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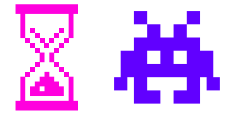
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# Oblivion

*With the world around us  
changing in a blink of the eye, are  
we slowly falling into oblivion?*

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# Oblivion



Welcome to the  
2022 Edition of 'Oblivion'.

In the constant flux of unfiltered information and changing geopolitical landscape, we may become oblivious to the global health issues continually plaguing our vulnerable populations. We hope this issue can prompt you to re-evaluate and reconsider the effects of oblivion!



*-The AJGH Team.*





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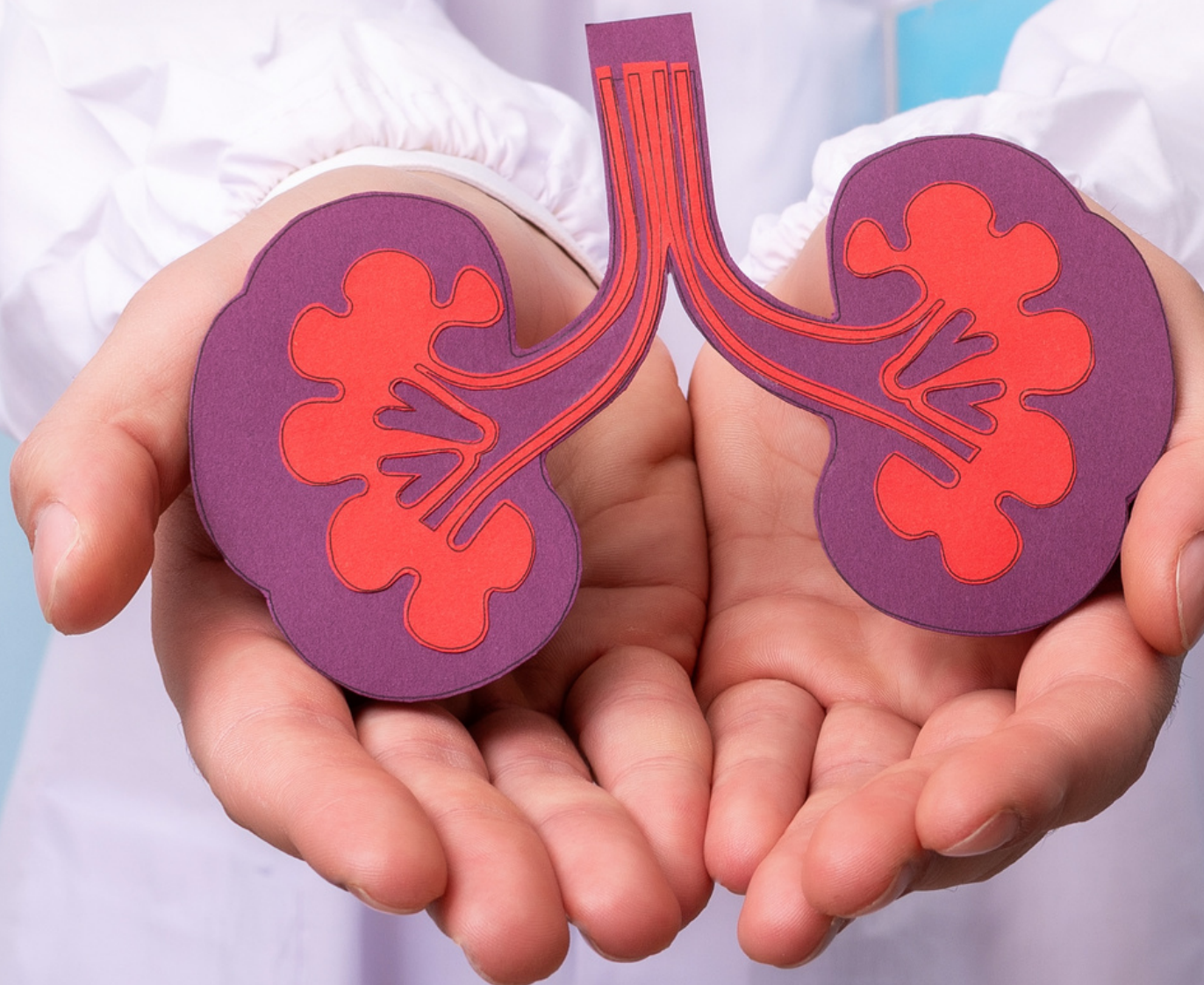


**THE GLOBAL HEALTH CHAT**

# e-Health Interventions in Chronic Kidney Disease: Implications for Clinical Practice and Patients

Author : Aatif Syed

Peer Reviewed by: Dr. Isabella Huang





# e-Health Interventions in Chronic Kidney Disease: Implications for Clinical Practice and Patients

## Introduction

Chronic Kidney Disease (CKD) is a chronic condition characterised by damage and reduced function of the kidneys and associated with high morbidity and death. [1] Patients with CKD typically have comorbidities such as cardiovascular diseases and diabetes due to common shared risk-factors such as hypertension and obesity.[1] Consequently, this disease imposes a heavy strain on the public health system, accounting for 1.8 million hospitalisations across Australia from 2016 to 2017.[1] Thus developing e- health interventions is essential for improving accessibility and self- management of CKD to meet the challenges caused by the evolving standards of healthcare and the rise of telehealth, as well as in reducing the impact of CKD on both the individual and the public health sector. E-health is defined as health services and information which is primarily delivered through the internet and other digital mediums.[2] In the context of Chronic Kidney Disease, the six modalities of e-Health interventions that exist are: telehealth, mobile/tablet applications, text/email messaging, electronic monitoring systems, websites, and video/DVDs.[2]

The Cochrane systematic review “e-Health Interventions For People With Chronic Kidney Disease” examined 43 studies on the impact of e-Health interventions in patients with diagnosed CKD.[2] It was concluded that e-Health interventions may improve management of dietary intake and fluids.[2] Despite these conclusions there is still uncertainty whether e-health interventions have a significant impact on improving clinical and patient outcomes compared to current interventions.

This essay will analyse the findings of the systematic review and its implications on clinical practice and patient care to provide recommendations for patient-centred care of CKD.

## Discussion

### Implications for Clinical Practice

This Cochrane review is useful for clinicians to guide future decision-making regarding the incorporation of e-Health interventions in the management of CKD in clinical practice. The review concluded that currently, there is insufficient research available which examines the efficacy of e-Health interventions in CKD.[2] Therefore, prematurely implementing such interventions into management plans is unfounded. Clinical practices are founded on the evidence-based practice model, in which only the best evaluated forms of health care are implemented; minimising harm to the patient and allowing for better informed decision making by clinicians.[3] Whilst intuitively it does seem that e-Health interventions could benefit rural and remote medical staff in receiving more information on best medical practice and standard care models,[4] the review concluded that the current research available is of low scientific quality. Thus prescribing academically unsupported e-health interventions may breach the tenets which underpin evidence-based medical practice.

Management of CKD follows a structured stage-based process; from primary to secondary and finally tertiary stages of

intervention.[5] Primary interventions focuses on the mitigation of risk factors and educational prevention.[5] Implementation of e-health strategies such as online education, electronic reminders, and self-monitoring interventions were not found to significantly improve management of CKD.[2] In addition, sodium dietary intake was lowered only in dialysis-dependent patients, but not those in other less advanced stages of CKD.[2] In clinical practice, it is important to allocate resources towards a method only when there is sufficient merit in improving health outcomes.[6] Given that the review suggested that e-Health interventions have limited efficacy in primary prevention of CKD, it is not beneficial to invest resources and funds in developing technological models to prevent CKD when it may not be advantageous. Moreover, from a medical ethics perspective, investing resources into e-Health interventions in primary care models may potentially breach the notions of beneficence, given that it doesn't guarantee a definitive improvement in patient outcome.[7] Whilst e-Health interventions in the review were found to have no adverse effects, prescribing a treatment option which is not well evidenced-based may, even harm patients by denying them the best form of treatment available.

Furthermore, it is important to consider age of patients as an impact on the findings of this review in terms of clinical practice. In Australia, 70% of CKD hospitalisations occur at the age of 65 and above.[1] Older populations typically have greater difficulty adapting to technology than younger populations, due to reasons such as lack of comfortability and technical education.[8] Given that CKD is more prevalent in this particular demographic, the use of e-health interventions for this disease may not be the most appropriate or advisable.[8] Despite the significant reduction in sodium dietary intake and weight using e-Health interventions, it is important for healthcare

professionals to discuss the patient's willingness to adopt such methods in their treatment plans and listen to their concerns.

**If the clinician chooses to advise e-Health interventions for the above parameters, it is the doctor's duty to advise the patient of other intervention methods which have greater evidential merit, particularly for older populations.[9]**

Given that older patients also have increased rates of complications and comorbidities due to CKD, utilising a multi-disciplinary care model, involving nursing and allied health staff in addition to doctors is more effective in management of CKD for this population subgroup.[9] Younger patients are more likely to utilise e-Health treatment models due to a higher technological literacy compared to their older counterparts.[8] Given that the review determined there was some benefit in behavioural control and self-monitoring of sodium and fluid management, as well as the greater appeal of e-Health interventions in younger patients due to more autonomous modes of healthcare,[11] healthcare-professionals should consider the implementation of these interventions to younger CKD patients.

**Considering the findings of this review, management of CKD is most cost-effective and clinically effective with a face to face primary care model, consisting of regular General Practitioner consultations.[5]**

Additionally, as CKD often occurs in conjunction with other chronic conditions, primary care physicians are best clinically placed to develop a holistic care model to help monitor and prevent further complications.[12]



## Implications for Patients

Patient-centred care has been an emerging priority in healthcare approaches around the world.[13] It focuses on the need to acknowledge patient values and needs while tailoring healthcare management according to their preferences.[13] Whilst the Cochrane review does not factor for the population demographic of CKD, understanding the patient demographics of CKD is essential in determining appropriate healthcare treatment for patients.

People living in rural and remote areas of Australia and of increasing socioeconomic disadvantage are at a greater risk of developing CKD.[14] In addition, indigenous Australians are three times more likely to develop Stage 1 CKD, and more than four times likely to have indicators of Stage 4 and 5 CKD than Non-Indigenous Australians.[14]

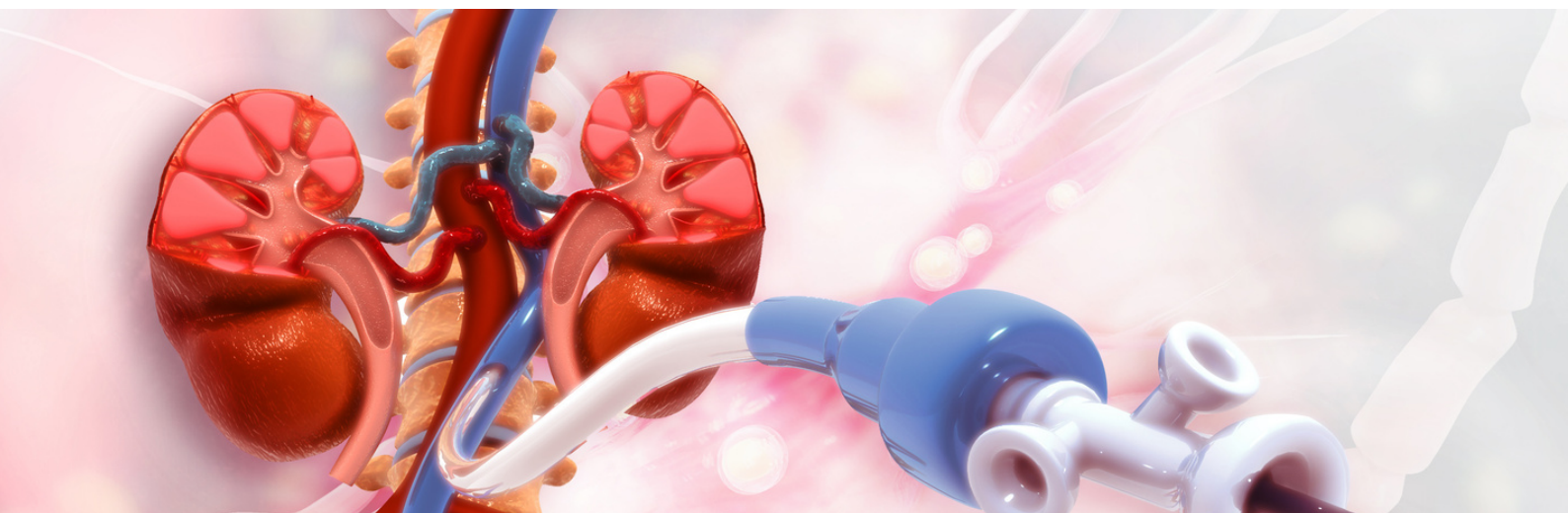
When analysing people who live in remote areas with CKD in the context of the findings, the possibility of implementing e-Health interventions appears attractive due to the poor availability and reach of healthcare facilities in rural and remote Australia, which prevents patients from accessing adequate healthcare.[15] However the cost of these interventions are a major concern when coupled with the challenge of socio-economic disadvantages among rural and remote communities.[15] The review concluded that e-health interventions did not offer a cost-effective model compared to current treatments.[2] In addition, some studies have even suggested higher costs due to setting up of internet lines and devices along with ongoing maintenance costs of these services.[16] Moreover, rural and remote areas in Australia have poor broadband infrastructure, with internet services being of poor quality and inflating prices compared to urban areas.[17] Patients may not engage in a more costly intervention particularly if it yields no significant improvement in the

management of their condition. Given that electronic infrastructure is relatively poor, they might also have difficulty in accessing e-Health interventions. Consequently, this might lead to increased rates of patient disengagement and poor participation in their treatment, as they believe they are not benefitting from it.[18] Whilst patients in rural areas are aware of the convenience telehealth interventions can bring to their healthcare,[19] they are not satisfied with current strategies as they feel there is a barrier between them and their physician.[20]

**Looking at the findings of this review from an Indigenous CKD patient's perspective is crucial.**

It is well documented that Indigenous Australians find it difficult to access primary healthcare services due to variety of reasons, such as distrust with the healthcare system and experiences of discrimination.[21] This along with the fact that most Indigenous people who suffer from CKD live in rural areas and are at a greater risk of socio-economic disadvantage means that the progressive burden of CKD is higher in this population. [22] This calls for more careful consideration of patient values when developing interventions for CKD amongst Indigenous patients. Not only do the factors of cost and accessibility of e-Health interventions disadvantage most Indigenous CKD patients, but it is reported that health-literacy and current understanding of their condition and treatment plans are already poor.[23] Combining all these multifactorial issues together with the added burden of navigating through e-Health models of treatment designed to be self-monitored, it is likely that online methods will result in negative patient outcomes for this particular demographic of CKD patients.

Provided with the confusion caused by medical jargon used at face-to-face consultations,[23] the added burden and responsibility of self-managing their condition would be difficult as they might struggle to understand the complexities of their condition. In addition, e-Health interventions may not be suitable due to the lack of physical support and guidance given the autonomy of these type of treatment models.[8] When factoring in that the review concluded that educational and self-monitoring e-Health interventions did not significantly improve patient outcomes, integrating e-Health models into practice could potentially fuel further distrust of western healthcare systems by Indigenous Australians.



### Recommendations and Conclusion

The Cochrane review concludes that more research into the efficacy of e-Health interventions as opposed to current treatment models need to be undertaken. Conducting large scale trials over a longer period of time is required to determine the long term effectiveness of e-Health interventions in CKD management. Using these findings as a foundation, further research should be conducted on whether the age of CKD patients has an impact on accessibility and better management on CKD. Furthermore, research needs to analyse different demographics of Australians who suffer from CKD, and then tailor specific e-Health interventions which are most effective for that particular patient subset. This would ensure a better patient-centred care model for individual CKD patients whilst also yielding more positive patient outcomes across all patient demographics.

Whilst the review concluded that behavioural and self-monitoring e-Health interventions may have helped in reducing sodium-dietary intake and improve fluid management on a general scale, clinicians should treat patients with a patient-orientated approach, unique to their presentation of the condition.[9] Clinicians should also take into consideration the demographic of the patient when looking at treatment models for the patient and addressing any barriers they may have with a particular e-Health intervention.[13] Ultimately, these findings serve as a springboard for future healthcare professionals and researchers in developing and implementing beneficial e-Health interventions in clinical practice.


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**Conflict of Interest:** None Declared

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# *The Intersection of Tuberculosis and Poverty in China; A Review*

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## **Background**

Tuberculosis is a disease caused by the bacteria *Mycobacterium tuberculosis* (Wilkinson, et al., 2017). Whilst approximately 2 billion people are infected with *M. tuberculosis* (latent infection), it is estimated that between 5% and 10% develop tuberculosis (active disease). As a communicable disease, it is spread via aerosol droplets, such as when individuals infected with the disease cough. Tuberculosis usually affects an individual's lungs, but can also infect other parts of the body, including the spine and bowels. Common determinants of disease include

poverty, HIV/AIDS coinfection, smoking and malnutrition (WHO, 2021). Every year, it is estimated that nearly 10 million people develop active infection – however, due to various factors, such as lack of access to testing and diagnostic services, the statistic is often under reported.

Per the World Health Organization's (WHO) 2021 global tuberculosis report, the disease is the 13th leading cause of death globally, and was the number one cause of death from a single infection pre-COVID-19. In 2020, it is believed that 1.3 million people died from the disease (WHO, 2021). Ending tuberculosis remains a priority of the WHO, with one of the targets of the 3rd UN Sustainable Development Goal being the end of the tuberculosis epidemic (United Nations, 2021).

Tuberculosis is both preventable and curable – data shows that 85% of those with the infection can be treated (Wilkinson, et al., 2017). Untreated tuberculosis has a fatal outcome – within 10 years of diagnosis in 70% of individuals – as such, it is imperative to treat the disease as soon as it is discovered to minimise morbidity, mortality and onward transmission (WHO, 2021).

The impact of the COVID-19 pandemic on the fight against tuberculosis cannot be understated – progress has gone off track, and in some locations the fight has regressed (WHO, 2021). This has resulted from reassignment of staff to COVID duties, use of diagnostic facilities for COVID diagnosis, closure of healthcare facilities for non-COVID issues, active avoidance of healthcare facilities and lockdowns limiting

access to healthcare. As a result, case detection (diagnosis and notification) over the past two years has been underreported, dropping from 7.1 million in 2019 to 5.8 million in 2020. Such shortfalls in tuberculosis diagnosis and treatment have been disproportionately felt by those who find themselves in lower socio-economic settings.

In this review, I shall explore the intersection between tuberculosis and poverty, focusing on the population of China.

**This is important from a public health perspective, as many quality adjusted life years and disability adjusted life years may be saved, and deaths may be prevented, if tuberculosis is brought to an end.**

Additionally, by focusing on the already disadvantaged members of society, health inequity may be addressed, leading to more just health outcomes.

The decision to focus on China is because it is one of eight nations that account for two thirds of all new global tuberculosis cases (WHO, 2021). Additionally, China does not have a comprehensive health care policy that covers the cost of tuberculosis treatment, representing a barrier to health for those who cannot afford it.

### **Poverty**

Poverty has long been seen as an important determinant of health (Starfield, 1992). Within nations, citizens who find themselves in low-socioeconomic conditions have worse health outcomes than those with greater socioeconomic status (Wagstaff, 2002). Globally, low- and middle-income nations have worse health outcomes than high-income ones. Despite poverty's huge impact on health and wellbeing, interventions to end it are highly challenging to implement and execute – to quote the Yiddish saying, “the doctor has a cure for everything except poverty”.

Negative health outcomes of poverty include shorter life expectancy, higher rates of death, and higher infant and maternal mortality rates (Link & Phelan, 1995). This is due to many reasons; firstly, poverty restricts the individual from accessing resources to

prevent or treat illness; secondly, poverty affects the environment the individual is in, which in turn has health impacts on the individual (Macintyre, et al., 2002).

A 2016 journal article found that the gap in life expectancy of the richest and poorest 1% in the United States was 10.1 years for men, and 14.6 years for women (Chetty, et al., 2016). This gap only grew over the course of the study, suggesting health inequality due to wealth disparity is an ongoing issue, not a static one. If unaddressed, growing wealth inequality will contribute to growing health outcome disparities. This trend is global – research indicates that those with greater wealth experience better health outcomes compared to those living in poverty (Marmot, 2005).

Many studies have shown a correlation between poverty and tuberculosis – a 2019 ecological study found that the prevalence of the disease was concentrated in nations with lower levels of the Human Development Index (HDI) (Okhovat-Isfahani, et al., 2019). Additionally, the study found that increased socioeconomic status was associated with both a lower level of incidence and prevalence of tuberculosis – as wealth increases, disease decreases.

Risk factors for tuberculosis include undernutrition, inadequate housing and indoor air pollution (Narasimhan, et al., 2013). These risk factors are all associated with poverty – lack of funds limits access to nutritious food, adequate housing that is not overcrowded or lacking in utilities that leads to the burning of fuels such as wood indoors.

### **China**

**In China, tuberculosis is very much a disease of poverty** – per the WHO, in 2015 the large majority of individuals living with the disease in China have a below-average level of income (WHO, 2015). Whilst significant reductions in disease prevalence have occurred in China over the past 3 decades, the disease is still prevalent, with nearly 850 000 people being diagnosed with the disease in 2019 (Ding, et al., 2020) (WHO, 2021).

Costs of treatment can be prohibitively expensive – in 2015, the cost of treatment for multi-drug

resistant tuberculosis per course was RMB40 000, equivalent to US\$6250 (WHO, 2015). Given that the current per capita GDP of China is US\$10 500, this price tag is out of reach for many (The World Bank, 2021). Costs act as a barrier to seeking care, affecting the most vulnerable in society, and further perpetuating health inequities.

This is further supported by the literature – a 2006 study found that poverty was strongly associated with tuberculosis in China, even after adjusting for confounding factors such as smoking (Jackson, et al., 2006). Findings suggested that treatment accounted for 55.5% of average yearly household income, leading to patients acquiring large medical debt.

Available literature suggests that rural communities in China suffer from a higher rate of tuberculosis than metropolitan ones (Tanimoto, et al., 2018). This is likely due to ongoing health disparities between rural and urban communities in China, despite ongoing health system development (Qin, et al., 2020). The health outcomes disparity between rural and urban China was found to additionally be exacerbated by wealth disparity between the two.

In China, the National Health Commission is responsible for all tuberculosis related interventions, and has been developing and implementing a prevention and control program since 2009 (Long, et al., 2021). This program is currently in its third phase and involves the scaling-up of activities to cover 3 provinces, including both urban and rural communities. Analysis of the program suggests that both diagnosis and treatment of the disease have significantly improved, suggesting a potential model of care moving forward.

### **Interventions**

Much of the literature suggests that effective interventions for the treatment of tuberculosis in a low socioeconomic context involves enhancing the financial resources available to deal with the disease (Xu, et al., 2010). As such, the intervention I wish to focus on is the expansion of universal health coverage.

The concept of universal health coverage refers to policy that enables populations to have access to

suitable, quality health care without undue financial hardship. Commonly described as a cube, the three components of a universal health coverage system are populations (who is and who isn't covered), costs associated with health care (how much of a fee is covered by the system and what, if any, costs are shared with patients) and the services offered (and equally what is withheld) (Ochalek, et al., 2020).

In a 2015 report, the WHO and The World Bank report that globally, 400 million people still do not have access to essential health services (WHO and The World Bank, 2015). Additionally, nearly 6% of those who live in low- and middle-income countries are thrown into poverty due to medical debt – a further entrenchment of poverty as a social determinant of health.

China likewise has committed to achieving universal health coverage among its population, but gaps in service quality and financial protection also exist (Tao, et al., 2020). A 2020 study found that in China, health services were limited in rural areas, and that ongoing health inequalities exist among both income levels and geographic location (Mao, et al., 2020). Given that tuberculosis disproportionately affects the poor and those living rurally, strengthening the Chinese universal health coverage program would enable these disparities to be tackled.

Future expansion of universal health coverage in China should occur in a targeted manner, so that those that are most vulnerable are covered first – by focusing on specific populations such as the poor, the unequal burden of disease may be addressed, and health inequalities minimised whilst promoting social justice (Szkwardo, et al., 2019).

Whilst poverty may act as a barrier to patients seeking care or continuing treatment, the expansion of universal health care should act as a remedy to the problem, reducing financial barriers for those who need it most. Additionally, the cycle of poverty may be broken, as treatment will not force patients and their families into poverty, contributing to a worsening of health outcomes.

Additionally, further assistance from supra-national organisations such as the WHO and United Nations would be welcome – as mentioned by Okhovat-Isfahani, et al. (2019), both technical and financial support shall enable low- and middle-income countries (such as China) to strengthen and expand their health services.

Data from countries with successful roll-outs of universal health coverage has shown that social determinants of health, including poverty, are addressed by enabling all to have access to care, and play a part in ‘leveling out’ health inequalities (Andrade, et al., 2015). This is due to universal health coverage removing traditional barriers of access to health. As previously mentioned, poverty restricts the individual from accessing resources to prevent or treat illness – by providing affordable health care, populations can access the services they need, resulting in improved health outcomes and reduced health inequities.

**However, this is an intervention that can have unintended outcomes. A poorly rolled out system of universal health coverage can further exacerbate health inequities**

– by not focusing on marginalised communities, health inequities can become entrenched. To successfully achieve universal health coverage, services and population coverage must expand to all members of society, not only those that are easy to reach. For example, tuberculosis rates in China will not go down if coverage is not extended to rural communities where the disease is more prevalent.

## Conclusion

Poverty and tuberculosis form a perpetuating cycle. If one finds themselves in poverty, they are at an increased risk of suffering the disease, and not being able to afford treatment. Conversely, if one is not in poverty at time of diagnosis, treatment may result in a catastrophic health expenditure, which will push them into poverty. This cycle must be broken.

As seen in the case of China, tuberculosis is an especially troublesome burden for the rural poor. A lack of health infrastructure compounds the

problem. However, China has committed to further driving down tuberculosis rates, and a national program is slowly being trialled and developed.

China may achieve the goals of eradicating tuberculosis by further expanding their universal health systems. Ensuring population, service, and cost coverage will enable those who need care to access it without facing detrimental costs. As a result, social justice may be achieved by targeting the health inequities being faced by the most vulnerable and marginalised members of our international community.

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# Domestic Violence : The Lesser-Known Pandemic



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*Domestic Violence (DV)* refers to acts of violence that occur between people who have, or have had, an intimate relationship. Perpetrators use ongoing patterns of abusive behaviors to facilitate and maintain power and control over a partner through fear [1]. Family Violence includes violence between family members, in addition to violence between intimate partners.

## How can we provide a voice to victims of DV?



The RACGP have published the Fifth Edition of 'Abuse and Violence: Working with our patients in general practice', a guide for clinicians on assessment, management, and prevention of domestic violence. This comprehensive guide, also known as the 'White Book' is used in practice to support victims of DV, who often do not present to the clinic directly seeking support, however signs of abuse can be identified. The White Book outlines the three Rs Model - Recognise, Respond, and Refer [2]. To support best practice in DV risk assessment, the White Book was updated to include additional chapters with focus on key areas such as:

- Trauma-informed care
- Adolescent-to-parent violence, dating violence and technology-facilitated abuse
- LGBTIQ+ family violence
- Support for male victims of DV

There is also a focus on other vulnerable populations, including migrant communities, elderly people, and Aboriginal and Torres Strait Islander People.[3]

Here is a summary which may assist with advocacy in clinical practice.

*Please note this summary is not intended to replace professional advice (which requires specialist knowledge) and some content may be distressing.*

## Recognise

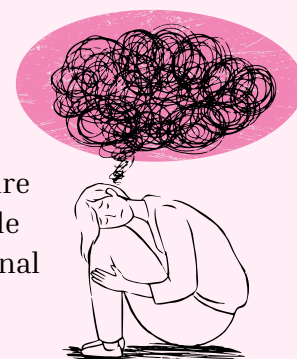
### Types of Domestic Violence & Their Signs

Current evidence suggests that the majority of people who experience DV and sexual assault are women, and this type of violence is predominantly perpetrated by men.[3]

Signs can be identified on examination or through history-taking and can occur with any of the following types of DV (this list is not exhaustive):[4]

**Emotional and Psychological Abuse** – Poor sleep, concentration difficulties or hypervigilance, absence at appointments or events, symptoms of mental health concerns. Ongoing humiliation, threats, fear, and isolation can result in victims experiencing anger, shame or loss of identity, which are important signs of trauma.

**Physical Abuse and/or Sexual Violence** – Bruises, chronic pain, injuries, headaches. Unwanted pressure or lack of consent. Can include physical signs and/or emotional and psychological signs.



**Financial Abuse** – Perpetrator has control of bank accounts and may induce debt or restrict access to personal finances. Threats, blackmail, or coercion may be used. Visa abuse is a subset, and includes false claims about visa status, or restricting access to passports or visa documentation.

**Social Abuse and Coercive Control** – Isolation from friends/family/supportive social network. The perpetrator provides instructions on which activities, clothes, appearance, visits, and friends the victim is 'allowed', or making decisions for the victim by restricting personal choices.



**Technological Abuse** – Perpetrator may exert control by restricting car, computer, or phone use, engaging in victim surveillance through fake social media accounts, or engage in unauthorised technology use such as reading text messages, monitoring phone calls, use of tracking devices. Restrictions on social media activity (such as telling the victim which posts they are 'allowed' to comment or like).

## Respond

Many DV survivors experience trauma as a result of their experiences, thus it is important to respond to patients using principles of trauma-informed practice. [2]

These include:

- Attending to safety
- Focusing on strengths
- Empowerment through knowledge and choice

Communication is based on:

- Trust, honesty, and transparency
- Collaboration, mutuality, and reassurance

When responding to DV survivors it is important to use active listening to let the patient take the lead, use nonverbal cues, and consistently validate emotions to provide reassurance that the victim is not to blame. Ensure a comfortable, supportive, safe environment, where the patient is alone and free of coercion.



## Red Flags

It is critical to respond to signs of increased risk of harm to the victim or their family, by identifying red flags, which include:

- Escalation of violence
- Recent planned separation - **HIGHEST RISK**
- Recent unemployment of perpetrator drug alcohol abuse
- Pregnancy or recent birth
- Obsessive behaviour
- Jealousy and stalking
- Direct threats
- Weapons
- Sexual assault
- Children are direct targets of the perpetrator

Managing risk, assessing danger, and prioritising safety are critical in responding to DV. It may be necessary to seek assistance from specialist agencies or the police as evidence has demonstrated that these red flags can result in death.

It is easy to underestimate the severity of risk in DV situations. Research has identified the following patterns:

- Most DV homicides are men killing women
- Most men who kill their partner have a history of DV perpetration
- Most women who kill their male partners had been the primary victim of DV

**Please note that Safety and Risk Assessment and Mandatory Reporting varies by state-contact local Public Health Network for guidelines.**

## Refer

Referral involves directing clients to specialised, available and accessible supports specific to individual needs [2]. It is good practice to advise clients why referral is being recommended, what information will be provided to the referral agency and to seek consent. The client must understand and agree to a referral.

Referral includes providing options and ongoing support- Informed consent is required to offer services, and the patient's decision must be respected. Victims may not be aware they are experiencing DV and may not wish to take action, or accept support, re-emphasise that ongoing support is available when they are ready. Referral should include providing access to specialist Family Violence Services and options must be tailored to vulnerable groups who are at increased risk due to barriers.

## Vulnerable Groups

Due to social inequality and discrimination, some groups experience higher rates of domestic violence.[3] The AIHW has found that the following groups are most impacted by DV:

- People experiencing Socioeconomic disadvantage
- Culturally and Linguistically Diverse groups (CALD): including migrant communities with English as a Second Language and people with temporary Visa status
- Aboriginal and Torres Strait Islander Peoples
- The elderly population
- People with disabilities
- LGBTQIA+ people
- People with mental health concerns
- People with a history of drug or alcohol misuse
- Rural and remote communities
- Younger women
- Children

To recognize and respond to vulnerable group requires a holistic approach to the patient's identity and life experiences, and clinicians should reflect on systemic barriers and their own biases to provide safe and appropriate care.

## Summary

Although the White Book is an evidence-based resource which outlines necessary steps to identify and escalate concerns about DV survivors, there are some limitations.

The White Book should not be used as a sole source of information and does not substitute the need for specialized domestic violence services where professionals have undergone extensive training. Thus, referral is recommended, and an extensive list of services and resources is provided.

The guide provides general advice for Australian practitioners, and in most cases does not vary by state. Thus, unique state-based regulations must also be considered when applying the *three Rs* Model. However, an exception is Chapter 2, which outlines Victorian family violence policy reforms in response to the 2015 Victorian Royal Commission into Family Violence [5]. The Commission found evidence of incomplete sharing of family violence risk assessment information across service providers, leading to unsafe consequences for victims [6]. Over 200 recommendations were made, including an update to existing risk assessment frameworks, and these changes were incorporated into the most recent edition of the White Book.

The White Book is regularly updated and is a valuable resource for practitioners, and so it should be considered as an educational tool for medical students wishing to improve communication with patients at risk of DV.

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# Reconceptualising Global Surgery Education for Australian Medical Students

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Peer reviewer:  
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The year is 2019, and Bailey is a third-year medical student at an Australian university. Alongside many of their pre-pandemic peers, Bailey has been looking forward to his compulsory medical elective taking place over the summer holidays. This involves a two week 'healthcare volunteering placement' to a low-income country in south-east Asia. Bailey is excited to give back to the community and explore surgery internationally, especially with the promise of a more hands-on clinical experience compared to Australia. Roughly \$4000 poorer, Bailey and his friends set off on what they hope to be the start of their career in global surgery.

Bailey's well-intentioned interest in global surgery is not uncommon. For many surgically inclined medical students, global surgery is viewed as an opportunity to combine their surgical interest with their passion for global health. To begin to understand (and subsequently guide) medical students' growing interest in global surgery, we must first attempt to define its scope. While this is a notorious challenge, previous definitions have highlighted "all groups facing inequitable or inadequate surgical care delivery", whether chronically neglected or in an acute crisis.(1) Currently, investment in surgical care is viewed as too expensive and complex, with minimal relevance to public and global health.(2-3) However, this has been proven to be incorrect, with low- and middle-income countries set to lose trillions of dollars due to inadequate surgical access.(1) This common misconception, along with numerous others, reflects a need for greater Global Surgery education among students.

The current status of global surgery education in Australia seems to largely consist of short term overseas medical electives with a surgical component. Although these experiences may offer students the opportunity to learn about global surgery, there is limited literature which reflects the extent to which this is achieved. There are several drawbacks associated with Australian medical students learning overseas. Research indicates that 59% of electives undertaken by graduate entry medical students and 56% by high school entry program students were to low or middle-income countries.(4) This is known as 'Voluntourism', whereby students undertake overseas electives with both volunteering and tourism components.(5) Voluntourism inevitably involves an unequal balance of high-income countries (HICs) sending students to low-income countries under the name of education, with such trips being advertised as 'healthcare volunteering placements'.(5) The issue with these activities is that the primary beneficiaries are often students from HICs, who further their own knowledge and gain international travel experiences, rather than the local communities who often suffer economic, environmental and social detriment.(5) An example is when students' inexperience and negligence leads to direct harm.(6-7) Students from HIC also face difficulties. Lack of supervision and direction are problematic, as unprepared students may find themselves extended beyond their scope of practice, raising significant ethical concerns.

Unfortunately for Bailey, their elective was a vignette for all the above ethical and safety concerns associated with overseas medical

electives. Over the course of their elective, they find themselves thrown into an unfamiliar and hazardous elective placement. Lacking in pre-departure training, Bailey finds himself lagging behind local students, in the way of their supervisors and unable to contribute to any conversations due to the language barrier. After the rounds, the consultants leave and aren't seen until the next day, leaving Bailey alone with the junior doctors and a steady flow of international medical students also on elective placement to decipher the foreign patient notes. Although his education has prepared him for a clinical setting, he is harshly reprimanded for not knowing how to perform a simple procedure that, in Australia, would only be entrusted to junior doctors or consultants. Towards the end of their two-week period, Bailey ends up spending more time at the local beach than the hospital, an arrangement that Bailey's ward team seems to prefer.

This story of a young, well-intentioned medical student embarking on an overseas elective only to stumble into ethically questionable scenarios, is all too common in medical schools across Australia. Although Bailey is a fictional character and his experience isn't reflective of all medical electives overseas, his story has been adapted from real student experiences from elective databases and student blogs. While individual components of their trip may seem relatively harmless, the overall picture is one of power imbalance and exploitation.

**The question remains: How can we address the flaws in the current, unilateral model of global surgery education and move towards a system that promotes collaboration and consideration?**

In light of this, a paradigm shift is required in global surgery education. There is a clear demand for Global Surgery education in Australia. This is evidenced by the growing interest in our own

organization – Australasian Students Surgical Association's (ASSA) Global Surgery - a medical student global surgery interest group in the Australasian region. ASSA Global Surgery believes that there are several important steps in achieving the goal of providing an ethical, engaging and evidence-based global surgery education.

Firstly, although global surgery education is immensely important, it must not come at the expense of the LMICs. Therefore, an important step in the provision of global surgery education is ensuring that this education can take place locally. We believe that this can be achieved through including global surgery education into medical school curriculums in Australia. However, acknowledging the current complexity of university curriculums, we also suggest the alternative of medical school faculties supporting extracurricular learning on the subject.

Another important aspect to consider is collaborations between LMICs and HICs. One such organisation empowering this collaboration while promoting global surgery education at a medical student level is InciSioN – the International Student Surgical Network {, #12}. InciSioN aims to work towards the common goal of access to safe, timely and affordable surgical healthcare for all, through advocacy, research and education. With any HIC-LMIC collaboration, the threat of neocolonialism is ever-present, but InciSioN Global counters this by platforming local voices. Of note, the majority of its National Working Groups reside in LMICs.

Organisations such as InciSioN provide a unique opportunity to use global interconnectedness to provide students with peer learning opportunities on the topic of global surgery whilst ensuring that local needs are advocated for.(8) This interconnectedness has flourished during COVID-19, as the pandemic has transformed the way that learning is provided and received.(9) For example, online journal clubs and events run by InciSioN have allowed medical students to enrich global surgery education, making it simpler to involve

professionals with diverse, on-the-ground experience with global surgery. A medical student in Australia can now easily hear the experiences of medical students and professionals anywhere in the world and share the experiences of global health inequity, surgical education and social justice that define the field of global surgery.(10)

Over the course of the pandemic, the increasing capacity to collaborate internationally, combined with ongoing travel restrictions and challenges, have facilitated the paradigm shift to a model of global surgery education with less of a reliance on overseas medical electives.

While we recommend strategies which empower medical students to better understand global surgery without overseas travel, we acknowledge that overseas electives are deeply ingrained within the existing medical curriculum, and are likely to resume after travel bans are lifted. Should electives be undertaken, local collaboration and consideration should be supported and prioritised. Universities, elective providers and prospective elective students must identify sustainable projects that prioritise the safety of both hosting institutions and medical students. In light of this, we support the incorporation of risk-minimisation strategies into medical school overseas elective programs to ensure they are run ethically and are conducive to medical student education. Such strategies include those outlined in the AMA's Guide to Working Overseas,(11) as well as AMSA's 3-step approach to overseas electives. AMSA's approach involves choosing an elective that is ethically appropriate, involves sufficient pre-departure training, and ensures sustainable organisational relationships are established over the course of the elective.(7) It is also recommended that these electives are offered preferentially to senior students ready for their internship in order to minimise harm to both the students themselves and the communities.

To conclude, we propose a number of strategies for medical students to avoid negative elective experiences such as those experienced by Bailey. We suggest students explore alternative avenues

of global surgery education, with virtual, transnational collaborations between LMICs and HICs being essential to the deconstruction of harmful voluntourism at a medical student level. We also encourage medical faculties to support extracurricular learning on the subject through special interest groups such as InciSioN and ASSA Global Surgery. In addition, potential mentorship by Australian faculties with international outreach experience should be considered. Our hope is that, in the absence of overseas travel, the pandemic will provide a valuable opportunity to shift the paradigm of global surgery education in Australian medical schools, resulting in all students being properly informed and educated about global barriers to equitable, safe, and affordable surgical care.

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# AMSA Submissions Combating Stigmas in Communities



## Combating Stigmas in Communities

Emma Northridge

Peer Reviewer: Dr. Biswajit Banik



The total views for TikTok videos tagged '#ADHD' is 1.6 billion, with the highest-rated of these sharing symptoms, personal experiences and information regarding the condition. Many have credited this new mode of information-sharing as enlightening and helping individuals seek a diagnosis. Once considered a 'schoolboy's condition', [1] the stigma and silence surrounding ADHD have been broken down, due in part to the widespread information-sharing facilitated by apps such as TikTok. However, the benefits of awareness must be weighed against the risks of misinformation which is easily disseminated on such platforms. [2]

The beauty, and danger of TikTok is that often historically marginalised voices in the ADHD discussion can be recognised. Most notably, women and people of colour can have their voices and experiences amplified, [3,4] challenging stigmas regarding whom ADHD impacts and helping these communities seek care with greater confidence. [5] The downside of this open platform is that misinformation spreads like wildfire.

Though often well-intentioned, individuals may mischaracterise ADHD, listing aberrant 'symptoms', and presenting the condition as either a 'quirky' personality, or conflating it to related conditions, such as autism spectrum disorder. Analysis of the top 100 '#ADHD TikTok's found 52 to be misleading and only 21 valid. [6]

Moreover, diagnosis has shifted from the doctors' office to the comments section with 'self-diagnosis' rapidly gaining traction. [7]

TikTok has undoubtedly reduced the stigma surrounding ADHD, increasing awareness & representation of the condition, allowing impacted individual's voices to lead the conversation for the first time. However, misrepresentation and self-diagnosis see individuals forgo formal medical assessment which is an inescapable consequence of this unregulated platform. Therefore, TikTok should not be considered as an alternative or substitute to any formal assessment. Doing so can help prevent misdiagnosis. Thus, the question emerges: is combating stigma worth the risks of misinformation?



## Combating Stigmas in Asian Communities

Genevieve Shek

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Asia's record as the second highest prevalence of common psychiatric disorders is matched by a high reluctance to access mental health services.[1] This is likely from the stigma of cultural shame rampant in Asian communities labelling people with mental illness as aggressive, dangerous and lacking mental strength.[2,3] Such negative attitudes toward those with mental illness can be a deterrent for those seeking help or utilising mental health services especially given the taboo stigma of mental health in Asian communities.[4] These negative connotations are detrimental and can result in social isolation and demoralisation which can increase the risk of suicide.[5,6] Hence, it is crucial to implement strategies to combat the mental health stigma in Asian communities.

Appropriate mental health strategies can be achieved through educational campaigns as informing people about mental illness aids in dispelling baseless assumptions and discrimination against those with mental conditions.[7] For instance, a study involving a 1.5-hour lecture aimed at industrial workers and government employees reduced the agreement with a statement about feelings of insecurity when working close to someone with a mental illness from 46% to 29%.[7] Furthermore, education through film has proven helpful with a study entailing the use of Korean drama scenes allowing participants to realise the importance of empathy and professional help in mental illness treatment.[8] Therefore, these methods can mitigate the mental health stigma in Asian communities.

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## Weight Stigma: shifting the narrative around obesity

Annabel Laing

Peer Reviewer: Dr. Biswajit Banik



The growing fight against the 'obesity epidemic' in Australia has cultivated a dark side, with weight stigma causing significant harm to the community this 'fight' is supposedly aiming to protect. While healthcare settings should be a non-judgmental space, empirical evidence demonstrates that obese individuals are disrespected in healthcare settings, being labelled as lazy and having poor will-power and self-discipline.[1,2] Obese individuals are pigeon-holed by practitioners, with assumptions regarding health solely based on weight, rather than treating medical concerns with appropriate due diligence and respect.

Weight stigma is associated with significant mental health concerns such as depression and anxiety, as well as increased cardio-metabolic risk factors. It is further associated with maladaptive behaviours including reduced physical activity and disordered eating habits.[3,4] Discriminatory healthcare experiences also lead to avoidance of future care and screening programs, and significantly lower trust in the healthcare profession.[2]

Weight stigma is not useful for reducing obesity, defying the common misconception that shaming individuals motivates them to lose weight and adopt healthier behaviours.[3] There is a fundamental lack of recognition that factors contributing to obesity are complex and often beyond the control of the individual, and that there are significant obstacles to achieving sustainable weight loss. The mentality of healthcare must shift away from weight bias and individual shaming towards non-judgmental, diligent, and respectful care for all, regardless of weight.

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# Review of Dental Hygiene Counselling in Pregnancy: A General Practice Perspective

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## Abstract

Introduction: Dental hygiene counselling is a frequently overlooked aspect of antenatal care. Pregnancy hormones can place some pregnant people at risk of gum problems including gingivitis, periodontal disease, and pyogenic granuloma. Poor dental hygiene in pregnancy is associated with preterm birth, low birth weight, PET, GDM and cardiovascular disease. Migrant populations, refugees and those living in developing countries are at increased risk of developing periodontal disease in pregnancy compared to the general population.

Our objective was to determine the proportion of pregnant people attending X general practice clinic from late October 2020 to December 2021 that received counselling on dental hygiene during the antenatal period in accordance with RANZCOG pregnancy care guidelines.

Methods: Medical records of 50 randomly selected pregnant people presenting to X GP clinic in WA between October 2020 and December 2021 was collected. Using the practice medical software, demographic data in addition to data on past medical history of dental issues, antenatal dental hygiene counselling and dental problems in pregnancy, were collected retrospectively. Data was recorded using a data collection tool in Microsoft Excel and analysed using descriptive statistics.

Results: No dental hygiene counselling was provided to patients presenting for pregnancy counselling, in contradiction to evidence-based practice outlined in RANZCOG guidelines.

Conclusion: Dental hygiene counselling should be provided to pregnant patients as early as possible antenatally.

## Introduction:

Dental hygiene counselling is a frequently overlooked aspect of antenatal care.[1,2] Pregnancy can increase the risk of dental problems, including gingivitis, periodontal disease and pregnancy epulis.[3,4] Vomiting, cravings for sugary foods and gagging while brushing teeth, as well as high pregnancy hormone levels, increase the risk of antenatal dental problems.[3,4]. If left untreated, associated complications may arise, including preterm birth, low birth weight, pre-eclampsia, gestational diabetes and cardiovascular disease.[3,5,6]

Migrant populations, refugees and those living in developing countries are at increased risk of developing periodontal disease in pregnancy, compared to the general population.[7] A study conducted in the US found that compared to Caucasian people, ethnic minority groups were two to three times more likely to develop periodontal infection in pregnancy. It also found that Hispanic and African American patients were more likely to have untreated diseases.[8] Poor dental care in these population groups is the result of limited access to oral health facilities, language barriers, financial difficulty, poor education on healthy oral hygiene and misconceptions about the safety of dental care in pregnancy.[7,9,10] According to a World Health Organisation Survey, access to oral healthcare in low-income countries averaged 35%, compared to 75% in upper-middle-income countries.[11]

International recommendations stipulate it is best practice to advise pregnant people on having oral health checks as soon as the first antenatal visit.[3,12,13] In New South Wales (NSW), a survey found that of 393 antenatal care providers, only 16.4 - 21.5% of respondents discussed the importance of oral health or advised pregnant people to visit a dentist during pregnancy.

This practice serves a population of diverse cultural and social backgrounds and has seen a higher-than-expected number of ethnic pregnant people present with dental issues. We were interested to see how often dental care is overlooked in this population of pregnant people, and as a result, the complications that arose at X clinic.

## Aims

- To assess the rates of dental hygiene counselling in the antenatal period, at X general practice.
- To assess rates of gingivitis, periodontal disease, and their complications in pregnancy at X general

practice.

## Objective

- To determine the proportion of pregnant people attending X general practice clinic from late October 2020 to December 2021, that receive counselling on dental hygiene during the antenatal period in accordance with RANZCOG pregnancy care guidelines.

## Methods

This audit assessed the adequacy of clinical care pertaining to dental hygiene counselling in the antenatal period at X general practice, according to RANZCOG Clinical Practice Guidelines for pregnancy care.[3]

The standard audited:

- 100% of pregnant people who attended X general practice between October 2020 and December 2021 should have received dental hygiene counselling during the antenatal period, in accordance with RANZCOG recommendations.[3]

This was decided based on international best practice stipulations.[1,14] This is outlined in the RANZCOG guidelines for pregnancy care 2020, which were based on level I NHMRC evidence studies, and supported by numerous other NHMRC level I and II evidence studies, all of which support the need for dental hygiene counselling as early as possible during the antenatal period, preferably at the first visit.[15-20]

## Case definition

All pregnant people who presented in the antenatal period at X general practice between late October 2020 and December 2021, as reported in the patient records on their medical software.

## Case selection

A search of X clinic's database was conducted using the keywords 'pregnancy' and 'pregnancy counselling', for pregnant people presenting to the clinic for consultations with nurses and general practitioners between October 2020 and December 2021.

## Inclusion criteria:

- Pregnant
- Intending to continue with pregnancy
- Presented for any antenatal appointment between October 2020 and December 2021

## Exclusion criteria:

- Pursuing termination of pregnancy

The cases that fulfilled the eligibility criteria were randomised using the RAND function in Excel. Fifty of the randomised cases were selected for analysis. The choice of 50 cases was based on time and resource constraints, and recommendations from the Clinical Audit Handbook.[21]

### Privacy and confidentiality

Patient consent was not required for this audit as it meets the requirements for a quality assurance project, according to NHMRC guidelines, and has measures in place to protect and respect patient data.[22] In principle approval for this audit was obtained from the Clinical Quality and Safety Committee (CQSC) equivalent at X general practice.

All patient details obtained from patient medical records on Best Practice (Patient Date of Birth, Date of Presentation, Date of Last Menstrual Period, Ethnicity) were stored in a password-protected Excel document on the author's personal computer. After being assigned a unique identification number, patient names were stored with their corresponding identification number in a separate password-protected document.

After the completion of the audit, records of the data obtained were handed over to the audit supervisor and will remain the property of clinic X. A copy of the deidentified report was retained for the purposes of university assessment and the dissemination of the audit findings.

### Data collection plan

In accordance with details outlined in the case selection, data was collected onsite from X general practice, using their secure server. Patient medical records were accessed from X software.

Data collected from patient's medical records included relevant demographic details (gender, date of birth, the date of presentation for that antenatal visit, the start date of their last menstrual period and ethnicity) and details from medical notes pertaining to their history of dental issues, whether dental care was discussed at that presentation and whether dental complications arose antenatally. Data on morning sickness or hyperemesis gravidarum was also collected. If patients presented initially prior to the specified period, or developed complications outside of this period, this data was collected, provided they had attended antenatal care within the specified period. This data was collated into an Excel spreadsheet, aligning with the data collection tool.

Data analysis was completed by the author using simple descriptive statistics. The findings of the audit were compared to that expected for 100% adherence with the standard i.e., all patients receive dental hygiene counselling during the antenatal period.

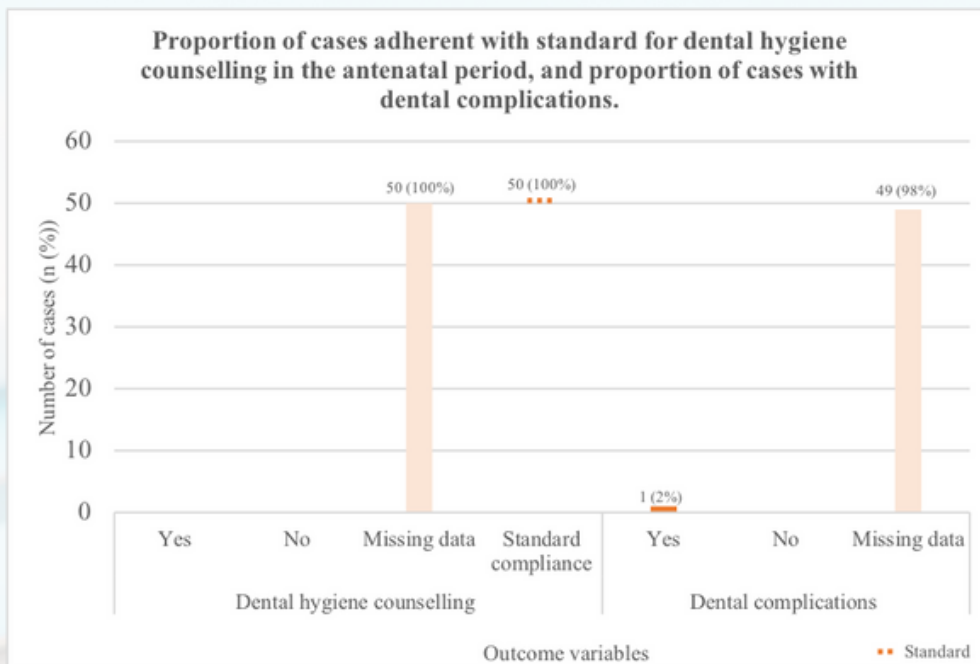
## Results

A search of X clinic's medical database yielded 477 women who had been pregnant, had pregnancy counselling or completed a pregnancy test, between 1 October 2020 and 31 December 2021. Of these cases, 149 fulfilled the inclusion criteria. Three pursued termination of pregnancy and were thus excluded. Using the RAND formula in Excel, eligible cases were randomised and 50 cases were selected. Of these cases, 100% were female. The average age of these women was  $29.16 \pm 4.60$  years. At the time of their presentation between October 2020 and December 2021, the average gestation was  $9.62 \pm 7.81$  weeks. Most patients were Caucasian (76%), with 2% being Aboriginal or Torres Strait Islander, 6% being South Asian, 2% being South-East Asian and 2% being New Zealander. Six patients (12%) did not have any ethnicity listed in their medical records (Table 1).

**Table 1:** Demographic characteristics of cases in the audit of dental hygiene counselling in the antenatal period between October 2020 and December 2021. (n = 50).

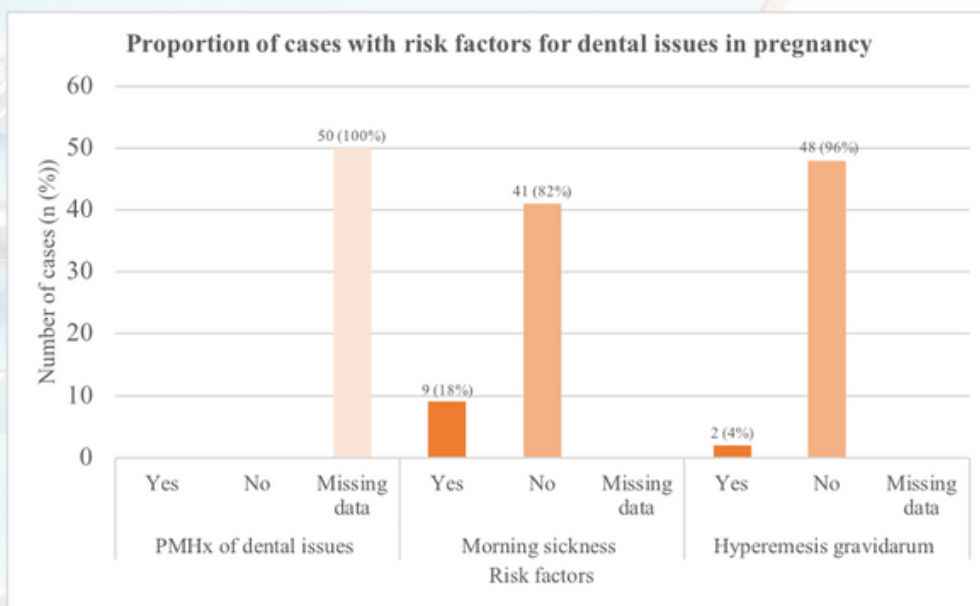
Demographic variable		Number (%) or mean $\pm$ standard deviation
Gender	Female	50 (100%)
	Gender diverse	0 (0%)
	Missing data	0 (0%)
Age (years)(Mean, ST deviation)		$29.16 \pm 4.60$
Gestation (weeks) (Mean, ST deviation)		$9.62 \pm 7.81$
Ethnicity	Caucasian	38 (76%)
	Aboriginal or Torres Strait Islander	1 (2%)
	African	0 (0%)
	South Asian	3 (6%)
	South-East Asian	1 (2%)
	Middle Eastern	0 (0%)
	East Asian	0 (0%)
	New Zealander	1 (2%)
	Missing data	6 (12%)

When assessing each patient’s medical record, recorded notes of dental hygiene counselling were missing for 100% of cases. Only 1 patient (2%), a Caucasian woman, had dental complications antenatally, with the remaining 49 patients (98%) having no data on this in their records. None of the cases displayed compliance with the standard (Figure 1).



**Figure 1:** Proportion of cases adherent with the standard for antenatal dental hygiene counselling and proportion of cases with dental complications.

When we considered the risk factors of dental issues in pregnancy, including past medical history of dental issues and morning sickness or hyperemesis gravidarum in their current pregnancy, we found that 9 women (18%) had morning sickness, and 2 (4%) had hyperemesis gravidarum in their current pregnancy. The Caucasian woman that developed a dental abscess also experienced morning sickness during her pregnancy. None of the patients had a past medical history of dental issues listed on their file (Figure 2).



**Figure 2:** Proportion of cases with risk factors for dental issues in pregnancy.

## Discussion

### *Interpretation*

The results of this audit were unsurprising, revealing no evidence of adherence to the standard. With no data recorded regarding dental hygiene counselling for any of the cases, it is likely that practitioners seeing them either did not discuss dental care during pregnancy during the antenatal period or failed to record that this discussion was had. A pro forma was available and often used on the clinic software to indicate the aspects discussed for each pregnancy counselling session; however, this did not include dental hygiene counselling. Additionally, no pamphlets on dental hygiene were provided within the pregnancy packs given to mothers at their pregnancy counselling visits.

Whilst only one clinic was audited, many antenatal care providers across Australia report not discussing oral health importance or advising pregnant people to visit their dentist in the antenatal period, despite agreeing on the importance of maternal oral health in pregnancy.[2,13] This was the case for 78.5 – 83.6% of participating antenatal care providers (general practitioners, obstetricians and gynaecologists and midwives) in a cross-sectional survey in NSW.[2] Studies conducted globally have also indicated that oral health is not addressed well antenatally.[13,23,24]

According to previous studies, some reasons that antenatal care providers do not provide dental hygiene counselling routinely include lack of confidence in their knowledge in oral health, limited education in oral health during training, limited time to discuss all aspects of pregnancy counselling and beliefs that oral health is outside of their routine practice.[1,2,13,23,25]

Of the randomised cases, one patient developed a dental abscess during their pregnancy. This was surprising considering that 18% of cases had morning sickness and 4% had hyperemesis gravidarum, both being risk factors for dental complications in pregnancy. It is possible that not all dental problems that arose between October 2020 and December 2021 were recorded by practitioners in their patients' records. As well, patients may have presented directly to a dental service when dental issues arose during their pregnancy, instead of the clinic. As such there would be no record of this in the clinic database.

Based on anecdotal evidence from clinicians and nurses at the clinic, several pregnant people that they have seen, particularly those of ethnic backgrounds, have developed gingivitis in their pregnancy. However, this information was missing from their records. Up to

70% of pregnant people develop gingivitis during their pregnancy.[2] Although gingivitis is a mild periodontal disease, if poorly managed, it can progress to odontogenic infections which may spread to the larynx, leading to impending airway compromise and may be life-threatening for both the mother and baby.[26]

The findings of this study are not new, with reports from studies conducted in NSW similarly revealing poor levels of adherence with RANZCOG guidelines pertaining to dental hygiene counselling antenatally. [2,25] It is therefore important that necessary changes be made to pregnancy counselling appointments, including dental hygiene counselling, thus improving the quality of care provided to pregnant people at this clinic.

### *Strengths and Limitations*

This study was relatively simple and uncomplicated in design. Its main limitations were a small sample size (50 cases), as well as being conducted at a single site. As it is the first study of its kind to be conducted in Western Australia, there is scope for a much larger scale multi-centre audit, to improve the quality of care across the state, as has been done in NSW, as well as other states across Australia.

### *Recommendations*

In order for X clinic to align with current guidelines, there needs to be a significant increase in dental hygiene counselling antenatally. Antenatal care providers at X clinic need to be well-educated on pregnancy-associated dental problems and complications, in addition to oral health assessment skills (Table 2).[26]

An educational program which may be used is the Midwife Initial Oral Health (MIOH) program. A study into this program's effectiveness showed that participants significantly improved in their oral health knowledge, improving from 61.8 – 83.3% in test scores after completing training. It is an evidence-based professional development program that whilst targeted at mid-wives, would be helpful for antenatal care providers wanting more knowledge in oral health.[27] The program comes at a cost of \$192 AUD, which may be covered by clinic costs provided there is a budget for it.

To aid documentation of dental hygiene counselling, aspects to be discussed, including those listed below, should be added to the pro forma used for pregnancy counselling on the clinic medical software.

- Risk of dental problems associated with pregnancy
- Dentition-related symptoms
- Safety of dental appointment in pregnancy
- Dental care sought prior to presenting

Additionally, including resources such as *NSW Health's pamphlet 'Keep Smiling'* in the clinic pregnancy packs would provide patients with additional information to read if there is not enough time to discuss dental hygiene counselling during the appointment.[28]

Considerations need to be made for the referral of patients to dental services for dental check-ups antenatally. According to a study in NSW, dentists largely believe that pregnant patients should have dental checks early in their pregnancy, however many (63.9%) complain of having inadequate time and skill to advise pregnant people on oral health.[29] Some dentists are also apprehensive about providing certain procedures during pregnancy.[25] Additionally, the cost of seeing dentists needs to be considered. One in seven patients who needed to see a dental professional in 2020-21 delayed seeing one due to the costs associated.[30] In the area of X clinic, there is one public dental clinic close by, with 4 others within a 30-minute radius. Waiting lists at these clinics are often long, and this needs to be considered when referring patients to them.

**Table 2: Action plan for quality improvement**

What needs to be done?	Who is responsible for doing it?	When should it be completed (i.e. timeframe)?	What data needs to be collected to demonstrate that each action has been implemented?
Oral health education program	General practitioners Practice nurses	12 months	Certificate of completion of oral health education program eg. MIOH
Include a discussion of dental hygiene counselling during pregnancy counselling appointments.Risk of dental problems associated with pregnancyDentition-related symptomsSafety of dental appointment in pregnancyDental care sought prior to presenting	General practitioners Practice nurses	12 months	Need to demonstrate that dental hygiene counselling has been conducted, based on progress notes made by practitioners in clinic medical record software
Add dental hygiene counselling questions (as above) into pregnancy counselling pro forma in medical record software	General practice manager	12 months	Need to demonstrate that dental hygiene counselling is part of the pro forma used to fill out aspects of pregnancy counselling covered.
Addition of dental hygiene information in pregnancy packs given to each newly pregnant patient presenting for pregnancy counselling.	Practice manager Practice nurses	12 months	Need to demonstrate that all pregnancy care packs given have included pamphlets on dental hygiene in pregnancy and dental complications that may arise in pregnancy

## Conclusion

Dental hygiene counselling was not provided in accordance with RANZCOG guidelines during the antenatal period at X general practice. Increased education in oral health in pregnancy, improved documentation of dental issues and complications and provision of additional resources for patients may improve rates of dental care provision in pregnant people. There is scope for a larger scale multi-centre audit to be conducted, to improve the status of antenatal dental care provision nationwide.

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Oyinda is a final year medical student at the University of Notre Dame Fremantle. She has a keen interest in global health, with a particular interest in women's health. She is passionate about the provision of quality healthcare to all patients, especially those from vulnerable societal groups.

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**Conflicts of interest:** There are no conflicts of interest to declare.

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