Improving the Quality of NHS Outpatient Clinics - the Applications and Misapplications of TQM

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INTRODUCTION

Attendance at an outpatient clinic is one of the most typical ways in which members of the public come into contact with hospital services. The National Audit Office reported that some 40 million attendances a year entailed a cost of some £1.2 billion in 1988-89 [1]. This represented some 4.3% of all Government expenditure on the NHS. By way of comparison, some 7.7 million Finished Consultant Episodes (FCE's) were completed in 1991-92.

Two sources of dissatisfaction have emerged as constant themes in the literature. One of these is the amount of time between referral by a GP and the date of an initial appointment at an outpatient clinic whilst another is the amount of time that patients typically had to wait in clinics until receiving attention by a member of the clinical staff [2].

The original *Patient's Charter* [3] addressed the second of these issues by specifying as a goal that 'you will be given a specific appointment time and be seen within 30 minutes of that time'. This commitment is repeated in the revised *Patient's Charter & You* [4]

(January 1995) and the issue of waiting for a first appointment was specifically addressed in the face of mounting public concern. The national waiting time standard has been set so that 90% of people can expect to be seen with 13 weeks and everybody can expect to be seen with 26 weeks. In terms of waiting times within clinics, the most recent Charter repeats the pledge of a '30-minute waiting time' but does not indicate what redress is available if this standard is not met. This paper addresses some of the issues raised by the amount of time spent by patients in outpatient clinics rather than the weeks typically spent waiting for a first appointment.

THE LEICESTER GENERAL HOSPITAL CASE-STUDY

Leicester General Hospital is a medium to large size 700 bed teaching hospital located in the East of Leicester, providing some 100,000 episodes of outpatient care per year. In the Autumn of 1991 the Department of Quality Assurance, with the assistance of the author, instituted a quality improvement programme, the results of which may be seen in the following table :

(Take in Table 1)

It can be seen that at the start of the study period, in December 1991, the figures from Leicester General Hospital were very similar to those collected in the National Sample of 1989. However, in just a year ,a considerable improvement had been effected with over 80% patients seen within 30 minutes and a median wait of 14 minutes. The methodology of the study and some of the substantive findings have been discussed elsewhere [5,6,7]. However, the key to the substantive improvements can be summarised in two factors :

(i) a carefully conducted monitoring system in which statistical reports on key indicators were fed back on a regular basis to management and consultants

(ii) the acceptance of a 'culture of change' in which local management took great pains to work collaboratively with consultants to affect overall improvements

DID THE QUALITY OF THE OUTPATIENT SERVICE IMPROVE ?

The experience at Leicester was mirrored in many other parts of the country, to the extent that the claim was made in *The Patient's Charter & You* [4] that

> 'In NHS outpatient departments, more than 8 out of 10 patients are now seen within 30 minutes of their appointment time'

From the point of view of the Government, hospital managements and indeed, many of the patients themselves, the service has evidently been 'improved' now that one of the major sources of dissatisfaction may well have been removed. However, it is necessary to exercise a degree of caution before assuming that a 'real' improvement has taken place. It is logically possible that patients may have been 'rushed' through clinics in order to improve the overall waiting time statistics and the quality of consultation could have deteriorated. The most recent evidence from Leicester General Hospital reveals that this is not actually the case (average consultation times are 15.2 mins in 1995 compared with 13.6 mins in 1992). However, the case-study does raise the following interesting issues:

WHO DEFINES QUALITY'

The term 'quality' has been used in a bewildering variety of ways. For example, it is possible to talk of

- quality inputs (well-trained nurses)
- quality processes (following clinical protocols)
- quality outputs (low bed-sore rate)
- quality outcomes (low readmission rates)

But of much more significance is the 'battle for turf' as rival groups attempt to appropriate the labels of quality for their own professional purposes :

- 'Medical' quality (clinicians, particularly doctors)
- 'Nursing' quality (nurses and professions allied to medicine)
- 'Service' quality (incorporating the above but including aspects of service delivery e.g. prompt appointment times)
- TQM (a corporate approach to quality - typically management defined)
- 'Experienced' quality (as experienced principally by patients but also by other 'key players')

In order to answer the question more fully as to whether or not outpatients are now receiving a qualitatively better service, we need to be aware of which group is making the claim for 'quality', how quality is being defined and for what purposes is the claim being made? Of all of the groups laying claim to the territory of quality, the voice of the patient is little heard. In part, this is due to the fact that patients are not in a position to make a technical assessment of the quality of treatment they have received. Patients may, and do, give attention to the 'hotel' services that have been received but there is the danger that relying too much upon this aspect of 'care' could divert scarce clinical resources from their primary objective. For whatever reason, the

patients' experiences of quality may well be seen as not carrying a great deal of weight in the overall evaluation of quality.

THE PURSUIT OF THE 'MEASURABLE'

Using the categories outlined above, we could define the issues of waiting times in clinics as a manifestation of 'service' quality, defined particularly by managerial objectives in order to meet one of the overall 'system goals' defined by government. It is evident that although desirable, an overall assessment of 'outpatient clinic quality' may be extraordinarily difficult, combining as it does both the language of the conversion processes (inputs, processes, outputs and outcomes) and the 'battles for turf' by the various professional and managerial groups. How much more convenient, therefore, to seize upon a single, seemingly 'technical' measure such as waiting times, which is known to cause patient dissatisfaction?

The danger here is that both government and the managerial imperative handles measurement difficulties by seizing upon the easily measurable and ignoring the intrinsically more difficult- to-measure issues. Hence the '30 minute standard' seemed to be a reasonable, achievable and definable objective which has become one of the principal means by which outpatient quality is defined. As has long been pointed out by sociologists such as Blau [8], there is always the possibility that over-concentration upon outcome measures may subvert the goals of the organisation, leading to a lowering of organisational effectiveness. Blau's case-study of employment clerks showed clearly the managerial pressures to achieve 'effectiveness' by measuring the numbers of the public placed into jobs rather than achieving a match between the job requirements and the individual's skills. As the numbers of 'successfully placed' became a key monitoring measure of the clerk's effectiveness, so a variety of strategies were employed to coerce people into sometimes unsuitable jobs in order to achieve satisfactory

monitoring measures. The outcome was that the organisation appeared to be succeeding in its key objectives whilst actually achieving the reverse. The parallels with outpatient clinics appears clear - although the clinical staff deny that attempting to reach 'Patient's Charter' standards has actually affected the intrinsic quality of patient care.

TQM IN THE NATIONAL HEALTH SERVICE

Concerns with quality in healthcare and its measurement are not at all new. As long ago as 1854, Florence Nightingale demonstrated that a statistical approach with graphical methods could be persuasive in reducing the cost of poor quality care by 90% within a short period of time. With particular reference to outpatients, Scholes-Rhodes and Morton [9] recently pointed out that the '30-minute standard' was first audited in 1952 and that a comprehensive report in 1965 revealed that only 11 out of 60 hospitals investigated reached the standard of seeing 75% of their patients within half-an-hour [10]. The formal implementation of TQM into the NHS can be dated back to 1989-90 when the Department of Health funded those health authorities who submitted suitable proposals for the implementation of TQM. Funding was provided for 17 demonstration sites with more added later.

The import of TQM into the Health Service was primarily a management-led initiative the aim of which was to import some of the tools successfully implemented in the private sector in order to increase both efficiency and quality within the NHS. Whilst TQM can be variously defined according to which 'guru' (Deming, Juran, Crosby, Ishikawa) one follows, there is a measure of agreement over the following elements :

- A corporate (or organisation wide) commitment to quality
- Commitment to quality improvement at all levels
- Concerns with quality must transcend boundaries
- Training to be accorded a high priority and investment
- Commitment to continuous improvement - i.e. an on-going process
- 'Getting it right first time'
- Meeting customer needs and expectations

Although the philosophy of TQM has its roots in manufacturing industry, it is claimed that in principle its precepts can be applied to the service sector, including healthcare. However, the predominance of concepts such as 'zero manufacturing defects' and tools such as statistical process control (SPC) alerts us to the fact that TQM may need to be adapted and not followed slavishly if it is to prove its worth in the NHS.

Some of the evident difficulties in the wholesale importation of TQM into health services will be discussed here.

WHO IS THE 'CUSTOMER' ?

A major conceptual difficulty lies in the fact that traditional TQM places a great deal of weight upon meeting the customer's needs and expectations. In the case of a commercial product, then the term 'customer' can apply both to the purchaser (i.e. somebody who pays the money for a service) and also to the 'consumer' (one who enjoys the benefit). However, since the reorganisation of the NHS into a 'managed market' we now have a differentiation of the role of 'customer' into the consumer of services and the provider of those services. So an aged female who has a hip operation and attendant physiotherapy will be the 'consumer' of services but the actual 'purchaser' could well be :

- herself (privately, own resources)
- herself (privately, via an insurance policy)
- her family
- her local community
- in some instances, a voluntary organisation
- her GP fundholder
- a purchasing consortium
- the DHA in its role as 'purchaser'

Satisfying one 'consumer' may well be to the financial detriment of the 'purchaser' and therefore other actual or potential 'consumers'. Even adopting a 'utilitarian calculus' of the 'greatest good of the greatest number' does not always provide suitable guides for effective healthcare provision either. Traditional TQM does not cope well with the problems of rationing and equity which are a recurring dilemma in health service provision.

ONE MORE INITIATIVE

The implementation of TQM has had to contend with many other initiatives currently underway in the NHS. Apart from 'managing the internal market', there are many other current initiatives such as medical audits, clinical audits, Resource Management, new information systems, waiting list initiatives and so on. TQM is often seen as a 'bolt-on' i.e. a set of procedures to be carried out in addition to the multiplicity of similar initiatives and in so doing the 'Total' of TQM gets misplaced. The whole-hearted approval of the medical profession was not forthcoming and the early implementations of TQM in the Health Service side-stepped their direct involvement. Interdepartmental boundaries are often hard to dissolve in an NHS in which rival claims and 'boundary disputes' are

endemic. The resources put into TQM initiatives were minuscule in comparison to similar projects in the private sector.

PROFESSIONAL BOUNDARIES AND MANAGERIAL CONTROL

TQM has its origins in the organisation of industrial 'blue- collar' weakly-unionised workforces (in the case of USA and Japan, the 'homes' of TQM) whereas in the NHS we are concerned with the management of high-status professionals owing allegiances to professional norms and reference groups (in a horizontal direction) rather than direct management control (in a vertical direction). It would not be unduly cynical to argue that TQM can be seen as a potential weapon in the armoury of modern NHS management control mechanisms seeking to control and/or to redirect the efforts of clinical staff. If we extend the analogy of 'battles for turf' which characterises inter- professional rivalries, then TQM may be seen as only the latest (and not the last) in a series of management initiatives to extend their span of discretion and control. On the one hand, it can be argued that the self-interests of the medical profession had to be tempered by some of the 'realities' brought to bear by managements (e.g. in an attempt to reduce waiting lists) whereas there is a potent argument that managerial staff, by exerting controlling over the purse-strings may be making 'de facto' clinical or rationing decisions. Whatever the state of the argument at any point of time, it is undoubtedly true that the operation of the 'managed market' has now heightened at least the potential for conflict in the arena of 'professional' v. 'managerial' control.

EVALUATION OF EFFECTIVENESS OF TQM PROGRAMMES IN THE NHS

An independent review of the effectiveness of the TQM programmes in the Health Service indicated that none of the 17 DOH sites fully met the tenets of TQM.[11] In particular, the following observations are pertinent :

- Organisational audits need to be carried out before the implementation of a TQM programme so that that the effects of the quality improvements made can be measured.

- TQM has to take the word 'Total' seriously by aligning relevant management and information systems. In particular, TQM is to be seen as much more than 'just another initiative'.

- The tensions between 'corporate' approaches to quality such as TQM and 'professional' systems of audit and quality assurance need to be reconciled. In particular, the medical profession needs to be seen to 'own' TQM philosophies just as much as the management professions.

Whilst it may well be that there are both conceptual and organisational difficulties in applying the precepts of TQM into the Health Service, it must be said that there are areas which can well benefit from its approach. In particular, the provision of 'hotel' services to both inpatients and outpatients is susceptible to a TQM initiative. Similarly, one must not neglect the role of the NHS in relationships with its many suppliers and its own 'internal' customers. Even in the areas defined as 'clinical', it is possible to reorganise procedures along more 'patient-centred' lines. For example, Anderson Consulting [12] reported a survey of 10 hospitals in which one of their results indicated that a common pathology test took on average 10 people and 18 hours to carry out, and

80% of all tests comprised a few simple procedures which could easily be carried out by nurses on the ward.

A survey by Nwabueze [13] of the 17 sites chosen for the implementation of TQM programmes indicated that 15 of them had failed to achieve 50% TQM maturity after five years (as measured by the Crosby Quality Management Maturity Grid). Some of the identified factors have already been mentioned but others include the 'non-holistic' approach adopted in TQM implementation and the lack of personal involvement by upper-level managers who appeared to be 'finance' and 'contracts' led rather than influenced by a TQM philosophy.

'USER-CENTRED' APPROACHES TO TQM IN THE NHS

The evidence from the implementation of a variety of audit and quality initiatives indicates that control is still very much in the hands of the 'producers' of services rather than the 'consumers' of those services. Pollitt [14] in his examination of the models of medical audit concludes that the process was:

> 'a non-threatening activity carried out only by doctors and rigorously protected from public gaze'

Patients, or more particularly their representatives in the form of the Association of Community Health Councils, were denied involvement in medical audit in 1989 on the grounds that it was a professional exercise.

Nursing audit, on the other hand, differs from medical audit in several important respects. For example, the psychosocial needs of patients are embraced together with the physical and technical aspects of nursing care. Nursing audit has not reflected the 'peer

group' review of medical audit and tends to be introduced and run by nurse managers, with the results available to management. This has proved useful to management in the form of costings of 'packages of care'. As nursing care is subject to an increasing 'formulaic' approach via case-mix, work- study, dependency levels and the like it may be that the truly individual needs of patients again receive a low priority. The 'consumers' of services in the form of patients and their families have little influence over the type of service that they received, despite the plethora of quality initiatives.

To what extent should the user's experience of a service be incorporated into the definitions of the quality of the service as provided ? Ranade [15] makes the point that in services such as healthcare or education, the 'experience' of the service is the product being consumed whilst the 'behaviour' of the patient is an important part of the production process itself. But to what extent can the consumer be a realistic assessor of the services provided ? At one end of the continuum, patients may find it difficult or impossible to assess the quality of surgical interventions and their assessments of painful but essential physiotherapy may not be positive. On the other hand, there is no reason why they cannot evaluate the quality of the 'hotel' services upon demand or the care and respect for themselves as individuals. Perhaps it is necessary for the medical professions to accept that they have an important role to play in the education and 'shaping' of perceptions of service offered to patients and their relatives. Having done this, it is now important to attempt to incorporate such perceptions of the quality of service into the measurement of the quality of service itself.

Two different but complementary approaches to the incorporation of user-defined perspectives upon quality will now be offered.

WHAT DO PATIENTS REALLY THINK ?

The results of an independent national survey of 5,150 patients from 36 randomly selected acute hospitals, published by Bruster *et. al.* [16], indicated that asking consumers to rate a service can produce highly positive results which can hide problems that actually do exist. A commentary upon the study by Wedderburn Tate [17] cast doubt upon the value of many patient satisfaction surveys on the grounds that many of them are carried out by staff with little experience of survey methodology, biases may be built into both the questions and the results and the type of questions asked provides little information of real value. It is no wonder that such surveys have been perjoratively described as 'happy sheets' - managements can quote their results if they are favourable (which they often are) or criticise them on methodological grounds and choose to ignore them if they are not. The approach adopted by Bruster and colleagues was to administer a battery of 240 questions to randomly selected patients interviewed at home by trained interviewers from an independent research organisation. The thrust of the questions was to ask patients what happened to them rather than whether or not they were satisfied. The intention is to use a methodologically rigorous research tool with which to build patients' perceptions and views into the decision making processes of management. Several factors stand out from the survey e.g.

- patients are still not given the information about day-to-day life in hospital
- Aspects of the Patient's Charter (e.g. named nurse) are not well understood by patients, managers or nurses
- there is inadequate management of pain

- results of surveys of patients' experiences are not routinely included in strategies for service delivery

This study is particularly interesting as it has been an attempt to 'break the mould' of the inadequately conducted patient satisfaction survey and to use a large scale, methodologically sound technique to systematically incorporate the voice of the patient into service provision. Although used for inpatients, there is no reason why the same general approach might not be tried for a variety of health service provision, including outpatient clinic appointments, GP consultations, maternal and child welfare and so on. The authors are intending to approach every hospital In England, Scotland and Wales for a further round of the survey. The approach has already been utilised in 100 hospitals in the US and Canada and this may well indicate the shape of things to come in the UK.

THE **SERVQUA**L SCALE OF SERVICE QUALITY

This is a well-validated approach specifically developed and refined to measure service quality along five dimensions (Parasuraman *et. al.*) [18]. The approach measures the gap between the customers' expectations of a service and their perceptions of the quality of the service actually experienced by inviting them to complete a 22-item survey. The traditional approach in assessing the quality in service organisations is to conduct customer satisfaction surveys. However, these may often reflect the preoccupations of the producers rather than the consumers - after all, it is the producers who write the questionnaires! But more fundamentally, it has been argued that by ignoring the expectations of the customers, deep seated problems in service provision may be overlooked. The **SERVQUAL** model claims to overcome some of these basic problems and, if validly administered, it can be a powerful diagnostic instrument with a statistically tested

framework allowing comparisons to be made within and between service sectors of several industries.

Although well-known in TQM circles, the **SERVQUAL** model has not, until recently, been applied to British public services. Dalrymple et. al. [19] report the use of **SERVQUAL** to measure two different types of local authority service: - a public library service and a Home Help Service. Hart [20] has applied **SERVQUAL** to a pilot sample of patients attending outpatient clinics in the East Midlands whilst Tomes and Ng [21] have adapted the use of the **SERVQUAL** methodology to construct an in-patient questionnaire. There is no reason in principle why a similar approach should not be tried more extensively in the NHS - the other examples of the implementation of **SERVQUAL** in health services are American in origin.

The problems of implementing **SERVQUAL** in local government are also documented by Dalrymple *et. al.* [19]. It may be difficult to discern precisely who *are* the customers of a local authority. In the case of a planning enquiry, for example, would it be the local businesses seeking to expand or the local residents attempting to resist encroachment? A further problem arises when attempting to import concepts uncritically from the private sector and apply them to British public services. Increasing the quality of services in a private sector 'service' industry should help to improve turnover, profitability and long-term viability. Increasing the quality of service in a cash-limited local authority may increase throughput and given the pressure on budgets then the quality of service may decline for all customers. There are also technical difficulties in applying **SERVQUAL** to services such as child care or social services. In these instances, the clients may not be able to distinguish those elements of a *minimal* service from the elements of an *excellent* service. In any case, they may be fearful that their statements about the quality of service may be 'skewed' by the fear that an inappropriate response may compromise the level of care actually received.

Many of these dilemmas will be recognised as equally applicable to the application of the model in the NHS. Currently, the applicability of the model is being tested in several Scottish local authorities and plans are being made to test the model in Scottish health authorities. Although it is easy to point to some of the manifest difficulties, an avenue is being opened by which it is possible to apply a well-known and validated research instrument to the British health services. Were several comparative studies to be undertaken, then it would be possible to make valid comparisons between the perceived levels of satisfaction (and more accurately, the gap between expectations of a service and the quality of the service actually delivered)

- between different hospitals/regions of the NHS
- between NHS and cognate local authority services
- between public services and service industries drawn from the private sector by way of comparison
- between the levels of healthcare provided in different societies

Such studies have yet to be funded and undertaken but the possibilities exist for measures of 'quality' to be somewhat less parochially defined and defended by competing professional groups and for studies of 'quality' to be undertaken at a higher level of generality than has hitherto been the case.

AN 'ECOLOGICAL' APPROACH TO THE MEASUREMENT OF QUALITY

It has already been indicated that approaches to quality may be heavily dependent upon

- the prescriptions of the individual author on TQM (as there is clear unanimity)
- whether the measurement is by input, process, output or outcomes
- the professional group or power centre interested in defining quality and the purposes to which this shall be put
- the views of the patient are not accorded a major status.

Any approach to quality will typically employ some statistical monitoring and here again the measures derived may be dependent upon implicit value assumptions whilst the recorded data may be of variable quality or subject to differing interpretations. For example, do short waiting lists for a particular consultant indicate high quality through highly efficient throughput, or low quality because the consultant is not in a position to compete with more sought-after colleagues in the same specialty?

The measures of quality, as in any scientific modelling, will employ an element of abstraction and formulation such that 'measures' of quality are assumed to hold a deep level of congruence with the 'reality' (however defined) of the phenomenon which is being measured. Belatedly, it has been recognised that, as Ranade [15] states

> 'there are good theoretical grounds for making the user' experience central to definitions of quality in a service industry like health care'

but the tapping of user's experience, either individually or collectively, has not been performed with any degree of sophistication in the past. What is needed, however, is not to substitute the levels of abstraction associated with a purely statistical approach to quality on the one hand with the apparent subjectivity of a purely patient-centred approach on the other.

The term *ecological validity* derives from an approach in which elements of a phenomenon are studied not only as intrinsic objects in their own right but also in relation to the other parts of the environment with which they interact. An example may help to clarify the point. Whereas a bluebell may be studied scientifically by a botanist by being picked and then examined under a microscope, as much relevant information will be gained by not 'abstracting' the bluebell from its environment (i.e. picking it) but by a close examination of the way in which it is related to its ecological niche (availability of light and shade, proximity to other flora and fauna and so on) This latter approach will help to 'preserve' ecological validity whilst the abstraction of the bluebell and subjecting it to experimental procedures in a laboratory is apt to 'destroy' ecological validity.

Let us return to the case study of outpatients which formed the point of departure for this paper. An 'ecologically valid' study of an outpatient department would not seek to deny the importance of carefully collected and correctly analysed elements of statistical analysis such as waiting times and consultation times. But the passage of time will hold different meanings to various social groups. For example, to the busy young executive, 'time is money' and any unnecessary time spent in waiting is deeply resented. To older age groups who can vividly remember pre-NHS hospitals, then the amount of time spent waiting is immaterial provided that one is assured of a sympathetic hearing and good quality treatment once one is actually seen. The

patients at a renal dialysis clinic may well welcome any time spent as a mutual support session. To those in a highly anxious frame of mind or with a fear of hospitals then even a 'normal' wait will not make a visit to an outpatient clinic into a quality experience.

Ecological validity seeks to marry the perceptions of all of the actors, or key players with more 'objective' indicators of quality as embodied in statistical or other monitoring measures. Of course, the perceptions of all actors will depend on past experiences as well as current reference groups. So the same 'experience' of a waiting time in a clinic may be judged as

- much better than the last time treated (10 years ago)
- much worse than the treatment last month
- about what was expected, from what one has been told by neighbours and relatives.

Although it has been proposed that one taps into the expectations of patients, an ecologically valid analysis also taps into the expectations of **all** the participants in a scenario [22]. So measures of quality, in order to be complete, will need to examine the perceptions of other clinic staff (consultants, junior doctors, nurses, professions allied to medicine, ward clerical staff etc.) The results of such a monitoring exercise would not be a simple and easily interpreted statistic such as a 'waiting time'. Rather, it would be a battery of indices which collectively might serve to describe the dimensions of quality although it will not serve the interests of management (or their political masters) for a single, composite measure of quality.

CONCLUSION

The import of TQM philosophies and techniques into the NHS cannot be an easy process. There are some who argue, with a degree of justification, that the import of 'alien' philosophies, rooted as they are in the control structures of Japanese and American industrial blue-collar workers, can never be appropriate given the history and culture of the NHS. It must remain an open question whether or not the attempts that have been made to date will achieve any degree of success. However, two points may be made by way of conclusion. Firstly, one has to be wary that the pursuit of simplistic 'single measure' statistics as measured by the waiting time statistics can have the effect of reducing the 'real' rather than the measured quality of the service under consideration. The consideration of Total Quality Management, or its successors, should not disguise the fact also that a concern with quality is as old as the National Health Service itself. Despite the attempts of the various interest groups to define the term for their own purposes, it is hard to deny that the pursuit of quality will remain as a long-term objective for clinicians, managers and all of the consumers of healthcare provision.

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Table 1 Waiting Times in Outpatient Clinics 1989-93

Time period	National Sample 1989	Leicester December 1991	Leicester March,1993
	Percentages	*Percentages*	*Percentages*
Before time	}	12	15
0-10 minutes	} 11	21	43
11-20 minutes	29	33	64
21-30 minutes	45	48	83
31-40 minutes	}	60	93
41-50 minutes	}	73	97
51-60 minutes	} 85	79	98
60+ minutes	100	100	100
	n= 639	**n= 220**	**n= 291**