

# LIVED EXPERIENCE OF A WOMAN WORKING IN HYPERTENSION RESEARCH: HIND MAMOUN BEHEIRY



**Our first lived experience article is written by Dr. Hind Mamoun Beheiry, Associate Professor of Physiology, President of Sudanese Society of Hypertension, Member of ISH Women in Hypertension Committee, Regional Advisory Group for Africa and winner of the ISH 2018 Developing World Award.**

The Republic of the Sudan, situated in North-East Africa, has a total area of 1,886,000 Km<sup>2</sup>; and a population of 41.8 million, according to the 2018 population census. The Sudanese ethnicity is Afro-Arabs.

In spite of the rich mineral resources in Sudan, and the country's possession of the largest livestock in Africa, and extended agricultural land and water resources, Sudan suffers from high illiteracy, political instability, environment, poor infra-structure, including networking, and low socio-economic conditions, which have led to a poor health system, and lack of health awareness and scientific and medical research, including Hypertension.

Women researchers in Hypertension in my country, Sudan, similar to other African countries have ambition and goals. However, they face many challenges and obstacles which hinder their progress and success in research. Sudan's economy is suffering, in the last decade, a deep crisis risking collapse and social strife leading to many issues such as high inflation and intense financial pressure. Poverty and high costs of living are increasing steeply. These factors have affected the availability of research facilities and finance at all universities. The immigration of scientists, the conflicts at some areas of Sudan and the poor culture of healthy lifestyle and lack of good health services are all consequences among others.

I was influenced by how my late father, even though he was hypertensive, maintained a healthy lifestyle and well-controlled blood pressure for over forty years. I decided to have a career in Medicine since that time. In the year 2000, I pursued a M.Sc. Degree in Physiology at the University of Khartoum, Sudan. My dissertation focused on Hypertension Disease, basically renal function in Sudanese patients with Essential Hypertension. The findings were striking; obesity, unhealthy lifestyle, poor control, and low levels of glomerular filtration rate (GFR).

I have continued to work in the field of hypertension and renal function and pre-eclampsia for the last twenty years. My research focused on renal function in Sudanese patients with essential hypertension, with special attention to glomerular filtration rate (GFR) values and in pre-eclampsia. The outcome of my research was that the normal value of GFR, a biomarker of renal function, is lower in female Sudanese subjects than that known for international values; and I was able to correct the calculation of GFR using the Creatinine Clearance formula, in Sudan, which gave higher values of GFR (as error) by using the formula of John Hopkins University published GFR formula.

Recently, my research has focused on genetic variations of Renin-Angiotensin-Aldosterone System (RAAS) among Sudanese in relation to Hypertension. I have published a number of papers on hypertension, GFR, and pre-eclampsia.

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The Sudanese Society of Hypertension (SSH) was initiated in 2009 by Ibtisam Ahmed Ali, a popular Sudanese consultant of cardiology, whose substantial efforts helped to establish the society, its activities and its recognition by the International Society of Hypertension (ISH), and the World Hypertension League (WHL).

The SSH initiated awareness, management, and prevention of hypertension, in addition to holding international conferences in Sudan and publishing the Sudanese Guidelines of Hypertension for management and practice of hypertension. The SSH regularly participates in World Hypertension Day and presented many papers at ISH Conferences.

In 2017 and 2018, the SSH, under the umbrella of ISH, participated in the May Measurement Month (MMM) Program for screening of hypertension among Sudanese population, in collaboration with a large number of Sudanese universities, non-governmental national and international organizations (NGOs), the National Health Insurance Fund and the Federal Ministry and States' ministries of Health in Sudan. These team-based programs had positive outcomes in awareness and very high screening levels among the population in Africa.

In 2018, as part of the SSH, I was awarded The International Society of Hypertension (ISH) Developing World Award due to Achievement in Research and Management of Hypertension.

The pre-existing political and socio-economic instability, exacerbated by Covid-19, has minimized research in hypertension and new activities at the community level in Sudan. In spite of all that is happening in Sudan; the future is bright. The Sudanese people are very decisive and strong and have led one of the outstanding recent revolutions in 2018-2019 and changed the military political regime towards democracy. There were mass protests, martyrs and young people sacrificed their lives. Definitely such a great nation is capable to change Sudan, their country, with all its available resources from a consumable to a highly productive and developed country.

I, as President of The SSH and as a member of the Regional Advisory Group for Africa (RAG) and Women in Hypertension Research Committee, have endeavors in supporting researchers and young investigators in Sudan and Africa with information, experience and team work.

We, in the Women in Hypertension Research Committee, feel responsible to play a further role in Africa and other continents to improve the network for women researchers, to exchange and publish new research, as well as to empower women researchers by scientific consultation and advice.