

# Revisiting Public Health Psychology

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My late colleague and wife Jane Wardle and I wrote an article in 2005 in the British Psychological Society

magazine *The Psychologist* entitled 'Public Health Psychology' (Wardle & Steptoe, 2005). This was itself an elaboration of earlier thoughts on the topic that Jane had published in the *British Journal of Health Psychology* (Wardle, 2000). This special issue of the *European Health Psychologist* is a welcome opportunity to reflect on the developments in this field over the 15 years since these articles were written.

The motivation for our 2005 article was to encourage health psychologists to complement their well-established expertise in clinical studies of individuals and small groups by considering broader aspects of population health. This involves translating the insights into issues such as behaviour change and psychological processes in physical health to a larger scale, and embracing the methodologies of population health sciences including epidemiology and clinical trials.

We focused on a number of topics, starting with health behaviour and behaviour change. Then, as now, the central behaviours relevant to population health were smoking, physical inactivity, poor diets, excessive alcohol consumption, and sexual and other risky actions. Health psychology was at the forefront of theoretical perspectives on behaviour change at the time, and this remains the case, although the frameworks for understanding behaviours have become much more sophisticated (Michie, van Stralen, & West, 2011). The field has received a further impetus over the past decade

from the emergence of nudge methods of behaviour change based on external contingencies and choice architecture promulgated by behavioural economists (Thaler & Sunstein, 2008); these have been important in stimulating the interest of public policy makers and governmental organisations. Understanding the interplay between attitudes and habits, environmental contingencies and social determinants of health behaviour has increased greatly. In 2005, we also predicted greater use of computers in behaviour change, though we did not anticipate the great success of digital health and phone-based apps.

Health communication was an area in which we encouraged health psychologists to become more involved, based on the promise of individual genetic risk profiling and pharmacogenomics. We expected these developments to stimulate the need to understand better people's decisions about treatments, concern about genetic risk, and so forth (Sanderson, Wardle, & Humphries, 2008). This area has not evolved at quite the pace we imagined, partly because individual risk profiling and tailoring of medical treatments have not developed very rapidly. Nevertheless, issues such as awareness of risk and decisions about preventive procedures have become prominent internationally (Nickel et al., 2017), while psychological insights into effective communication have borne fruit in fields such as cancer screening (Wardle et al., 2016). At the same time, the internet has transformed health communication over the past decade, so health psychologists and other professionals work in a very different context of public knowledge and debate than in the past.

Psychobiology was another topic we

highlighted, investigating the mechanisms that might translate population-level factors such as social inequalities, stress, and impoverished social relationships into risk of serious physical illness. This field has evolved markedly, through the increased sophistication of biological measures available, through the growth of genetic and epigenetic research, and through the use of large-scale longitudinal epidemiological cohorts to investigate psychosocial factors, biological mediators, and health outcomes (e.g. Kivimaki et al., 2012). We are also beginning to understand how positive psychological attributes can be protective and reduce risk of disease and premature mortality (Steptoe, 2019).

One of the major themes of our 2005 article was a call for health psychologists to use the methodologies of epidemiology and population sciences. For example, we encouraged greater awareness in the selection of representative samples for studies, instead of the more traditional psychological approach that often involves convenience samples of university students and the like. The biases and lack of generalisability that can arise with convenience sampling are now well recognised and are often punished by journal editors. Another aspect of the population perspective is the recognition that small effects may be hugely significant when applied at the population level. In the past, psychologists have been disappointed if their interventions stimulate a 2-3% change in the outcome. But a tiny percentage point change in thousands of people could be of vital benefit at the population level; for example, in a country the size of the UK, every 2 percentage point fall in tobacco smoking prevalence results in more than 8,000 deaths averted per year. We also stressed the issues of effectiveness and implementation, pointing out that psychologists often prefer to carry out efficacy studies. These test whether an intervention has its desired effect when administered faithfully to the target population, whereas effectiveness refers to the

impact of the intervention when implemented in the real world where there may be multiple barriers to proper administration. Although some apparently promising interventions have fallen by the wayside, health psychology is playing an important role in the emerging field of implementation science with regard to the prevention and management of physical disease (Gaglio, Shoup, & Glasgow, 2013).

Another point we emphasised in our 2005 article was the use of clinical trial methodology to test the effects of psychological interventions. In the past, many health psychologists coming from an experimental tradition would test their treatments in small scale underpowered studies that failed to make much impact in health care. In the UK, the guidance provided in the MRC framework for complex interventions has proved influential (recently updated in <https://mrc.ukri.org/documents/pdf/complex-interventions-guidance/>). Formal clinical trials methodology has now become axiomatic in intervention research internationally. Although researchers are often frustrated by what some see as the pedantry of a clinical trials industry that is not well suited to behaviour change research, the fact is that decision-makers in health systems rely on evidence derived from properly conducted, well-powered trials when making choices about new interventions. Studies of this type are expensive and can take long periods to develop. But if health psychology is to have the impact on prevention and health care that it deserves, these procedures need to be adopted.

These developments in public health psychology typically require collaborative work with other health professionals, and with public health policy makers. It is therefore very appropriate that the challenges of collaborative working underlie several of the articles in this special issue. They underscore the originality and vitality of applications of health psychology in the domains of disease prevention and management and health promotion, and bode well for the future of our discipline.

## References

- Gaglio, B., Shoup, J. A., & Glasgow, R. E. (2013). The RE-AIM framework: a systematic review of use over time. *Am J Public Health, 103*(6), e38-46. doi:10.2105/AJPH.2013.301299
- Kivimaki, M., Nyberg, S. T., Batty, G. D., Fransson, E. I., Heikkila, K., Alfredsson, L., . . . Theorell, T. (2012). Job strain as a risk factor for coronary heart disease: a collaborative meta-analysis of individual participant data. *Lancet, 380* (9852), 1491-1497. doi:10.1016/S0140-6736(12)60994-5
- Michie, S., van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implement Sci, 6*, 42. doi: 10.1186/1748-5908-6-42
- Nickel, B., Dodd, R. H., Turner, R. M., Waller, J., Marlow, L., Zimet, G., . . . McCaffery, K. (2017). Factors associated with the human papillomavirus (HPV) vaccination across three countries following vaccination introduction. *Prev Med Rep, 8*, 169-176. doi:10.1016/j.pmedr.2017.10.005
- Sanderson, S. C., Wardle, J., & Humphries, S. E. (2008). Public health genomics and genetic test evaluation: the challenge of conducting behavioural research on the utility of lifestyle-genetic tests. *J Nutrigenet Nutrigenomics, 1*(5), 224-231. doi:10.1159/000149826
- Steptoe, A. (2019). Happiness and health. *Annu Rev Public Health, 40*, 339-359. doi:10.1146/annurev-publhealth-040218-044150
- Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving Decisions about Health, Wealth, and Happiness*. New Haven: Yale University Press.
- Wardle, J. (2000). Public health psychology: expanding the horizons of health psychology. *Br J Health Psychol, 5*, 329-336.
- Wardle, J., & Steptoe, A. (2005). Public health psychology. *The Psychologist, 18*(11), 672-675.
- Wardle, J., von Wagner, C., Kralj-Hans, I., Halloran, S. P., Smith, S. G., McGregor, L. M., . . . Raine, R. (2016). Effects of evidence-based strategies to

reduce the socioeconomic gradient of uptake in the English NHS Bowel Cancer Screening Programme (ASCEND): four cluster-randomised controlled trials. *Lancet, 387*(10020), 751-759. doi:10.1016/S0140-6736(15)01154-X



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