Health and Quality of Life Outcomes

Commentary

Need for redefining needs

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Published: 21 August 2003

Health and Quality of Life Outcomes 2003, **1**:34

Received: 03 June 2003
Accepted: 21 August 2003

This article is available from: http://www.hqlo.com/content/1/1/34

Abstract

Defining *needs* is difficult due to the inherent complexity of the concept of 'need', so it is not surprising that numerous definitions have been proposed. 'Health' consists of a wide range of characteristics so 'health needs' ought to include personal and social care, health care, accommodation, finance, education, employment and leisure, transport and access.

Target-driven standards in areas of health care with a high political profile appear to be replacing the concept of universal provision and *clinical need*; this major change in clinical care warrants a re-evaluation of health care outcomes. Identifying who might benefit from this new approach to health care is equally important if scarce resources are to be fully and appropriately utilised. If the goal of care is 'optimal health', the key marker of success ought to be to ascertain individual patients' health care needs (HCN) and tailor services accordingly. Wide variation in the description of 'needs' directly affects policies and services intended to meet a population's health care needs. Consequently, the definition of 'needs' has important implications for healthcare provision- the more constrained the definition, the less healthcare will be made available and vice versa. This paper describes some common definitions of needs and discusses their respective benefits and disadvantages in terms of health care provision and their potential impact on health policy.

Introduction

In health care, need has a variety of meanings which may change over time so it is not surprising that different groups of health professionals refer to 'needs assessment' in very different ways [1]. Stevens et al [2] considered that interest in a needs-driven health system passed through several stages. A sociological approach in the 1960s was followed by 'rational planning' and resource allocation based on deprivation and epidemiology (RAWP [3]) in the 1970s; in the 1990s, National Health Service reform introduced need-target resource allocation and by the year 2000 the focus was on 'collaborative action" where the need for health care was to be collectively identified by interested 'stakeholders'.

Defining 'need'

A wide variety of definitions of 'need' has been developed. Although each was intended to improve service delivery to the population, ambiguity increased to such an extent that "it may be an illusion to suppose that there might ever be a consensus about the meaning of needs" [4]. It is important to recognise the different perspectives illuminating the relationship between the concepts of *need,* and *health-care needs.* Davis proposed a relatively simple definition of need as 'a subjective feeling state that initiates the process of choosing among medical resources' [5].

Societal view

In a sociological environment, Bradshaw defined need as: *normative* (distinguished by professionals, such as vaccination), *felt* (wants, wishes and desires), *expressed* (vocalised needs or how people use services) and *comparative needs*, which indicates that needs arising in one location may be similar for people with similar socio-demographic characteristics living in another location [6].

Bradshaw's typology of need creates a definition which is more practical for health service research workers, although it does not include the concept of cost containment. He recently argued that his taxonomy of need was constrained because of inherent problems with the concept of need.[7]

Philosophical points

Some experts describe needs as 'instrumental' or fundamental to the achievement of a desirable goal [8] while others highlight a non-instrumental (or absolute) sense of needs[9,10]. Baldwin [11] proposed a rather theoretical definition of need, that is a 'tension need' which implies a desire to compensate for some dis-equilibrium such as thirst due to fluid loss. He also proposed a 'teleological need' reflecting the gap between actual and desired status, such as a desire for coronary bypass surgery to improve both quality and longevity of life. This approach to need implies 'necessity to be explicit about whether it is effective, how effective it is and for whom' [4]. Baldwin considered teleological need to arise '*when the goal is not realised and there is a need of a certain thing when this is necessary for realising the goal*' [11], which seems to be a characteristic attributable to any kind of need. While this definition usefully expounds the concept of need, a significant improvement in health services is unlikely without specific efforts to develop needs-oriented services.

Pragmatic view

Green and Kreuter considered need as '*whatever is required for health or comfort*' [12], covering personal, social and environmental conditions, including family planning information, smoke-free zones, seat belt rules, and health 'hot lines' but appears ineffective in terms of 'life creativity' and cost-effectiveness. Doyal and Gough suggested 'objective needs', asserting that 'health needs' and 'autonomy' are not only two universal human needs, but also basic human rights [13], as some have previously claimed [9].

The Economists' approach

Cost containment is the focus of policy-makers' attention, therefore combining satisfactory services with cost-effectiveness could provide a solution to health care rationing issues. The most widely presented definition of need favoured by economists is '*the ability of people to benefit from health care provision*' [14,15]; in other words, 'need' exists only if there is a 'capacity to benefit' from a particular healthcare service.[10,16] Need may be assumed to exist, therefore, when there is an effective treatment [17] or 'health gain'.[18] Ability to benefit from health care can be influenced by several factors including epidemiological aspects such as incidence and prevalence of disease and the effectiveness of interventions. Applying this definition, the *outcomes* of health interventions assume greater importance.

First of all, Culyer [10] proposes that 'capacity to benefit' (as an outcome measure) differs from needs (as a resource input), so these two concepts are measurable in different ways which do not necessarily match. Physical, physiological, and social benefits may be identified in individuals as well as groups or communities. In addition, the benefits of health care can be determined as improvement in clinical status, reassurance, supportive care, and relief of carers rather than a narrow medical definition in which merely objective, measurable clinical improvements are recorded. The rational result of this definition is that benefit from healthcare may be affected inversely by the severity of disease. For instance someone who suffers from mild symptoms of coronary heart disease may have a greater chance of being offered coronary bypass surgery than an older patient with severe 3-vessel coronary disease, whose life expectancy may not be extended greatly by surgery, on the grounds of having less *capacity to benefit*. Moreover, equity in access to healthcare is fundamental to the economists' definition, otherwise it might not be equitable. Also, this definition minimises the influence of lay people; focuses on "health care" rather than "health" contrary to Bradshaw's model [6]; and is concentrated on a causal model. This can be problematic when studying human behaviour based on complex interactions between: individual behaviour, social circumstances, cultural beliefs and genetic construction.[19] Furthermore it often leads to a belief that current services are the basis for healthcare needs assessment. [20] Even the supporters of the definition concede this, arguing that measured needs are only based on existing services.[15] On the other hand, this terminology is innovation-disoriented, that is it limits population healthcare needs to readily available services, ignoring potential needs arising from emerging health technologies. One example is the increased 'need' that followed the introduction of automatic implantable cardioverter defibrillators in late 1990s. Even so, individuals who have more 'capacity' to improve their health status or prevent deterioration might benefit more from healthcare provision -for example health professionals have more knowledge about their health/ill-health conditions, therefore may benefit from health services at higher levels.

Literature review reveals that cost effectiveness is already receiving greater emphasis, although there is no evidence that direct questioning of individuals to establish their health care requirements is being overlooked.

A health service approach?

The Medical Research Council considers need to exist when a patient's functioning falls below -or threatens to fall below- some minimum specified level and there is a remediable cause. This definition takes into account the effectiveness of the care process and implies that a need is met '*when it has attracted some at least partly effective intervention*'.[21] In a similar vein, Buchan et al defined health service needs as '*those for whom an intervention produces a benefit at reasonable risk and acceptable cost*' [22]. This definition does incorporate effectiveness *and* cost-effectiveness.

A more reasonable definition of needs is '*the requirement of individuals to enable them to achieve, maintain or restore an acceptable level of social independence or quality of life, as defined by particular care agency or authority*' [23]. Taking this definition into account, health authorities and other health-related organisations at local, regional, and national level set out to provide appropriate services to meet its population needs, targeting an acceptable level of social independence and improved quality of life. If assessing needs is being considered to change current healthcare services, [24] definitions that focus on 'maximum health' seem preferable.

Macro or micro level?

A distinction needs to be made between individual and population-based health. Several approaches have been adopted as a proxy for assessing population's healthcare needs: mortality rates, [25–28] socio-economic status[29], service utilisation,[30] or prevalence rates,[31] which are all at macro level. However, needs can be defined at micro level too, as demonstrated by the doctor-patient relationship, consultation with health professionals, or patients' healthcare needs at a local surgery or health centre. Both macro- and micro-health needs are important in different settings of health decision making.[10] Nevertheless, in routine clinical management, health professionals deal with rather wider aspects of healthcare needs than 'capacity to benefit', such as social support, informational needs and equipment for daily activities.

Demand and supply in relation to need

'Demand' is defined as what people ask for, and the media, advances in medical technology and social and educational background can have a profound influence on patients' and society's expectations. Geographic variation, socio-economic status, knowledge about health and attitude of the population can all influence demand for health care, while medical guidelines and effectiveness of interventions may affect the provision and availability of health care. Ideally, the provision of health care services should meet most of the populations' needs but the latter may not be constant. Consequently health needs assessment surveys are necessary both locally and nation-wide to establish what services are required to meet these needs.

Some health economists define demand as a *measure for desire*, wherein willingness to pay or spending time reflects the extent of demand. If health care services become more accessible (for economic, physical and cultural reasons), the demand for healthcare based on need will increase. In the past, demand for health care such as attendance at clinic has often been used as a proxy for need [32], but this approach generates various problems. Converting *felt need* to demand requires numerous factors- individuals' beliefs and the imposed costs (as well as time off work) are involved.

Need, demand and supply do overlap in Venn-like fashion to some extent, although each has its own distinctive characteristics. There is no standard model. In the NHS, service provision or supply has almost always been less than demand or need. Individual needs usually exceed their expressed needs or apparent demands, although this hypothesis remains to be fully evaluated.[33] Interventions may become more effective when they are targeted to fulfil need [34].

Geographical variations

Demand for healthcare may also be affected by geographical variation [35,36] and medical charges.[37] Healthcare providers too may constrain patients' ability to benefit from healthcare; for example, low-referring General Practitioners may fail to refer patients who need special care.[35] Hospital utilisation data cannot be assumed to be a valid proxy for need since hospital use is a product of many variables including service supply and clinical decision-making rather than population need[38]. These data more likely reflect patients' propensity to consult, the willingness of family doctors to refer, access to hospital beds and the availability of alternative facilities provided by the private sector.[39]

Do existing definitions satisfy clinically relevant health care needs?

Coronary heart disease is increasingly common with advancing age and has a significant impact on daily life. It constitutes a large proportion of the clinical workload for UK general and hospital practitioners, but a range of pharmacological and surgical interventions are available. Our clinical experience led us to suspect that this patient group had specific needs that existing definitions failed to cover.

We developed a comprehensive, self-administered needs tool In order to identify cardiac patients' specific health care needs through patient interviews, expert opinions and literature review and administered this to 240 consecutive patients admitted to an acute cardiac unit. The methodology has been described extensively elsewhere [40] but briefly the needs assessment questionnaire consists of 46 questions in 5-score Likert scale (1 indicates more needs versus 5 with no needs) in five domains of 'physical needs, 'satisfaction', 'informational needs', 'social needs, and 'concerns', with satisfactory internal consistency (Cronbach's alpha ranged between 0.83–0.89). This was administered with a specific (Seattle Angina Questionnaire) and generic instruments (SF-12 and EQ-5D).[40]

The main needs expressed by our patient group were for information about current and long-term plan of treatment, nutrition, any recommended limitation on daily activities, advice on rehabilitation, more support from the family doctor and easier access to the clinic and health services. Precise needs differed to some extent according to age, educational level and social status. Having more information about treatment was thought by the participants to contribute significantly to quality of life and health improvement.

The General Practitioner was an important point of contact for information on treatment and prognosis for over half of our patients, despite much of the information being technical and quite detailed. Time available for consultation was important, as those who had inadequate time with the General Practitioner were more likely to need detailed information about their care, even though some of this was more appropriate for a specialised cardiac team.

Conclusion

Existing definitions of 'need' seem to justify resource constraints rather than seeking to satisfy the genuine health needs of the population in the context of a needs-driven healthcare system. If needs analysis is intended to be meaningful rather than an academic exercise or political propaganda, definitions must reflect clinical reality. In this respect, current definitions fail to recognise the needs that we have identified among our own cardiac patients. The gap between patients' health needs and the services offered has identified potential areas for improvement in the quality of services. This presents a challenge to the widely applied definition of 'needs' and may well be relevant to other patient groups with their own specific needs.

While public health physicians are establishing need in populations or specific patient groups, clinicians must be engaged in establishing need in individual patients, if health services are ever to move away from a top-down approach to health care and towards a needs driven system. In addition, it is important to ensure that patients express their needs to a suitable agency, which can provide the sort of specialist information required. Providing patients with a forum in which to express their needs to access health professionals might be productive.

Politicians keen to propose how they intend to meet the needs of the voting public may find that it is easy to be seduced by definitions of 'need' which lead to a situation where limited resources appear sufficient. While some genuine needs will be met, others, perhaps of greater value if met, will be denied. The comprehensiveness of 'health' deserves a definition of health needs which over-rides political considerations, or providers' limitations, and embraces current political strategy to conceptualise and meet health need in the widest sense.[41] If assessing needs is being proposed as a trigger to change current healthcare services, definitions that address optimum levels of health are preferable and must be clinically appropriate for the population served.

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