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Making Education Easy

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Abbreviations used in this issue
HR = hazards ratio
OR = odds ratio
SMBG = self-monitoring blood glucose

Tēnā koutou katoa

Nau mai ki tenei Tirohanga hou Hauora Māori. He rangahau tuhi hou e paa ana ki nga hau ora a ki te oratanga o te Māori. No reira noho ora mai raa i o koutou waahi noho a waahi mahi hoki. Ngā mihi o te wā me te Tau Hou ki a koutou katoa. Noho ora mai.

Greetings

Welcome to this issue of the Māori Health Review. Each issue attempts to bring you research relevant to the health and wellbeing of Māori. I welcome feedback and suggestions for papers/research to include in future issues and I'm pleased to hear and read about the excellent work being undertaken in Hauora Māori.

Nga mihi
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Evaluation of a rural primary-referred cardiac exercise tolerance test service

Authors: Blattner K et al.

Summary: This paper documents the feasibility, clinical impact and cost-effectiveness of a local clinician-led Exercise Tolerance Test (ETT) service provided through Ministry of Health Rural Innovation Funding for two rural communities (Rawene in Northland and Dunstan in Central Otago) over 12 months from September 2011. Over the study period, 33 ETTs were performed at Rawene Hospital and 202 at Dunstan Hospital. An audit of ETT reports that calculated the direct costs of the service including doctor and nurse time, equipment costs, consumables, and cardiologist/physician oversight revealed that the cost per test at both Rawene ($200.00) and Dunstan ($132.50) was considerably less than the national price of $281.13 in 2012 (community referred tests-cardiology). Nearly all of the patients referred to these rural services would otherwise have been referred to specialist cardiology services. Instead, the majority of patients (83% at Dunstan and 70% at Rawene) did not require onward referral to specialist services; the ETT result enabled the GP to continue to manage the patient in primary care. In cases where the ETT indicated specialist treatment, this was provided in a timely manner. The study researchers conclude that this collaborative approach to delivering ETT services in rural communities is sustainable, cost effective, improves access for rural patients and may help overcome inequities across New Zealand in terms of access to cardiac investigations and early, appropriate treatment.

Comment: As the authors suggest, this particular intervention has the potential to address inequities in access to investigations of best practice. As a GP, I also like the idea of more timely access to both specialist and primary health care.

Reference: N Z Med J. 2014;127(1406):63-70
Abstract

Projecting future smoking prevalence to 2025 and beyond in New Zealand using smoking prevalence data from the 2013 Census

Authors: van der Deen FS et al.

Summary: Smoking prevalence data from the New Zealand 2013 Census reported a lower than expected smoking prevalence, especially for Māori. These data were combined with smoking prevalence data from the New Zealand 2006 Census to upgrade projections on future smoking prevalence in New Zealand to inform policy around tobacco endgame planning. Between the 2006 and 2013 censuses (adjusted for no tax rises since 2010), initiation of daily smoking by age 20 years decreased annually by 3.4% (95% uncertainty interval 3.2% to 3.6%) and 2.7% (2.5% to 2.8%) for non-Māori men and women, and by 2.9% (2.6% to 3.2%) and 3.2% (2.9% to 3.5%) for Māori, respectively. Annual net smoking cessation rates ranged from 3.7% to 7.7% across demographic groups. These data led to revised projected smoking prevalence rates for 2025 of 18.7% and 19.3% for Māori men and women, and 8.3% and 6.4% for non-Māori, respectively. The study authors point out that in these projections, smoking prevalence below 5% by 2025 is not attained by any demographic group.

Comment: A really interesting paper highlighting the need to both 'strengthen' current, and identify new, activities in order to achieve the goal. Also, good to see that the programmes and policies currently in place to reduce smoking uptake appear to be working well, if not better, for Māori women.

Reference: N Z Med J. 2014;127(1406):71-9
Abstract

Self-monitoring blood glucose test strip use with diabetes medicines in people with types 1 and 2 diabetes in New Zealand

Authors: Metcalfe S et al.

Summary: This study compared patients' uptake of publicly funded blood glucose test strips in New Zealand against published consensus guidelines on appropriate rates of usage. An audit identified an estimated 183,000 patients who were dispensed diabetes medicines and/or self-monitoring of blood glucose (SMBG) test strips between 1 January and 31 December 2011. Approximately 122,000 of these patients received the same script combination in the first and fourth quarter of the 2011 year and were identified as 'steady-state' (stabilised) patients. The audit revealed both under- and over-dispensing of test strips among different patient groups; e.g., overall test strip dispensing in stabilised patients was apparently 8% less than what was expected. Notably, Māori and Pacific peoples in the 25–44-year age group were appreciably under-dispensed in some insulin-containing regimens and a high over-dispensing was observed among patients using metformin alone or on no diabetic medication. Patient numbers and median ages varied widely across treatment groups and by gender and ethnicity.

Comment: SMBG test strips can support people living with diabetes to 'take charge' and 'live well' with their condition – when dispensed and utilised appropriately. The fact that they are not dispensed to Māori and Pacific people with health needs must be addressed by diabetes providers.

Reference: N Z Med J. 2014;127(1406):48-62
Abstract

Neighborhood socioeconomic disadvantage and 30-day rehospitalization: a retrospective cohort study

Authors: Kind AJ et al.

Summary: This US study retrospectively assessed associations between neighbourhood area deprivation index (ADI) and 30-day rehospitalisation for a random 5% national sample of 255,744 Medicare patients discharged with congestive heart failure, pneumonia, or myocardial infarction between 2004 and 2009. In multivariate logistic regression models adjusted for patient sociodemographic characteristics, comorbid conditions and severity, and index hospital characteristics, 30-day rehospitalisation rates did not vary significantly across the least disadvantaged 85% of neighbourhoods, which had an average rehospitalisation rate of 21%. In contrast, Medicare patients living within the most disadvantaged 15% of neighbourhoods were readmitted to hospital within 30 days at rates ranging from 22% to 27% with worsening ADI. This relationship persisted after full adjustment, with residence within the most disadvantaged neighbourhoods predicting a risk of rehospitalisation (adjusted risk ratio 1.09; 95% CI, 1.05 to 1.12) of similar magnitude to that of chronic pulmonary disease (1.06; 1.04 to 1.08) and greater than that of uncomplicated diabetes (0.95; 0.94 to 0.97).

Comment: An excellent reminder that validated indices of neighbourhood deprivation must be taken into consideration when looking to manage ambulatory-sensitive hospitalisations.

Reference: Ann Intern Med. 2014;161(11):765-74
Abstract

A call to wellness – Whitiwhitia i te ora: exploring Māori and occupational therapy perspectives on health

Authors: Hopkirk J, Wilson LH

Summary: These researchers explored the concept of health from both a Māori world view and occupational therapy perspectives, as a means to understand and value indigenous knowledge and promote culturally safe responsive practice. The research used Māori methodologies to protect the Māori knowledge shared in the study. The research applied 7 principles, which included respect for people, the need to be cautious, and look, listen, and speak. Throughout 2008 and 2009, the researchers collected perspectives on health and wellbeing from a total of 23 indigenous occupational therapists, other occupational therapists and indigenous health practitioners, using interviews and a questionnaire. The findings are presented as a conceptual framework, depicting a whare, a Māori meeting house, in order to show relationships between culture and health and provide a tool for informing, guiding, and evaluating practice understandings. Key concepts held by occupational therapists and Māori were spirituality, holistic views, client responsive practice, and environmental contexts. Areas of difference were the focus on occupations, the interdependence of indigenous relationships, and the place of the extended family in supporting wellness.

Comment: I have included this paper here to highlight the work of Māori Allied Health Professionals, including Occupational Therapists.

Reference: Occup Ther Int. 2014;21(4):156-65
Abstract

A retrospective cohort study of patients with stomach and liver cancers: the impact of comorbidity and ethnicity on cancer care and outcomes

Authors: Sarfati D et al.

Summary: These researchers examined the inter-relationships between comorbidity, receipt of treatment, ethnicity and cancer survival among a cohort of patients with liver and stomach cancers in New Zealand. New Zealand Cancer Registry data identified 269 Māori patients diagnosed with stomach and liver cancers, who were compared with a randomly selected group of 255 non-Māori patients. By 2 years post-diagnosis, over 70% of patients had died. As comorbidity burden increased among those with Stage I–III disease, it was increasingly less likely that the patient would receive curative surgery (e.g., C3 Index score 6 vs 0, adjusted odds ratio [OR] 0.32; 95% CI, 0.13 to 0.78) and the risk of mortality increased (e.g., C3 Index score 6 vs 0, adjusted all-cause hazards ratio [HR] 1.44; 95% CI, 0.93 to 2.23). Receipt of curative surgery reduced this excess mortality, in some cases substantially; the extent to which this occurred varied by level of comorbidity. Māori patients had somewhat higher levels of comorbidity (34% in highest comorbidity category compared with 23% for non-Māori) and poorer survival that could not be explained by age, sex, site, stage, comorbidity or receipt of curative surgery (adjusted cancer-specific HR 1.36; 95% CI, 0.97 to 1.90; adjusted all-cause HR 1.33; 95% CI, 0.97 to 1.82). Access to healthcare factors accounted for 25–36% of this survival difference.

Comment: A very comprehensive review of differences in outcomes for common cancers for Māori. I would encourage clinicians to use a similar approach in clinical audits.

Reference: BMC Cancer. 2014;14:821
Abstract

Ethnic differences in timely adjuvant chemotherapy and radiation therapy for breast cancer in New Zealand: a cohort study

Authors: Seneviratne S et al.

Summary: This investigation used data from the Waikato breast cancer register to identify all women with newly diagnosed invasive non-metastatic breast cancer diagnosed during 1999–2012, who underwent adjuvant chemotherapy (n=922) or radiation therapy (n=996) as first adjuvant therapy after surgery. The research sought to determine factors associated with delay in adjuvant chemotherapy and radiotherapy for breast cancer, and its impact on the mortality inequity between indigenous Māori and European women in New Zealand. Overall, 32.4% and 32.3% of women experienced delays exceeding the thresholds for chemotherapy (60 days) and radiotherapy (90 days), respectively. Higher proportions of Māori compared with NZ European women experienced delays longer than thresholds for adjuvant radiation therapy (39.8% vs 30.6%; p=0.045) and chemotherapy (37.3% vs 30.5%; p=0.103). In multivariate analysis, factors associated with significantly longer delays for adjuvant therapy included rural compared with urban residency, requiring a surgical re-excision and treatment in public compared with private hospitals (p<0.05). Breast cancer mortality was significantly higher among women who experienced a delay in initiating first adjuvant therapy (HR 1.45; 95% CI, 1.05 to 2.01). Mortality risks were higher among women with delays in chemotherapy (HR 1.34; 95% CI, 0.89 to 2.01) or radiation therapy (HR 1.28; 95% CI, 0.68 to 2.40), although these were statistically non-significant.

Comment: Further evidence highlighting differences in time to radiotherapy between Māori and non-Māori women with breast cancer.

Reference: BMC Cancer. 2014;14:839
Abstract

For more information, please go to http://www.maorihealth.govt.nz

Facilitating access to effective and appropriate care for youth with mild to moderate mental health concerns in New Zealand

Authors: Clark TC et al.

Summary: This group of researchers employed a quasi-experimental pre-/post-intervention design to explore the impact of facilitated access to free counselling support amongst 581 culturally diverse youth aged 10–24 years. The research using the following outcome measures: Strengths and Difficulties Questionnaire (SDQ), Substance Abuse Choices Scale (SACS), Children's Global Assessment Scale (C-GAS), as well as consumer feedback questionnaires. Those participants who completed the intervention reported significant improvements from baseline in global social and psychiatric functioning measured by C-GAS ($p<0.001$), a reduced risk of clinically significant mental health concerns measured by the SDQ ($p<0.001$), and reductions in the use and impact of drugs/alcohol as measured by SACS scores ($p<0.001$). Participants and their families/whānau perceived the interventions to be safe and appropriate, resulting in increased skill development around coping and communication.

Comment: Great to see the development, testing, and effectiveness of an intervention based on the findings from the Youth Health Survey.

Reference: J Child Adolesc Psychiatr Nurs. 2014;27(4):190-200
Abstract

Using incentives to encourage smoking abstinence among pregnant indigenous women? A feasibility study

Authors: Glover M et al.

Summary: Outcomes are reported from a feasibility study that sought to determine the likely effectiveness of an incentives-based cessation trial among pregnant Māori women that smoked. The study recruited 24 pregnant smokers aged ≥16 years (mean age 25 years) who self-identified as Māori, were 2–30 weeks pregnant, and currently smoked. A total of 74 women were approached through health practitioners, print media, and radio adverts in Auckland, New Zealand; 50 declined involvement in the study. Participants were randomised to (1) usual cessation support, including information about different cessation products and services, and access to nicotine replacement therapy (n=8; controls), (2) usual cessation support plus a retail voucher to the value of NZ$25 for each 'abstinent from smoking' week for 8 weeks (n=8; voucher), or (3) usual cessation support plus product to the value of NZ$25 for each 'abstinent from smoking' week for 8 weeks (n=8; product). Outcomes measures included weekly self-reported and monthly biochemically verified smoking status, and acceptability. Overall, 5 women (21%) were abstinent from smoking for at least 6 weeks of the 8-week study period; 1 woman from the control group, 6 from the product group and 3 from the voucher group.

Comment: Further research exploring the high rate of 'decline participation' would also be useful.

Reference: Matern Child Health J. 2014 Nov 27. [Epub ahead of print]
Abstract

A literature review: addressing indigenous parental substance use and child welfare in Aotearoa: a Whānau Ora framework

Authors: McLachlan A et al.

Summary: These researchers systematically reviewed the international and Aotearoa literature concerning key considerations for Māori parents with substance use disorders (SUDs) who present to an Alcohol and Drug (AoD) specialist for assessment and treatment. This paper details the knowledge and skills that adult AoD services must possess in order to provide effective support to parents with SUDs. Comprehensive assessment and intervention plans must consider both individual and familial risk and protective factors. Possible child welfare issues have to be identified early to ensure prevention or intervention. The paper also notes that the AoD workforce must have the knowledge and skills to facilitate access to other relevant sectors, such as education, employment, and housing. An AoD workforce that is effective with Māori must not only have these abilities, but also have at least some basic knowledge and skills in Whānau Ora philosophy and Whānau-centered best practice. The paper describes a set of knowledge and skills that are essential for developing an appropriate AoD workforce and improve service delivery for Māori parents with SUDs. This skillset must be based on Māori foundations, understand intergenerational dynamics, and endorse a group capacity for self-determination. Moreover, the paper recommends that AoD services increase their knowledge and skills associated with the realities of lifestyles centered in low socioeconomic communities and co-occurring issues that contribute to poor health outcomes.

Comment: The authors have undertaken the challenging role of applying 'evidence' to Whānau Ora policy in order to 'make it work' for our whānau.

Reference: J Ethn Subst Abuse. 2014 Dec 23:1-14. [Epub ahead of print]
Abstract

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