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Round Table

Physical activity, healthy eating and obesity prevention: Understanding and promoting ‘resilience’ amongst socioeconomically disadvantaged groups

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The global obesity epidemic, and the contributions of both sedentary lifestyles and excessive energy intakes to this epidemic, are well-recognised. Within developed countries, certain population groups are at increased risk of both excess body weight, and of engaging in behaviours that heighten the risk of unhealthy weight gain and obesity, and hence of associated chronic disease. People experiencing socioeconomic disadvantage – whether through a low level of educational attainment, a manual or low-status occupation, a low income, or even through living in a neighbourhood which is socioeconomically disadvantaged – are more likely than others to partake regularly in sedentary behaviours such as television viewing, less likely to be regularly physically active or to eat according to health-related dietary recommendations, and more likely to be overweight or obese. While the graded associations of socioeconomic disadvantage with obesity and obesity-risk behaviours are now well-documented, much less is known about the mechanisms underlying these socioeconomic inequalities.

Typically, epidemiological studies investigating the aetiology of obesity have focused primarily on attempting to identify the predictors of risk of obesity or of obesity-related behaviours, for example by developing and evaluating the fit of multivariable models in which hypothesised risk factors are entered as predictor variables, with obesity as the outcome variable. The primary emphasis of such approaches is the prediction of adverse outcomes (i.e. obesity). The term ‘risk’ originates in epidemiology, and reflects the likelihood of adverse outcomes (e.g. morbidity, mortality) in response to exposure to stressors. This risk-factor approach, however, often fails to consider that individuals also possess, or have access to, protective resources, which may also impact their likelihood of an adverse outcome, either directly, or via interactions with risk factors.

Not everyone experiencing socioeconomic disadvantage is obese. We have previously argued that an alternative, potentially valuable yet less-utilised approach to understanding the increased rates of obesity amongst those who are socioeconomically disadvantaged involves investigation of the characteristics of those who are managing, despite the odds associated with their experience of socioeconomic disadvantage, to engage in obesity-protective behaviours, and to maintain a healthy weight. We suggest that this may represent a form of ‘resilience’.

‘Resilience’ has been defined as a “dynamic process encompassing positive adaptation within the context of significant adversity.” The concept was initially applied in investigations of the developmental outcomes of children born into poverty, or facing parental mental illness or broader socioeconomic disadvantage, in which it was observed that a proportion of children defied the odds by developing into well-adjusted adults. More recently, resilience as a framework appears to have become increasingly popular in a range of fields of investigation, including applications to the study of outcomes of maltreatment, adverse life events or even examining attributes of communities (‘regional resilience’) that assist in deflecting adverse outcomes associated with economic crises (e.g. see the themed special issue of the Cambridge Journal of Regions, Economy and Society on ‘The Resilient Region’, March 2010).

Resilience is concerned with individual variations in response to risk, and reflects the interaction between risk factors and protective resources. The study of resilience provides information on why established risk factors do not always result in adverse outcomes. Individuals who demonstrate positive outcomes in the face of high risk are described as being resilient. When applied to obesity, we posit that the term resilience may be used to refer to those who manage to maintain a healthy weight, despite exposure to circumstances that increase the risk of obesity. The characteristics that protect individuals of high socioeconomic position (SEP) from obesity may not be those same factors that are protective amongst individuals of low SEP, who face substantial additional barriers and exposure to obesity-promoting factors, both internal and external. It is also feasible that some factors are common across SEP groups but are more strongly associated with health and health behaviours among low SEP individuals. For example, parental support has been widely reported as a predictor of children’s physical activity, but recent evidence suggests that low SEP children are more dependent on this source of support. Investigating factors that foster the development of resilience to obesity in low SEP groups is thus a novel and potentially valuable research avenue.

Traditional resilience theories posit that the development of resilience is dependent on three sets of attributes: attributes of individuals themselves; aspects of the family environment; and aspects of the broader environment. This notion is consistent with the premises of social ecological models currently being applied to the study of obesity-related behaviours, physical activity and eating. Acknowledging some genetic contribution,
it is likely that resilience to obesity amongst socioeconomically disadvantaged individuals is largely determined by a combination of intrapersonal, behavioural, social and structural/environmental factors, many of which may be modifiable via intervention or policy approaches.

We have initiated two programs of research which employ the resilience approach to investigate the determinants of resilience to obesity and obesity-risk behaviours amongst women and children. These research studies are described briefly below as an illustration of the application of the construct of resilience to the investigation of obesity and obesity-related behaviours.

**Resilience for Eating and Activity Despite Inequality (READI)**

The Resilience for Eating and Activity Despite Inequality (READI) study comprises a 5-year mixed methods research program aimed at understanding and reducing the increased risk of obesity amongst women and children living in socioeconomically disadvantaged neighbourhoods. The program has involved the establishment of a cohort of 4,349 women and 636 5-12 year-old children, selected from one of 40 urban or 40 rural neighbourhoods. Detailed baseline questionnaire data have been collected from women, and matched to objectively-assessed environmental data collected from the 80 neighbourhoods. 20-25 This is supplemented by qualitative interview and focus group data from ‘resilient’ women and children. 21, 22 Finally, informed by these observational studies, a suite of obesity prevention intervention approaches has been developed and is being trialled amongst disadvantaged communities in an attempt to foster ‘resilience’ to obesity or its determinant behaviours.

**Resilience for Eating and Activity in Children (REACH)**

A current South Australian study (Resilience for Eating and Activity in Children; REACH) is exploring unique predictors of physical activity and dietary behaviours among low SEP 10-12 year olds, using a social ecological framework. An array of SEP indicators and predictors will be modelled to identify the intrapersonal, interpersonal and environmental factors that are associated with positive health behaviours among low SEP children, thereby exposing underlying drivers of resilience in otherwise ‘obesogenic’ neighbourhoods. The final phase of this study will involve targeted in-home interviews with low SEP parents of children with healthy dietary and physical activity behaviours, to explore these ‘resilient’ attributes in more depth.

**Conclusions**

We argue that the application of the theoretical construct of resilience represents a novel and promising approach for identifying modifiable determinants of obesity risk amongst high-risk target groups such as individuals experiencing socioeconomic disadvantage, and hence advancing epidemiological investigations of the determinants of socioeconomic inequalities in obesity and obesity-risk behaviours. This approach resonates with long-standing calls for instance, Antonovsky23 argued more than 30 years ago for the importance of focusing on peoples’ resources and capacity to create health, rather than the classic focus on risks, ill health, and disease. Increased understanding of the factors promoting healthy behaviours and weight amongst those facing socioeconomic disadvantage can inform the development of obesity prevention strategies aimed at fostering resilience among others, and potentially reduce the disproportionate burden of obesity and associated health outcomes experienced by these groups.

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