Using Appreciative Inquiry to stimulate behaviour change and improve quality of care at public maternity hospitals in Mumbai: a qualitative study

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Abstract

Background

Quality of health services has complex effects on client satisfaction, service use, and health outcomes. Client satisfaction is, in itself, an important measure of health service quality and can be improved through better interpersonal skills among health facility personnel. Central to the success of quality improvement initiatives is the adoption and spread of health innovations, but this can be a slow and haphazard process. Using a diffusion of innovations framework, we sought to explore participants' experiences of a behaviour change intervention in public maternity hospitals in Mumbai using Appreciative Inquiry (AI), and to gain insights into factors that affected adoption and diffusion.

Results

Overall, participants understood the conceptual basis for the intervention but found it difficult to transform some innovative ideas into action. However, respondents reported some physical upgrading of facilities, improvements in communication and interpersonal relations, and more courteous attitudes towards each other and service users. Many also described an increased awareness of the needs of the hospital and of the benefits of behaviour change for the quality of staff relationships and their interaction with clients. A number of individual and contextual factors influenced the adoption of behaviour change. Facilitators of change included increased energy and motivation generated through an appreciative approach, the creation of a space in which everybody could participate in discussions, and a sense of opportunity and renewed determination. Among the constraints were a reluctance to assume responsibility for one's behaviour, difficulty in imagining the possible of widespread change, a lack of autonomy, and a dependence on leadership for innovation.

Conclusions

It is imperative that organizational change interventions consider the influence of a range of individual, structural and contextual factors on behaviour and change, and that they are of sufficient duration and intensity to maximise their effect. More empirical research is required to evaluate the efficacy of AI and to further understand the conditions and mechanisms that promote or constrain the implementation of innovative strategies. Diffusion of innovations theory offers a useful framework with which to do this.

Introduction

Quality of health services has several dimensions, all of which have complex effects on client satisfaction, service use, and health outcomes [1,2]. Client satisfaction – the extent to which users' experiences of health care and services meet their expectations [3] – is, in itself, an important measure of quality [4,5]. Studies from India have shown that physician behaviour has a significant effect on client satisfaction, and that satisfaction can be improved through better interpersonal skills among health facility personnel [3]. There is, therefore, a need to look beyond service availability and structural aspects of quality, and to examine the behaviour of health care providers [6]. Quality assurance interventions tend to emphasise technical aspects of provider behaviour [7], but client-centred approaches that enhance provider 'soft-skills' have shown some positive effects on user satisfaction [8].

Central to the success of quality improvement initiatives are health 'innovations', understood as "a novel set of behaviors, routines, and ways of working that are directed at improving health outcomes, administrative efficiency, cost effectiveness, or users' experience." [9]. An innovation typically spreads via a process in which a few members of a social system initially adopt an innovation, then others follow until most, or all, members adopt it [10]. Distinct mechanisms exist through which spread can occur within an organization: *diffusion* (passive, unplanned, decentralised), *dissemination* (active, planned, centralised persuasion of target groups), *implementation* (active, planned efforts to mainstream an innovation), and *sustainability* (routinization of an innovation) [9]. Adoption and spread can be slow and unpredictable [11], and, as Berwick (2003) points out:

> *Even when an evidence-based innovation is implemented successfully in one part of a hospital or clinic, it may spread slowly or not at all to other parts of the organization.*

> *The problem of dissemination of change applies not only to formally studied bioscientific innovations, but also to the numerous effective process innovations that arise from improvement projects.* [12]

Diffusion is generally associated with three clusters of influence: (1) perceptions of the innovation; (2) characteristics of adopters and non-adopters; and (3) contextual factors [12]. Numerous other conditions and factors contribute. For example, an innovation that meets an identified need of intended adopters is more likely to be adopted, and adoption is made easier when the benefits of the innovation are visible to them [9].

The Society for Nutrition, Education and Health Action (SNEHA) is a Mumbai-based nongovernment organization that works to improve the health of women and children in slum areas. In 2006, SNEHA implemented an intervention in public maternity hospitals to facilitate improvements in staff attitudes and behaviour using Appreciative Inquiry (AI). AI aims to change the way a system functions by building on its existing strengths and positive attributes as a basis for creating a co-constructed, desired future [13]. It is highly participatory and democratic, encouraging ownership and sustainability, and has been successful in promoting change in the healthcare sector in developing countries [14]. The primary objectives of the intervention were to identify and amplify 'what worked', in terms of current staff behaviour and interpersonal relationships, and to focus on solutions rather than problems. It was envisaged that behaviour change could be achieved by (1) changing the 'climate' of the system towards an openness to change, (2) creating an appreciative culture in the workplace, (3) facilitating the processes that lead to the design of change strategies, and (4) facilitating delivery of the strategies. The hypothesis was that these changes would lead to improvements in client experience of services [15].

The aim of this qualitative study was to contribute to an understanding of factors and conditions that influence the adoption and diffusion of behavioural innovations in public health settings. We wanted to describe the participants' experiences of the intervention, to explore their perceptions of change, and to consider some of the factors that may have influenced adoption and diffusion. We conceptualised the use of AI to modify staff attitudes and behaviour as an 'innovation', and narratives of change as 'adoption'. Whilst acknowledging a potential discord between 'perceptions' of change and 'evidence', we accepted respondents' narratives as valid.

The context

The Municipal Corporation of Greater Mumbai (MCGM) provides more than a quarter of the approximately 40,000 hospital beds available across the city and is a major health care provider to the poor [16]. The public health system is organised into four tiers. At the community level, primary care is provided through health posts, dispensaries and post-partum centres. Maternity hospitals form the first level and provide maternal and child health services. Secondary level facilities comprise peripheral or general hospitals and, at the highest level, major tertiary hospitals and medical colleges offer highly specialised services [17]. The level of care is laudable but challenged by an unequal distribution of infrastructure, and shortages of staff and equipment. The system has been beleaguered by reports of poor accountability, an inefficient referral system, long outpatient queues and poor staff attitudes [15,18,19].

Maternity hospitals are typically located in, or near, residential areas and have between 20 and 100 beds. They are designated to manage routine births; complicated cases are referred to better-equipped secondary or tertiary facilities. Staffing levels are largely dictated by the average annual number of births, which range from 25 to 45 per month, although vacancies are often unfilled. Each hospital is headed by a Medical Officer (MO) who acts as clinician-administrator. Other doctors may also be present. The MO is assisted by a sister-in-charge, who carries out

administrative duties and supervises a team of trained nurses, auxiliary nurses, and housekeeping staff (*ayabais* and *mhetranis*).

The system is predominantly hierarchical; individual roles and responsibilities and interaction among staff are influenced not only by professional position and competence, but also by broader social and cultural norms. For example, medical staff often use separate cloakrooms, eat lunch separately, and have greater access to occupational training. Junior employees are expected to carry out instructions with deference. Staff tend to perform their duties in a routine manner and the work culture is oriented towards job security and a guaranteed pension. Behaviour change interventions do not figure in the system and many staff – especially long-established employees and those approaching retirement – are reticent or sceptical about the idea of change.

The intervention

The AI intervention was implemented between June and September 2006 in nine randomly-selected maternity hospitals across Mumbai. Six SNEHA facilitators and around 280 hospital staff from all levels and disciplines participated. The design was an action research cycle that replicated the '4-D cycle' most associated with AI [20], beginning with *Discovery* (appreciating what is, what gives life), in which participants shared stories of excellence and peak experiences at work, followed by a *Dream* phase (imagining what could be, e.g. a maternity hospital which gives quality care to clients), *Design* (devising action plans for the dream to become a reality), and *Destiny* (the actual delivery or execution phase) (see Figure 1).

Each maternity hospital received four three-hour training sessions, each covering one of the four 'D's of AI. To facilitate understanding, sessions were conducted in Hindi using simple terminology. With an emphasis on informality and participation, the facilitators used games, participatory discussions, and group work to explain and demonstrate the nature of appreciative

behaviour and to encourage adoption through direct experience. Participants also formed action groups in which to discuss, plan and implement change strategies. After the training cycle, the intervention team conducted one-hour monthly or bi-monthly follow-up meetings with hospital staff for one year.

Methods

For this study, we purposively sampled three intervention maternity hospitals based on the degree to which action points from the *destiny* phase had been implemented. After piloting a semi-structured questionnaire in another facility, we conducted one focus group discussion and 13 qualitative interviews with all levels of staff in each hospital. We asked respondents about their facility, their experience of the training, perceptions of change, and the potential effect of the intervention, both personally and in the hospital generally. Interviews were conducted in the participants' preferred language (generally English for doctors and Hindi or Marathi for others) and were audio recorded. English-language interviews then transcribed verbatim or, in the case of Hindi or Marathi interviews, were simultaneously translated and transcribed. We also reviewed the transcripts of 35 interviews that SNEHA evaluators had conducted three months after the intervention.

Transcripts were entered in NVivo version 7 (QSR International) qualitative analysis software and discussed collectively among the research team. Early analysis involved coding data according to *a priori* and emerging themes and developing them into broader concepts and categories. These were then used to inform subsequent data collection in an iterative process that continued until no new themes or categories seemed to emerge [21]. We used diffusion of innovations theory as a theoretical perspective with which to examine and explain the data, and to guide the writing-up of findings [22]. Data confidentiality was ensured by removing respondent identifiers from transcripts and replacing facility names with anonymous codes.

Results

We developed the findings around three broad themes: the effect of the intervention on the types and extent of adoption, participants' experiences of the innovation, and the influence of systemic, individual and group factors.

Types and extent of adoption

Accounts of the overall effect of the intervention and the extent to which respondents reported changes in attitudes and behaviour were varied. No clearly discernable pattern emerged across participants or facilities. A minority felt that "nothing has changed" or "what has been going on from before is still going on". In contrast, respondents in all three maternity hospitals described making infrastructural improvements, including installing a notice-board to provide information to service users and acquiring basic materials and equipment such as operating theatre curtains and bed sheets, either through internal procurement or donations from retiring staff and local charitable organizations.

Many respondents struggled to identify with change and frequently gave unspecific examples such as, "whatever was taught, we are doing". Others seemed reluctant to reveal problems or appear critical, and described the situation in their facility in overtly positive ways:

> *No, we have not observed any change because, since before the training, we have had good relationships with each other. We never quarrel with each other. Every one is doing their job properly, so madam [the medical officer] and the sister don't say anything to us. We behave as a family. (Auxiliary nurse, MH22)*

Some felt that their own behaviour had not changed since intervention; others said that only their colleagues could identify whether they now behaved differently. Those who did perceive a difference described a "determination for work", feeling calmer and having more patience, greater confidence and the ability to voice an opinion:

> *Now I have an immense desire to go and speak up. Earlier, I was not this bold. I used to not mix with people. I don't have any greed for fame. I don't like to expose myself. These were my qualities but SNEHA removed all the cobwebs. (Maintenance staff, MH42)*

Other reported behavioural changes included improved communication, increased proactivity, fewer interpersonal conflicts and better relationships with colleagues, and more courteous attitudes towards clients and each other. We noted changes were often narrated as perceptions and observations of others:

> *…there has been a little change in attitude and we don't have to force them [housekeeping staff] to work – they do it on their own … We still may not communicate well, but conflicts have reduced. (Sister in Charge, MH23)*

> *…because of training, the attachment among staff has increased. I can see the changes in behaviour with patients…Now they behave very differently. Everyone shows affection and attachment towards others. We can share our problems with each other and try to solve it. This change I observed. (Sister, MH22)*

A combination of acquiring new information and experiencing novel ways of thinking through the intervention appeared to influence participants' awareness, both generally, and specifically in

terms of the effect that their behaviour had on others and what was required to improve their facility.

> *When we behave [well with others], then people will come to us personally and in the workplace. Also, if we talk more patiently and sensibly that is good, we also feel good and people also respond well. (Lab Technician, MH12)*

Experiencing greater awareness could be either positive or negative: while awareness of deficiencies led to comments such as, "we understood where we are lagging behind, how much more we still have to do", it could also be understood as opportunity and a step towards to positive change:

> *Our hearts became more accepting and tolerant. We were made aware that we can expand our hearts more and can increase limitations of our intellect … We all have wings but we are not aware. SNEHA gave us awareness of the wings that we had … [After the training] people started speaking with awareness. They started speaking mildly. They started listening to what the person in front had to say. Earlier no-one used to be in a mood to listen … We felt the change, that we started to listen. (Maintenance staff, MH42)*

A few respondents gave insights into the extent and feasibility of change. One medical officer said, "we cannot say that 100% change has happened, and it cannot happen". Another respondent felt that long-established behaviour "will not change in a small four-day training." For some, therefore, what was important were "small changes, not big ones". There was a perception that the process of personal change would be lengthy and susceptible to setbacks:

Interpersonal change will take some time … One day you are very friendly with someone, another day you are not that friendly, or clashes may happen. (Medical Officer, MH13)

Experiences of the innovation

A number of factors emerged from respondents' participation in the AI intervention that influenced the adoption and spread of change, and are summarised in Figure 2. None of the respondents had previously attended a training program of this type, and it was their first exposure to the concept and application of appreciative behaviour and an 'appreciative environment'. Their reflections on the training emphasised the novelty of sitting together with more senior or junior colleagues, getting to know each other better, being able to speak openly and express their thoughts, and sharing personal issues. It provided an opportunity for different levels of staff who had limited interaction to do so on a level playing field, to share experiences and ideas, and to learn new things about each other. For some housekeeping and nursing staff, the inclusive, participatory nature of the training sessions itself had "a great impact" which had "shown the power of unity". Other, more senior, staff said that they had valued getting to know their colleagues more personally and, through this, developing an appreciation of their qualities. Domestic staff valued being appreciated by their supervisors. Encouraging equal participation in helped create a space in which staff could interact and express themselves, regardless of position in the organisational hierarchy.

Many times it happens that meetings are held with doctors, sometimes only with sisters, but in this training everyone was called together, every one was sitting there. Even the doctor was involved.. (Lab Technician, MH12)

We were never used to sitting with the doctors, but that day we communicated with them and shared our things with them very frankly. (Cleaner, MH32)

I felt better interaction with my staff, from the labour class [domestic staff] to the sisters to doctors … we have some problems, but in this training we were told in a very soft manner how the other person feels. (Doctor, MH33)

Opinions about the limitations of the intervention included its duration and relevance. Four half-day sessions were considered insufficient to for participants move beyond 'experiencing' an appreciative environment to ensuring behaviour change. Given a context in which routine behaviour is reinforced by hierarchy and bureaucracy, there was a fear that, without intensive follow-up or refresher training, "people start forgetting things, they become as they were before." One sister described the training as "time-pass", and a doctor felt that it was "only for entertainment", and that training programmes should focus on improving the quality of work, "to teach them how to communicate, how to do cleaning … the practical parts." A cleaner implied that the benefits were sometimes overshadowed by the behaviour of clients:

The training happened. But patients make the place dirty … patients throw garbage. So, what's the use of all these things? It is no change at all. (Cleaner, MH32)

Respondents conceptualised the intervention as a transfer of knowledge from trainers (those with knowledge) to participants (those who lack knowledge). During work, they were accustomed to following instructions from supervisors. This was reflected in many excerpts where participants described the AI training as a didactic exercise in which SNEHA's role was to 'teach' and the participants' to 'learn' or be instructed on appropriate behaviour:

They [SNEHA's facilitators] told us how to behave nicely with the patients … They told us not to get angry or not shout at the patients and to talk politely with the patients. (Cleaner, MH32)

We learnt from the training that we should work with co-operation … they taught us so many things: how we should divide the work, how we should do our work with less equipment … One person also can do multiple jobs. We learnt all these things from this training. (Sister, MH23)

Some respondents had received less exposure to the intervention because they were unable to attend all of the training sessions. A common suggestion was that SNEHA should organise "refresher" training and regular follow-up meetings. Many respondents felt this was necessary to facilitate the implementation of strategies, strengthen their understanding of behaviour and change, and to reinforce their motivation. The fact that the innovation was implemented by an outside agency enhanced its credibility. Respondents described feeling motivated by the willingness of an external agency such as SNEHA to work them and some felt that it was now their duty to change and to improve the quality of services in their hospital. Transforming knowledge, awareness and skills into practical use in such a way that it could be directly experience was key to making an innovation meaningful:

…when we use something in real life only then can we see the impact. Like SNEHA's training, we had to implement this training, that's why impact can be seen. Many times we learn so many things but at that time we only learn: [we] are passive. That means, how much you learned, how much you remembered, you cannot understand. But when you use that in your life, only then you can see the impact. (Lab Technician, MH12)

The influence of systemic, individual and group factors

We identified a number of structural and individual factors that affected the potential for tangible and behavioural change (see Figure 2). Foremost among them were the perceived and actual roles and responsibilities of staff at different levels of the organization. Only hospital management were considered able and responsible for taking decisions and implementing initiatives. One doctor explained that, "I am not an in-charge over here, it is [the MO], so she has to take the decisions." It was explained that allowing those other than the "people at the top" to do so would threaten "the harmony between people". Junior staff seemed disempowered, even when they felt capable of taking initiative: "We have knowledge but we don't have the authority to take decisions on our own." Because overall management of the hospital lay with the administrators, their staff considered – and expected – them to be the principal drivers of change. Although the hospital administrators affirmed this role, it carried a substantial responsibility, which they did not always feel capable of fulfilling:

> *I am a pivot around which everything rotates and I have to guide everything so it's a big responsibility on my part. (Medical Officer, MH13)*

> *All these small problems, I am unable to sort out … I don't understand what exactly I should do. So, I feel that someone needs to come down and do something about it. (Doctor, MH42)*

Extending on this, a theme that ran through many narratives was a 'depersonalisation' of responsibility. Respondents tended to distance themselves from the conditions in their maternity hospital and from personal accountability. At a conceptual level, some articulated the notion that,

"first we must change, then others will follow" and, "no-one can bring the change, we have to change ourselves first, only then can change come". Commonly, however, the blame for a failure to initiate change and implement strategies was placed on organizational factors or on other individuals:

> *The team involved can't take the decision on their own so it becomes very difficult get things done … they blame anybody for that. (Doctor, MH32)*

> *Some don't want to change and I cannot do anything about it. It's the people's attitude (Medical Officer, MH12)*

The professional and social roles assigned to different levels of staff, as well as the internal bureaucracy in maternity hospitals, made it difficult for individuals to take action without explicit direction from management. A general lack of autonomy and a dependency on decision-makers meant that senior managers were expected to be "highly motivated to do all these things … otherwise it [the implementation of initiatives] becomes a difficult problem". Straightforward, tangible tasks were implemented soon after the training, while ideas were fresh and motivation still high. Sustaining changes in attitudes and behaviour, however, was vulnerable to waning motivation and a tendency for old habits to return:

> *For about 8-10 days we got them [the domestic staff] to do the tasks but, after that, things returned to how they were before. Easy things like putting up a clock or having flowers were done quickly … After two months we will come together to know what has happened. I don't know if motivation will remain in people by that time. (Doctor, MH23)*

Other factors related to the willingness of individuals to reflect critically on their behaviour and the ability to envisage the possibility of change. While those who already considered their behaviour as appropriate saw no need to change, others doubted their ability to change:

> *We all have a loud voice here. When we say "go and remove your jewellery" to patients they also say "this Maushi [housekeeper] is quarrelsome" (laughs), and [they] complain to their relatives. What will I do about my voice? Sometimes madam [the doctor] also says the same thing, but how can I change my voice? (Focus group discussion, domestic staff)*

In certain situations, 'undesirable' behaviours were deemed justifiable or necessary. An experienced sister explained that shouting was sometimes an appropriate way to deal with uncooperative clients or their relatives:

> *Sometimes I get angry and shout at patients, and sometimes it's necessary. At times, patients don't co-operate, sometimes relatives disturb us – they feel that she [a relative in labour] should deliver immediately, which cannot be possible … some relatives are very sensible and some are not … My voice is naturally loud. I really work from my heart for the patients. I've been working for the last 22 years, so I have a great experience. (Sister, MH12)*

The importance of hospital management in initiating and motivating change was not only in their capacity as leaders and decision makers, but also in their ability to create an environment conducive to innovation and change. One example was the perception that, by appreciating others, senior staff could facilitate the adoption of more positive thoughts and attitudes:

…in the BMC [MCGM] no-one appreciates, but here, the moment we start with an appreciation of the staff, their attitude becomes different, positive thoughts start coming to [their] mind. (Medical Officer, MH13)

Other constraining factors included understaffing, because of the additional pressures increased workload placed on existing resources and the effect it had on one's ability to divert attention away from the completion of tasks towards implementing change strategies. In one facility, respondents related increases in personnel after the intervention to quality improvements, particularly their interaction with clients.

Discussion

In this study, we sought to explore participants' experiences of a behaviour change intervention in maternity hospitals in Mumbai using Appreciative Inquiry (AI), and to gain insights into factors that affected adoption and diffusion. Respondents reported some physical upgrading of facilities, improvements in communication and interpersonal relations, and more courteous attitudes towards each other and service users. Many also described an increased awareness of the needs of the hospital and of the benefits of behaviour change for the quality of staff relationships and their interaction with clients.

Overall, participants understood the conceptual basis for the intervention but found it difficult to transform some innovative ideas into action. A number of individual and contextual factors influenced the adoption of behaviour change. Among the constraints were a reluctance to assume responsibility for one's behaviour, difficulty in imagining the possible of widespread change, a lack of autonomy, and a dependence on leadership. Facilitators of change included increased energy and motivation generated through an appreciative approach, the creation of a space in

which everybody could participate in discussions, and a sense of opportunity and renewed determination.

Our findings suggested that leaders can promote innovation in an organization when they are able and willing to act as role models and agents of change. Other research has concluded that the involvement and support of management are crucial to the implementation of health care innovations [23]. Contextual factors also influenced the implementation of strategies. A key consideration for similar initiatives is the creation of an environment in which all members are encouraged and able to innovate, and where effort and achievement are acknowledged. Without this, adoption is likely to be haphazard and temporary as individuals lose motivation and revert to old habits. As Bushe (2001) points out, in an unappreciative environment the energy and enthusiasm generated through AI is liable to dissipate once new challenges or difficulties arise[24].

Respondents were reluctant to talk candidly about their feelings and many feared being reprimand for discussing problems (this was affirmed in our informal conversations with them). Given the hierarchical work culture and formal interview setting, this was unsurprising but unfortunate. From an AI perspective, people's real thoughts and feelings are revealed in confidential, informal conversations, through which they give meaning to organizational events. Capturing this "inner dialogue" is important because it can shed light on the failure to implement rationally-devised strategies [24].

A limitation of the study was the lapse between the intervention and data collection. Although this raises the question of recall bias, the detail with which individuals recounted their experience of the intervention was notable. Our findings may have underrepresented the real effect of the intervention. In Indian culture, overtly praising oneself is generally censored, which may have

dissuaded some respondents from discussing their efforts and achievements. It was difficult to ascertain the degree to which the reported adoption of new attitudes and behaviour had actually occurred, and it is likely that we missed subtle or unexpressed changes, or those we could not observe. However, our analysis revealed that many had internalised, at least to some degree, the potential benefits of appreciative behaviour. While the implementation of physical improvements in hospitals and the acquisition of basic materials might be not be considered evidence of behaviour change *per se*, it did suggest a positive shift in attitudes and ownership towards the workplace and quality of services.

The public health system in India is target-oriented and performance is measured by levels of attendance at health facilities and the number of deliveries each month. There is also a tendency to focus on deficiencies and blame rather than strengths and appreciation. This de-motivating effect is probably reinforced by an absence of staff appraisals and a remuneration system that favours quantity of work over quality. Notably, most staff seem to accept this scenario, perhaps because of a lack of an imaginable alternative. As Bushe (2001) points out, it is difficult to imagine a better, hoped-for future that one has never seen [24].

Hospital staff acquire status and power on the basis of professional qualifications, length of service, and through mechanisms such as affiliation with one of several unions. The unambiguous professional and social hierarchy restricts individuals to their expected roles and social boundaries. Appreciative inquiry challenges this by breaking down hierarchies, encouraging democratic behaviour and provocative thought, and motivating people to innovate.
However, this may be insufficient. Effective organizational change interventions must be capable of transforming ideas and the energy to innovate into adoption. There is a tendency in the AI literature to overemphasise the principals and practice of AI to the detriment of understanding the

mechanisms that promote or constrain adoption. Despite its increasing popularity there is a notable absence of attempts to fully examine it or measure its impact [25].

We used diffusion of innovations theory to guide our study, responding to calls for more research into the characteristics of innovations and their influence on implementation and diffusion [26,27]. We found little evidence of the application of diffusion of innovations theory in non-western health care settings, and none relating to interventions that used an appreciative approach. Although we did not apply the diffusion of innovations model in its entirety, we feel it is a useful tool with which to design and understand similar programmes of work.

Conclusions

Despite advances in clinical research, implementing quality improvement innovations in health care can be difficult. A variety of individual, structural and contextual factors influence adoption and diffusion in organizations. It is imperative that organizational change practitioners consider these and that interventions are of sufficient duration and intensity to maximise their effect. It is also important that the senior management participate in the process and support ideas and initiatives.

Appreciative Inquiry has the potential to energise individuals towards positive changes. However, more empirical research is required to evaluate its efficacy and to further understand the conditions and mechanisms that promote or constrain the implementation of strategies. Diffusion of innovations theory offers a useful framework with which to plan, implement and understand behaviour change interventions in organizational settings, including the health care sector.

Authors' contributions

WJ, DO, JN and GA were responsible for designing the study and UB, MP, and GA conducted the focus group discussions and 13 qualitative interviews. UB, MP, JN and GA were involved in early data analysis, and JN and GA interpreted the findings and co-wrote the draft paper. All authors reviewed and contributed to the final paper.

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