Article Feature:

- Attitudes and Influencers of Fijian Medical Students towards Physical Activity Promotion
- Medical Ethics in the 21st Century: Absolutes and Relativism in a Global Context

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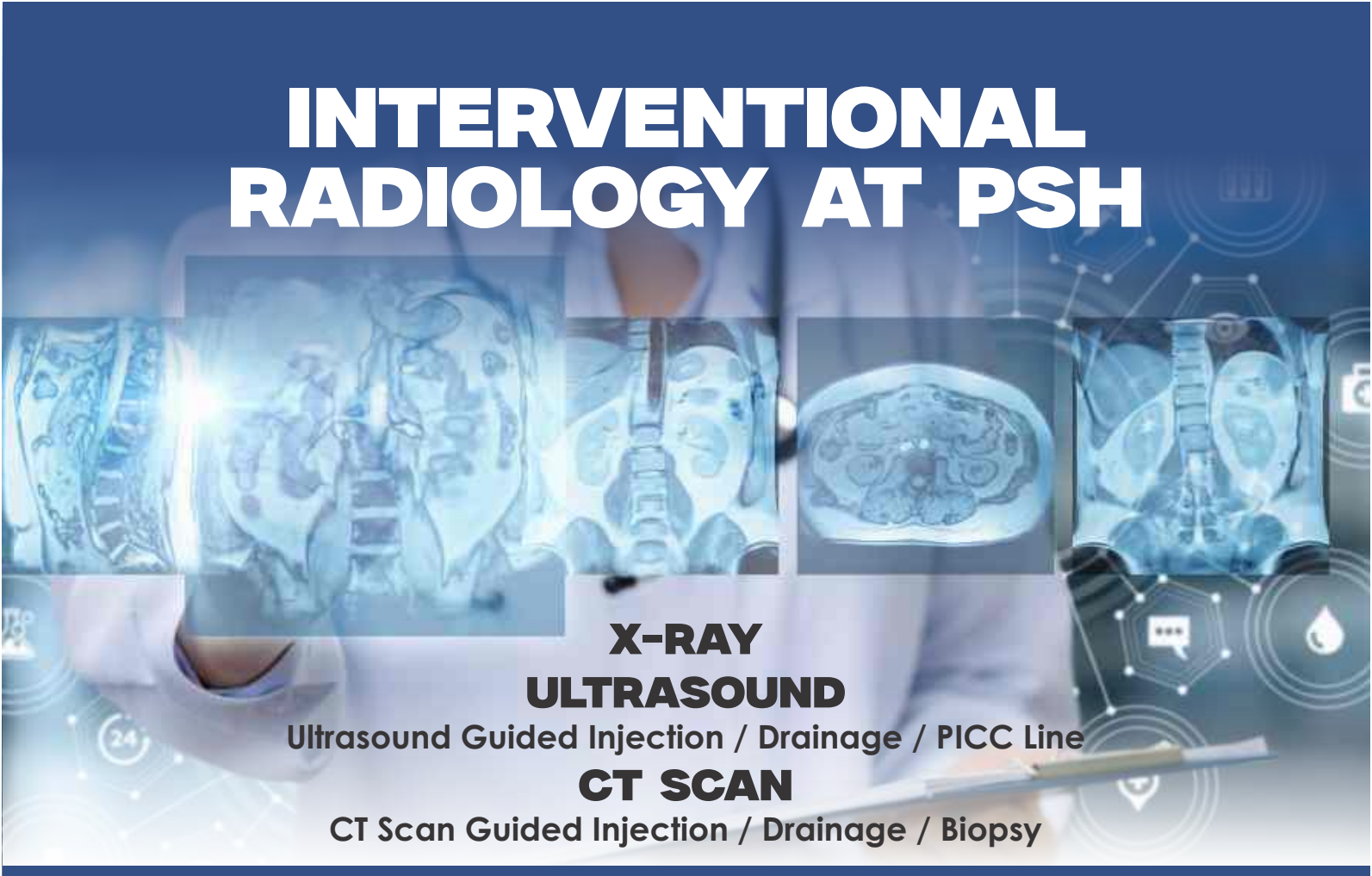
INTERVENTIONAL RADIOLOGY AT PSH



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CT Scan Guided Injection / Drainage / Biopsy

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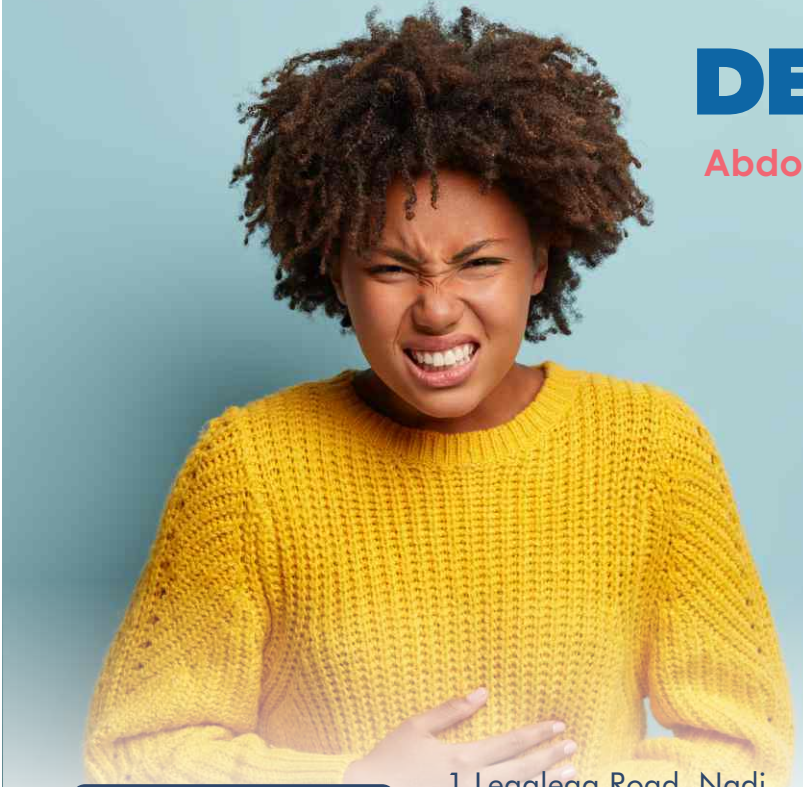

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Contents

Editorial

Author: *Dr. Neil Sharma*

The Whole Practitioner: Wellness, Burnout & Support in General Practice.

This issue continues to focus thematically on the bread & butter issues of our GP brethren whilst keeping an eye out on our own welfare and wellbeing. Introducing an original review on **"**Attitudes and Influencers of Fijian Medical Students towards Physical Activity Promotion" is indeed a game changer.

We overview the importance of early diagnosis of mental health decline within the medical profession as an introduction to the overriding theme of this issue. Introspective mental health remains a taboo subject in our small community of General practitioners. 280 odd members all aspiring and competitive. All needing collegiality & professional support yet insulated and protective of their own turfs. Uncertain of professional allegiances, fearful of competitive failures, facing professional challenges. All these adverse scenarios lead to stressful lives, burnouts and possible risk of ethical dilemmas. Unfortunately, national data is non-existent apart from two small scale G.P studies three decades ago. A recent meta-analysis (June 2025) of burnout and suicidal ideation among medical professionals: Insights on occupational vulnerabilities by Matt C. Howard & Brittany Siefert in the abstract section is worthy of attention. In alignment with the General Practitioner wellbeing, we draw attention to Medical Ethics in the 21st Century: Absolutes and Relativism in a Global Context adding direction in these challenging times. Areas we cannot err & not negotiable.

The non-communicable-disease crisis continues its escalatory trajectory. We review headaches and its complexities, caffeine related cardiac risks, sciatica management and rheumatoid arthritis in our case study section by four of our young professional colleagues under mentorship. The journal offers Dietitian Nisha's advisory on Fiji's carbohydrates and starch fuelled NCD crisis. Finally, the **c**ase report of Haemorrhagic Stroke in a 69-Year-Old Male with End-Stage Kidney Disease, Uncontrolled Hypertension and Diabetes is testimony to the professional challenge's primary healthcare providers face on a regular basis, compounding our own emotional & mental wellbeing despite our external resilience.

In our opinion/ update section we discuss subjects diverse as Health Tourism, The Private Hospitals Act Review exercise and World Health Organization recognition of four countries leading the charge, addressing the role of "Trans-fat" elimination and their strategies. Do follow the abstract column for several national/local research articles in the areas of communicable diseases viz Tuberculosis and HIV.

The December issue will address "Climate Change and The GP's role". Your contributions are welcome.

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Original Article

Attitudes and Influencers of Fijian Medical Students towards Physical Activity Promotion.

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Abstract
Physical activity (PA) has been shown to convey a myriad of health benefits that can potentially keep human beings fit, healthy and active. While Fiji grapples with escalating rates of non-communicable diseases, it is surprising that education on the benefits of PA is no more actively pursued. The aim of this study was to identify the participants' awareness regarding PA guidelines as recommended by the World Health Organization (WHO), their self-reported PA level, and preparedness to recommend PA. The cross-sectional methodology collected data from 122 medical students from the University of Fiji. The questionnaires were divided into sections focussing on PA counselling, self-reported PA levels, WHO PA guideline awareness, and medical practitioners' habits and its relation to PA counselling. The study revealed that 74% of the participants were not aware or unsure of the recommended WHO guidelines on PA with first year medical students being more aware than the second-year students. 93% of the participants agreed that medical practitioners with good and regular PA habits are more likely to engage in PA counselling with their patients yet only 45% self-reported levels of physical activity consistent with the recommended physical activity guidelines. The study highlighted critical gaps in knowledge, participation, and confidence regarding PA counselling among medical students. It is hoped that the findings of this study will lead to improved PA education of medical students and the result of which will mean they are more likely to advocate PA to patients in a bid to contribute to reducing the risk of non-communicable diseases in Fiji.

Background
PA plays an exigent role in the formation of healthy communities. Research highlights that education on PA has been an important catalyst in disease prevention[1]. Kirk (2018) mentions that physical education's contribution to health has been embedded in the body's physical functioning. While physical education is promoted in schools through PE teachers, the role of physicians and medical students are of extreme importance in promoting physical education in the wider community.

However, research suggests pre-clinical students' dissatisfaction with the training provided to them in the promotion of physical education. Students studying at an Australian University agreed to the roles of doctors in health promotion through physical exercise yet highlight the lack of training they received[2]. Lack of training then has a bearing on prescribing exercise for health improvement. Gnanendran et. al (2011) concludes that 'despite the important role of doctors in effective health promotion, exercise counselling from doctors to patients is relatively low'[3]. Researchers have noted many factors behind this trend. Doctors who were more active physically, counselled their patients about PA to improve health and those who were moderately vulnerable to PA, counselled less frequently and an association was noted between doctors who showed no signs of PA themselves, never counselled their patients to take PA[4,5]. Similarly, lack of time, reimbursement and training in PA or behaviour change counselling have also been noted as barriers to exercise counselling[4].

Furthermore, PA counselling or exercise counselling is given to patients on a case-by-case basis. Patients with medical conditions such as cardiovascular disease, type 2 diabetes mellitus, obesity and dyslipidaemia are advised by doctors to practice exercise on a regular basis[5]. While some doctors are unable to prescribe PA as health improvement tool, those that did, have achieved favourable outcomes. Research conducted shows overall improvement in health of patients after the intervention of 'green prescription'[6]. Elley et al. noted trends of decreased blood pressures, and 1 in 10 patients received 150 minutes of exercise per week. Doctors and health promoters advocating for PA as a health intervention tool have shown favourable responses. Patients with underlying diabetic conditions have been able to manage PA and exercise as part of diabetes self-management increased after the intervention[7].

The correlation between the high rate of non-communicable diseases in Fiji and lack of exercise is all too obvious now. Perhaps, 'green prescription' needs to be administered across all sectors. Studies highlight student doctors' dissatisfaction at lack of physical exercise training in their studies and the factors limiting doctors to prescribe exercise in promoting health. On the other hand, those that did advocate for physical exercise to their patients have seen vast improvements in their patients' overall health.

Methods
Participants and Data Collection
Participants (n=126) in this qualitative, cross-sectional study were delegates who attended the 2024 Fiji Physical Activity Promotion Symposium at the

University of Fiji. All delegates (n= 175) were invited to participate in this study by scanning a QR code made available during the symposium which provided access to the online questionnaire. Upon entering the questionnaire, delegates were provided participant information and were asked to consent to being a study participant. This study received ethical approval from the Griffith University's Human Research Ethics Committee (GU Ref No:2024/568).

Questionnaire

We developed an anonymous 20 item online questionnaire on the Microsoft Forms platform to investigate a participant's self-reported PA level (including type and duration/frequency), familiarity with the World Health Organisation PA guidelines, attitudes towards PA counselling, preparedness to provide PA counselling, and thoughts on ways to maximise the impact of PA counselling. The questionnaire was comprised of 6 sections. In section 1, participants were asked to confirm they had read the Participant Information and consented to participating in the study. Participant demographics (including age, gender, university program of study, year of university study, and university of studying) and whether they were engaging in regular PA (including type and duration/frequency) made up section 2. In section 3, participants were asked if they knew the recommended PA guidelines according to the World Health Organisation. Section 4 and 5, presented the participant with a range of statements relating to a medical practitioner's own PA habits influencing their PA counselling with patients, and their individual level of preparedness to deliver PA counselling. Participants were asked to record their level of agreement with the statements on a 4-point Likert scale. Finally, in section 6, the participants were presented with a range of statements relating to maximising the impact of PA counselling and asked to record their level of agreement with the statements on a 5-point Likert scale. The questionnaire took participants approximately 10 minutes to complete.

Data Analysis

We downloaded data from the Microsoft Forms questionnaire into a Microsoft Excel spreadsheet. Descriptive statistics were used to describe the mean and central tendency of the responses to each of the questions. Contingency tables for small cell count and exact Chi-square tests were used to analyse the differences between groups. Precision of estimation was indicated with 90% confidence limits. Significance was accepted at $p < 0.05$.

Results

Participant Demographics

Of the 175 delegates who attended the symposium, 126 commenced the questionnaire. 122 confirmed reading the participant information and consenting to participating in the study. All 122 completed the questionnaire. 4 participants identified as not currently being students (but rather academic staff) and these were removed from the data. The mean age of the participants was 22 years, with 36% male (n=42), 64% female (n=75) and 1% other (n=1). All participants indicated that they were students enrolled at the University of Fiji with 12% (n=14) enrolled in the Bachelor of Medical Health Sciences, 86% (n=102) enrolled in the Bachelor of Medicine, Bachelor of Surgery (MBBS), 1 enrolled in the Bachelor of Nursing and 1 enrolled in the Bachelor of Public Health. 58% (n=69) of participants were 1st year students, 34% (n=40) 2nd year students, 2% (n=2) 3rd years students, 3% (n=3) 4th year students, and 3% (n=4) 5th year students (Table 1, Open-Source Framework: https://osf.io/wk6zx/).

The programme of study and year of study were not associated with rates of self-reported knowledge of the recommended PA guidelines according to the World Health Organisation. However, 74% of participants were either unsure or did not know the recommended guidelines.

Gender was associated with rates of self-reported compliance with recommended PA guidelines, with 68% of females indicating they were either unsure or non-compliant compared to 31% for male participants (Table 2, Open-Source Framework: https://osf.io/wk6zx/).

Programme of study and year of study were not associated with rates of self-reported compliance with recommended PA guidelines. However, 1st year students had higher rates compared to 2nd year students. The number of participants in 3rd, 4th and 5th years of study were not high enough to establish any meaningful trends.

Of those participants who indicated they were engaging in regular PA (n=75), 36% reported group sports as being their most common type of activity with volleyball and soccer being most prevalent. Duration and frequency of PA ranged from 1 bout of 30 minutes per week, to 1-2 hours per day. Walking as a part of a deliberate bout of PA or as a mode of transport was a commonly reported type of PA.

Views on Physical Activity Counselling

Majority of the participants agreed or strongly agreed (93%) that medical practitioners with good PA habits are more likely to engage in PA counselling with patients. Similarly, the majority of participants agreed or strongly agreed (92%) that medical practitioners who regularly engage in PA are more likely to engage in PA counselling with patients. PA counselling was seen by participants as being important in preventing (95% agreed or strongly agreed) and treating patients (92% agreed or strongly agreed) with non-communicable diseases (NCDs). Almost all participants (95%) indicated that PA counselling will be an important part of their role as a medical practitioner (Table 3, Open-Source Framework: https://osf.io/wk6zx/).

Preparedness for Physical Activity Counselling

The majority of participants agreed or strongly agreed that the medical program they were studying has prepared them and that they were confident to perform PA counselling. Despite this, a third of participants indicated that they were not in agreement (Table 4,

Open-Source Framework: https://osf.io/wk6zx/). 98% of participants indicated that events like the PA promotion symposium were of benefit in preparing them to perform PA counselling with a patient.

Maximising the Impact of Physical Activity Counselling
Almost all participants indicated that working as part of a multidisciplinary team and having access to exercise specialists would assist them in PA counselling with patients. The participants also strongly supported the notion that PA counselling should be part of every patient consultation (Table 5, Open-Source Framework: https://osf.io/wk6zx/).

Discussion
This study provides valuable insights into medical students' knowledge, compliance, and perceptions of PA counselling, highlighting significant associations with their gender, programme of study, and year of study. The findings contribute to the growing body of literature emphasizing the need for enhanced PA education within medical curricula[8,9].

The results indicate varying levels of knowledge of PA across different programmes of study and years of study as well. The MBBS programme had the highest percentage of students who reported knowing about PA counselling (27%), while students from the Bachelor of Public Health & Primary Health Care (BPHC) and Bachelor of Nursing Science Honours (BNSc) programmes showed minimal awareness. Although the number of participants in the last two disciplines was less, our findings are in line with that of Weiler et al (2012) who reported that the modules within which PA teaching was featured varied greatly between medical schools[8].

Furthermore, the level of knowledge on the benefit and implementation of PA is likely proportional to the programme and the year of study. This shows an incremental exposure to PA counselling concepts as students' progress through their education. These findings align with previous studies that posits medical students often receive limited formal training in PA counselling despite its well-established role in non-communicable disease (NCD) prevention and management[10].

Regarding compliance, males exhibited a higher compliance rate (69%) compared to females (32%), indicating a potential gender-based discrepancy in engagement with PA counselling. Additionally, MBBS students reported higher compliance rates (48%) compared to students from other programs, reinforcing previous findings that medical students exposed to clinical environments are more likely to engage in health-promoting behaviours. This is supported by the study of Albuquerque and Ghorayeb (2019) who mentioned that their approach on the topic of PA successfully aroused the medical community's interest regarding the doctors' engagement with advising their patients to exercise[11]. Interest-wise, the findings of Sara and Ali (2022) also mentioned that most of staff nurses (73.6%) were inactive physically at leisure time activity while, the highest level (65.5% and 40%) of them were active physically at household activity and work-related activity respectively[12]. Hallal et al., 2012 and Banday et al., 2014 added that notable disparities exist in the prevalence of physical inactivity; as in most countries, inactivity is higher in women than in men, and older adults are less active than are younger adults[13,14]. These consistent patterns should be used to help policy makers to implement effective programmes for the prevention and treatment of non-communicable diseases.

Although PA is a cost-effective way to reduce population morbidity and mortality, there is a need for individualised and objective PA methods to the patients[15,16]. In this study influenced compliance, with first-year students demonstrating the highest compliance (52%), while fifth-year students reported significantly lower rates. This decline may be attributed to the knowledge gap between the trainee interns not mentored and the clinicians' ineptitude to prescribe an effective exercise regime for their patients, or the lack of consultant-led sport medicine service to host clinics[15] or the lack of curriculum integrated physical activity that extend beyond physical health. The majority of respondents strongly agreed or agreed that medical practitioners with good PA habits are more likely to counsel patients (50% and 43%, respectively). Similarly, 54% strongly agreed that regularly engaging in PA increases confidence in counselling patients. These perceptions are well-supported by literature indicating that healthcare providers who are physically active themselves are more likely to counsel their patients effectively[17].

While 67% of students strongly agreed that PA counselling is essential for NCD prevention, and 56% strongly agreed it is important for treating NCDs. These findings align with Joanna's (2009) and Ohuruogu's (2016) studies highlight that PA can reduce depression and its recurring, reduce anxiety and improve reaction to stress; improve short-term memory and decision-making in reduction of dementia and Alzheimer disease[18,19]. Next to health benefit, there is evidence that people who are physically active about 7 hours per week experience a 40% lower risk of dying early compared with those who are active for less than 30 minutes per week. Due to both the health, economic, and social benefits of PA as well as the high costs of inactivity, rising obesity and diabetes and aging populations; several countries have implemented national initiatives to promote PA[19].

Leading public health officials have suggested that PA is related to the health of people because it directly reduces the risk for several major chronic diseases; thus, PA may produce the shortcut for the control of chronic diseases, much like immunization controlled infectious diseases. Regular PA and good fitness can (1) aid in disease/illness prevention noting that nearly three-quarters of all deaths among those of 18 years and others are as a result of chronic diseases; (2) act in alleviating symptoms and aiding rehabilitation after illness for hypokinetic conditions like diabetes, heart

attack, backpain and others; (3) be effective methods of health and wellness promotion[18,20,21].

Despite acknowledging the importance of PA counselling, only 27% of students strongly agreed that their medical program had adequately prepared them for it, and 31% reported confidence in their ability to counsel patients. These findings underscore gaps in medical education, suggesting a need for improved PA training within curricula. Notably, events such as the 2024 Fiji Physical Activity Promotion Symposium were recognized as, with 51% of respondents strongly agreeing that such initiatives increase preparedness for PA counselling. This result concurs with many researchers that considering the well-established health benefits of regular PA, doctors have a primary role in counselling, encouragement, education, and be proactive in promoting health and that, medical advice alone does not lead to sustained changes in the behaviour of their patients, there is also a need for assistance in making a specific exercise plan or follow-up support[11,22,23].

Support for an interdisciplinary approach was overwhelmingly positive, with 55% of respondents strongly agreeing that medical practitioners should work alongside other healthcare professionals. Additionally, 57% strongly supported the inclusion of exercise specialists within the healthcare system. These findings align with the study of Michelle and co-workers (2019)[24].

Limitations

The study was designed and implemented within a short period of time which did not allow to reach out to other medical schools in Fiji. The number of BNSc and BPHC participants may not be a representative of the overall students enrolled in both programs. Our study also did not look into the type of challenges for the neutral or disagree responses.

Perceptions of PA practice or counselling may be due to the busy schedules of the medical programmes, and this could be proportional to the absence of curricula integrated policy, absence of experts in the field, or lack of policy, facility and motivation from other authorities.

Recommendations

- Reform medical curricula to embed PA education and extend it into clinical internships, ensuring future clinicians are proficient in preventive care.
- Strengthen partnerships between public health units and interprofessional teams to address Fiji's NCD burden regionally and nationally.
- Conduct regular workshops to align NCD management with PA implementation and elevate the perceived value of PA among practitioners.
- Standardized PA training across all healthcare disciplines to guarantee uniform, evidence-based delivery and community empowerment against NCDs.
- Scale up cost-effective PA initiatives, upskill clinicians, and reverse declining compliance to reduce long-term healthcare costs.
- Address gender-specific barriers through research to design inclusive PA programs and close gaps in prevention training.
- Combat clinician burnout by improving mentorship, integrating PA training into late-stage clinical education, and promoting exercise prescription.
- Fund targeted research to design PA interventions tailored to high-risk groups and specific NCDs across communities and schools.
- Establish monitoring frameworks through collaborations between medical schools, the Ministry of Health, and NGOs to evaluate PA's role in NCD strategies.
- Engage private sector stakeholders (e.g., media, telecoms, Vodafone, Digicel, corporations) to amplify PA campaigns and ensure sustainable public outreach.
- Develop international partnerships to create certified wellness programs, exercise clinics, and CPD-accredited sports medicine training.

Conclusion

This study highlights critical gaps in knowledge, compliance, and confidence regarding PA counselling among medical students. While students recognize the importance of PA counselling, their perceived preparedness and confidence remain suboptimal, suggesting an urgent need for curriculum enhancements. Incorporating structured PA education, practical training, and interdisciplinary collaboration within medical programs could significantly improve students' readiness to engage in PA counselling. Future research should explore the impact of targeted educational interventions on students' ability to integrate PA counselling into clinical practice effectively.

Acknowledgement

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References

1. Kirk D. Physical education-as-health promotion: Recent developments and future issues. *Education and Health*. 2018;36(3):70-75.

2. Nasario JC, Zaia V, Martins Trevisan C, Garzon S, Lagana AS, Montagna E. Attitudes and Values of Physical Education Professionals and Undergraduate Students about Their Role in Health Promotion. *Int J Environ Res Public Health*. 2020;17(7).

3. Gnanendran A, Pyne DB, Fallon KE, Fricker PA. Attitudes of medical students, clinicians and sports scientists towards exercise counselling. *J Sports Sci Med*. 2011;10(3):426-431.

4. King AC. Role of exercise counselling in health promotion. *Br J Sports Med*. 2000;34(2):80-81.

5. Selvaraj CS, Abdullah N. Physically active primary care

doctors are more likely to offer exercise counselling to patients with cardiovascular diseases: a cross-sectional study. *BMC Prim Care*. 2022;23(1):59.

6. Elley CR, Kerse NM, Arroll B. Why target sedentary adults in primary health care? Baseline results from the Waikato Heart, Health, and Activity Study. *Prev Med*. 2003;37(4):342-348.

7. Shields CA, Fowles JR, Dunbar P, Barron B, McQuaid S, Dillman CJ. Increasing diabetes educators' confidence in physical activity and exercise counselling: the effectiveness of the "physical activity and exercise toolkit" training intervention. *Can J Diabetes*. 2013;37(6):381-387.

8. Weiler R, Chew S, Coombs N, Hamer M, Stamatakis E. Physical activity education in the undergraduate curricula of all UK medical schools: are tomorrow's doctors equipped to follow clinical guidelines? *Br J Sports Med*. 2012;46(14):1024-1026.

9. Lee AK, Muhamad RB, Tan VPS. Physically active primary care physicians consult more on physical activity and exercise for patients: A public teaching-hospital study. *Sports Med Health Sci*. 2024;6(1):82-88.

10. Bull FC, Al-Ansari SS, Biddle S, et al. World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *Br J Sports Med*. 2020;54(24):1451-1462.

11. Albuquerque LCA, and Nabil Ghorayeb. The Truth is that Doctors do not Prescribe Physical Activities. *International Journal of Cardiovascular Sciences*. 2019;32:481-482.

12. Mohamed SM, and Ali Mostafa Ghalab. Effect of physical activity and health behavior on staff nurses' job performance. *International Egyptian Journal of Nursing Sciences and Research*. 2022;2(2):118-132.

13. Hallal PC, Andersen LB, Bull FC, et al. Global physical activity levels: surveillance progress, pitfalls, and prospects. *Lancet*. 2012;380(9838):247-257.

14. Banday AH, Farooq A. Wani, Feras Fahad A. Alris, Musab F. Alrayes, Fawaz Aljethae D. Alsharari, Abdullah W. Alarjan, Abdullah A. Al-zarea, and Abdulrhman A. Al-harbi. Physically Active Physicians: Do they make any Difference in Patient Care. *Medical and Applied Sciences*. 2014;4(2):47-53.

15. Rooney D, Gilmartin E, Heron N. Prescribing exercise and physical activity to treat and manage health conditions. *Ulster Med J*. 2023;92(1):9-15.

16. Schwartz J, Rhodes R, Bredin SSD, Oh P, Warburton DER. Effectiveness of Approaches to Increase Physical Activity Behavior to Prevent Chronic Disease in Adults: A Brief Commentary. *J Clin Med*. 2019;8(3).

17. Alruwaili AM. Physical activity practices among primary health care physicians in al-jouf: A cross-sectional study. *International Journal of Medical Research & Health Sciences*. 2019;8(11):44-48.

18. Ohuruogu B. The Contributions of Physical Activity and Fitness to Optimal Health and Wellness. *Journal of Education and Practice*. 2016;7(20):123-128.

19. Kruk J. Physical activity and health. *Asian Pac J Cancer Prev*. 2009;10(5):721-728.

20. Aktug ZB, Demir NA. An Exercise Prescription for COVID-19 Pandemic. *Pak J Med Sci*. 2020;36(7):1732-1736.

21. Organization WH. WHO guidelines on physical activity and sedentary behaviour: World Health Organization. Published 2020. Accessed.

22. Glasgow RE, Eakin EG, Fisher EB, Bacak SJ, Brownson RC. Physician advice and support for physical activity: results from a national survey. *Am J Prev Med*. 2001;21(3):189-196.

23. Stanford FC, Durkin MW, Stallworth JR, Blair SN. Comparison of physical activity levels in physicians and medical students with the general adult population of the United States. *Phys Sportsmed*. 2013;41(4):86-92.

24. Fortier MS, Hogg W, O'Sullivan TL, et al. The physical activity counselling (PAC) randomized controlled trial: rationale, methods, and interventions. *Appl Physiol Nutr Metab*. 2007;32(6):1170-1185.

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Review Article

The Importance of Early Diagnosis of Mental Health Decline within the Medical Profession

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Introduction

Mental health issues are an increasing concern within the global healthcare workforce, especially among medical professionals. Physicians, nurses, and allied healthcare workers operate in high-stress environments with considerable emotional and physical demands. As a result, they are more susceptible to mental health decline than many other professional groups. Recognizing early signs and symptoms among colleagues is essential for early intervention, preserving professional capacity, ensuring patient safety, and improving personal well-being. This narrative explores the global incidence of mental health issues in the medical profession, highlights early warning signs and symptoms, and discusses how fellow colleagues and institutions can address and manage such declines effectively.

Global Incidence of Mental Health Issues in the Medical Profession

Mental health decline among healthcare workers is a recognized crisis. Numerous studies have documented a higher prevalence of depression, anxiety, burnout, and suicide among medical professionals compared to the general population.

According to the World Health Organization (WHO), the global prevalence of depression among healthcare workers stands at approximately 28%, while anxiety affects around 30%[1]. Burnout, a syndrome resulting from chronic workplace stress, affects up to 50% of doctors in some specialties. A systematic review published in JAMA in 2019 revealed that nearly 44% of physicians reported at least one symptom of burnout [2].

Alarmingly, the suicide rate among doctors is significantly higher than in the general population. In the United States, for instance, female physicians are 2.27 times more likely to die by suicide, and male physicians 1.41 times more likely, according to a study published in the American Journal of Psychiatry[3].

The COVID-19 pandemic further exacerbated mental health issues, increasing emotional exhaustion, post-traumatic stress symptoms, and moral injury among healthcare professionals across the globe. Countries such as India, Brazil, Italy, and China have reported high levels of distress among medical professionals [4].

Early Signs and Symptoms of Mental Health Decline

Mental health decline in doctors often begins insidiously and can be overlooked until it reaches a crisis point. Colleagues, administrators, and supervisors should be trained and vigilant in identifying the early signs of deterioration.

Key early indicators include:

1. **Changes in Behavior or Personality:**
- *Withdrawal from team discussions and social interactions*
- *Irritability, anger outbursts, or mood swings*
- *Inappropriate emotional responses (e.g., apathy, detachment).*

2. **Cognitive Impairments:**
- *Difficulty concentrating, forgetfulness, poor decision-making*
- *Increased errors in clinical judgment or documentation*

3. **Physical Symptoms:**
- *Frequent complaints of fatigue, insomnia, or somatic pain*
- *Changes in weight, appetite, or personal hygiene*

4. **Performance Deterioration:**
- *Missed appointments, lateness, absenteeism*
- *Reduced productivity, neglect of professional responsibilities*

5. **Signs of Substance Abuse:**
- *Alcohol or drug use to cope with stress or emotional pain*
- *Smell of alcohol, slurred speech, or erratic behaviour at work*

6. **Expressions of Hopelessness or Suicidal Ideation:**
- *Talking about feeling trapped or being a burden*
- *Making veiled statements like "It's all too much" or "They'd be better off without me"*

The stigma surrounding mental health within the profession often results in reluctance to seek help, leading to a delay in intervention and worsening of symptoms [5].

Addressing Mental Health Concerns: Collegial and Institutional Response

The medical community has a responsibility to foster a culture that recognizes, responds to, and supports mental wellness. Timely identification and compassionate intervention are central to safeguarding both colleagues and patients.

1. **Peer Recognition and Support**

   Medical professionals should be encouraged to support each other in non-judgmental and empathetic ways. Key steps include:

- *Observation: Take note of significant changes in behaviour or performance.*
- *Initiating Conversations: Approach the colleague in private. Use "I" statements such as, "I've noticed you seem a bit down lately. Is everything okay?"*
- *Listening Without Judgement: Allow the colleague to speak freely without fear of repercussions.*
- *Offering Support: Encourage seeking help and offer to accompany them if needed.*

  Colleagues often play a vital role in breaking the silence and helping others take the first step toward recovery [6].

2. **Institutional Policies and Support Structures**

   Institutions should create systems that prioritize the mental well-being of their staff:

- *Employee Assistance Programs (EAPs): Confidential services that include counselling, mental health assessments, and referrals.*
- *Mandatory Wellness Checks: Regular mental health screenings can normalize the conversation around mental well-being.*
- *Mental Health First Aid Training: Train team leaders and staff to recognize signs of distress and provide first-level support.*
- *Clear Protocols for Risk Management: Guidelines on how to act when a colleague poses a risk to themselves or others.*
- *Supportive Return-to-Work Programs: Reintegration plans with reduced workloads, mentorship, and follow-up* [7].

3. **Encouraging a Culture of Openness and Compassion**

   Culture plays a significant role in how mental health is perceived and managed. Key strategies to nurture a positive environment include:

- *Leadership Engagement: Senior doctors and hospital leaders must model openness about mental health and advocate for wellness.*
- *Destigmatizing Conversations: Encourage regular discussions on mental health in staff meetings, newsletters, and workshops.*
- *Anonymous Feedback Mechanisms: Staff should be able to report concerns or suggest improvements without fear* [8].

4. **Professional Measures to Prevent Harm**

   Patient safety is paramount in medical practice, and declining mental health in a physician can compromise care. Therefore, it is essential to have checks and balances that protect both patients and practitioners.

- *Clinical Competence Review: If mental health issues affect performance, institutions may need to conduct assessments and temporarily modify duties.*
- *Peer Review Committees: Structured forums where concerns can be reviewed confidentially and supportively.*
- *Licensure and Reporting Ethics: In many jurisdictions, practitioners have a duty to report impaired colleagues. However, this should be handled with sensitivity and a focus on rehabilitation rather than punishment.*
- *Monitoring Programs: For practitioners returning to work post-recovery, supervised re-entry with periodic evaluations ensures safety and builds confidence* [9].

Preventive Strategies for Mental Health Resilience

Prevention is preferable to cure. A proactive approach to wellness can fortify medical professionals against psychological distress.

1. Resilience Training:
- *Programs focusing on mindfulness, emotional regulation, and coping strategies have proven effective* [10].
2. Work-Life Integration:
- *Institutions should promote flexible schedules, time off, and workload management.*
3. Physical Health Maintenance:
- *Encouraging regular physical activity, nutrition, and sleep hygiene supports overall well-being.*
4. Professional Development and Purpose:
- *Continuous learning, meaningful patient interactions, and collegial support help maintain motivation and satisfaction.*
5. Early Access to Mental Health Care:
- *Immediate and stigma-free access to therapy, psychiatry, and peer support groups reduces the risk of severe decline* [11].

Conclusion

The early diagnosis of mental health decline within the medical profession is both a humane imperative and a professional necessity. With increasing global incidence, it is essential for healthcare systems to recognize the signs early, support colleagues in need, and create safe environments that prioritize mental health. Colleagues are often the first line of defense, and their awareness and compassion can make a life-saving difference. Preventing harm—to self, to peers, and to patients—requires institutional commitment, cultural change, and individual courage. In doing so, the profession upholds its core ethic: "primum non nocere"—first, do no harm.

References.

1. **World** Health Organization. Mental health in the workplace. Geneva: WHO; 2022.
2. Rotenstein LS, Torre M, Ramos MA, et al. Prevalence of burnout among physicians: A systematic review. JAMA. 2018;320(11):1131–1150.
3. Schernhammer ES, Colditz GA. Suicide rates among physicians: A quantitative and gender assessment (meta-analysis). Am J Psychiatry. 2004;161(12):2295–2302.

4. The Lancet. Physician burnout and COVID-19: A wake-up call. Lancet. 2021;397(10293):1580.
5. Gold KJ, Andrew LB, Goldman EB, Schwenk TL. "I would never want to have a mental health diagnosis on my record": A survey of female physicians on mental health stigma. Gen Hosp Psychiatry. 2016;43:51–57.
6. Dyrbye LN, Shanafelt TD. Physician burnout: A potential threat to successful health care reform. JAMA. 2011;305(19):2009–2010.
7. Shapiro SL, Astin JA, Bishop SR, Cordova M. Mindfulness-based stress reduction for health care professionals: Results from a randomized trial. Int J Stress Manag. 2005;12(2):164–176.
8. Wallace JE, Lemaire JB, Ghali WA. Physician wellness: A missing quality indicator. Lancet. 2009;374(9702):1714–1721.
9. Bohman B, Dyrbye L, Sinsky C, et al. Physician well-being: The reciprocity of practice efficiency, culture of wellness, and personal resilience. NEJM Catalyst. 2017;3(4).
10. Epstein RM, Krasner MS. Physician resilience: What it means, why it matters, and how to promote it. Acad Med. 2013;88(3):301–303.
11. Thomas NK. Resident burnout. JAMA. 2004;292(23):2880–2889.

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Review Article

Medical Ethics in the 21st Century: Absolutes and Relativism in a Global Context

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Abstract:
The evolving and fluid state of medical ethics in the 21st century reflects how advances in science, shifts in societal norms, globalization, and new bioethical dilemmas are reshaping the relationship between healthcare professionals and their patients, as well as their broader responsibilities to society. While some ethical principles remain absolute, others are contextual and relative, shaped by culture, law, technology, and public opinion.

1. The Evolving Landscape of Medical Ethics
In previous eras, medical ethics were largely framed by the Hippocratic tradition, centred around the physician's duty to benefit the patient, avoid harm, and maintain confidentiality. However, modern medical practice is more complex and multifaceted due to:

- Globalization: Ethics must now account for cross-cultural perspectives, especially in global health, medical tourism, and international research.
- Technological Advances: Genetic engineering, AI in diagnostics, life-support systems, and organ transplantation have introduced new dilemmas.
- Changing Societal Norms: Concepts of autonomy, consent, privacy, and rights have evolved with greater patient empowerment.
- Legal Developments: Laws now often intersect with ethics, especially in matters like abortion, euthanasia, and end-of-life care.
- Inequality and Access: Ethical concerns now include distributive justice—how resources and care are equitably provided in rich and poor settings alike.

2. Absolute (Universal) Ethical Values in Medicine
Some ethical values are non-negotiable and universal, upheld across cultures and time:

- Respect for Human Life and Dignity
- Non-Maleficence (Do No Harm)
- Beneficence
- Justice
- Confidentiality

3. Relative (Contextual) Ethical Values
Some ethical stances are more flexible, shaped by cultural, legal, or situational contexts:

- Autonomy
- Informed Consent
- Euthanasia and Physician-Assisted Suicide
- Abortion and Pro-Choice Options

4. Case Focus: Euthanasia and Abortion Rights

Euthanasia: Autonomy vs. Sanctity of Life. In jurisdictions where euthanasia is legal, it is justified on the grounds of autonomy and relief from suffering. Opposition is rooted in the principle of non-maleficence and respect for life.

Abortion: Pro-choice emphasizes autonomy, bodily integrity, and reproductive rights. Pro-life highlights the moral status of the fetus and non-maleficence toward unborn life. Ethical tension balances the rights of the pregnant individual and the fetus differently across societies.

5. **Underscoring Ethical Principles Across All Contexts**
   Certain core ethical principles serve as a foundation for navigating ethical dilemmas regardless of the debate or location:

Principle	Meaning	Status
Autonomy	Respect for the patient's right to make informed decisions	Relative
Beneficence	Promote the well-being of the patient	Absolute
Non-maleficence	Do no harm	Absolute
Justice	Treat individuals fairly and equitably	Absolute
Dignity	Respect the intrinsic worth of all human beings	Absolute
Confidentiality	Protect patient privacy	Absolute
Cultural Sensitivity	Acknowledge and incorporate cultural beliefs into care	Relative

6. **Moving Forward: Ethics in a Globalized, Digital World**
   The future of medical ethics will demand dialogue across cultures and beliefs, flexibility within core frameworks, emphasis on global bioethics, and enhanced education in ethics. New issues such as AI, gene editing, data privacy, and resource allocation will require balancing absolute values with contextual reasoning.

Conclusion

Medical ethics in the 21st century sits at the crossroads of principle and pragmatism. While absolute values like non-maleficence, beneficence, justice, and dignity remain the bedrock of practice, other values like autonomy, informed consent, and cultural norms must be interpreted within their specific societal and legal frameworks. Issues like euthanasia and abortion rights exemplify the need for careful, case-based ethical reasoning, ensuring that the physician serves as a compassionate guide within the complexity of human life and health.

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Review Article

Headache in Primary Care: Case-Based Review and Management Protocol

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Abstract

Headache is one of the most frequent and diagnostically challenging complaints encountered in primary care. While most cases are due to benign primary headache disorders such as migraine and tension-type headache, a smaller proportion may signal serious secondary causes requiring urgent intervention. This article presents two clinical cases from primary care settings in Fiji—a suspected cerebrospinal fluid (CSF) leak and a primary migraine—and uses these to explore a structured clinical approach to headache assessment. Emphasis is placed on recognizing red flag features, understanding when to investigate further, managing primary headaches conservatively, and identifying systemic conditions that may present with headache. The discussion outlines practical strategies for general practitioners (GPs) to safely and effectively manage headaches, particularly in resource-limited settings.

Introduction

Headache is a common presenting complaint in primary health care, affecting individuals across all age groups and backgrounds. It significantly impacts quality of life, daily functioning, and health-seeking behaviour. In primary care, the majority of headaches are primary in nature—typically migraine, tension-type, or cluster headaches—and can be effectively managed with conservative treatment and lifestyle modifications (1, 5)

However, a subset of patients may present with secondary headaches, which are symptomatic of underlying conditions such as intracranial haemorrhage, cerebrospinal fluid (CSF) leaks, infections, tumours, or systemic illnesses (2, 4). Headaches may also accompany common systemic conditions, including acute viral infections, anaemia, febrile illnesses, and metabolic imbalances, particularly in tropical or low-resource settings.

The challenge for general practitioners lies in distinguishing between benign and potentially life-threatening causes of headache (5). This article presents two real-world cases from Fiji and offers a practical, case-based review of headache diagnosis and management in primary care. It aims to equip clinicians with a systematic approach to evaluation, highlight red flags requiring further investigation, and clarify when referral or imaging is warranted.

CASE 1

Suspected CSF Leak with Intracranial Hypotension

Patient Profile

Age/Sex: Female, 40 years
Chief Complaint: Persistent headache for 3 weeks
Associated Symptoms: Vomiting, mild sinus congestion, sensation of blocked ears
Relevant Negatives: No visual disturbances, no photophobia, no focal neurological deficits, no smoking or alcohol use

Clinical Findings

Headache Character:

- Initially localized at the base of the neck, radiating to the frontal and occipital regions.
- Worsened with standing and improved with rest (postural component).

Vitals: Stable (BP, HR, Temp, SpO_2 all within normal limits)
Neurological Exam: Normal, PEARL positive, reflexes intact.

Investigations

Blood Tests: Mild anaemia, otherwise unremarkable.
Ophthalmology Review: Visual acuity normal (6/6), no papilledema or optic nerve changes.
MRI Brain: Suggested intracranial hypotension, suspicious for CSF leak.

Management

Conservative: Sumatriptan, paracetamol, rest, and hydration.
Education: Patient advised to maintain a headache diary, avoid known triggers, and take adequate rest.
Referral: Referred to neurosurgeon for further evaluation of possible CSF leak and management of intracranial hypotension. Consideration for CT Myelogram or further neuroimaging to localize CSF leak and possible blood patch if conservative measures fail.

CASE 2

Primary Migraine with Ocular Symptoms

Patient Profile

Age/Sex: Male, 42 years
Chief Complaint: Recurrent headaches for the past 3 days
Associated Symptoms: Watery, sticky eyes for 1 month
Relevant Negatives: No visual disturbances, no focal neurological deficits, no fever

Clinical Findings

Headache Pattern: Recurrent, possibly migranous in nature.
Vitals: Normal (BP: 141/88, HR: 89 bpm, Temp: 36.7°C, SpO_2: 98%)
Ophthalmology Review: No significant findings.

Investigations

MRI Brain (Headache Protocol): Normal, ruling out secondary causes.

Management

Diagnosis: Likely primary migraine.
Medications: Sumatriptan for acute headache relief, Mersyndol Forte for ongoing symptom control.
Lifestyle Advice: Avoid known triggers (dietary, stress), encourage regular exercise, and stress management.
Follow-up: One week later to reassess symptom control.

Discussion

The cases presented reflect the wide spectrum of headache presentations in primary care—from primary migraine to suspected secondary causes such as intracranial hypotension. These examples illustrate how clinical judgment, supported by structured assessment tools and a thorough understanding of both common and rare headache etiologies, is vital to effective diagnosis and treatment in frontline health settings (5).

A fundamental distinction in headache management is between primary and secondary headaches. Primary headaches, such as migraines and tension-type headaches, are benign and more prevalent (1). However, secondary headaches, although less common, are of greater concern due to their potential association with serious conditions such as tumours, cerebrospinal fluid (CSF) leaks, meningitis, or vascular pathologies (4).

Importantly, systemic illnesses must not be overlooked as contributors to headache. In resource-limited or tropical settings, GPs frequently encounter headaches as a symptom of acute viral infections (e.g., dengue, influenza), anaemia, febrile illnesses, dehydration, or metabolic derangements (5). In such cases, the headache often lacks classical features but resolves with appropriate treatment of the underlying condition. For instance, iron-deficiency anaemia or electrolyte imbalance can cause diffuse, persistent headaches that are often misdiagnosed as tension-type.

Thus, a broad yet focused approach is essential—starting with a detailed history, red flag screening, and basic investigations when systemic illness is suspected (5).

Structured Clinical Approach to Headache in Primary Care

A systematic approach begins with the initial classification of headache, followed by red flag evaluation, decisions about conservative versus investigative management, and appropriate treatment pathways (1, 5).

Type of Headache	Description	Examples
Primary Headache	Not due to another underlying disorder	Migraine, Tension-type, Cluster
Secondary Headache	Due to an underlying condition (e.g., tumor, infection)	Tumor, CSF leak, Infection, Hypertension

Red Flags for Secondary Headache

To avoid missing serious secondary causes, clinicians should assess for red flags using the **SNOOP4 (5).**

Feature	Significance
Systemic Symptoms	Fever, weight loss, cancer, HIV
Neurological Signs	Focal deficits, altered consciousness
Onset Sudden	Thunderclap headache (possible SAH) (2)
Older Age	New headache onset >50 years
Pattern Change	New, progressive, or different headache patterns
Precipitated by Posture	Worsens on standing (possible intracranial hypotension) (4)
Papilledema	Suggestive of raised intracranial pressure
Pregnancy	Risk of pre-eclampsia or CVT (3)

When to Treat Conservatively

Conservative management is generally appropriate for typical primary headaches, especially in the absence of red flags (1,5). Focus should be on symptomatic treatment and lifestyle modification for these patients.

Treatment Options

- *Migraine:* Triptans (e.g., sumatriptan), NSAIDs, or paracetamol (1).
- *Tension-type:* Simple analgesics (paracetamol, ibuprofen), muscle relaxants, and stress reduction techniques (5).
- *Cluster headaches:* High-flow oxygen (10-15L/min for 15 minutes) and subcutaneous triptans (1).

Lifestyle Modifications

- Identify and avoid common triggers (e.g., certain foods, sleep deprivation, dehydration, stress).
- Encourage regular physical activity, a balanced diet, and a consistent sleep routine (5).

When to Investigate Further

- Investigation is indicated when secondary causes of headache are suspected. Referral for imaging or further workup should be in the following scenarios (5):
- New-onset headache in patients >50 years.
- Sudden-onset severe headache, suggestive of subarachnoid haemorrhage (SAH).
- Headache that worsens with posture (possible intracranial hypotension).
- Associated seizures or focal neurological signs.
- Headache with abnormal neurological or eye exam.
- Persistent headache that does not respond to conservative treatment.

RECOMMENDED INVESTIGATIONS

Test	Indication
MRI Brain	Most secondary causes (tumour, CSF leak, demyelination) (4)
CT Brain	Acute headache with suspicion of haemorrhage or mass (2)
Lumbar Puncture	Suspected meningitis, SAH (if CT brain is normal), low-pressure headache (4)
Ophthalmology Review	For visual symptoms or suspected papilledema (5)
ENT Review	Persistent sinus or ear symptoms

In Case 1, the postural nature of the headache and MRI findings pointed to intracranial hypotension, prompting referral for further imaging and possible epidural blood patch. In Case 2, absence of red flags and normal imaging supported a diagnosis of primary migraine, managed conservatively.

Headaches in primary care present both diagnostic challenges and opportunities. A structured approach—starting with classification, red flag assessment, and judicious use of investigations—enables clinicians to efficiently differentiate between primary and secondary causes. Recognizing that systemic conditions, including anaemia and infections, may present with headache is especially important in regions with high prevalence of such illnesses (5).

Timely treatment, appropriate lifestyle guidance, and clear thresholds for referral ensure both patient safety and effective symptom relief. With these strategies, general practitioners can confidently manage headache in both routine and complex clinical scenarios, even within resource-constrained environments.

Conclusion

Headache is a frequent presentation in primary care, and effective management depends on distinguishing primary from secondary causes through a structured clinical approach. Most headaches are primary and can be managed conservatively without the need for extensive investigation. However, the presence of red flag features—such as sudden onset, focal neurological signs, or positional worsening—should prompt further workup to exclude serious secondary causes. Conditions like cerebrospinal fluid leaks or hypertensive emergencies may initially appear benign but carry significant risk if missed, underscoring the importance of timely identification and intervention (3). Clinical judgment, guided by symptom patterns and risk factors, is essential in deciding when investigation is warranted, ensuring safe, efficient, and accurate headache management in the primary care setting.

References

Medscape. Headache Overview [Internet]. 2023 [cited 2025 Jul 19]. Available from: https://emedicine.medscape.com/article/338989-overview

UpToDate. Management of spontaneous intracerebral hemorrhage [Internet]. 2025 [cited 2025 Jul 19]. Available from: https://www.uptodate.com/contents/management-of-spontaneous-intracerebral-hemorrhage

Broderick JP, Diringer MN. Management of hypertensive emergencies [Internet]. UpToDate; 2025 [cited 2025 Jul 19]. Available from: https://www.uptodate.com/contents/hypertensive-emergencies

UpToDate. Cranial cerebrospinal fluid leaks [Internet]. 2025 [cited 2025 Jul 20]. Available from: https://www.uptodate.com/contents/cranial-cerebrospinal-fluid-leaks

Evan JR. Approach to the diagnosis and treatment of headache. Prim Care. 2024;51(2):179–193. doi:10.1016/j.pop.2024.02.007. PubMed PMID: 38692769.

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Review Article

The Role of Dietary Starch and Carbohydrate Control in Addressing Non-Communicable Diseases in Oceania: A Focus on Fiji

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Introduction

Non-communicable diseases (NCDs) have emerged as the leading cause of morbidity and mortality globally, accounting for over 70% of all deaths annually [1]. In the Pacific region, particularly Fiji, the burden of NCDs is alarmingly high, with cardiovascular diseases, diabetes, and obesity constituting the primary health concerns [2]. Central to this crisis is the excessive consumption of dietary starches and refined carbohydrates. This narrative explores the pathophysiological links between carbohydrate consumption and NCDs, the unique dietary landscape of Oceania, and practical approaches for general medical practitioners (GMPs) to advocate for dietary change.

The Carbohydrate-NCD Connection

Carbohydrates, particularly refined forms such as white rice, flour-based products, and sugary beverages, are a major source of energy in most traditional diets. However, excessive intake of these foods—especially those with a high glycaemic index (GI)—leads to sustained hyperglycaemia, insulin resistance, and fat accumulation, thereby promoting obesity and metabolic syndrome [3].

With the body's response to high carbohydrate load involves the secretion of insulin. Continuous utilization of this pathway contributes to visceral adiposity, increased triglyceride levels and hypertension leading to the

obvious pathway of type 2 diabetes and cardiovascular disease (CVD) [4].

Research shows that high dietary intake of starches and refined carbohydrates correlates with increased risk of NCDs. A meta-analysis revealed that diets rich in high-GI carbohydrates are associated with a 33% higher risk of type 2 diabetes [5]. Moreover, low-carbohydrate dietary patterns have shown significant benefits in reducing weight and improving glycaemic control, particularly in individuals at risk of or diagnosed with diabetes [6].

The Oceanic Diet: Cultural Patterns and Nutritional Transitions

Fiji and other Oceanic nations are experiencing a nutrition transition—a shift from traditional diets rich in root vegetables, fruits, and fish to modern diets characterized by processed foods, sugary drinks, and refined grains [7]. Historically, Fijian diets included taro, cassava, yams, and fresh seafood. However, globalization, urbanization, and trade have led to the widespread availability and consumption of energy-dense, nutrient-poor foods.

According to the National Nutrition Survey 2014, daily consumption of traditional starchy staples from highest to lowest were cassava, breadfruit, taro, cooking bananas, sweet potato, and yam [19].

Furthermore, the daily consumption of cereal starchy staples indicated bread, breakfast crackers, breakfast cereals. Instant noodles was reported to be consumed weekly by above 50% of households.

The Fiji STEPS survey (2021) reported that more than 80% of adults consume fewer than five servings of fruits and vegetables per day, while over 60% regularly consume sweetened beverages [8]. These patterns reflect a shift towards carbohydrate-heavy diets with limited fiber, micronutrients, and protein diversity.

In addition, food insecurity and socio-economic challenges mean that refined starches, often subsidized or imported, are more affordable and accessible than fresh produce. This economic dynamic exacerbates overconsumption and poor diet quality in lower-income populations [9].

The Epidemiological Reality in Fiji

Fiji's health statistics are stark: NCDs account for over 80% of all deaths in the country, with type 2 diabetes and CVD topping the list [2]. The adult obesity rate stands at 32%, while type 2 diabetes prevalence exceeds 15%, significantly higher than the global average [10].

Children are not spared. A 2019 school health assessment found increasing rates of overweight and obesity among school-aged children, foreshadowing a growing future burden of NCDs [11]. These statistics underscore the need for urgent dietary and lifestyle interventions to reverse these trends.

Clinical Approach: The Role of General Medical Practitioners

GMPs are strategically placed to influence dietary behaviour and combat the NCD epidemic. While pharmacological treatments for diabetes, hypertension, and dyslipidaemia remain important, the emphasis must shift upstream—toward prevention and lifestyle modification.

1. **Nutritional Counselling and Patient Education**
   GMPs should prioritize routine dietary assessment in clinical encounters, using simple 24-hour dietary recalls or food frequency questionnaires. Identifying patterns of high starch and sugar intake allows for personalized and or customized counselling.

   Structured low-carbohydrate meal plans, supported by brief nutritional coaching or referrals to dietitians (where available), can yield significant clinical improvements. Even in resource-limited settings, simplified or customized dietary plans emphasizing portion control and quality of carbohydrates can be effective [15].

Clinicians can promote:

- Substitution of refined grains with wholegrain options (e.g., brown rice, wholemeal bread)
- Reduced consumption of sweetened beverages
- Increased intake of vegetables and legumes
- Cooking methods that preserve nutrient content.
- Reduced consumption of processed foods
- Reduced intake of takeaway meals
- Homecooked meals (meal preps etc.)

   Educating patients on reading food labels and understanding the concept of glycaemic index can empower healthier food choices [12].

2. **Community-Based Health Promotion**
   GMPs can extend their impact beyond the clinic through community engagement. Collaborating with local leaders, schools, and religious institutions to promote nutrition literacy, healthy cooking demonstrations and traditional food practices can create supportive environments for change.

3. **Risk Stratification and Targeted Interventions**

Early identification of at-risk individuals (e.g., those with central obesity, family history of diabetes, or pre-diabetes) allows for targeted lifestyle interventions. GMPs should utilize BMI, waist circumference, and fasting glucose as cost-effective tools for screening and monitoring [14]. Traditionally BMI has been the chosen indicator to measure body size and composition, and to diagnose underweight and overweight. However, to reflect abdominal adiposity alternately, such as waist circumference, waist–hip ratio and waist–height ratio, have been suggested as being superior to BMI in predicting CVD risk [20].

Policy and System-Level Considerations

While GMPs play a key role, systemic change is necessary to support healthier dietary patterns:

- Subsidy Reallocation: Governments could shift subsidies from refined staples to fresh produce to make healthier options more affordable [16].
- Food Labelling Regulations: Clear front-of-pack labelling systems help consumers identify high-sugar or high-starch products.
- School Meal Programs: Integrating balanced, low-starch meals into school feeding programs sets early dietary norms.
- Taxation of Sugary Beverages: Evidence shows that sugar taxes reduce consumption and can fund health promotion efforts [17].
- Mandatory policy for preschoolers to learn aspects of sustenance through agriculture and healthy eating habits.

Addressing Myths and Barriers

Resistance to dietary change often stems from deeply rooted cultural preferences and misconceptions. For example, cassava and taro, though natural, are high in starch. Portion size, preparation (boiling vs. frying), and frequency must be emphasized rather than outright elimination.

There is also a common belief that carbohydrate-rich diets are necessary for energy, especially among labourers. While carbohydrates are essential, not all are created equal. Complex carbohydrates with low GI provide sustained energy without spiking blood glucose [18].

Furthermore, gender norms can influence food allocation in households, with men often consuming larger portions or more protein, while women—especially during pregnancy—may not meet nutritional needs. These dynamics should be considered during counselling.

Conclusion

The escalating burden of NCDs in Fiji and the wider Pacific region is intricately linked to excess dietary starch and refined carbohydrate intake. General medical practitioners are on the frontlines of this epidemic and can leverage their roles as clinicians, educators, and community leaders to initiate change.

Practical strategies—rooted in patient education, cultural relevance, and community engagement—can empower individuals to make healthier food choices. Systemic support through policy reform and economic incentives is equally critical.

By promoting controlled carbohydrate consumption, the health sector can move toward reversing the tide of obesity, diabetes, and cardiovascular disease—preserving not only lives but also the cultural and economic vitality of Pacific communities.

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References

- World Health Organization. Noncommunicable diseases. WHO; 2021. Available from: https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases
- Ministry of Health and Medical Services, Fiji. National Strategic Plan 2020–2025. Suva: MOHMS; 2020.
- Ludwig DS. The glycemic index: physiological mechanisms relating to obesity, diabetes, and cardiovascular disease. JAMA. 2002;287(18):2414-23.
- Reaven GM. Role of insulin resistance in human disease. Diabetes. 1988;37(12):1595-607.
- Barclay AW, Petocz P, McMillan-Price J, et al. Glycemic index, glycemic load, and chronic disease risk—a meta-analysis of observational studies. Am J Clin Nutr. 2008;87(3):627–637.
- Feinman RD, Pogozelski WK, Astrup A, et al. Dietary carbohydrate restriction as the first approach in diabetes management. Critical review and evidence base. Nutrition. 2015;31(1):1–13.
- Thow AM, Snowdon W, Labonté R, et al. Trade and food policy: case studies from three Pacific Island countries. Food Policy. 2011;36(6):709–717.
- WHO Western Pacific Region. Fiji STEPS Survey Report 2021. Suva: WHO/MOHMS; 2022.
- Hughes RG, Lawrence M. Globalisation, food and health in Pacific Island countries. Asia Pac J Clin Nutr. 2005;14(4):298–306.
- International Diabetes Federation. IDF Diabetes Atlas, 10th edn. Brussels: IDF; 2021.
- Ministry of Education, Heritage and Arts. School Health Program Annual Report 2019. Suva: Fiji Government; 2020.
- Jenkins DJ, Kendall CW, Augustin LS, et al. Glycemic index: overview of implications in health and disease. Am J Clin Nutr. 2002;76(1):266S–273S.
- Snowdon W, Raj A, Reeve E, et al. Processed foods and the nutrition transition: evidence from Asia and the Pacific. Obes Rev. 2013;14(S2):1–8.
- WHO. Waist Circumference and Waist–Hip Ratio: Report of a WHO Expert Consultation. Geneva: WHO; 2011.
- Dyson PA, Twenefour D, Breen C, et al. Diabetes UK evidence-based nutrition guidelines for the prevention and management of diabetes. Diabet Med. 2018;35(5):541–547.
- FAO. Food Systems for Healthier Diets. Rome: FAO; 2019.
- Bhatnagar A, Kandula NR. Sugar-sweetened beverage taxes in the Pacific Islands. Lancet Glob Health. 2021;9(4):e390–e391.
- Foster-Powell K, Holt SHA, Brand-Miller JC. International table of glycemic index and glycemic load values. Am J Clin Nutr. 2002;76(1):5–56.
- https://www.nutrition.gov.fj/documents/reports/NNS%20Report%20for%20WEBSITE.pdf
- .https://iris.who.int/bitstream/handle/10665/44583/9789241501491_eng.pdf:12

Case Study

Caffeine and Supraventricular Tachycardia

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Introduction

Paroxysmal Supraventricular Tachycardia (PSVT) is a subset of supraventricular tachycardias characterized by recurrent episodes of abrupt onset and termination of tachycardia, typically regular, narrow-complex, and often in the heart rate range of 150–250 bpm. The majority of PSVT cases arise from re-entry mechanisms, most commonly atrioventricular nodal re-entrant tachycardia followed by atrioventricular re-entrant tachycardia and less frequently, focal atrial tachycardia.

PSVT commonly affects otherwise healthy individuals—typically those in young to middle adulthood, with reported incidence rates ranging between 35 to 36 per 100,000 person-years. Episodes usually present with palpitations, light-headedness, chest discomfort, dyspnoea, or diaphoresis and may resolve spontaneously or through vagal manoeuvres.

An ECG during an episode typically reveals a regular narrow-complex tachycardia. P-waves may be absent or occur just before or after QRS complexes, with a short RP interval in AVNRT/orthodromic AVRT.

This case study will look more into caffeine and its relation to paroxysmal supraventricular tachycardia.
History of Present Illness

A 33-year-old previously healthy male presented with sudden-onset palpitations started 30 minutes before presentation, described as a rapid, regular heartbeat. He also had associated mild chest discomfort and dizziness, but no syncope or shortness of breath. The patient reports 3–4 similar episodes over the past year, with spontaneous resolution. He claims to be a coffee addict whereby he drinks about 4 cups of brewed black coffee per day. Patient voiced that on stressful days, the coffee intake increases to more than 4 but was unable to quantify a number. Patient has been a coffee lover for a very long time, but intake has increased after he joined his new work last year. He also claimed to be under a lot of stress at work in the past month.

Past Medical History

- No known cardiac disease
- No history of hypertension, diabetes, or hyperthyroidism

Medications

- None regularly
- No recent medication changes

Allergies

- No known drug allergies

Family History

- No family history of sudden cardiac death or arrhythmias

Social History

- Non-smoker
- Drinks alcohol occasionally
- No illicit drug usage
- Works as an electrical engineer

Review of Systems

- Negative for chest pain, syncope, dyspnoea, or fatigue outside of episodes
- No symptoms suggestive of hyperthyroidism

Physical Examination
Vital Signs (at presentation):

- HR: 187-190
- BP: 136/85 mmHg
- RR: 20
- Temp: 36.8°C
- SPO_2: 98% on room air

General: Appeared to be in distress

Cardiovascular: S1S2 tachycardia, no murmurs, rubs, or gallops

Respiratory: Clear to auscultation bilaterally

Neurological: Alert and oriented, no focal deficits

Thyroid: No goitre or nodules

Investigations
ECG (during episode): Narrow complex tachycardia- Rate 180, SVT
ECG (baseline): Normal sinus rhythm. No pre-excitation or other abnormalities
Labs: Unremarkable

Management
Initially vagal manoeuvre was performed
Later, adenosine 6mg IV push was given which helped revert to normal sinus rhythm. Patient monitoring for 4 hours was done after which follow up plans were made.

Follow up: Cardiology clinic in one week- echocardiography (normal). For cardiac review in 3 months again.

Advise: Patient was advised on his condition and the possible causes. Post cardiac clearance, it was concluded that caffeine together with stress may have been triggers for supraventricular tachycardia. The caffeine dose

considered significant to cause arrythmia is more than 1000mg/day. Additionally, stress also contributes to PSVT by activating the sympathetic nervous system which in turn leads to increase heart rate and myocardial activity. Keeping above in mind, patient was advised that around 400mg/day of caffeine which equates to 3-4 cups (or less) is considered safe for him.

Discussion

SVT and paroxysmal SVT are triggered by a re-entry mechanism. This may be induced by premature atrial or ventricular ectopic beats. Other triggers include hyperthyroidism and stimulants, including caffeine, drugs, and alcohol.

Caffeine is a known cardiac stimulant. It acts as an adenosine receptor antagonist and increase catecholamine release which can elevate heart rate and increase myocardial excitability. This effect can facilitate arrhythmogenic activity particularly in individuals with pre-existing susceptibility to PSVT or another supraventricular arrhythmia.

Caffeine can lower the threshold for re-entrant arrhythmias like AVNRT and AVRT, the most common types of PSVT. In some patients, high caffeine intake through energy drinks, coffee or cola has been associated with the onset or worsening of tachycardia episodes. While not all patients with PSVT are sensitive to caffeine, a subset may report consistent association between caffeine consumption and the onset of symptoms such as palpitations or rapid heartbeat. This variability is partly due to genetic differences in caffeine metabolism (CYP1A2 polymorphism).

Clinical studies show mixed results. Some studies suggest no strong evidence that caffeine significantly increases arrhythmia risk in general population. However, case reports and observational dada have documented caffeine induced PSVT, especially with excessive intake (>400mg/day) or in patients with underlying arrthmogenic substrates.

Electrophysiology and cardiology guidelines often recommend limiting stimulants like caffeine in patients with recurrent PSVT especially when episodes are frequent or symptomatic. Caffeine reduction may be considered part of lifestyle modification before initiating antiarrhythmic medications or ablation therapy.

References

Myers, M. G. (1991). Caffeine and cardiac arrhythmias. Canadian Medical Association Journal, 145, 1209-1214

Nawrot, P. Jordon, S. Eastwood J. Rotstein, J. Hugenholtz, A. Feeley, M. (2003). Efects of caffeine on human health. Food Additives and Contaminants, 20, 1-30.
https://doi.org/10.1080/0265203021000007840

Zuchinali, P. Souza, G. C. Moreira, L. B, Fuchs, F. D, (2016). Effect of caffeine on ventricular arrhythmia : A systemic review and meta-analysis of experimental and clinical studies. Clinical Electrophysiology. 39 (3), e7-e13.
https://doi.org/10.1016/j.hrthm.2015.10.035

Gugneja, M. (2024, December 31). Paroxysmal supraventricular tachycardia. *Medscape*.
https://emedicine.medscape.com/article/156670-overview

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Case Study

Sciatica Pain: Strengthening Primary Care Management

Author: *Dr Kesaya Tagivuni*

Sciatica is neuropathic pain caused by irritation or compression of the sciatic nerve originating from L4–S3 nerve roots. Global lifetime prevalence in adults experiencing sciatica is around 13–40%, with an annual incidence 1–5%. In the Pacific Islands specific data is limited, but risk factors such as obesity, manual labor, and limited access to advanced imaging suggests underreported prevalence. Anecdotal evidence from Fiji's physiotherapy clinics confirms frequent presentations.

Case Presentation

This case report is of Mr. R.K a 50-year-old Indo-Fijian taxi-driver who presented to Oceania hospital in May 2025 with a 3-week history of sharp shooting lumbar pain radiating down the left leg. He experiences difficulty sitting for more than 30 minutes and also felt tingling sensation in the left foot. He thought that his occupation and age were responsible. That pain would gradually disappear however, it had intensified over the span of 3 weeks. He sought assistance at his closest health center at Nakasi and was sent home with ibuprofen tablets. There was little symptomatic improvement, thus presented to Oceania hospital.

On examination he walked in with a limp towards his left side and took time sitting on the chair. Vital signs were a BP 132/84 mmHg, P 78 bpm, T 36.8°C, RR 16/min, Sp02 98 % in RA with a GCS 15/15. Examination findings included a positive SLR (Single Leg Raise) at 45° on left, reduced power (4/5) in left dorsiflexion with no bowel/bladder symptoms.

Investigations include a normal full blood count, ESR: 12 mm/hr (slightly elevated) and CRP: 6 mg/L.

Imaging with a lumbosacral X-ray showed "Mild degenerative changes" and an MRI showed lumbar Spine L5-S1 disc herniation compressing left S1 nerve root.

Management Plan include Ibuprofen 400 mg TID and a referral to physiotherapist for core strengthening and posture correction. He was advised to avoid prolonged sitting and if pain persists was advised to consider an epidural steroid injection.

Follow-Up Plan: Patient and wife presents for review in 2 weeks. One may consider repeat MRI if symptoms persist beyond 6 weeks.

Discussion

Sciatica remains a common presentation in Fiji, among middle-aged men in sedentary or manual jobs. Mr. K's case reflects typical disco-genic sciatica. Common causes include a herniated lumbar disc (≈90% of cases), spinal stenosis, spondylolisthesis and Piriformis syndrome. Symptoms will include radiating pain from lower back to buttocks and down one leg, tingling, numbness, or weakness in affected leg and patients may mention that pain worsens with coughing, sneezing, or prolonged sitting.

Clinical tests to confirm if someone has sciatica pain can be easily undertaken during consultation which includes two tests. A **Straight Leg Raise** (SLR) will be positive if pain is preserved & radiates between 30°–70° leg elevation. The second test will include **a Slump test** which will be positive when the patient extends the knee or dorsiflexes the ankle and pain is reproduced. Symptoms worsen during the test, which may suggest conditions like lumbar disc herniation or spinal stenosis

Types of Imaging for Sciatica Tests includes x-rays which is simple, painless, a quick procedure to identify sciatica. Another procedure to identify sciatica pain is a CT scan. It is a 360-degree scan of your spine, surrounding tissues, and vertebrae and may need myelogram in some instances. MRI scans give high-definition images of the bones and tissues and the gold standard for diagnosing sciatica.

Treatment Options

Conservative (first-line) which includes the use of NSAIDs, physical therapy, stretching, acupuncture, chiropractic care (available in Fiji). Interventional treatment includes epidural steroid injections and surgery (microdiscectomy) for refractory cases.

Conclusion

Sciatica is a high-burden condition in Fiji, often underdiagnosed due to limited imaging and specialist access. General practitioners play a crucial role in early identification, conservative management, and timely referral. Fiji's healthcare system provides basic imaging and physiotherapy. MRI access is limited to tertiary centers. Early conservative management is effective in most cases, but delayed referrals and limited specialist access may hinder outcomes. Strengthening primary care and expanding imaging access will improve outcomes.

References

Gitnux. Sciatica Statistics Report 2025. https://gitnux.org/sciatica-statistics

Cleveland Clinic. Sciatica: What It Is, Causes, Symptoms, Treatment. https://my.clevelandclinic.org/health/diseases/12792-sciatica

Mayo Clinic. Sciatica - Diagnosis and Treatment. https://www.mayoclinic.org/diseases-conditions/sciatica

Spine-health. Diagnosing the Cause of Sciatica. https://www.spine-health.com/conditions/sciatica

Fiji Times. Usha's Journey – Veteran Physiotherapist. https://www.fijitimes.com.fj/ushas-journey-veteran-physiotherapist

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Case Study

Delayed Diagnosis of SLE in a Young Fijian Woman with Recurrent Arthritis

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Introduction

Arthritis is a common reason for patients to seek medical attention. It encompasses a wide range of conditions with different pathophysiology's, including autoimmune disorders like rheumatoid arthritis (RA), reactive arthritis (ReA) and systemic lupus

erythematosus (SLE), as well as degenerative diseases like osteoarthritis (OA) and gout. Among these, arthritis in SLE presents distinct challenges due to its systemic nature and the involvement of multiple organs, including the joints.

Understanding the incidence of SLE-associated arthritis in comparison with RA, OA, and gout is important for accurate diagnosis and appropriate management, particularly in Pacific Island populations like those in Fiji, where genetic predispositions and environmental factors may influence the disease's presentation.

Case Study:
Patient Profile:

- **Name:** Ana R.
- **Age:** 28
- **Gender:** Female
- **Ethnicity:** iTaukei (Indigenous Fijian)
- **Occupation:** School teacher
- **Medical History:** No significant past medical history
- **Family History:** Mother had rheumatoid arthritis

First Presentation (6 months prior):
Complaint: Bilateral wrist pain and morning stiffness lasting about 1 hour.
Physical Exam: Mild swelling of wrists, no warmth or redness.
Diagnosis: Overuse injury
Treatment: Paracetamol, wrist splint
Investigations: None ordered
Outcome: Temporary relief, symptoms recurred within 2 weeks.

Second Presentation (4 months prior):
Complaint: Left knee swelling with pain migrating to the right elbow over a few days.
History: Fatigue and mild hair thinning, no trauma.
Exam: Moderate knee effusion, mild elbow tenderness.
Diagnosis: Early osteoarthritis
Treatment: NSAIDs (ibuprofen)
Investigations: Knee X-ray normal, no bloods done.
Outcome: Some improvement, then worsening fatigue and joint flares.

Third Presentation (2 months prior):
Complaint: Recurrent joint pain—now involving both knees, wrists, and small joints of hands.
New Symptoms: Episodes of low-grade fever, photosensitivity (rash after sun exposure), weight loss (~3 kg).
Exam: Swollen MCP and PIP joints, mild wrist synovitis, facial rash (faint butterfly distribution).
Diagnosis considered: Rheumatoid arthritis.
Action: Referred to internal medicine; initial working.
Diagnosis: undifferentiated inflammatory arthritis.

Fourth Presentation (2 weeks later):
GP Follow-up with Labs Ordered:

- FBC: mild anemia, leukopenia
- ESR: elevated
- CRP: mild elevation
- ANA: positive (1:640, homogenous pattern)
- anti-dsDNA: positive
- Complement (C3, C4): low
- Urinalysis: mild proteinuria (++)
- Uric Acid: Normal
- Rheumatoid factor: Normal
- Anti-CCP: negative

Final Diagnosis: Systemic lupus erythematosus (SLE) with musculoskeletal and early renal involvement
Incidence and Epidemiology of Arthritis Types
Systemic Lupus Erythematosus (SLE) Arthritis

SLE is an autoimmune disorder that primarily affects women in their reproductive years, with a notable 9:1 female-to-male ratio. The global incidence of SLE varies between 0.3 to 3.1 per 100,000 person-years, with higher rates observed in African, Hispanic, and Pacific Island populations.

A systematic review of Asia–Pacific data estimated crude SLE incidence between 0.9–3.1 per 100,000/year, and prevalence of 4.3–45.3 per 100,000. Studies from New Zealand have shown an incidence of 9.8 per 100,000 in Pacific women, far higher than in European populations, where the rate is 2.1 per 100,000.

A recent Fijian cohort of adults with lupus nephritis (LN) reported an age-standardized annual incidence of SLE-related nephritis of 2.37 per 100,000 population (95% CI 0.65–4.09) between 2016 and 2020; roughly two-thirds of cases were among indigenous iTaukei women. Almost 40% progressed to kidney failure or died within two years.

While direct SLE incidence data from Fiji are confined to lupus nephritis cases, extrapolation and regional comparison suggest that incidence of SLE across Fiji may be at or above 2 per 100,000/year, with higher burden in Pacific women.

In SLE, arthritis is seen in 60–80% of patients at the disease onset, and up to 95% may experience arthralgia during their lifetime. SLE arthritis is usually non-erosive and migratory, and joint symptoms are typically self-limiting but can cause significant discomfort and impair quality of life.

Rheumatoid Arthritis (RA)
RA is another common form of autoimmune arthritis that typically affects small joints in a symmetric pattern. It has an incidence of 30–50 per 100,000 person-years globally, with a prevalence of around 1% of the adult population. RA is more common in women (2.5–3× higher than in men), with a typical age of onset between 30–50 years.

Unlike SLE, which often presents with transient arthritis, RA leads to chronic inflammation, which can result in joint erosion and permanent deformities if not managed appropriately. RA is typically associated with rheumatoid factor (RF) and anti-citrullinated peptide antibodies (ACPA), distinguishing it from SLE arthritis.

There are no current published incidence or prevalence studies specific to Fiji, but given global consistency and Pacific demographic similarities, RA in Fiji likely falls within or slightly above global benchmarks.

Osteoarthritis (OA)
Although there is no Fiji-specific prospective incidence data, OA is the most common form of degenerative arthritis globally, primarily affecting older individuals (10% of men and ~18% of women over age 60) and those with mechanical joint stress. The global prevalence of OA is approximately 3.6% for knee OA and 0.85% for hip OA. It is characterized by cartilage degradation and bone changes in weight-bearing joints, such as the knees, hips, and spine.

OA is typically a non-inflammatory condition and is distinct from autoimmune forms of arthritis like SLE and RA, both in terms of its pathogenesis and clinical presentation. Unlike SLE and RA, OA does not typically cause systemic symptoms like fatigue or fever.

Gout
Gout is a crystal-induced arthritis caused by the deposition of monosodium urate crystals in the joints, particularly the big toe. Although direct Fiji population studies are lacking, local medical reporting highlights that Pacific Islanders, including Fijians, have a high prevalence of hyper-uricemia and gout due to underlying genetic predisposition. Globally, gout affects ~1–2% of adults (up to ~6% in older age groups, especially among Polynesians).

Gout is often characterized by acute episodes of intense pain, swelling, and redness, typically affecting a single joint. It is distinct from other forms of arthritis in that it is not autoimmune and is instead associated with hyperuricemia.

Reactive Arthritis
Reactive arthritis follows enteric or genitourinary infection (e.g., Salmonella, Chlamydia). It may present with asymmetric oligo-arthritis, enthesitis (e.g., Achilles), conjunctivitis or uveitis, and mucocutaneous lesions. Its frequency in Fiji is not well defined but should be considered in post-infection mono- or oligo-arthritis, especially in young men.

Comparison of Arthritis in SLE, RA, OA, and Gout

Condition	Prevalence/Incidence	Typical Age of Onset	Joint Involvement	Joint Damage	Systemic Symptoms
SLE Arthritis	60–80% of SLE patients	15–45 years	Small joints, wrists, hands, knees	Non-erosive, Jaccoud's	Skin rash, fatigue, photosensitivity
RA	1% of the population	30–50 years	Symmetric small joints	Erosive joint damage	Fatigue, fever, weight loss
OA	3.6% for knee OA	>50 years	Weight-bearing joints (knees, hips)	Joint degradation	Joint pain, stiffness
Gout	0.6% of the population	>40 years (males)	Big toe, lower extremities	No joint damage (acute)	Severe pain, swelling

Clinical Features of Arthritis in SLE
Arthritis in SLE often presents with the following characteristics:

- Non-erosive arthritis: Unlike RA, SLE arthritis is usually non-erosive and migratory, often affecting small joints in the hands, wrists, and knees.
- **Jaccoud's Arthropathy:** A deforming but non-erosive arthritis that causes joint instability, especially in the hands and wrists.
- Systemic involvement: SLE arthritis often occurs in conjunction with other systemic features of lupus, including malar rash, photosensitivity, renal involvement, and cytopenias.
- Laboratory findings: Positive ANA (antinuclear antibodies) and anti-dsDNA are highly suggestive of SLE, differentiating it from other types of arthritis such as RA and OA.

Fiji Context and Recommendations for GPs
In Fiji, although specific data on the incidence of SLE are lacking, Pacific Island populations tend to have a higher prevalence of autoimmune diseases like SLE compared to other ethnic groups. This may be due to both genetic and environmental factors that predispose individuals to SLE and other autoimmune disorders.

General practitioners (GPs) in Fiji should consider SLE in patients who present with symmetrical arthritis along with systemic features such as rashes or renal problems. While RA and OA are more common, SLE arthritis should be suspected in younger women with migratory arthritis and associated symptoms like fatigue and photosensitivity.

Effective management includes:

- Early referral to a specialist for definitive diagnosis and management.
- Non-steroidal anti-inflammatory drugs (NSAIDs) and hydroxychloroquine for mild disease; corticosteroids or immunosuppressive agents may be necessary for moderate to severe disease.
- Regular monitoring of renal function and other systemic manifestations of SLE.

Given this, GPs in Fiji should be aware of the higher prevalence of autoimmune diseases in the local population and maintain a high index of suspicion for SLE arthritis when patients present with migratory arthritis and systemic features. Early diagnosis and intervention can help prevent joint damage and other complications of SLE.

Pearls for General Practice

1. Migratory, intermittent joint pain in a young woman, particularly without erosion and with systemic symptoms, should prompt consideration of SLE.
   - Don't assume osteoarthritis or repetitive strain in younger patients.
   - Migratory arthritis and waxing-waning joint involvement are not typical of RA or OA.

2. Photosensitivity, fatigue, hair loss, and constitutional symptoms are red flags for connective tissue disease.
   - Even subtle butterfly rash or nonspecific fatigue should prompt further questioning.
   - Initial presentations may be mild and easily misattributed.

3. Order basic autoimmune blood tests early in persistent or unexplained arthritis:
   - ANA (antinuclear antibody)
   - CBC, ESR, CRP
   - anti-dsDNA, ENA panel if available
   - Complement levels (C3/C4)
   - Urinalysis to screen for nephritis

4. Consider ethnicity and local context
   - SLE is more common in Pacific Island women and may present earlier and more severely
   - High index of suspicion is essential in Fiji, where rheumatology access may be limited

Conclusion

Arthritis is a common manifestation of SLE, but it differs from RA, OA, and gout in terms of its clinical presentation and pathophysiology. While the incidence of SLE arthritis is lower than that of RA or OA, GPs should be vigilant when faced with recurrent, symmetric, migratory arthritis, particularly in young women, and initiate autoimmune screening early. Timely diagnosis of SLE can prevent organ damage and improve long-term outcomes.

References

Osteoarthritis epidemiology and risk factors. Ann Intern Med. 2000 Oct; and Annals RMD Lancet update 2012. (Wikipedia)

Rheumatoid arthritis global prevalence, mortality, demographic distribution. Rheumatoid arthritis source 2016. (Wikipedia)

Fiji obesity & non-communicable disease context. WHO STEPwise – Fiji survey. (NCBI)

Rheumatoid arthritis deaths in Fiji (WHO data). (World Life Expectancy)

ARF incidence in children aged 5–15: Fiji prospective surveillance, 2005–07. Med J Aust 2009. (The Medical Journal of Australia)

Echocardiographic screening prevalence of RHD in Fiji schoolchildren. J Pediatr Child Health 2011. (PubMed)

Fiji national guidelines: ARF arthritis presentation & ASOT cutoffs. (Readkong)

Fiji health system and primary care structure. Wikipedia Health in Fiji. (Wikipedia)

Public health strategies for NCD and streptococcal control in Pacific Islands. PMC Noncommunicable diseases Fiji context. (NCBI)

Bryant A, et al. Challenges of Managing Lupus Nephritis in an Emerging Nephrology Centre: A Fijian Cohort Study. *PubMed* 2025; adult LN cases

incidence 2.37/100 000 pmc.ncbi.nlm.nih.govPubMed
Tanaka Y, et al.; Asia-Pacific SLE review. Systematic review; incidence 0.9–3.1/100 000/y in region PubMed

New Zealand administrative datasets: Pacific women incidence ~9.8, overall ~2.1 per 100 000 pmc.ncbi.nlm.nih.gov+1

Global OA epidemiology: ~3.3% of world population; age-dependence en.wikipedia.org

RA global incidence and prevalence estimates PubMed
Fiji Times commentary & global gout epidemiology: Pacific Islanders high gout risk; global 1–2% lifetime prevalence fijitimes.com.fjen.wikipedia.org

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Case Study

A Case Report of Haemorrhagic Stroke in a 69-Year-Old Male with End-Stage Kidney Disease, Uncontrolled Hypertension, and Diabetes: Diagnostic and Therapeutic Challenges in a Resource-Limited Setting

Author: *Dr. Anushka Prasad*

Introduction

Haemorrhagic stroke is a leading cause of morbidity and mortality globally, particularly among patients with poorly controlled hypertension, diabetes, and chronic kidney disease. This burden is especially pronounced in Pacific Island nations such as Fiji, where non-communicable diseases (NCDs) dominate public health challenges. NCDs account for over 80% of all deaths in Fiji, with stroke and cardiovascular diseases ranking among the top causes of mortality, especially in working-age adults.

Hypertension is highly prevalent and contributes substantially to stroke risk. The age-adjusted death rate from hypertension in Fiji is estimated at 27.2 per 100,000 population. Stroke itself accounts for nearly 9% of deaths, placing Fiji among the countries with high stroke mortality in the region. Additionally, diabetes prevalence is rising rapidly, contributing to increased cardiovascular and cerebrovascular complications. With adult obesity rates exceeding 80%, the interplay of these risk factors compounds the burden of stroke.

This epidemiological context underscores the urgent need for effective management of risk factors like hypertension, diabetes, and dyslipidaemia, as well as implementation of primary and secondary prevention measures. For healthcare providers, especially general practitioners in resource-limited settings, early identification and control of these comorbidities are crucial to reduce stroke incidence and improve outcomes.

Patient Profile

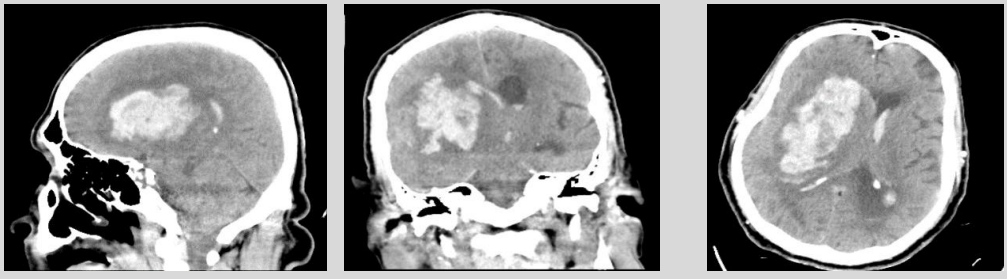
Age/Sex: 69-year-old male
Ethnicity: Kiribati

Medical History:
End-stage kidney disease (ESKD) on haemodialysis (2 years)
Uncontrolled hypertension
Poorly controlled type 2 diabetes (15 years)
Presentation: Sudden onset of left-sided weakness, facial droop, confusion, and persistent vomiting for 4 hours

Examination & Diagnosis
Vitals: BP >250/150 mmHg, HR 76 bpm, Temp 36.9°C, O2 Sat 98%, BSL 16.1

Neurological Exam:
GCS 11/15 (E3 V3 M5)
Left-sided hemiparesis and facial droop
Sluggishly reactive pupils
Positive Babinski on the left.

CT Brain: Large right-sided intracerebral haemorrhage.



Laboratory Findings: Chronic kidney impairment with nil other significant parameters
Initial Management: IV Labetalol, Ondansetron, Metoclopramide, and Pantoprazole

Clinical Course

The patient was admitted to the High Dependency Unit (HDU) for monitoring. Neurosurgical options such as hematoma evacuation or decompressive craniectomy were considered but unavailable locally. Hypertonic saline was not used due to risks in ESKD. The stroke was managed conservatively. Despite medical therapy, his condition deteriorated, and he passed away 24 hours after admission.

Discussion

This case illustrates the devastating impact of poorly controlled non-communicable diseases—specifically hypertension, diabetes, and end-stage kidney disease (ESKD)—in the development and fatal outcome of a haemorrhagic stroke. The patient presented with signs of a hypertensive emergency and raised intracranial pressure (ICP), and despite prompt conservative management, he deteriorated rapidly and passed away within 24 hours. His death highlights both the severity of the stroke and the limitations of care in our settings.

In Fiji, non-communicable diseases account for over 80% of all deaths, with stroke and cardiovascular disease among the leading causes. Nearly 9% of all deaths are stroke-related, with hypertension, diabetes, and widespread obesity (over 80% prevalence in adults) contributing significantly to this burden.

The patient's severely elevated blood pressure (>250/150 mmHg), alongside neurological deficits and altered consciousness, pointed to a large intracerebral haemorrhage, confirmed by CT imaging. Although antihypertensives and supportive care were initiated, neurosurgical interventions such as hematoma evacuation or decompressive craniectomy—which may be life-saving in selected cases—were not available in our setting. Management of ICP was further complicated by the patient's ESKD, limiting the use of therapies like mannitol or hypertonic saline due to the risk of fluid overload and electrolyte imbalance.

Persistent vomiting, likely from raised ICP, was effectively managed with antiemetics. However, the overall management remained supportive, with limited options for escalation of care.

This case underscores the urgent need to strengthen preventive strategies at the primary care level. Early detection and consistent control of modifiable risk factors such as hypertension, diabetes, and dyslipidaemia are crucial. As general practitioners, we are in a key position to screen, educate, and manage high-risk patients, especially in underserved and remote areas. Prevention remains the most effective strategy in reducing stroke morbidity and mortality where advanced care is limited.

Conclusion

In patients with multiple uncontrolled comorbidities, stroke outcomes are often poor—especially in resource-limited environments. This case underscores the importance of **primary and secondary prevention**, timely diagnosis, and the need to strengthen rural healthcare infrastructure, including access to specialist care. As general practitioners, we play a vital role in early detection and long-term management of chronic disease to reduce the burden of stroke and improve population health outcomes.

References

Lozano, R., Naghavi, M., Foreman, K., Lim, S., Shibuya, K., Aboyans, V., et al. (2012). Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis. *The Lancet*, 380(9859), 2095–2128. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3388426/

World Life Expectancy. (2025). Fiji: Hypertension. Retrieved July 2, 2025, from https://www.worldlifeexpectancy.com/fiji-hypertension

Broderick, J. P., & Diringer, M. N. (2025). Management of spontaneous intracerebral haemorrhage. *UpToDate*. Retrieved July 2, 2025, from https://www.uptodate.com/contents/management-of-spontaneous-intracerebral-hemorrhage

Shaltoni, H., & Qureshi, A. I. (2025). Management of hypertensive emergencies. *UpToDate*. Retrieved July 2, 2025, from https://www.uptodate.com/contents/hypertensive-emergencies

Safain, M. G., & Mocco, J. (2021). Spontaneous intracerebral haemorrhage. *Medscape*. Retrieved July 2, 2025, from https://emedicine.medscape.com/article/1910094-overview

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Opinion / Update

Health Tourism in Fiji

Author: *Dr. Neil Sharma*

1. Introduction

Health tourism, also known as medical tourism, involves the movement of individuals across borders to receive medical or wellness treatments. It spans a wide range of services including elective surgeries, dental procedures, cosmetic enhancements, fertility treatment, wellness retreats, and traditional healing practices. For Fiji, a middle-income small island Pacific nation,

health tourism presents an opportunity to diversify its economy and elevate the quality and accessibility of its healthcare services.

2. Developmental Prerequisites

To develop a competitive health tourism sector, Fiji must address several key prerequisites:

2.1 Healthcare Infrastructure

- Modern hospitals and clinics with advanced diagnostic and treatment facilities.
- International accreditation (e.g., Joint Commission International - JCI).
- Skilled medical personnel and ongoing professional development.

2.2 Transport and Connectivity

- Efficient international air connectivity.
- Robust domestic transport systems for inter-island travel.

2.3 Regulatory Framework

- Licensing for facilities and practitioners.
- Legal guidelines for medical malpractice and patient rights.
- Regulation and oversight for traditional and complementary medicine.

2.4 Technology and Digital Health

- Integration of telemedicine and e-health platforms.
- Secure electronic medical record systems.

2.5 Insurance and Legal Infrastructure

- Partnerships with global health insurance providers.
- Clear medical indemnity laws.

2.6 Tourism and Hospitality Support

- High-quality accommodations and post-operative recovery centres.
- Combined health and leisure packages.

3. Role in Global Healthcare

Health tourism contributes significantly to global healthcare by:

- Offering affordable alternatives for costly procedures.
- Reducing waiting times in overburdened public health systems.
- Enhancing medical training and technology transfer.
- Providing new revenue streams for health and tourism sectors.

For Fiji, this can lead to:

- Economic diversification.
- Improved local healthcare services.
- Increased regional influence as a medical hub.

4. Limitations and Risks

Fiji faces several challenges in developing health tourism:

4.1 Human Resource Constraints

- Limited number of specialists.
- Risk of overburdening local healthcare systems.

4.2 Healthcare Inequality

- Possible prioritization of foreign patients over locals.

4.3 Quality Control

- Maintaining consistent standards across facilities.

4.4 Environmental and Economic Vulnerability

- Susceptibility to climate change and natural disasters.
- Economic dependency on tourism.

5. Scope of Health Tourism in Fiji

5.1 Target Markets

- Australia, New Zealand, Pacific Island neighbours, parts of Asia.

5.2 Services in Demand

- Cosmetic and dental surgery, orthopaedic treatment, fertility services, wellness programs, and traditional healing.

5.3 Niche Opportunities

- Integration of modern and indigenous healing practices.
- Post-treatment rehabilitation in serene natural settings.

6. Legal Challenges and Insurance Considerations

6.1 Medical Indemnity and Liability

- Absence of a robust malpractice legal framework.
- Limited recourse for international patients.

6.2 Cross-border Health Insurance

- Limited acceptance of international insurance plans.
- Reimbursement challenges.

6.3 Data Privacy and Consent

- Need to align with global standards (e.g., GDPR, HIPAA).

6.4 Jurisdiction and Legal Recourse

- Complexities in enforcing foreign judgments.
- Ambiguous consumer protection enforcement.

7. Recommendations

- Policy and Strategy: Develop a comprehensive health tourism strategy with clear goals and standards.
- Accreditation: Support facilities in obtaining international accreditation.
- Insurance Partnerships: Establish collaborations with global insurers and medical indemnity providers.

- Capacity Building: Invest in human resource development and retention.
- Public-Private Partnerships (PPPs): Encourage investment while protecting public interests.
- Branding and Marketing: Promote Fiji as a safe, high-quality, and holistic health tourism destination.

8. **Conclusion:** Health tourism presents a promising opportunity for Fiji to enhance its healthcare services and stimulate economic growth. However, this potential can only be realized through targeted investments in infrastructure, regulation, training, and international partnerships. Balancing the needs of local populations with the demands of international patients will be critical in building a sustainable and ethical health tourism industry.

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Opinion / Update

WHO Recognizes Four Countries with Life-Saving Trans Fat Elimination Policies

Author: *Nouakchott, Brazzaville, Geneva*

The **World Health Organization** (WHO) has recognized four countries – the Republic of Austria, the Kingdom of Norway, the Sultanate of Oman and the Republic of Singapore – for their exemplary efforts in eliminating industrially produced trans fats from their food supplies. These countries have implemented best-practice policies alongside effective monitoring and enforcement mechanisms to promote public health.

The WHO validation certificates were officially presented by WHO Director-General Dr Tedros Adhanom Ghebreyesus during the Seventy-eighth World Health Assembly. "Eliminating industrially produced trans fats is one of the most cost-effective strategies to reduce the global burden of cardiovascular diseases. Trans fats are a major contributor to preventable deaths each year, particularly due to their impact on heart health," said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "These countries are not only protecting the health of their populations, but also setting an exemplary standard for other countries to follow."

This recognition marks another significant milestone in the global effort to eliminate trans fats, reflecting not only policy commitments but also the concrete actions being taken to remove trans fat from the food supply.

Trans fat clogs arteries, increasing the risk of heart attacks and coronary heart disease – responsible for over 278 000 deaths each year globally. Trans fat, or *trans*-fatty acids (TFA), are unsaturated fatty acids that come from either artificial (industrial) or natural sources. Industrially produced trans fats are often found in many baked goods such as biscuits, pies and fried foods, as well as margarine, vegetable shortening, Vanaspati ghee, among many others. Both industrially produced and naturally occurring trans fats are equally harmful.

"Recognizing the incredible harm caused by industrially produced trans fats, we became the second country to introduce measures to eliminate it. An EU-wide regulation is now in place, and Austria acknowledges its pioneering role in this important development. Bold, evidence-based policies can deliver real public health impact, and we are proud to be among the countries leading this global effort," said Korinna Schumann, Minister of Labour, Social Affairs, Health, Care and Consumer Protection, Austria.

Seven years ago, WHO called for the global elimination of industrially produced trans fats. At that time, only 11 countries covering 6% of the global population had best-practice trans-fat elimination policies in effect. Today, nearly 60 countries have best-practice policies in effect, covering 46% of the global population.

"Eliminating industrially produced trans fats marks a significant milestone in our commitment to protecting our population's health. We are proud to be among the 60 countries implementing this lifesaving policy, and especially honoured to be recognized as one of the nine countries leading the way in eliminating this harmful ingredient," said Dr Hilal bin Ali bin Hilal Alsabti, Minister of Health, Oman.

WHO recommends that governments implement best-practice trans fat elimination policies either by setting a mandatory limit of 2 grams of trans fat per 100 grams of total fat in all foods and/or by banning the production and use of partially hydrogenated oils (PHO) as an ingredient in food products. The WHO validation programme for trans fat elimination recognizes countries that have gone

beyond introducing best practice policies by ensuring that rigorous monitoring and enforcement systems in place. Monitoring and enforcing compliance with policies is critical to maximizing and sustaining health benefits.

"Our efforts to implement robust, best-practice trans fat elimination policies are showing clear, measurable results. The latest monitoring data confirms that it is not only possible to reduce trans fat intake but to virtually eliminate it," said Jan Christian Vestre, Minister of Health and Care Services, Norway.

Replacing trans fats with healthier oils and fats is a low-cost intervention that yields high economic returns by improving population health, saving lives and reducing healthcare costs. Governments can eliminate the cause of 7% of cardiovascular disease globally with a low-cost investment aimed at reducing or eliminating trans fats from the food supply.
"Our journey towards eliminating industrially produced trans fats began over a decade ago. Today, we have made significant progress. This is a powerful testament to what can be achieved through applying a consistent public health policy, across countries and regions, and working collaboratively with the industries. We are proud to stand alongside other countries in building a healthier and safer food environment for all," said Mr Ong Ye Kung, Minister for Health, Singapore.

WHO remains committed to supporting countries in their efforts and to recognizing their achievements. By working with national nutrition and food safety authorities, WHO can better support governments not only in developing and adopting trans fat elimination policies, but also in monitoring and enforcing them to ensure lasting impact.
The next application cycle for the TFA elimination validation programme is now open and countries are welcome to apply by 31 August 2025 to be considered for the third cycle.

Reference: WHO Release. https://www.who.int

Author: *Nouakchott, Brazzaville, Geneva*

A Medico-Political Report

The Private Hospital Act 1979 (PHA) and its associated Regulations

Author: *Dr. Neil Sharma,*

A wide representative group of Private Hospital representatives met in Suva on Friday, the 11th July, 2025. The aim was to undertake a stakeholder review of the current status of this Act, prospecting further dialogue with Ministry of Health, Economy and Solicitor& Attorney Generals offices and Cabinet. In-fact the laws are 46 years old, needing modernization. Health training, delivery & research has made major strides in the last 4 decades.

Further to World Health Organization (WHO) guidance, international reviews of Healthcare Partnerships especially, post pandemic COVID-19 and special attention to our national Sustainable Development Goals (SDG) current reversals, a need to review the PHA remains urgent. Addressing the increasing health inequities in 14 of the 17 targets of SDG 3 remains of paramount concern. These targets address our nation's, international commitments to health delivery and can be realigned with the support of the Private Sector.

Dossiers has also been exchanged to all service providers, inclusive of relevant ministries and high-profile organizations. As a collective group, short plenary sessions by Health and the Higher Education Commission were effected & of 20-minute duration, in the morning session. The Health ministry representatives addressed the current Act. Higher Education addressed the technicalities of further engaging Health care training in the private sector. The 20-minute presentations on the long term, future roles of Healthcare PPP @ macro and micro-economic levels have been deferred and the participants were additionally provided insight to the voluntary examples of international accreditation of Oceania Hospital Group and its Quality Assurance oversight currently in place.

Prominent Legacy Providers did not totally collaborate but indicated professional interests via their representatives. A follow up of all registered Private hospital operators is being sourced for further engagements. The fiscal enablers, as in PPP Healthcare will have potential for reductions in the reducing health inequities, possibilities of a national health insurances with inroads into health tourism also on the healthcare radar if private sector synergies converge in future engagements.

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Letter to Editor

Author: *Dr. Abdul Wahid Khan*

Kia Ora from New Zealand.
I am given the onerous task to reflect on Diabetes Fiji Inc's (DFI) input against diabetes in Fiji & what more should be done.

Onerous, because I no longer reside in Fiji and am currently employed by the Dunedin Medical School, Otago, New Zealand. As such, I am far removed to be commenting on the current affairs of DFI and the current statistics on diabetes but feel compelled to offer my penny's worth. This entails encapsulating some of the historical perspectives of the organisation.

As is well known, DFI was initially known as the National Diabetes Foundation (NDF). I well remember that I was invited as the Chief guest by NDF to celebrate the World Diabetes Day (WDD) in November 2007. During my address to the invited guests, I mentioned on the similarities between NDF, and the Fire Trucks based at rural airports in Fiji. When the planes are about to land, these trucks emerge from their storage spaces and then disappear into that hole once the plane has successfully landed. That was the perception I, and most Fijians of the time, held about NDF which made its presence felt only during the WDD celebrations. I then challenged them to do things differently.

That challenge was immediately translated into an invitation by NDF for me to join the organisation, which I subsequently did in 2008 as its chairman. But the trials and tribulations had just begun!

One of the first tasks allotted to me was to re-brand NDF to suit its status in the new millennium. We chose its new name as Diabetes Fiji, in alignment with international trends at the time) and drew up a new constitution to reflect this. A new set of Trustees were elected to oversee this evolution. DF was registered in January 2012.

In 2014, DF, in partnership with the World Diabetes Fund and the Fijian Ministry of Health, resolved to undertake a 3-year project to decrease the level of Diabetes Foot Amputations through the Foot-Care Project. In 2014, by a stroke of (mis) management, DF was registered as Diabetes Fiji Incorporated. Thus this 10th year celebration!

This partnered project was finalised in 2017.

Has DFI made an impact on diabetes? I would like to answer these briefly as follows:

- We have partnered with Ministry of Health to successfully to deliver the Ministry's goals on diabetes. This success is based on the mutuality of our objectives on Diabetes,
- We have managed, successfully, an internationally funded project – this is a first for the Fijian Private Health Sector.
- DFI has successfully worked with its partner organisations (the Fiji Consumer Council being just one) in furthering the issues on diabetes.
- We have managed to harness the goodwill of kindred organisation to deliver goods and materials to diabetics- I will mention the Makan's Pharmaceuticals as an important contributor in my time.
- We have managed to by-pass the cumbersome Civil Service Regulations to provide goods and services to the Ministry of Health Diabetes in subdivisional settings facilities in a timely fashion.
- DFI is placed as the Premier Non-Governmental organisation in the South Pacific Region through its training of the Footcare Nurses programme and its presence at the premier conferences on diabetes.
- DFI has a presence in the World Diabetes Foundation.

I am not privy to the latest statistics on amputations in Diabetics in Fiji but do understand that we still have the highest statistics in the Western Pacific region.

For the future of diabetics in Fiji and for DFI, I offer the following suggestions:

1. Diabetics in Fiji need to enjoy their meals. The taste for sweet things is more profound in diabetics and they are unable to partake in these because it would play havoc with their blood sugars. DFI, with its partners, should look at natural sugar replacements. Artificial sugars can cause a multitude of problems – so "natural sugars" are the best fit. Sweet potatoes, carrots, onions, peas, corn, pumpkin and tomatoes are just some of the normal replacements that should be encouraged.

2. There is a need for DFI to be regularly financed to meet the requirements of the Fijian Diabetic. I feel that the Government of Fiji should provide an annual financial allotment to DFI for these purposes. After all, DFI works to enhance the Ministry of Health's objectives on Diabetics.

3. DFI should now come out of its infancy and be farmed out to the Diabetics of Fiji. In other countries, the Diabetes organisations are managed entirely by the Diabetics, and I believe this can be emulated in Fiji. DFI has served its purpose as a "mere proponent" in this saga, and its role needs to be redefined. I look forward to that day!

4. If the No.3 proposal does happen, DFI will need an Advisory Committee to look after the more diabetes related clinical issues.

5. In 2015, DFI organised a visit from 2 esteemed Diabetes Footcare Surgeons to visit Fiji and comment on the Fijian Amputation practices. The resounding finding was that "Fiji trailed the world by some 20 years in its management of Diabetes Foot Sepsis". The message loud and clear- The Surgeons in our major hospitals need to be upskilled to prevent amputations.

6. As you may remember, I was ONCE a diabetic myself and underwent a surgical procedure. Thanks to the zeal of my surgeon, my sugars remained controlled, and I am on NO medications at all. That is my final wish for my diabetics in Fiji.

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Abstract

1. Gogoi, A., Bancod, D. R., Buenafe, D. D., Nadan, M. M., Kaka, D. A., Nair, D. R., & Raj, M. A. (2025). *Empowering Pacific Communities: A Review of Regional HIV Prevention and Care Approaches.* International Journal of Applied Sciences: Current and Future Research Trends, 23(1), 76-86. https://ijascfrtjournal.isrra.org/Applied_Sciences_Journal/article/view/1528

2. https://www.linkedin.com/posts/kalemayank_a-photo-of-a-doctor-in-meerut-asleep-on-a-activity-7356943500145287168

3. Emosi Bayanivalu, Eunice Ohyere, Keresi Bako and Mosese Salusalu *Non-Adherence to Anti-Tuberculosis Treatment and its Associated Factors among TB Patients at Tamavua Twomey Hospital, Suva* Journal of Family Medicine and Preventive Medicine Vol 2(2): 1-5 (2025)

4. Miriam E. Tucker *Real-World GLP-1 Weight-Loss Results Differ from Trials:* Medscape bulletin July. 2025.

5. Matt C. Howard & Brittany Siefert (17 Jun 2025): *A meta-analysis of burnout and suicidal ideation among medical professionals: Insights on occupational vulnerabilities***.** Archives of Environmental & Occupational Health, DOI: 10.1080/19338244.2025.2519184

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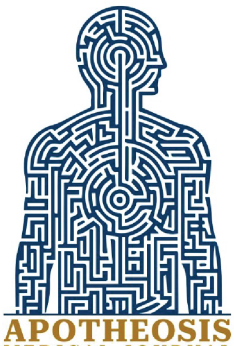

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