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FROM THE EDITOR-IN-CHIEF

Exploring Dermatoglyphic Screening for Hypertension, Strengthening Mental Health Care in Primary Health Settings, and Other Innovative Approaches to Improve Healthcare Outcomes

As we usher in this new issue, it is our pleasure to present a diverse array of thought-provoking research, clinical insights, and innovations that contribute significantly to the advancement of medical knowledge in our region and beyond. We extend our sincere gratitude to the authors whose diligent work, dedication, and valuable contributions have made this edition possible. Your commitment to improving healthcare through rigorous research is truly commendable. Additionally, we are immensely grateful to our esteemed reviewers and other stakeholders, whose expertise and thoughtful feedback continue to elevate the quality and impact of our journal. Your steadfast support ensures that the West African Journal of Medicine remains a premier platform for scholarly dialogue and collaboration. As always, this edition addresses pressing health issues impacting our communities, innovative healthcare solutions, and future directions. We hope the articles featured in this issue will inspire ongoing discussions and encourage collaboration.

Hypertension remains the most common cardiovascular risk factor globally and a leading contributor to the risk of cardiovascular events and mortality. While the condition is influenced by a mix of genetic and environmental factors, identifying individuals predisposed to hypertension before its onset could be instrumental in early intervention and prevention.¹ A recent study investigating the use of

dermatoglyphics - the analysis of skin patterns, especially fingerprints - as a potential method for determining predisposition to hypertension offers fascinating insights. The study, conducted at the University College Hospital in Ibadan, Nigeria, involved 384 participants, half of whom were hypertensive and the other half normotensive. By analysing participants' fingerprints, the researchers determined whether dermatoglyphic features could offer clues about genetic predisposition to hypertension. The study used a fingerprint scanner, which provided accurate and automated data to reduce human error. The findings revealed no significant differences in the level 1 dermatoglyphic details (the general fingerprint patterns) between hypertensive and normotensive groups. However, a noteworthy discovery emerged when the researchers examined level 2 details - the minutiae of the fingerprint patterns, including features such as bifurcations, trifurcations, and ridge endings. These finer details showed significant differences between the hypertensive and normotensive groups, suggesting that they may serve as a marker for hypertension predisposition.

The study builds on previous research on dermatoglyphics, which has explored the link between fingerprint patterns and various health conditions, including hypertension.^{2,4} It improved on previous methods with the use of digital methods to collect and analyse fingerprint data,

minimizing human error and offering a higher level of precision. The significance of minutiae such as bifurcations and ridge endings in differentiating between hypertensive and normotensive individuals is a crucial finding. These minute features of the fingerprint have been linked to genetic factors and prenatal development, offering a unique window into an individual's genetic predisposition to hypertension. The ability to predict hypertension risk through these characteristics would be a ground-breaking advancement in early health screening, potentially allowing for more targeted and effective interventions.^{3,5}

The study represents an exciting step toward the potential use of dermatoglyphics as a non-invasive, cost-effective screening tool for hypertension. As the global burden of hypertension continues to rise, the need for early detection and prevention has never been more urgent. If future research can confirm and expand upon these findings, dermatoglyphic screening could become a valuable part of routine health assessments, offering individuals and healthcare providers a new way to assess and manage hypertension risk before it becomes a serious health issue.

Another study by Omobowale et al. assessed the self-rated competence of Primary Health Care (PHC) workers in mental health care in Oyo State, Nigeria. The research, involving 40 workers from 33 Local Government Areas, found that more than half rated their competence

as good, especially in diagnosing mental illnesses, but one-third lacked confidence in managing psychosis. Challenges such as inadequate resources, funding, and stigma were identified. While it is encouraging that a majority of PHC workers felt confident in diagnosing mental illnesses, the fact that a significant proportion lacked confidence in managing some complex conditions is concerning. This gap in competence points to the urgent need for training programs to build skills in recognizing and managing mental health disorders prior to possible referral, particularly given the increasing burden of mental health issues across West Africa.

One critical factor influencing the ability of PHC workers to provide effective mental health care is the lack of resources. Many PHC centres in the region operate with limited access to diagnostic tools, medications, and mental health specialists, which hinders the delivery of quality care. Additionally, the stigma surrounding mental health continues to be a significant barrier, both within healthcare systems and in communities at large. Overcoming these stigmas requires targeted public health campaigns that promote mental health awareness and reduce the negative perceptions associated with mental illness. To improve the situation, there must be a concerted effort to enhance the training and support of PHC workers. Furthermore, fostering collaboration between mental health specialists and PHC workers could improve knowledge sharing and provide a more integrated approach to care. Additionally, greater investments in mental health resources, including funding for medication and treatment programs, are essential to ensure that PHC workers are equipped to deliver effective and comprehensive mental health services. Addressing these

challenges will go a long way toward improving mental health care at the primary level and ensuring better outcomes for patients.

Some of the other articles featured in this issue include the work by Akabueze and colleagues investigating the association between anti-chlamydial antibodies and tubal factor infertility in women in Enugu, Nigeria. They found a 28% prevalence of chlamydial seropositivity, with women with tubal factor infertility nearly twice as likely to test positive for the antibodies. The study recommended using serum anti-chlamydial antibody testing as a screening tool for tubal infertility. Oladokun et al. compared ketamine and midazolam as procedural sedatives in paediatric dentistry, reporting that Midazolam showed better patient behaviour, while ketamine facilitated easier local anaesthesia and dental exams. However, ketamine led to longer recovery times and more side effects. Despite these differences, both sedatives were deemed acceptable by dental practitioners and guardians.

The spectrum of articles also draws attention to the importance of translating discoveries into practical solutions that address pressing health challenges. Collaboration between researchers, healthcare providers, and policymakers is key to bridging the gap between research and practice, ensuring that knowledge reaches those who need it most, particularly in resource-limited settings. By promoting evidence-based practices, we can make significant strides in improving healthcare in West Africa and beyond. Again, we invite authors to submit their manuscripts – original research, reviews, case reports, etc. - for subsequent editions, contributing to the ongoing dialogue and advancement of healthcare.

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References

1. Zappa M, Golino M, Verdecchia P, Angeli F. Genetics of Hypertension: From Monogenic Analysis to GETomics. *J Cardiovasc Dev Dis.* 2024 May 18;11(5):154. doi: 10.3390/jcdd11050154.
2. Shakir II, Sheikhi S, Mahmood M, Khan N, Rathana R, Salama M. A Study of Dermatoglyphics Patterns in Relation to the Levels of Perceived Stress. *New Emirates Medical Journal.* 2024 Jan;5(1):e02506882292950.
3. Mouneshkumar CD, Anand S, Shilpa RH, Haidry N, Kulkarni P, Gupta A. Dermatoglyphics and Cheiloscopy patterns in hypertensive and type 2 Diabetes mellitus patients: An observational study. *Journal of Family Medicine and Primary Care.* 2021 Mar 1;10(3):1177-82.
4. Pasha MI, Zeba A, Ahmed MM, Sarwari KN. A study of the dermatoglyphic pattern in essential hypertension subjects in Kalaburagi test. *Indian Journal of Clinical Anatomy and Physiology.* 2023 Jan 19;8(2):102-5.
5. Shirali A, Chowta KN, Ramapuram JT, Madi D, Chouhan RR. A “Handy” tool for hypertension prediction: Dermatoglyphics. *Indian Heart Journal.* 2018 Dec 1;70:S116-9.