Communicating epidemiology: One experience from research on alcohol and pregnancy

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Abstract
This paper provides a reflection on one researcher’s experience of communicating findings from a recent study of trends in maternal alcohol consumption during pregnancy in Australia from 2007-11. Through a planned journal release, both traditional and social media methods were used to disseminate the study results and open a dialogue with the public worldwide. It is now more imperative than ever that the researcher gain media communication skills and harness social media opportunities to communicate epidemiological research findings and truly engage the public.

Introduction
Recent findings from the Environments for Healthy Living (EFHL) birth cohort suggest public health campaigns and messages around the harmful in-utero effects from maternal alcohol consumption are having an overall positive impact in the community. Alcohol consumption in pregnant women was found to have declined from 53% in 2007 to 35% in 2011.¹
The percentage of women who drank after the first trimester also dropped from 42% in 2007 to 26% in 2011, and the proportion of women who consumed alcohol at every trimester of pregnancy almost halved from 21% to 11%. However, certain subgroups of pregnant women did not show any decline in consumption, including women over the age of 35 years, women who were single, women with lower incomes, and those who used recreational drugs during their pregnancy.¹ The study also found a smaller proportion of women who were reporting drinking at high-risk levels (8.9% any time and 2.5% after first trimester) did not significantly change over the five year study period.

Why are some women not heeding the warnings?
So why are the public health and social media campaigns not changing the behaviour of some women who continue to drink alcohol while pregnant? This is an issue of public health that is not dissimilar to other areas of health promotion and preventive medicine,¹ with possible reasons ranging from a lack of education and the habitual nature of human behaviour, to barriers posed by disadvantage and poverty.

For some individuals, continuing adverse health behaviours may be due to a lack of understanding or knowledge of the risks or severity of possible harm. However, this is unlikely to account for most women who continue to consume alcohol whilst pregnant.

Epidemiological research provides aggregated findings and does not definitively state that risk behaviour will cause the adverse outcome for any given individual. For some people, despite information on potential risks, the belief is that ‘it won’t happen to me’, or the lag time of effects are too far away to be considered a real risk. There is a strong body of research on risk-taking behaviours, perceptions of risk and susceptibility that support this construction of the beliefs of people engaging in these behaviours.⁴⁻⁷

Often those least positively affected by public health campaigns, education strategies or community health promotion models, are living with greater forms of disadvantage and poverty. These can include financial hardship, poor family supports, living in geographic areas of disadvantage, experiencing community and/or family violence and have lower levels of education. In many cases there will be a number of adverse health and risk taking behaviours co-occurring, for example, poor diet, cigarette smoking, high-risk alcohol consumption, drug use, unprotected sex or dangerous driving. Consistent with the literature, EFHL found high-risk drinking was predominant among lower educated, single women.⁴⁻⁷ The study also found women who drank at high-risk levels were far more likely to smoke cigarettes and use recreational drugs whilst pregnant.²

Social determinants of health are well-recognised, with the distribution of economic and social conditions among the population influencing individual and group differences in health status.¹⁰ These factors also limit an individual’s ability to change behaviours. For example, a pregnant woman with lower education and minimal income, living in unstable environments with frequent exposure to drugs, alcohol and violence, will be challenged to change her drinking behaviour, when other priorities of daily life may be more critical and real.
We know that public health responses to enable individual change in behaviour needs to occur at multiple levels including: 1) systems and policy-level with regard to disadvantage and poverty, 2) broad population-level approaches, as is being done, regarding alcohol and pregnancy with media campaigns10,11, to create an overall population response shift, as well as 3) more targeted supports and interventions for the minority subgroups of women highlighted here with specific and often complex issues.

But how can we as individual researchers better communicate our findings?

Along with reports to government, academic publications and conference forums to present current and innovative research to help inform policy makers, public health and health promotion practitioners, new and creative communication methods have developed in recent years. Opportunities now exist to utilise social media and current technology to communicate our research findings to the general population14,15, as well as being a tool for providing web-based and online health interventions16-17.

In the UK, Facebook is reported as the fourth most popular source of health information.18 With nearly 13 million monthly users on Facebook and 2.5 million on Twitter in Australia, social media can quickly reach an audience far greater than the traditional forms of communication.19 A recent study found that behaviours not often talked about or discussed with healthcare professionals, such as smoking and alcohol consumption, are being discussed more frequently through social media such as Twitter.19

Currently, social media use in public health and epidemiology is in the early adoption stage.20 Rather than just a channel to distribute information, we need to capitalise on the interactive capabilities of social media to create conversations and engage with the public. If social media is to be effective in changing behaviour, there is a need to develop strategic communication that incorporates best practices for not only expanding reach, but fostering interactivity and engagement.21 This includes joining forces with journal publishers to enable information to be provided directly to the desired audience straight from the source. Because there are many scientifically questionable publications and educational videos online22, proper dissemination of epidemiological research findings from a ‘trusted’ source is important.

Some health and medical journals are now proactively using the media to disseminate research results to the public arena and into social media forums like Twitter and LinkedIn. Our recent experience with this was with the aforementioned publication in the Medical Journal of Australia (MJA)1! Prior to publication the authors were involved in the preparation of a short press release statement that the MJA sent to their current database of health journalists. The authors were required to be available for interview and an embargo was placed on all media releases until the time of publication. Prior to publication, multiple interviews were conducted which, after the embargo was lifted, resulted in worldwide coverage of the research in traditional media forms (print, radio and television) in Australia, New Zealand, UK, USA, Japan, South Africa, Kenya, Europe and the Middle East. Through journalism, our research findings were discussed on a number of web-based forums, webcasts and on Twitter, which engaged a dialogue with general public worldwide.

Journals proactively using the media have a number of benefits for the individual researcher (as well as the journal). The journal is the official data source which can have greater credibility in the public arena. Journals have the capacity to maintain up-to-date databases of relevant health journalists and social media sources. Journals can also control the release of the information and impose embargos prior to publication, which prevents results being prematurely released to the media and therefore affecting a researchers ability to peer-review publish. Journals and academic institutions also have the capacity to have skilled communication staff to produce short summary statements suitable for general readership from key research publications. Journal media releases are an invaluable resource for the individual researcher who would be challenged to do these tasks as effectively themselves.

Epidemiologists and researchers would be better served by having suitable training in ‘how’ to speak to the media in short grabs that can be used in brief interviews and on social media forums. Training like this can provide the skills on how to ensure the key message of the research is accurately communicated, to try to minimise the findings being misconstrued. On topics such as pregnancy and alcohol which can be sensitive and is often sensationalised, developing media communication skills are essential.

With the increasing use of social media to source and discuss health information by the public, particularly with more sensitive issues, it is now more imperative that these same opportunities to communicate epidemiology and research findings are harnessed.
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