

## **Understanding medical overuse: the case of problematic polypharmacy and the potential of ethnography**

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## **The problem of medical overuse**

Medical overuse is increasingly highlighted as a significant problem in contemporary healthcare. Attention globally is focusing on the possible harms and avoidable waste of 'too much medicine',<sup>1</sup> such as the OECD's recent report on the need to tackle wasteful healthcare spending such as diagnostic tests and interventions which offer patients little or no benefit.<sup>2</sup>

Terms such as overdiagnosis, overtreatment and overuse are not straightforward to define<sup>3,4</sup> and encompass a range of different kinds of medical overactivity. Concerns initially focused on cancer screening but now extend to a wide range of clinical activities.<sup>5</sup> For example, making a diagnosis which may be 'correct' according to current standards, but for which existing treatment offers little or no benefit may cause undue anxiety and may result in harm (e.g. from treatment side effects or the perceived need for ongoing monitoring).<sup>6</sup> A recently published review of ongoing studies of overdiagnosis across medical disciplines showed that approximately half were in oncology, but the scope of this work also extends into areas such as mental disorders, infectious diseases, and cardiovascular disease.<sup>7</sup>

The potential consequences of overuse may be significant and include such harms as the psychological and behavioural effects of disease labelling, physical harms and side effects of unnecessary tests or treatments, the 'burden of treatment'<sup>8</sup> negatively affecting quality of life, increased financial costs to individuals, and wasted resources and opportunity costs to the health system.<sup>6,9,10</sup>

## **Balancing under and over use**

Alongside these potential harms from overuse lie those which may arise from 'too little' rather than 'too much' medicine: in the words of Iona Heath, past president of the UK's Royal College of General Practitioners, "overdiagnosis of the well and undertreatment of the sick are the conjoint twins of modern medicine".<sup>9</sup> The Lancet *Right Care* series has sought to show how underuse and overuse of medical and health services typically exist side-by-side, with each bringing poor outcomes for patients.<sup>11</sup> Contributions examine the extent of overuse and underuse worldwide,<sup>12,13</sup> consider the drivers of poor care,<sup>14</sup> and seek to identify means through which they might be tackled.<sup>15</sup> The desire to identify both drivers and possible solutions is a common theme in relation to overuse. In an effort to develop a comprehensive overview, recent work from Australia has mapped the possible drivers into broad categories and linked them to their respective potential solutions.<sup>16</sup>

The majority of articles included in the mapping exercise described above were analyses or commentaries rather than empirical studies (although the authors state that many of the analysis pieces were informed by empirical work) and articles were selected because of their explicit attention to 'drivers' and 'responses' (or 'solutions'). Whilst there may be considerable merit in these findings, further empirical work is needed to understand whether, how and to what extent such 'drivers' play out in practice, in which contexts they may be more (or less) relevant, and how these (and possibly other) drivers may be interconnected and mutually reinforcing. Without this subtle and nuanced understanding of how the balance between under- and overuse can go awry, calls for healthcare professionals at the frontline to be better equipped to minimise under- and overuse and to manage the tension between them are likely to be frustrated.<sup>17</sup>

## **Problematic polypharmacy**

Polypharmacy is one manifestation of overuse. It is of particular relevance to primary care since GPs and community pharmacists may be well placed to work with patients, carers and other professionals to raise awareness of the potential pitfalls of polypharmacy and take action when it is thought to represent overuse. Polypharmacy refers to the concurrent use of four or more medicines by one person. Although this is often necessary, it becomes 'problematic' when multiple medicines are prescribed inappropriately or the intended benefits are not realised.<sup>18</sup> Those coining the term 'problematic' polypharmacy cite a range of possible reasons for it including: treatments not being evidence-based; risk of harm exceeding potential benefits; and cascade prescribing (when one medication is prescribed to treat the side effect of another).

One substantial challenge faced by clinicians is that evidence produced from randomised controlled trials, which is typically organised around a 'single disease' model can rarely be usefully interpreted in the context of a patient with multimorbidity and polypharmacy. Polypharmacy in the context of multimorbidity is rarely, if ever, 'evidence-based', even when a clear argument can be made for the prescription of individual items. This is particularly challenging in older patients as inter-individual variability in health, disease and disability increases with age (the principle of aged heterogeneity).<sup>19</sup> In this context it becomes even harder to draw generalised conclusions about prescribing (of single items, let alone drug combinations) for particular individuals.<sup>20</sup> Clinicians face considerable uncertainty as they balance competing prescribing priorities and integrate these into overall goals of care which may be more far-reaching.<sup>21,22</sup>

The rise in evidence-based medicine coupled with an emphasis on eliminating risk of disease have together contributed to the current predicament of 'too much medicine', in which privileging one set of priorities for risk reduction has contributed, paradoxically (and at great cost), to new drug-related risks. Polypharmacy, as with many instantiations of overuse, is a 'wicked problem' arising at the interface of patients, clinicians and diseases and encompassing cultural, technological, economic and socio-political dimensions<sup>23</sup> unlikely to be amenable to 'quick fix' solutions. Medication reviews provide an opportunity for shared decision-making and raise awareness that deprescribing may be possible, but are underused.<sup>24</sup> However, even the most sophisticated shared decision-making in the clinical consultation – though important – may only be part of the answer, given that decision-making around medicines is often conducted in the home and family context.

### **The potential of ethnography**

Ethnography, which is relatively little used in primary care, may offer valuable insights into polypharmacy through observing 'real world' practices of professionals, patients and their social networks in everyday settings, paying attention to wider contextual factors that sustain (or challenge) polypharmacy.<sup>25</sup> A key focus of ethnography is on making explicit aspects of culture, practice, assumptions and beliefs which may not be readily articulated by informants in an interview study<sup>26</sup> and which may be regarded as mundane or 'taken-for-granted'. It is driven by a curiosity to find out 'What is happening here?' or 'What is being accomplished?' with a focus on learning from the details of the particular or 'telling case' rather than on generalisations.<sup>27</sup> It opens up the possibility of new understandings about how polypharmacy may emerge insidiously from a complex array of interconnected practices and social contexts, and how it may be sustained through routines and 'ways of working', even in the face of widely held understandings that it may indeed be problematic. It also offers opportunity to observe how patients and professionals negotiate difficult terrain. For the professional this may include conversations fraught with uncertainty and 'unknowables' or judgments about stopping medicines prescribed by trusted colleagues. For patients it may include observations of how and to what extent they have the capacity to accommodate medicines-taking into their daily lives, how they prioritise their medicines, or whether and how they enter into conversations about

medicines that are no longer wanted or no longer taken. With a focus on meaning-making, the aim is to go beyond simple description and offer interpretation - informed by theory – making polypharmacy visible in new ways and offering new concepts to ‘think with’ that may go some way towards addressing this complex phenomenon.

**Ethics:** Not applicable for an editorial

**Funding:** Natalie Armstrong is supported by a Health Foundation Improvement Science Fellowship. Deborah Swinglehurst has funding from the National Institute for Health Research (NIHR) through a Clinician Scientist Award. She is Principal Investigator for the APOLLO-MM project: Addressing the Polypharmacy Challenge in Older People with Multimorbidity ([www.polypharmacy.org.uk](http://www.polypharmacy.org.uk))

**Disclosures:** Natalie Armstrong is an Associate Editor of this journal

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