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Where the wicked problems are: the case of mental health

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Abstract

Objective

To use systems ideas and the concept of 'wicked problems' to frame examination of a decade-and-a-half of UK mental health policy.

Methods

Theoretically informed policy analysis.

Results

Modern health care is complex, and mental health care particularly so. In the UK the mental health system has also become a policymaking priority. Features of this system mean that many of the problems policymakers face are of the 'wicked' variety. Wicked problems are resistant. Problem formulations and their solutions are contestable. Solutions which have 'worked' in one setting may not 'work' in another, and evidence to guide change is open to challenge. Actions trigger waves with widespread system consequences. In the case of the UK's mental health field significant shifts have taken place in formulations of 'the problem' to which actions have been directed. These have included assessments of community care failure, formulations emphasising problems with the professions and, most recently, the need for action to promote mental health and wellbeing.

Conclusions

In their efforts to secure improvement in a neglected field UK policymakers have unleashed a torrent of top-down actions. Attention needs to be paid to constructing strong, system-wide, partnerships and to examining the cumulative impact of policy actions.

Keywords

1. Introduction

We show in this paper how ideas emphasising the interconnections within complex systems and the concept of 'wicked problems' can be combined to improve understanding of the challenges of public services policy and delivery, including in the arena of health care. We then use these ideas to underpin examination of a decade-and-a-half of activity in the United Kingdom's (UK's) mental health field. This is an area which emerged as a policy priority in the mid-1990s, and which has since been the subject of sustained attention. Mental health, however, is a disputed field. Following a brief chronological narrative of recent mental health policy we trace how changes in focus reveal important shifts in formulations of 'the problem' to which attention has been directed. Fast-moving policy action and service developments in areas as complex as this also bring the potential to trigger profound, cumulative, consequences. In interconnected systems these can emerge in unpredictable ways, and have lasting effects. We consider the implications of this observation for the mental health field, before drawing some wider lessons for policymakers and scholars not primarily interested in mental health *per se*.

2. System complexity and wicked problems

The framework we propose is founded on a critique of approaches to public policymaking and implementation that are based on assumptions of order, cause-and-effect and the uncritical use of 'best practice' examples. Chapman writes how these traditional models are reflected in certain types of language [1]:

> A conversation with a civil servant, politician or senior public sector manager will yield a large number of phrases based upon the notion that government and organisations are machine-like: 'stepping up a gear', 'changing direction', 'driving through change', 'the

machinery of government' and 'policy levers' are common examples – and there are many more (p10).

Embedded in phrases such as those Chapman cites are the ideas that shortcomings can be readily identified, and are amenable to relatively straightforward, command-and-control, solution. As Hunter [2] argues in the specific context of public health, however, strategies of this type are overly hierarchical and presuppose unproblematic, linear, relationships between the making of policy and its implementation. An alternative approach embraces the idea that the fields to which public policies are typically directed are best thought of as comprising multitudes of interrelated parts. This idea lies at the heart of Plsek and Greenhalgh's description of the UK's national health service (NHS) as a 'complex adaptive system' [3]. They argue that 'whole system' complexity in the NHS is increasing, driven by changes in working practices and roles, the rise of new technologies and treatments, and changing relationships between professionals and service users. Rouse advances a similar analysis, pointing to the large number of players found in modern, dynamic, health care systems [4]. From national to local level, responsibilities in the NHS are divided amongst different departments and agencies [5, 6]. Planning and managing the delivery of services across the UK's health (and social) care field are also challenged by complicated divisions of workplace labour [7]. In these circumstances, intervention (triggered by policy action, for example) in one place will affect actors and organisations elsewhere as both people and the systems of which they are a part adjust, in ways which are potentially unexpected.

Recognition is also growing that the challenges facing policymakers, managers and practitioners in complex systems tend to be of what Rittel and Webber [8] term the 'wicked' variety. They refer to their use of the word 'wicked' when applied to certain types of problem:

not because these properties are themselves ethically deplorable. We use the term 'wicked' in a meaning akin to that of 'malignant' (in contrast to 'benign') or 'vicious' (like a circle) or 'tricky' (like a leprechaun) or 'aggressive' (like a lion, in   contrast to the docility of a lamb) (p160).

Underpinning Rittel and Webber's thinking is their concern with the "weak strut in the professional's support system [which] lies at the juncture where goal-formulation, problem-definition and equity issues meet" (p156). They argue that, in the past, professionals were hired to address problems which were easily defined and largely uncontested. Examples include the eradication of infectious disease or improving the provision of clean drinking water and sanitation. In modern societies where competing values are brought to bear problems that are less easily definable and more open to dispute are continually brought to our attention. In health care the presence of contested views has been further fuelled by inquiries into gross failures in provision [9, 10] and a subsequent loosening of trust between policymakers, the professions and the public. Contemporary controversies in the UK over vaccinations for childhood diseases [11] and for newer conditions such as swine flu [12], plus debates on the availability of drugs for conditions such as Alzheimer's disease [13], demonstrate the continued flux of opinion in this field.

'Wicked problems' (or 'wicked issues'), the key properties of which are summarised in Figure 1 below, defy objective definition. This is not least because in modern, pluralist, societies what counts as a public good is open to contest. In health and other complex fields problems are constructed in ways which reflect sets of values or prevailing interests. Formulating 'the problem' to which policy might be directed also means making simultaneous reference to possible solutions, such that only certain courses of action are available without the problem needing to be redefined. For example, a formulation of a health system's problems as one of inadequate acute sector provision (demanding more and better hospitals) will face contest from formulations focusing on the social and economic

determinants of illness (demanding action to tackle health inequalities). The interrelatedness of wicked problems also means that the range of actions which might be taken in any given case has, potentially, no end. Formulating a health system's core problem as one of inequalities, for example, inextricably connects this with the (equally wicked) problem of poverty.

Taken together, these properties of wicked problems make evaluations of proposed and implemented solutions fraught. As problem assessments invariably reflect stakeholders' differing perspectives, and competing interpretations of why actions have (or have not) 'worked', Rittel and Webber observe that the most which might be said about a solution is that it has made things 'better', rather than that it is definitively 'the best' [8]. This points to the shortcomings of off-the-shelf responses to wicked problems, challenging the idea that policy for complex fields would be improved if only it could be based more securely on bodies of agreed evidence [1]. Whilst responses to problems identified elsewhere and findings from empirical investigation can provide valuable intelligence, technocratic, reductionist, solutions are limited as each wicked problem is essentially a unique case. Actions attempted in one context may have an entirely different impact in another even where the settings and circumstances may, on the surface, look similar. These actions, once initiated, will also trigger 'waves of consequences' throughout an interconnected system, some of which may be unintended, far-reaching and irreversible.

Figure 1

Ten properties of wicked problems

1. There is no definitive formulation of a wicked problem: *problems and solutions are inextricably linked.*

2. Wicked problems have no stopping rule: *work terminates based upon outcomes such as running out of time or money, or upon subjective criteria such as 'that's good enough'.*

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3. Solutions to wicked problems are not 'true-or-false', but 'good-or-bad': *there are no criteria to judge whether an outcome is 'correct', and outcomes will often be ambiguous and contingent upon group or personal interests.*

4. There is no immediate and no ultimate test of a solution to a wicked problem: *solutions will generate 'waves of consequences' which may outweigh the benefits of the solution, and which may not be fully appreciated until the repercussions cease.*

5. Every solution to a wicked problem is a 'one-shot operation': *because there is no opportunity to learn by trial and error, every attempt counts.*

6. Wicked problems do not have an exhaustively describable set of potential solutions: *there are no criteria to prove that all solutions have been identified and considered.*

7. Every wicked problem is essentially unique: *despite similarities between previous problems and current ones each has a 'one-of-a-kind' quality.*

8. Every wicked problem can be considered to be a symptom of another problem: *the higher the level of problem formulation the broader and more general it becomes.*

9. The existence of a discrepancy representing a wicked problem can be explained in numerous ways: *there is no rule to determine the 'correct' explanation of a problem.*

10. The planner has no right to be wrong: *the consequences of actions matter, and responsibility has to be taken.*

(Rittel and Webber 1973, pp161-166)

3. Comprehending the mental health field

In using these ideas to frame analysis of the mental health field we observe, first, how the system which has evolved across the countries of the UK shares many of the general qualities (such as a fragmentation of agency and professional responsibilities) which contribute to the complexity found in other health and social care arenas. Mental health, however, is a particularly untamed arena,

characterised by singular historical and contemporary features which make it more complex still [14]. The roots of the system lie in the Victorian era of the asylum, with the building and populating of oversized institutions being, for many years, the preferred solution to the problem of managing mental illness [15]. Solutions to a complex problem which 'work' in one era may become part of the problem in another. Experience in the mental health context reveals how the construction of large hospitals triggered profound and long-lasting waves of consequences for service users, professionals, policymakers and for society at large. Whole communities suffered the unintended outcome of being deprived of opportunities to learn tolerance for, and to live with, mental illness, whilst people with personal experience of mental health difficulties were denied full citizenship and the right of public participation. Historic policies have thus created fresh problems, with the UK's legacy of institutional care reverberating into the present with important implications for contemporary problem formulation and policy response.

Political, social and other factors over the last 60 years have combined to create an expanded mental health system which now also encompasses the large-scale provision of care to people living in their own homes. Particularly complex divisions of work have evolved, with services being provided by an array of statutory and non-statutory workers, lay carers and others, situated in both community and institutional settings. Roles and responsibilities have shifted, sometimes in response to policy change and organisational pressures [16], and from time to time disputes over professional boundaries have broken out [17]. Distinctively, in the mental health field disagreement over theory and practice continues, in ways which cross-cut occupational demarcations [18]. Professional knowledge remains open to contest, and differing views can be found (even in single teams) on the interventions which practitioners might use [19] and between workers and those being helped [20]. Although the mental health field may be less obviously reliant on new technologies than other areas of health care, over time the emergence of new physical and psychosocial therapies has helped shape the system as a whole [21]. This has also adjusted in response to the influence of social movements, including those representing users and carers [22]. In this field values and interests are often seen to collide [23], with

(for example) concerns to promote recovery, wellbeing and community participation sitting uneasily with concerns centring on the protection of the public and the management of risk.

These system features mean that a potentially endless array of problems present themselves as a focus for action. Biomedical problem formulations emphasising a lack of understanding of disease processes lead to solutions favouring investment in basic and applied science with the aim of improving diagnostic procedures and increasing the effectiveness and availability of treatments [24]. Alternative formulations emphasising discrimination by the public against people with mental health difficulties lead to proposed actions to tackle stigma and exclusion [25]. As we examine in more detail below, having emerged as a solution to the problems of institutions community care has, in some assessments, itself become 'the problem'. Rittel and Webber [8] draw attention to contested formulations in the community mental health field, including a lack of facilities (solved by investment in community mental health teams and centres) and poorly prepared staff (solved by improving training). Recent, competing, formulations in the UK's community mental health system have emphasised problems of both 'too little' and 'too much' control and surveillance of service users [26]. With regards to the latter of these positions, assessments pointing to an excess of monitoring and compulsion emphasise how this leads to fractured relationships between professionals and service users and forced, technocratic, solutions which effectively short-circuit the benefits of community care. In yet another formulation, people with mental health problems have been described as subject to a form of structural violence, reducing their opportunities to benefit from social capital with efforts to simply transfer care from institutions largely ignoring the wider social context of living with mental illness in everyday settings [27].

The problems of modern mental health systems can, therefore, be explained in a multitude of often competing ways: too little understanding of disease, lack of suitable and/or available treatments, poorly trained and/or too few workers, too few and/or the wrong types of teams or facilities, poverty,

unemployment, poor housing, poor mental hygiene, too much or too little surveillance, mental health laws which are either too liberal or too coercive, and so forth. Each of these positions (or combinations of positions) reflects certain standpoints and interpretations of the available evidence. Each offers a direction of travel. No rules exist, however, to guide progress in the 'correct' way, and problem formulations and their attempted solutions are differentially assessed in ways which reflect stakeholders' values, their appraisals of 'the evidence' and their location within the system. Even where a dominant view might be detected (which, in the mental health field, may be a biomedical one) there still remain vocal minorities and a range of alternative positions held by combinations of professionals, service users, carers and others.

4. Surveying the territory: understanding recent mental health policy

Against this complex background, and following years of relative neglect, in the UK an unprecedented explosion of mental health policy activism began in the mid-1990s [28]. For many working in this area or receiving care the start of the deluge was welcomed as evidence that government was preparing to finally rid mental health of its 'Cinderella service' status [29]. The extent of the subsequent 'initiativitis' still came as a surprise to some, however [30]. Having trawled the Department of Health for England's website at the end of 2004, for example, Boardman reports finding over 60 official policy documents relating to mental health services [31]. Since then the pace has hardly lessened, with similar attention being paid by policymakers in the UK's devolved administrations [32-35]. There is also emerging evidence that mental health is to remain a relative priority following a change of government in the wake of the general election of 2010 [36]. The reasons for this new, and sustained, interest, and the ways in which 'the problem' with mental health has been cast (and re-cast), need to be better understood. Knowledge is also needed of the cumulative consequences of actions.

The scope and scale of recent developments, along with the fact that responsibility for policy is spread across separate health administrations in the UK's four countries, challenges attempts at summary. In our selective review here we nonetheless identify broad, overlapping, sweeps of activity, each characterised by particular formulations of the mental health field's shortcomings and actions designed to address these. We observe the degree to which problems with *services*, and then with the *professions*, have more recently yielded to a formulation in which 'the problem' is cast as one of mental ill-health *per se*, to which responses are as much concerned with public health and the promotion of wellness as they are with service provision. Thus at the start of the period with which we are chiefly concerned (from the middle of the 1990s), a perception widely held was that mental health services across the UK were under-funded [37], subject to contradictory policy expectations [38] and staffed by over-burdened and conflicted practitioners [39]. In the first round of problem formulation we identify, it was this complex and interrelated system of services (rather than, for example, the root causes of mental ill-health) which emerged as a focus for action [40].

This initial formulation was of service failure, as England's keystone publication *Modernising Mental Health Services* [41] made clear. This document also included a particularly contestable assessment of precisely where in the system 'the problem' lay, and what should be done about this. Despite evidence from independent bodies pointing to the poor conditions faced by inpatients [42], hospital services did not feature strongly in the new government's initial diagnosis of the central challenge it faced [40] with inadequate community care identified as the root cause of the system's difficulties. The identification of a problem and the construction of its solution go hand-in-hand, and having located its target government launched a battery of directives designed to address this formulation of unsafe and ineffective services. These included a declaration, contained in *Modernising Mental Health Services*, that mental health law for England and Wales would change with a view to compelling risky people with mental health problems to comply with community treatment, along with efforts to create a new category of mental illness, 'dangerous and severe personality disorder' [43]. Also announced was a plan to tackle service shortcomings by setting up new types of community team [44], including those

providing intensive, 'assertive outreach', services with a mandate to engage proactively with risky people. More generally, the identification of system failure was reflected in actions aimed at rectifying deficiencies through the local implementation of top-down standards and frameworks [33-35, 45] and clinical guidelines (for example, for the care and treatment of people with schizophrenia [46]).

Overlapping with this first period of policymaking focusing on service deficiencies was a further formulation phase targeting roles in the workplace. Policy of this type featured strongly under the New Labour government holding office between 1997 and 2010, with demarcations between occupational groups being cast as a hindrance to integrated services across the whole of the health and social care field. With its internal divisions the mental health arena emerged as a favoured one within which actions to challenge boundaries might be tested [30]. In this context, English policymakers wrote [47]:

> […] to achieve what we want in mental health services requires more doctors, nurses, social workers and therapists but it also means we need them to work in different ways. […] Any mental health user knows that psychiatric nurses and social workers must work closely together, but rigid regulatory frameworks make this difficult, and organisational barriers get in the way of good care (p9).

Separate initiatives, such as extending medication prescribing authority to nurses and seizing the opportunity afforded by the review of England and Wales' legal framework to make it possible for all mental health professionals (rather than just psychiatrists and social workers) to become involved in Mental Health Act decision-making were eventually brought together under the umbrella of 'new

ways of working' [48, 49]. Key to this reformulation of the problem was a new emphasis on practitioner competency at the expense of professional identity and role [16].

The most recent round of problem identification and action which we identify is chronologically marked by the end of England's ten year National Service Framework (NSF), the key thrust of which was to improve local services consistent with overarching national standards [45]. By the end of the first decade of the new century a wholly different problem formulation was appearing, most fully articulated in the proposed replacement for England's NSF, *New Horizons* [50]. Framed as a cross-government (rather than a Department of Health-specific) strategy this pointed to problems to be solved though a new emphasis on public mental health, social inclusion and the promotion of well-being across the lifespan, underpinned by collaborative relationships spanning government departments and both public and private sector organisations. In this reformulation, then, the key problems to be tackled became the causes of mental ill-health and the factors sustaining poor quality of life, rather than deficiencies in the system of services or in professional practice. *New Horizons* was consigned to the archives following the election of a Conservative/Liberal Democrat coalition government in 2010, but its cross-cutting, public health, message may have transferred across to formulations and strategies for mental health emerging from the new administration [36].

5. On problems with problem formulation and waves of consequences

The broad turns in problem formulation and policy action we identify in this brief synopsis exemplify how problem identification and solution in complex systems are actively created in particular contexts, and remain open to challenge. Concern over homicides committed by people with mental illness living in the community [51] combined with fears from within the system that services were over-stretched and under-funded help explain why community care emerged as a candidate for early policy action. Blame for community care's difficulties could also be largely laid by the newly elected New Labour at the door of its Conservative predecessor, furthering the government's wider mission to

present itself as distinct and proactive in tackling problems across the totality of the health and social care field. Policymakers' assertions of gross 'failure' in services, however, were strongly repudiated by professionals, service user groups and others, of whom some noted that as resources had not followed patients the policy of care in the community had never been fully implemented [52]. Subsequent action by policymakers leading, eventually, to changes in the English and Welsh mental health legislative framework [53] amply demonstrate the untamed character of the field. Solutions to the problem of community care which included increasing the authority of professionals to compel certain patients to be treated outside of hospital were resisted by previously disparate groups united in common opposition [54]. More recently, challenges have been raised to the formulation of the system's problem as being one of restrictive practices in the workplace. The policy of 'new ways of working', for example, with its emphasis on breaking down occupational role boundaries, has been actively resisted by segments within the profession of psychiatry [17, 18].

Recent experiences in the mental health field also underscore the idea that solutions to complex problems which have 'worked' in one context cannot be guaranteed to 'work' elsewhere. This can be illustrated with reference to actions on assertive outreach services and on compulsory community treatment, both of which were initially flagged in early New Labour government policy [44, 45] as part of the response to community care 'failure'. Assertive outreach services were modelled on the success of the 'Training in Community Living' (TCL) programme for people with severe mental health difficulties, an approach originally demonstrated within one specific setting in the USA [55] before being piloted in Sydney [56] and (in the 1980s) in London [57], amongst other areas. Rationales for the application of the model varied across initial and later sites, as did the social and cultural contexts in which these new services were implemented. Many of the problems the TCL approach had been developed to address did not exist in the UK in the same way as they had in the original US setting. Unexpected outcomes in the London project, for instance, led to significant alterations in the approach that had as much to do with specific national and cultural beliefs and moral fears about mental illness as they had with any reasoned evaluation [58]. In the case of community

treatment, recent shifts in the UK towards greater compulsion reflect international trends towards the wider use of similar orders as a solution to the complex problems of providing more libertarian (non-custodial) treatments whilst continuing to ensure that service users take their medication and remain in contact with workers. There is also, however, the case of a previous version of this approach (implemented in the USA) failing due to an unforeseen lack of support from workers themselves [59]. These examples underscore the extent to which uncritically importing solutions to wicked problems tried in one context to another is fraught. Organisational and other differences, including the exercise of individual agency [60] and the activities of professionals at 'street level' [61], mean that the consequences of change may not be as intended. Interventions can never truly be trialled or declared as objectively the 'best' approach across all contexts, and evidence and outcomes remain open to differential interpretation.

In addition to encouraging a focus on the challenges of problem formulation and solution our perspective alerts us to the system consequences of actions. The zeal with which policymakers have engaged with the mental health field may, paradoxically, have created challenges of its own. Shifts in problem formulation and the sheer pace of developments will have triggered major upheaval as local services have grappled with a flood of top-down policies. UK evaluations of new teams, like those providing assertive outreach services, have produced equivocal findings [62]. Whilst new teams designed to improve community care will have made local systems 'better' in key regards they will also have triggered significant local disruption during their creation [63]. Organisations will have had little breathing space between rounds of policymaking and implementation, with (for example) guidance to reshape professional working practices emerging hot on the heels of policy requiring the reorganisation of teams and services. Actions directed at professional roles have prompted debate within the mental health field, and have the capacity to cause unforeseen consequences [14]. The granting of prescribing powers to mental health nurses, for example, has revealed both the heterogeneous beliefs surrounding medication which exist within this profession [64, 65] and concerns within some segments of psychiatry over the implications of this extension to the work of

nurses [66]. Fast-moving actions have also thrown policy tensions and inconsistencies to the fore. Amendments to the law introducing compulsory treatment have jarred with other aspects of policy which have emphasised the importance of service user choice and action on tackling stigma and discrimination [28]. Consequences, intended and unintended, will flow for people subject to compulsory treatment in the community. Some may find their progress towards full participation in community life hindered by these experiences. In these conditions components within the system run the risk of pulling in different directions at the same time, leading to uncertainty and confusion in the goals of provision. There may be a certain inevitability that tensions and dilemmas of this type will always emerge in a field as complex and contested as mental health, where a mix of altruistic concern and moral panic frequently coexists. Given the likely (individual and cumulative) effects of recent policy shifts we suggest that there should, at the very least, be some pause in top-down directives and a careful examination of the extent to which recent changes have made things 'better' (and/or 'worse'), and how new conditions are being experienced at street level.

6. Conclusion

The ideas we have drawn on in this paper are gaining ground. Chapman writes of the need for government to 'think differently' [1], and evidence is emerging across a whole range of public policy arenas of a growing appreciation of complexity and the relative intractability of wicked problems. Notable recent examples include analyses in the fields of health inequalities [67-69], the environment [70], sports development [71], higher education [72], and crime [73]. In the context of public health Hunter [2] writes of the dangers that some problems can appear so tricky that they risk being "chucked into the 'too difficult to solve' category" (p17). Whilst urging caution with regard to the pace and changing focus of action in the mental health field we stop short of concluding that policymakers should now adopt a 'hands off' approach. The (now archived) *New Horizons* placed welcome emphasis on broad, cross-organisational, partnerships, reflecting the idea that in conditions of complexity and uncertainty the capacity to think and act across boundaries is a *sine qua non* for

progress [73-78]. Our critique of recent policy for mental health is that, in their zest to secure improvement in a neglected field, policymakers unleashed a surfeit of downwards-directed actions, paid insufficient attention to the need to build strong partnerships across the system as a whole and failed to examine sufficiently the cumulative effects of their activities. At a time when new collaborations are being sought in the furtherance of a novel public mental health agenda, the challenge for the future must be to meaningfully reengage with providers and recipients of services so that problem formulations can be agreed by as many as possible, actions negotiated and the likely waves of consequence be better anticipated. The extent to which policymakers might achieve this remains to be seen.

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