

1. Hashmi M, Khan M and Wasay M. Growing burden of stroke in Pakistan: a review of progress and limitations. Int J Stroke 2012. (doi: 10.1111/j.1747-4949.2012.00827.x)

Abstract

Stroke rates in middle-aged people are five to ten times higher in Pakistan, India, Russia, China, and Brazil, compared with the United Kingdom or United States. South Asia is home to 20% of the world's population and has one of the highest burdens of cardiovascular disease in the world. With an aging population, there is an expected increase in the number of stroke cases and a corresponding increase in the burden of stroke in developing countries including South Asian countries like Pakistan. Limited data from prior studies in developing countries indicate that stroke epidemiology differs between these and Western countries.

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These differences include a higher incidence of stroke at younger ages, a higher prevalence of hemorrhagic stroke, and higher age-specific prevalence rates of stroke in women. The reasons for these differences in stroke epidemiology in developing countries are not clear. This may be explained by higher prevalence of established stroke risk factors, or potential nontraditional risk factors such as water pipe smoking, use of dalda ghee or naswaar, and paan chewing; hepatitis and rheumatic heart disease may also contribute to these differences. Acute and long-term stroke treatment has shown limited progress in Pakistan like other developing countries because of poor awareness of patients and general physician on stroke symptomatology, management of stroke risk factors, lack of specialized stroke units in the country, very low utilization of thrombolytic therapy because of financial constraints and, above all, poor knowledge of physicians on the role of rehabilitation and its different aspects in the management of post stroke disability.

2. Aly Z, Abbas K and Kazim SF et al. Awareness of stroke risk factors, signs and treatment in a Pakistani population. J Pak Med Assoc 2009; 59: 495-99.

Abstract:

Objective: To assess the level of awareness in the general public on risk factors, symptomatology and immediate treatment of stroke.

Method: A cross sectional study was conducted in a sample of subjects visiting a tertiary care university hospital by means of a self-designed questionnaire. The study period extended between May and June, 2007.

Results: A total of 398 individuals were surveyed. Hypertension (69.1%) and stress (55.8%) were identified as two major risk factors for stroke. Among them 50.8% identified "Brain" as the principal organ involved in stroke out of which 78.2% of the response came from people whose level of education was intermediate-and-above. Around 13% of the study respondents did not know of any risk factor for stroke, while 11.6% of the study respondents didn't know about the alarming signs of stroke. The most frequent response (26.16%) to immediate management of stroke was to take the individual to Emergency Department/hospital. In all 56% reported that basic information about stroke was given to them by friend/relative.

Conclusions: The overall awareness of the study population regarding stroke was shown to be inadequate by this study. Knowledge was significantly greater in participants of younger age and a higher level of education.

METHODOLOGY NOTES

All findings in this Cyberletter are from Survey released by Gilani Foundation and carried out by Gallup Pakistan, the Pakistani affiliate of Gallup International. This survey was carried out among a sample of 2732 adult men and women in rural and urban areas of all four provinces of the country, during February 2013. Multi stage random area probability sampling was adopted. In-house face to face Interviews were conducted using a Structured Questionnaire.

The findings are weighted according to rural and urban population share of the four provinces according to Population Census, 1998. All figures are National average unless otherwise specified. Error margin is estimated to be approximately ± 2-3 per cent at 95% confidence level.

For more details on Methodology, please consult the Editorial Team.
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