

Sport, Diet And Medicine: An Exploration Of The Portfolio Nature Of A Healthy Lifestyle

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Aim of the research

This study addresses the research question 'How does sport and physical activity relate to healthy eating and the consumption of medicine?' Answering this question will have implications for framing a lifestyle approach to sport and physical activity policy and management.

Theoretical background and literature review

Growing concern about the proliferation of non-communicable diseases (NCDs) has led to a target of reducing them within new global Sustainable Development Goals (SDGs; World Health Organization, 2016). Several factors such as sport and physical inactivity, unhealthy diet, as well as tobacco use and drinking alcohol have been identified as relevant risk lifestyles associated with NCDs. In addition, research also shows that whilst physicians usually only focus on drug prescription, evidence exists that physical activity and prescription of medicines have similar effects in the prevention of many NCDs (Naci & Ioannidis, 2015). It is clear, therefore, that policy makers recognise that there is a variety of potential inputs to health. Understanding how individuals actually combine these inputs to their health is less clear. Knowledge of their choices can, thus, help to inform health policy and sport activity management and promotion. Based on the seminal theory of health production of Grossman (1972), and employed elsewhere in the analysis of sports participation (Downward, Dawson & Mills, 2016), this study analyses an individual's physical activity, healthy food intake and consumption of medicines, whilst controlling for their smoking, drinking and long-term illnesses for the first time.

Methodology, research design, and data analysis

The research draws upon a sample of 16,236 individuals from the 2014 European health survey in Spain (INE, 2015). As it is theorised that the different health related behaviours are closely related choices, the behaviour is estimated by three-stage least squares (3SLS), an instrumental variable estimator, as a system of structural equations in which each behaviour can directly and causally influence the other.

Results, discussion, and implications

The results show that the chosen instruments are valid and that total physical activity and fruit and vegetables intake are complementary inputs to health. The results also suggest substitutability between taking medicines and healthy eating. Somewhat worryingly the results also suggest that participation in PA also increases the consumption of medicines and vice versa. This could suggest that some drugs such as vitamins are used to support PA

regimes. To the extent that the medicines include remedies for ailments it could also be the case that too much physical activity is being undertaken, which encourages medicine consumption. If this is the case, then it shows that healthier eating and more moderate physical activity could be an appropriate alternative. Further refinement of the analysis is however, clearly required by distinguishing types of drugs to clarify this initial result. However, the initial results show that policy that cross-cuts a range of health production inputs is essential to be effective and that the promotion and management of sport and physical activity needs to account for the relationship that it has to diet and medicine use.

References

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