

Explanatory models of influences on the construction and expression of user satisfaction

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ABSTRACT

The paper asks why high levels of expressed satisfaction are recorded in settings where health care provision is manifestly inadequate. Qualitative interviews with 30 women aged 25-60 years from a rural district of Northeast Brazil were used to explore the applicability of three explanatory models of influences on the construction and expression of satisfaction: expectations; contextual dynamics; mediating filters. The first two of these argue that a lack of information and a reluctance to be negative respectively lead to high expressed satisfaction that is artificial. The concept of mediating filters proposes that respondents construct an evaluation that takes account of wider issues, such that high levels of expressed satisfaction are, in this sense, real. All three models contribute towards answering the paper's question. However, our data suggest that it is an informed, but low, expectation of health care provision that leads to alternative strategies, including resort to patron-client networks, and success in gaining good health care that is important. Mediating filters identified in this study were culpability and the reference time-frame. We raise questions for practice and offer a combined explanatory model.

INTRODUCTION

The move to incorporate user satisfaction with health services into performance assessments continues apace despite repeated cautions that much remains unknown about the influences and processes by which evaluation of health care is constructed (Crow *et al.*, 2002). Such caution is based on research from high income countries that have generated a rapidly increasing body of literature on patient satisfaction (Sitzia and Wood, 1997). The paucity of studies from low and middle income countries only serves to reaffirm our lack of understanding of how satisfaction is constructed and the need to proceed with caution.

This paper contributes to understanding how satisfaction is constructed and expressed, drawing on a rural case study in Northeast Brazil. The paper asks why high levels of expressed satisfaction are recorded in settings where health care provision is manifestly inadequate. Population satisfaction with health care provision was included as one of the key outcome variables in assessments of local health system performance in Northeast Brazil (Atkinson and Haran, 2005). Analysis of the determinants of satisfaction as assessed through a household based survey (n=4600 women, clustered in 46 districts) explored the effects of both individual and district level factors. Satisfaction was assessed in relation to the most recent ill-health episode within the last three months. Respondents were asked to rate satisfaction with aspects of each of three stages of the use of a health facility: getting an appointment; the consultation; the pharmacy, when appropriate. The aspects were defined as of importance to local people through prior qualitative research in three case study districts and comprised waiting times, staff behaviour, communication of

information, time in the consultation, whether the person consulted was well informed and availability of prescribed drugs where appropriate. These scores were combined into one index (Cronbach's alpha >0.8) to create the independent variable. The results, published in *Social Science and Medicine* (Atkinson and Haran, 2005), identified the leading factors associated with higher satisfaction as getting an appointment easily, resolving the health problem and whether the district was rural. Three districts, in which parallel in-depth case studies were made and which were also part of the larger survey sample, similarly showed higher expressed satisfaction in the rural district (Table 1). At the same time, observations of health care provision in the rural district found a dysfunctional system in which senior health professionals attended erratically, if at all, ambulances were not working or unavailable and the health posts rarely open (Atkinson *et al.*, 2000; Medeiros, 2002). The rural case study was broadly typical of rural districts in the dry, interior, *sertão* region of Northeast Brazil, and whilst health provision in other rural districts was not always so poor, the case study was by no means an extreme. Why, given the evident inadequacies of health care provision in many rural districts, is expressed satisfaction in these districts so high? This apparent paradox provoked our interest to explore further the issues involved in the construction and expression of satisfaction with health care provision, drawing on in-depth qualitative data from our rural case study.

A review of the literature on satisfaction indicates that few generalisations can be made. High levels of expressed satisfaction are generally reported but studies to explain variation have limited success, accounting only for around a fifth to a quarter. In exploring this variation, the determinants investigated fall into two broad categories: those relating to the characteristics of the users, including wider

contextual influences and those relating to the provision of health care (Crow *et al.*, 2002). There are very few analyses from low and middle income countries of the relative importance of these categories and the conclusions are inconsistent: two studies conclude that individual socio-demographic characteristics are relatively insignificant compared with elements of clinical practice (Scarpacci, 1988 in Chile; Baltussen *et al.*, 2002 in Burkina Faso); one argues that a broad range of factors from the wider political and cultural context have the stronger influence (Atkinson and Haran, 2005 in Brazil).

Individual studies have demonstrated higher satisfaction amongst population groups which are disempowered in wider society, such as the elderly, lower socio-economic groups, those with poor health status and those from disadvantaged geographic regions, for example highland areas in Bolivia (Gattinara *et al.*, 1995) and our own study of rural areas in Northeast Brazil (Atkinson and Haran, 2005). However, findings across different studies build a largely inconsistent picture of key determinants with the single exception of age. Age consistently emerges as a determinant in that older people report higher levels of satisfaction than the young (Sitzia and Wood, 1997).

Thus, the literature already indicates that the causes of satisfaction are multi-dimensional and highly complex, possibly verging on the idiosyncratic. They may also be highly situation specific. What is needed is far greater attention to the processes by which people construct and express satisfaction. In particular, a sound understanding of the influences on satisfaction beyond the remit or control of the health system is essential to assess whether and how user satisfaction evaluations

may be meaningful and useful to health service managers. Without such insight, there is little understanding of what it is that has been evaluated and, as a result, any reward system based on such evaluations risks being fundamentally unjust if these are influenced by factors beyond the control of managers or health practitioners (Young *et al.*, 2000; Atkinson and Haran, 2005; Venn and Fone, 2005).

Theoretical treatments of the construction and expression of satisfaction with health care include three types of explanatory model: the influence of expectation on experience; the influence of contextual dynamics on evaluation; the mediating filters through which experience is processed into evaluation. These are summarised in Figure 1 and discussed briefly in the next section before introducing the case study of a rural district health system in Northeast Brazil through which to explore these influences.

EXPLANATORY MODELS OF SATISFACTION

Expectation and Experience

The commonest approach to explaining satisfaction is the attractively intuitive suggestion that satisfaction arises when the experience of health care provision meets or exceeds expectation. There are more sophisticated versions of this simple statement with respect to the balance between expectation and experience, the dimensions of expectation and experience and the influences on expectation but all have at their heart this core relationship. The expression of high satisfaction when other assessments of health care suggest this is unwarranted, and the parallel

observation that some studies report higher satisfaction in more disempowered groups, may be explained efficiently as an artefact of low expectation (Pugh *et al.*, 2007). This explanatory model affords a powerful critique for simplistic applications of satisfaction assessments in health systems management: high satisfaction resulting from low expectations does not necessarily reflect high performing health systems. Several criticisms have been levelled at the expectation-experience base to satisfaction. First, studies find expectation explains surprisingly little of the variation (Sitzia and Wood, 1997). Secondly, expression of expectations may be sensitive to the research instrument but reported satisfaction less so (Peck *et al.*, 2001). Thirdly, users of health care services often express no expectations or only very vague ideas of what might be going to happen, approaching the coming experience with a relatively open mind (Avis *et al.*, 1997; Fitzpatrick and Hopkins, 1983). Lastly, there is a complex relationship between expectation and experience in which prior experience, directly, or by hearsay, informs expectation as much as expectation informs experience and evaluation (Kravitz, 1996). Indeed, prior experience has been demonstrated as a strong determinant of satisfaction in several studies (Sitzia and Wood, 1997).

Contextual Dynamics and Evaluation

An alternative explanatory model for unwarranted high expressions of satisfaction focuses on influences affecting the expression of the evaluation. The proposal is that the wider contextual dynamics in which respondents are faced with a satisfaction-related questionnaire provoke expressions of higher satisfaction than respondents may feel. Such dynamics exert their influence through various pathways and are summarised here drawing on Sitzia and Wood, 1997; Atkinson and Haran, 2005;

Bernhart *et al.*, 1999; Øvretveit, 1992; Avis *et al.*, 1997. Norms of courtesy can result in satisfaction being overstated. These may include a social obligation to show respect for those in authority, such as health staff, a courtesy to interviewers by reporting what the respondent thinks they want to hear or the social inappropriateness of any explicit critical comment. Respondents in systems still imbued with a sense of grace-and-favour may express gratitude for the public provision of services. Overstating satisfaction may also be a strategy for looking after one's own interests. These include ensuring future good treatment if local health staff learn of the respondent's evaluation, or if good reports increase local funding. Respondents may need to justify subconsciously the time and other costs invested in coming to the health services. The act of being asked for an opinion itself may increase the sense of satisfaction with the health services, a version of the Hawthorne effect. Finally, respondents may simply be indifferent if there is no expectation that change is likely, again most usually resulting in an expression of satisfaction, albeit rather lukewarm. Exactly how the dynamics of values, concerns or aspirations interact with the satisfaction studies will be locally, politically and culturally specific. The expression of some of these processes depend on a power-distance between respondent and health system and/or interviewer, indicating an explanation for why more disadvantaged groups may express higher rates of satisfaction. Whilst research methodologies can tackle some of these issues through sensitive wording, place of interview and so forth, these processes are difficult to control totally. This explanatory model takes researchers towards an impasse in which evaluations of satisfaction through any method, quantitative or qualitative, other than in-depth, long-term engaged qualitative research seem bound to mislead.

Mediating Filters from Experience to Evaluation

The third explanatory model differs from the others in focussing on the processes by which people evaluate their experiences with health care. Expectation has its primary influence on experience, with a relatively uncomplicated link to expressing an evaluation. Contextual dynamics also treats the relationship between experience and evaluation as relatively uncomplicated (on the whole), but has its primary influence on the expression of that evaluation. The concept of mediating filters problematises the relationship between experience and evaluation by positing filters through which the evaluation is constructed. Williams *et al.* (1998) argue that experience, negative or positive, is processed through two filters in constructing an evaluation and the expressed satisfaction. These filters are duty - whether it is the job of the health service and its staff to carry out certain functions, and culpability – whether the health service can be blamed if it is not carrying out its duties.

This is a powerful advance on the simplistic consumer expectation and experience model on the one hand and moves us on from the potential impasse from contextual dynamics on the other. Those models argue that expressed satisfaction is artificially elevated, in the first case because a disempowered population expects no better and, in the second case because a disempowered population will not express dissatisfaction for various reasons. In the model of mediating filters, high expressed satisfaction is explained not as artefact, and therefore as misleading, but as the result of a constructed evaluation in which respondents exert their judgement based on wider sources of information. This opens a potentially rich vein of research on the details of the filters that users put in place in different circumstances that has been relatively little mined to date.

The paper explores expressions of satisfaction from in-depth, long-term qualitative fieldwork to identify the relative importance of expectations, contextual dynamics and mediating filters.

METHODS

Study site

The data are drawn from a rural district health system in the dry, interior *sertão* region of Northeast Brazil. The population depended largely on agriculture, animal husbandry and related cottage industry products as well as some employment in the local government sectors. The model of health care aimed to deliver basic curative and preventative care relatively nearby supported by resources to identify and transport patients needing more advanced services. All neighbourhoods were served by Community Health Workers who delivered mother and child preventative care and were the first point of contact for accessing other care. There were four health posts across the district with physicians, nurses and dentists visiting on set days each week. There was a small district hospital in the main town of the district and, crucial to the model, four ambulances to transport patients from the rural areas to the district hospital or to referral hospitals.

Study methods

The data used in this paper are in-depth interviews made with thirty women between November, 1996 and March, 1997. These data were collected to evaluate health care provision as part of a study of policy implementation. We have revisited these data here as they afford the depth and breadth required for a more theoretical

reflection on the construction of user satisfaction. The informants were not employed through the local health system or other local government body and resident in neighbourhoods away from the district centre. The field researcher visited these neighbourhoods several times before the interviews were conducted. She recruited participants, assisted by local leaders, on an *ad hoc* and snowball basis depending on willingness and interest to be interviewed. The study was discussed to ensure informed consent and confidentiality of information assured. Interviews were taped, with informant permission, and transcribed. The interview started with general conversation about personal history, which also facilitated comfort with the tape-recorder. Participants were asked to narrate a recent experience of ill-health, where such existed, and their view of local health care. They were also engaged in more general conversation about health care provision, local history and local political and social relations. The women were all between 25-60 years old (Table 2), the majority were housewives with some small-scale income generating activities such as sewing. One informant worked part-time in the local crèche, another was involved in the local residents' committee. Ethical review of the proposal and field research practices was undertaken, and approval granted, through Durham University.

The interviews were stored within the QSR NUD*IST software. Two options for coding and analysis were considered: analysing each interview as a unit or extracting themes across the interviews. We opted for the second of these approaches as best suited for exploring explanatory models of influences on satisfaction within the study site. The field researcher coded the data starting with broad categories of positive and negative evaluations and creating sub-categories from specific topics mentioned in the interviews.

In the next section, we present and discuss selected extracts from the results in order to assess the relevance of the three explanatory models in this rural case study.

RESULTS

Expectation and Experience

Informants were aware that the health care available, at the time of the study, was inadequate. One of the health posts had been used as a grain-store for the last two years, another was only opened when the researcher asked to see inside. The other posts had few materials available and the physicians and other senior health staff either came late or not at all. In these circumstances, the ambulances became even more critical for health care access, but these were often out-of-service, broken down without repair, or being used for other purposes. Participants repeatedly raised four topics: lack of transport; absenteeism of senior professionals; shortages of supplies; attitudes of staff. Three of these related directly to the breakdown of the model for local health care provision. Transport is a critical element of this model and people commented a great deal about the poor roads, the expense of private transport and, relevant to this study, the difficulties in accessing one of the district ambulances,

'We have lots of problems here. Once my mother was ill and we sent someone to ask [name] for a car. We asked [name] because she is a councillor and the Prefect told me to look to her in case of emergency. However, when we ask she usually says that she won't send the car because the roads to get here are in very bad condition. That's the excuse she gave us when she didn't send the ambulance to get my mother' (age 32)

Women understand the model of health care but explain that it does not work as the health posts have inadequate supplies and absent senior staff,

'When we need something we have to go to [district centre], there is a health post in [local neighbourhood], but when we get there, they don't have any material' (age 46)

'But at the post they don't have the necessary material for first aid, so we go to the hospital for everything' (age 33)

'I have been there, we always go there from round here, but these days, well, you get there, the physician doesn't come. (...) Tuesdays, that's when the physician is supposed to come there (...) we don't go there because we don't know if there'll be a physician there' (age 37)

People go directly to the small hospital in the district centre and the majority of evaluative comments related to experiences at this facility. Complaints include: being turned away without a consultation,

'Sometimes we are well treated, but the problem is that there is always lots of patients, so we have to wait and wait to be seen, then we get upset and come back home without anything' (age 24)

'Many people are angry with the hospital because they go there and don't get any consultation. Some of them come back very upset because they don't want to wait so long as when they go in the morning but can't see the doctor until the

afternoon' (age 32)

the absenteeism of the physicians,

'Well, it's difficult for us because when a child is ill, we don't have a car to go to the hospital and many times when we finally find a car, we get to the hospital and there is no doctor. We have to go all the way to the hospital, sometimes by bicycle and once there, where is the doctor? They don't have any!' (age 30).

and inadequate supplies,

'When I was ill they took me to [district hospital], but the hospital didn't have the medicine. They received me very well, they never treated me badly, thank God! But the problem is that they don't have what we need, they don't have the material. (...) I went there but couldn't receive a heart exam because the machine was broken. The day before yesterday I went to the hospital but the machine is still broken. I really need it (...) But whenever we go there, we don't get assistance because of the broken machines' (age 39).

'I didn't like it because first of all, there are always a lot of patients, and secondly because when we get the prescription they don't have the medicine to give to us' (age 44).

These complaints reflecting the breakdown of the system, were complemented by complaints about health staff attitudes towards the patients,

'Rude to people, don't give appointments to people, you arrive there, they say there aren't any more appointments (...) they keep the appointments for other

people and don't give them to the people who need them' (age 53)

'There they treat people in a very bad manner, it seems that they treat you according to what you are' (age 44)

'For me it was never good (...) because they have some staff who are very inconsiderate. (...) To do that job, the person needs to be happy, ask what people want, how they are feeling, but she doesn't do these things. I don't like that hospital' (age 27).

Local residents therefore often show a clear understanding of the model on which local health care is premised, an awareness of the basic building blocks of that model and the breakdown in the day-to-day functioning of the system. The comments reproduced here do not suggest that the population accepts this situation as all that can be expected. Thus, the argument that a good rating by the local population of what other observers consider to be poor health care is explained by low expectations is insufficient. At least, it is not explained by low expectations due to poor knowledge about what should be provided.

However, a different understanding of how expectation relates to evaluation can be drawn from these results. The population knows that the system is not functioning as it should and so seeks other strategies. Two such strategies are found: going elsewhere; seeking help in negotiating the system.

A number of participants resorted to the health facilities of adjacent districts,

'I take my children to [adjacent district] because of the better treatment there' (age 40).

'my daughter cut her eyebrow and I took her to [district hospital], we went by bicycle because it was serious and we didn't have time to go there first to get a car. When we arrived there, the nurse couldn't do the suture (...) but didn't give me the car to take her to [regional hospital]. Therefore, we took the bus (...) There they looked after her well; it is much faster there ' (age 27).

"I like the hospital in [regional centre] because when I go there they treat me well, the time doesn't matter. (...) no one was ever rude or arrogant to me, so for me it's a very good hospital (...) I've also been to the hospital in [district centre] many times, but when I get there the health staff are always very rude to me" (age 46).

Interview participants frequently sought assistance from local leaders to facilitate access to health services, whether in the study district or elsewhere, by providing transport, supplying or buying medicines and securing quick appointments. This support reflects a well-documented tradition in Latin America of clientelism (Eisenstadt and Roniger, 1984). Clientelism involves a vertical relationship between a patron and a client, in which the patron assumes responsibility for aspects of the clients' welfare and the client reciprocates with political support. The continued importance of clientelism in rural Northeast Brazil has also been described (Bursztyn, 1985; Lemenhe, 1996; Barreira, 1999).

Drawing on clientelistic networks resulted in praise for both the patrons and the health system,

'[prefect] rang there, (...), to the hospital, to take care of things, so it was all because of him that I could go there' (age 53)

'I didn't have any problems because this time I went to [regional hospital] with Dona [patron], at the [district hospital] they treat you really badly, I went and we asked for a transfer from her to [regional hospital]' (age 30)

'I had a commitment to [prefect candidate] (...) because the wife took me there and got me into the [private hospital]' (age 39)

'We ask [councillor] (...) we ask him and he organises a car for us' (age 33)

'We go to them because it's quicker. If you come from that neighbourhood to this centre, if there's no transport or if there is and you have to pay, then we go to the politician's house, the politician brings us in his car, it's more practical, more convenient' (age 42).

The local politicians had control over the ambulances and some drug supplies to distribute to their clients. Nonetheless, there were very few reports of people feeling actively disadvantaged by favours given to another,

'When my son was born I was very humiliated (...) the former first lady told the driver that he had to get another patient to take (...) together with me. She said that he had to because the other patient was in pain and was going to vote for

[perfect candidate] (...) that he would lose the job if he didn't (...) what's the point if everyone can tell the drivers what to do? The ambulance should be for those in need, for emergency cases' (age 30).

People acknowledge that this route to health care is also unreliable, 'During the electoral period, the candidates, from both political groups, facilitate things, making transport available for the population. Wherever you want to go, you just have to talk to a candidate. But after the elections we don't find transport anymore, things come back to normal' (age 43)

Where these alternative strategies succeed in gaining good health care, the respondent expression of satisfaction is real; the respondent has experienced and does evaluate their health care as good. However, clientelism creates inequities and frames health care as a favour rather than a right. Satisfaction in these instances does not equate to an empowered population able to voice their own wishes in respect to the health care they require locally. Again this reflects an informed low expectation of the system, rather than an ill-informed one, that may, perversely, result in a real high satisfaction with the health care accessed.

Contextual Dynamics and Evaluation

The implications of methodology for how respondents express negative evaluations have been raised by other writers (Baron-Epel *et al.*, 2001; Thompson and Suñol, 1995). The argument is that the formality and short time of engagement of a questionnaire based survey results in an exaggerated level of satisfaction because of its insensitivity to social processes of courtesy and respect to those in authority and

strategies of self-interest. The interviews for this paper were part of a longer study which aimed to minimise the more obvious influences on expressed satisfaction from the contextual dynamics of the research. The field researcher had already lived in the district for ten months before these interviews were made and residents were used to her presence in the district. She had no political affiliations locally nor any medical background in her training and thus, no direct role or influence within the local health system. She herself originated from a similar rural district and was able to present herself as more of an insider than an outsider despite her relatively high educational level. Interviews were always held in everyday spaces, most often the home, and were never held in the spaces of the health system.

These characteristics notwithstanding, the interview data indicated evidence for both courtesy and respect to those in authority and strategies of self-interest. For example, it was noticeable that complaints about poor health staff attitudes towards the patients were directed primarily at more junior staff or administrative staff, “‘But I can say that it’s more the junior professionals than the physicians. They were very rude to me and arrogant. Lots of people from this community say the same thing’ (age 39).

Whilst this may reflect that they are the first point of contact, it is likely that this also reflects a contextual and cultural expression of showing respect to those in positions of higher authority, such as the physicians. Sequences in interviews also show a reluctance to say explicitly that services are poor, although subsequent information indicates that there are problems,

Informant: 'the hospital here, it's....more,...I think so-so, huh? I think the treatment there is so-so'

Interviewer: 'so-so, how do you mean? Good, bad, how is it ?'

Informant: 'I think that it is good....it's good but it needs better treatments, yeah, so it can improve, we hope that it will improve' (age 33).

A few informants indicated that it was not in their interests to complain about the local health services,

'I'm not going to say anything about the hospital here, because even if I say something bad about the hospital, where else am I going to take people (laughs) if there's only this one (laughs)? Whether it's good or bad, I have to be thankful for it, don't I. .. there are problems that we see, but it doesn't do to talk about that (the hospital) which is the only one we have' (age 35).

There is evidence, then, that these processes are at work and are likely to elevate ratings of satisfaction. The short sequence from an interview above indicates how, when pushed for a definite answer as to whether the services are good or bad, selects good, despite reservations. The interesting point here is not just that surveys will inevitably suffer from some of these biases, but that data from in-depth, qualitative interviews cannot discount the influence either.

Mediating Filters from Experience to Evaluation

Informants did demonstrate the operation of the filter relating to culpability, but not that of duty. Although the health care was poor, informants excused the health staff, usually on the grounds that they were working in a seriously under-resourced

system, and evaluated the health care as satisfactory given the constraints staff were working under,

'... the health post at [name], I went there, people are made welcome when you get there, apart from...in this time of crisis...it was really bad, the prefect doesn't help much, but they [the health staff] are doing what they can' (age 32).

'I like the hospital, I haven't anything to say against it, the staff working there are attentive to us, it's just that they don't have many resources, this is what we know that they don't have anything' (age 60).

'It was a bit slow at the hospital (...) I went to the physician, the physician sent me to do some tests, the laboratory wasn't functioning...the machine to make the cardiogram of the heart also wasn't working, I don't know if it is now, but here is the difficulty (...) it's the prefect who ought to maintain this, it's the prefect, so I think that was his fault' (age 37).

This filter, moderating the culpability of health staff in providing poor services, overlaps, in part, our category of informed expectation, in that informants are aware of how the services are capable of functioning from previous experiences when the situation was better, but here this is moderated through an explanation of why this dysfunction has come about, an explanation that does not hold the health staff responsible, but rather the local government.

The study identified a further mediating filter, that of time-frame. Change in the provision of local services over time is recognised as a potential confounder in

satisfaction surveys, and the usual procedure is to solicit evaluation relating to a recent ill-health episode. If, however, time operates as a mediating filter, the expression of satisfaction with this recent ill-health episode is, in part, mediated by awareness of medium- and long-term trends in health and health care locally. Older informants in this study, although critical of current provision of health care, referred to a time-frame of up to thirty years, over which there had been huge improvements in health care provision and health outcomes in the municipality. Even if the health facilities do not always function well, their very existence where previously there had been nothing is viewed positively,

‘One thing which has got better in these last years (...) was that the hospital came to have physicians almost every. Despite having those problems, those physicians who didn’t turn up, or come whichever day they want and do what they want. But they do have a physician. The number of physicians has risen you know. At the hospital. Also there are others who go into the localities’ (age 50).

‘It’s changed, because in my time, no-one came, today a woman who is pregnant starts to go to the doctors, we didn’t have this for a start. And now they have, and when it’s time to go to the maternity, there’s everything. In my time there wasn’t anything, you would start to suffer, labour and then, if the labour was complicated, it was very difficult’ (age 57).

‘It was the time when many children died, as soon as children were born, they’d get illnesses such as diarrhoea, many died from this, many little ones. I think that it’s because in this time they didn’t have this business of hospital, there wasn’t a health

post, there were no vaccinations, there wasn't anything, but today there are many good things for the children, children already have a vaccination in the first month after being born, get vaccinations, if they're ill there are medicines, a place to take them, there's the hospital to take them to, very different from the past, because in the past they died, when a child was born, there was nowhere to take them...' (age 53).

And whilst the current situation is not good, people of all ages can remember times in the more recent past when the model of health care has functioned properly, 'sometimes it's not good, no, mainly at this time when.. it's not good, but when it is working well, we get good care' (age 37).

'there were other times when the physician even lived here, and with that things were better' (age 36).

Whilst others were less impressed by the improvements in care at the hospital, there were many positive comments about the creation of the community health worker programme in local neighbourhoods,

'It's got a lot better, after this government entered (ten+years before) (...), but they improved things hugely. The community health workers greatly improved things for the children, for us it really got better' (age 27).

'I think it is better now (...). Before people used to come to vaccinate the children only once in a long while, so many children didn't get it. Now the mothers have the vaccine cards and can monitor this, it doesn't occur so sporadically anymore. We have the community health worker who provides information and monitors

the children's vaccines and weight. In our community, there are also children who get free milk from the government because they have malnutrition problems. So I think these things are an improvement. Of course I don't think it is perfect because the government could do more' (39).

Most importantly, people appreciate the improvements in health outcomes, especially for children,

'But it's no longer how it once was, because in the old days, too many, children just as much as adults were ill' (age 30).

'I think it's much better now because the state government (...) put a community health worker here, so it's better for us and it's better for the children. Before lots of children used to die, now it has been more than a year since any children have died in our community' (age 27).

'What's really improved the most is the vaccination, there in [a neighbourhood] there's about five people with paralysis, today there isn't any anymore, we don't have this anymore. (...) Because of the antenatal care children are born in better conditions, healthier. (...) the mothers can take them to see doctors (...). I can tell you, if I had had my children recently, they would all still be alive because things are easier (...). it's not perfect, but thinking about 30 years ago, we can't even compare' (age 60).

Informants recognised that the local health system is vulnerable to the attitude of the local government and the playing out of local politics,

‘God help us that whoever it is who gets in [prefect elections], that he doesn’t behave like the other one did, no, because if he does this as well, oh, us poor people ‘ (age 30)

These data indicate that the population understands that in the short-term the adequacy of health care provision can fluctuate dramatically given its vulnerability to local politics. The concept of a mediating filter of a medium- to longer-time frame raises the possibility that in moving from experiences of health care to expressing an evaluation, the population looks beyond what can be seen as short-term noise of the immediate experience to see the overall trend and as such expresses a higher rate of satisfaction. There is overlap in this filter with that of culpability, in that the health system is not being held entirely responsible for the short-term deficiencies, but specifying the importance that the reference frame of time may exert on evaluations is usefully drawn out as a separate element.

DISCUSSION and CONCLUSIONS

Interview data with women in a rural district of Northeast Brazil are drawn on to explore the applicability of three different explanatory models in understanding the processes causing high levels of expressed satisfaction with services that are clearly inadequate. Whilst we present evidence of influences that supports all three explanatory models, we have also expanded the scope of those models by adding elements of informed expectation, clientelistic practices and time-frame.

The explanatory models of expectation and of contextual dynamics propose processes by which respondents fail to appreciate what a good service should look like, or fail to reveal negative evaluations that they nonetheless feel for a range of cultural, political and cognitive reasons. In either case, the expressed level of satisfaction is effectively artificial. Rural women from Northeast Brazil do demonstrate the influence of contextual dynamics on their willingness to express negative evaluations and therefore provide evidence that the high expressed satisfaction found may, in part, be artificially elevated.

However, other evidence indicates a more complex account for the high satisfaction levels. Low expectations from poor information did not emerge as an adequate explanatory model. Instead, we introduce the concept of informed expectation which directs potential users of the system to seek strategies by which to increase their chances of gaining good health care. Two overlapping strategies were identified: bypassing the local health system and going elsewhere; seeking assistance from a patron to access the resources needed to gain good health care locally or further afield. By mobilising these strategies, respondents may be justifiably satisfied with the health care they have received and the expressions of positive evaluation are real. This is satisfaction with service regardless of the means by which it was obtained. Accessing health care through clientelistic networks matters for the empowerment of local populations in that structural inequalities in society are re-enacted through the health care system, a system that at least in the case of Brazil, has a principle of universal access for all enshrined in the constitution. The satisfaction with health care gained through clientelistic networks is, in part, derived from practices that continue to leave the population at the mercy of the goodwill of

those more privileged for their health care. The measure of satisfaction with health care in this case is not artificial, but may be dangerously misleading.

The concept of mediating filters further complicates our understanding of how satisfaction ratings are produced. The informants are viewed in this explanatory model as reflective beings who do not simply equate evaluation with experience but locate their experiences within their knowledge of the specific context. In this study, we find support for the element of culpability as a mediating filter operating such that the health care provided is rated as good, considering the circumstances. We argue that the reference time-frame of respondents should be introduced for further investigation as an additional mediating filter. The evidence presented here suggests that informants may ignore short-term fluctuations in the provision of health care, even when being asked about specific episodes. Time within satisfaction surveys has been barely touched upon in the study of influences on respondents' evaluations. There have been methodological considerations of the need for longer-term follow-up surveys to assess the importance of outcome on satisfaction (Avis *et al.*, 1997). We have found one study, discussing high satisfaction levels in the UK, that raises the possibility that the survey instruments might be capturing something else rather than satisfaction with a particular health care incident (Staniszewska and Ahmed, 1999). Their suggestion of what that something else might be relates to ideological inclinations, such as expressing general support to the concept of a national health service in the UK context. This represents a proposal that wider political, cultural or emotional factors influence how people express satisfaction. The role of time in this study shares Staniszewska and Ahmed's reflection that surveys may capture something of an attitude to the wider context rather than individual satisfaction with a

specific episode of health care. However, in contrast, here the awareness of improvements over a longer time frame means that expressed satisfaction with health care provision does reflect some dimensions of satisfaction with health care provision.

These findings add to the existing body of serious queries with respect to the uses made of satisfaction surveys in current policy environments. The move towards the incorporation of relatively simple satisfaction surveys in all areas of service provision to compare providers has long been challenged on the grounds that much of the influence on satisfaction is beyond the providers' control. This paper problematises the assessment of user satisfaction further by demonstrating additional influences of political culture and of mediating filters on user satisfaction. The conclusions and implications for user satisfaction surveys are seriously discomfoting. First, local health systems may gain expressions of good satisfaction from their populations because of iniquitous procedures (rather than despite them); secondly, one of the fundamental assumptions built into satisfaction surveys, that the respondent is evaluating a single episode whatever the complexities of influences upon that, is thrown open to question.

The evident complexity in how respondents both construct and express their satisfaction with services is not only in need of further elaboration and theorisation through research but explicitly includes contextual cultural and political dynamics such as to render generalisation on the significant elements in such processes inappropriate. The implications should be clear. At best, user satisfaction surveys have useful application as management tools only as longitudinal monitoring

instruments at local scales. Cross-sectional applications aimed to compare different settings capture processes far too diverse and complex to give meaningful information to managers.

All three explanatory models contribute towards an understanding of why high expressed satisfaction levels are found where health care provision is clearly poor. As Figure 1 showed, the models relate to different aspects of the relationship between experience and evaluation. But there is clearly feedback between some of the elements across the three explanatory models. Figure 2 presents a combined explanatory model of expectation, contextual dynamics and mediating filters, expands the elements with informed expectation, clientelism and time-frame, and indicates feedback relationships between those elements. We conclude by reiterating the complex of processes, some complementing one another, some conflicting with one another. Further studies and reflections on the construction and expression of satisfaction with health care may contribute further elements or elucidate their expression in different contexts, such as we have done here, and in this way, we become better able to understand the complexities of the interactions between health system, health system user and health system contexts.

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Table 1. Satisfaction scores for three district health systems

Satisfaction measure	Metropolitan	Urban	Rural
Mean score*	2.7	2.5	2.4
% rating high**	10	7	33
% rating low	22	18	7

*Lower scores indicate higher satisfaction

**High and low refer to the top and bottom options on a 5-point likert scale

Table 2 Age distribution of women interviewed

Age	N	%
25-30	5	17
31-40	11	37
41-50	7	23
51-60	7	23

Figure 1. Explanatory models, experience and evaluation

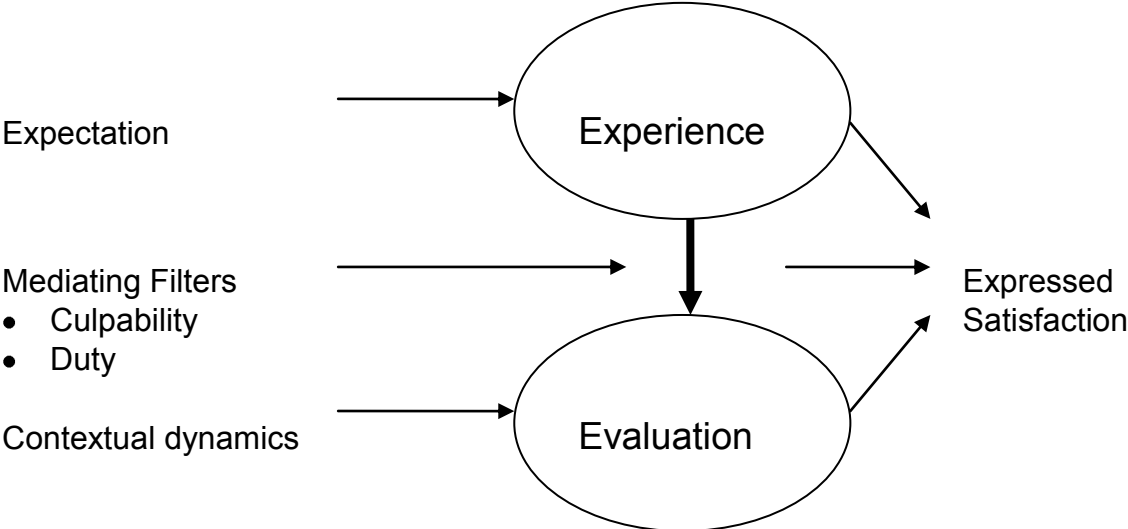


Figure 2. Influences on the relationships between experience and evaluation

