



Exclusive

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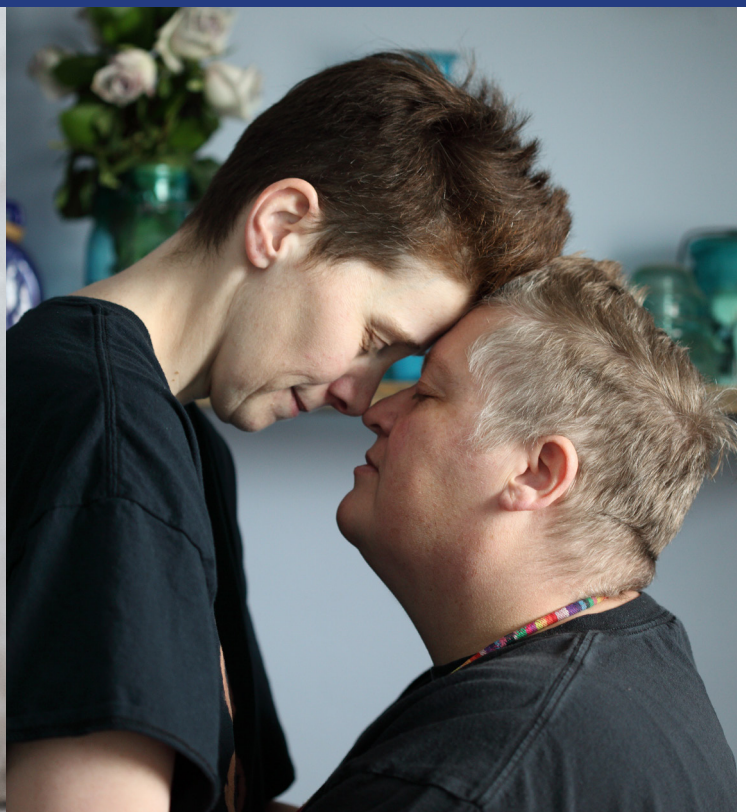


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Skin tone dissatisfaction and the relationship between socio-cultural norms and sun exposure

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Background: Skin cancer prevalence is epidemic in Australia. Consequently, there is a need to understand the factors which lead to risky sun exposure behaviour in order to reduce these behaviours and subsequent skin cancer risk. The tripartite model (Thompson et al., 1999), when applied to sun-related behaviours, proposes that internalised appearance ideals mediate the relationship between perceived social norms about the attractiveness of tanned skin and sun exposure behaviour.

Approach: This study examined the extent to which socio-cultural norms lead to idealisations of darker skin and/or a lean, muscular (mesomorphic) physique, which, in turn predict sun exposure. Adult males (N = 144) and females (N = 195) completed an online questionnaire measuring socio-cultural norms endorsing a tanned appearance, skin tone dissatisfaction, internalisation of mesomorphic and tanned ideals, and sun exposure.

Findings: When analysing the tripartite model, the internalisation of tanned and mesomorphic ideals were significant mediators of the relationship between norms and sun exposure in males and females. A greater internalisation of a tanned ideal was associated with more frequent sun exposure in both sexes whereas, in males, a greater internalisation of a mesomorphic ideal was also associated with more frequent sun exposure. When analysing skin tone dissatisfaction, 80% of participants desired a skin tone different to their own, with socio-cultural norms emerging as the strongest predictor of skin tone dissatisfaction. Caucasian participants had significantly greater dissatisfaction than Asian participants, with Caucasian participants desiring a darker ideal skin tone compared to a lighter ideal skin tone for Asian participants.

Discussion: This study advances current theory by supporting the effectiveness of the tripartite model to predict sun exposure behaviours. The identification that males internalised a tanned ideal further suggests this model is applicable to male sun exposure. The results extended current literature by identifying an association between internalised mesomorphic and tanned ideals in males which is likely the result of a tanned appearance being complimentary to a mesomorphic ideal by increasing the appearance of lean muscularity. Furthermore, skin tone dissatisfaction was discovered to be evident in both sexes which allows theory to target males and females collectively. The results also show the importance of cultural factors with Caucasian and Asian participants reporting opposing skin tone ideals.

Radiology patient safety alerts

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Rationale: Health information technology (HIT) has the potential to provide huge advantages for healthcare delivery and patient outcomes, but if poorly designed, implemented or managed, it can pose substantial risks to patient safety. HIT has been broadly defined as “hardware or software that is used to electronically create, maintain, analyse, store, receive (information), or otherwise aid in the diagnosis, cure, mitigation, treatment or prevention of disease and that is not integral part of (1) an implantable device or (2) medical equipment”. However, HIT has recently been listed as one of the major hazards identified by Food and Drug Administration (FDA) of the USA and England’s National Programme for IT (NPfIT). Due to its high reliance on modern imaging technology, radiology is as susceptible as any medical discipline to HIT problems. Although it is evident that good clinical practice is dependent on the proper functioning and integration of the HIT system in a facility, radiologists may be given minimal training on the use and operation of such systems. Setting up a system and a mechanism for delivering recommendations for improving safety in radiology/medical imaging with HIT would be challenging, but worth translating lessons from incident reporting into practice.

Methods: In order to formulate a contextual framework of issuing ‘radiology patient safety alerts’ on state and national level, a knowledge translation (KT) framework will be utilised. The aim of such framework is to facilitate the implementation of research into practice and policy. We are proposing a six-phased research project based on KT: I) Systematic review: Collate, evaluate and synthesise research evidence; II) Data analysis: Use retrospectively collected incidents; identify, classify, analyse and review; III) Identify solutions: Design and conduct case studies; interview patients and stakeholders; analyse gaps, needs, value and effectiveness and acceptability using human factor expertise; develop solutions using different analytic methods such as Root Cause Analysis; IV) Develop alerts: Build partnerships locally and nationally through negotiation; associate with different radiology departments to draft recommendations; develop radiology patient safety alerts; V) Pilot Test: Testing the outcomes in terms of process testing and patient testing; evaluate the barriers and limitations; and VI) Disseminate Alerts: Obtain endorsement for relevant state and national bodies; publish the alerts; form a standing group to keep the alerts updated; disseminate the alerts on state and national level.

Analysis Approach: Analysis of data consists of various steps. The first step is to collect different data sets containing relevant incidents in order to identify key patient safety issues in radiology from HIT. Data review enables to understand the context, characterise and identify the problem, classify the incident types under the International Classification of Patient Safety (ICPS). Prioritisation of incidents investigation, appropriate feedback following investigation and evaluating the barriers would occur before the alerts are disseminated. Option analysis for disseminating the alerts at each stage would be considered based on different criteria such as benefits and range of incidents managed, flexibility to alter the process if required, resources to implement the recommendations, stakeholders’ acceptance etc.

Napping before the commute home from a night shift: A problem of sleep inertia?

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Background: Night shift workers are at risk of road accidents on the commute home. A brief nap at the end of the shift, before the commute, may act as a countermeasure to sleepiness. However, there is potential for sleep inertia, i.e. transient sleepiness and grogginess immediately after awakening, following a nap. We investigated the effects of a 10 min nap taken at the end of a simulated night shift on response speed and driving performance.

Approach: Twenty-one healthy subjects (21-35y; 12F) participated in a 3-day laboratory study including one baseline sleep night (2200h-0700h) and one experimental night involving randomisation to one of two conditions: total sleep deprivation (NO-NAP), or a 10min nap ending at 0400h plus a 10min nap ending at 0710h (10-NAP). Nap sleep was recorded using polysomnography, a gold standard measure of sleep. A 3 min psychomotor vigilance task (PVT; a well-validated measure of response time and behavioural alertness) and Samn-Perelli Fatigue Scale (Fatigue) were administered pre-nap (0630h), post-nap (0712h), and post-drive (0755h). PVT mean reciprocal response times (PVT response speed) were analysed. A 40min York monotonous highway driving task was performed at 0715h. The standard deviations (i.e. variability) of road position and speed were analysed. Analysis focussed on neurobehavioural outcomes following the pre-commute nap ending at 0710h.

Findings: Total nap sleep time (mean \pm SD) was 9.1 ± 1.2 min, with 1.3 ± 1.9 min spent in slow wave sleep (also known as "deep sleep"). Mixed-effects ANOVA revealed a significant condition*time interaction ($F_{1, 19}=6.86$; $p=0.017$) for PVT response speed. There was no difference pre- to post-nap in the NO-NAP condition. However, post-nap performance in the 10-NAP condition was worse than pre-nap, and worse than the NO-NAP condition post-nap. Fatigue was significantly reduced from pre- to post-nap, with no difference between conditions ($F_{1, 19}=4.878$; $p=0.040$). Driving performance did not differ significantly between conditions. There were also no differences between conditions for PVT response speed or Fatigue post-drive.

Discussion: Given there were no group differences in PVT response speed or Fatigue before the pre-commute nap (0630h), this suggests there were no significant lasting effects of the 10 min nap at 0400h. The PVT administered immediately after the pre-commute nap revealed signs of performance impairment in the 10-NAP condition. Performance impairment was no longer evident, however, during the 40 min driving task or the PVT administered after the drive; nor did there appear to be any performance benefit from the 10 min pre-commute nap. Under these conditions, a 10 min nap at the end of a night shift does not appear to impair, nor improve, driving performance undertaken 5 min after the nap.

“If you don’t like gay marriage, don’t get one!” A qualitative analysis of attitudes toward same-sex marriage

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Background: Prejudice toward sexual minorities groups has declined in Australia over the past four decades; however, current policies around marriage and family reflect an archaic view of same-sex relationships. Traditional beliefs regarding gender and gender roles along with a concern about the impact that same-sex parents (who violate these social roles) have on the welfare of their children may be perpetuating this legal inequality.

Approach: This study investigated the influential factors behind the support, or lack thereof, for same-sex marriage using a qualitative approach. Participants were asked to respond to a single open-ended item about their thoughts and feelings regarding same-sex marriage. Thematic analysis of responses results in three overarching themes, which were grouped by sexual orientation. These were: 1) support for gay and lesbian individuals and/or same-sex marriage rights; 2) opposition against gay and lesbian individuals and/or same-sex marriage rights; and 3) unsure about their support for gay and lesbian individuals and/or same-sex marriage rights, which sat at a midpoint between the two polar attitudinal positions.

Findings: A majority of the respondents expressed support for same-sex marriage, with many identifying the importance human rights and/or equal rights. However, findings for those opposed to same-sex marriage were consistent with the notion that traditional values regarding gender were propelling this opposition. Responses included ideas such as the incapability of same-sex couples to have biological children without assistance or the importance of both gender roles for children. Analysis also indicated a discourse of heteronormativity that supports the privileged position of heterosexual couples; that is, marriage is one for those opposite sexed and same-sex couples should have some other form of recognition. Religious influence and a traditional idea of marriage were also found as factors that associated with attitudes toward same-sex marriage.

Discussion: Modern homophobic attitudes toward same-sex individuals and families are pervasive, and are evidenced in Australian policies that prevent equal rights and protections for same-sex couples. These results point to the need for ongoing research that challenges antigay biases in an effort to reduce sexual prejudice and ameliorate negative consequences for sexual minority groups and the families associated with that stigma.

The current research provides (a) Theoretical advance in knowledge regarding factors that are associated with attitudes toward same-sex marriage and the complexity of respondents’ opinions. Despite an abundance of research regarding associations between religion/traditional thought (among other factors) and attitudes toward sexual minority groups, there is a dearth of research that provides evidence for the impact of prejudice toward same-sex parenting and its impact on attitudes toward, or decisions to oppose same-sex marriage. These findings suggest that the perceptions of traditional gender roles and/or the impact of same-sex parenting on children raised within gay and lesbian families inform attitudes toward same-sex marriage. Future research should seek to help close the gap by challenging misconceptions of the parental capabilities of same-sex couples.

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Education in zoos: Assessing visitor understanding, attitudes and conservation behavioural intentions toward marine wildlife entanglement in response to two zoo-based education approaches

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Background: Marine debris poses a significant threat to marine biodiversity. Given human action is responsible for much of the debris that ends up in the ocean, one way to reduce the amount of debris and rates of marine wildlife entanglement (MWE; i.e. marine animals that have ingested, become entangled by, or trapped in marine debris including fishing nets and plastics) is to educate the public and foster behavioural change. With an excess of 15 million people visiting Australian zoos each year, these locations possess enormous potential to contribute to public understanding of this conservation issue. One pathway to more effectively increase pro-environmental behaviours may be zoo-based conservation education programs, which seek to simultaneously enhance both awareness and attitudes in attempts to promote greater conservation behaviour.

Approach: With the need for further research regarding the role of zoos to communicate environmental messages, the present study sought to compare the relative efficacy of two different learning opportunities as part of Melbourne Zoo's 'Seal the Loop' [STL] campaign for MWE on: visitor satisfaction; visitor learning; awareness of the issue of MWE; attitudes towards marine animals and their conservation; and relevant conservation behavioural intentions following the zoo experience, collected via the distribution of surveys. Specifically, the research compares individuals who viewed a specially designed interactive educational show featuring seals and their trainers with a focus on the issue of MWE as a hazard to marine life, with visitors who passed through the seal exhibit (a more conventional zoo educational experience with static displays) without viewing the show.

Findings: Results revealed very positive attitudes for both groups (mean >40 out of a possible 45) and a sound awareness of MWE, with 73.5-78.2% of visitors able to correctly explain what MWE is. However, show visitors were significantly more likely to report learning something new from their visit, to report learning about conservation content, and generally displayed a deeper level of understanding. This likely also influenced differences across behavioural domains, with the show visitors more willing to change their future conservation behaviour than exhibit visitors (M=85.09, SD=20.10; M=78.18, SD=23.47, respectively); as well as perceiving a greater likelihood they could make a difference through such behavioural change (M=71.35, SD=25.00; M=60.77, SD=28.70).

Discussion: The findings provide further evidence that education and experiences within zoos influence intention for behaviour change and highlight the benefits of novel zoo-based conservation education strategies (particularly interactive shows containing storytelling) and various layers of interpretation (i.e. not just static displays) as

Knowledge generation: This study addresses a gap in the literature regarding public knowledge of MWE and attitudes toward marine conservation. In addition, this research provides data regarding the relative efficacy of different formats of zoo-based conservation education, and therefore will contribute to the ongoing development of education programs within zoos to better realise their conservation goals.