

International Journal of Population Data Science

Journal Website: www.ijpds.org



The role of inequalities in managing symptoms of menstruation: harnessing shopping data to innovate female reproductive health research

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Introduction & Background

Menstruation affects half the population, yet its patterns and management are greatly under-researched. A regular and functioning menstrual cycle is considered an important vital sign and menstrual-related issues can be strong indicators of both reproductive and wider health issues. This project explores a novel health data source - shopping data history - to study how individuals manage menstrual symptoms such as pain, intensity of flow, mental health, and other issues, and explore potential social inequalities in these management strategies.

Objectives & Approach

We present a conceptual framework of studying management of menstruation symptoms using shopping data. The core objectives of this research are to enhance our understanding of menstrual management strategies and potential inequalities in these whilst evaluating the utility and acceptability of shopping data for future female reproductive health research. Our research will focus on harnessing loyalty card data from UK supermarkets and pharmaceutical retailers to provide insights into the management of menstrual symptoms at a national level. We will study retail data to identify products and patterns of purchasing which may be relevant to menstrual management and conduct surveys for linkage with shopping data. The public will be consulted to investigate attitudes towards shopping data for health research and inform interpretations of patterns in the data.

Relevance to Digital Footprints

This project contributes to advancing of understanding of using digital data for health research on an important societal challenge. We investigate the practical applications for menstrual health and other female reproductive health issues, with scope to enact meaningful change.

Conclusions & Implications

By analysing shopping behaviour, combined with survey data and area-level socioeconomic data, we aim to identify regions of the UK and individual characteristics which influence the risk of experiencing menstrual symptoms and ability to manage these within a high-income context. Our research will contribute to understanding of menstrual management strategies for women and people who menstruate, and associated inequalities.

