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Health Worker Motivation and the Role of Performance Based Finance Systems in Africa:
A Qualitative Study on Health Worker

Health Worker Motivation and the Role of Performance Based Finance Systems in Africa

A Qualitative Study on the Rwandan Performance Based Finance Initiative in Hospitals

MSc in the Faculty of Economics (Development Management) 2008

Dissertation submitted in partial fulfillment of the requirements of the degree

Working Together for Health

Abstract

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The field research that forms the basis of this dissertation has been realized with financial and technical assistance from the GTZ Santé, Rwanda and I am very grateful not only for having been given this excellent opportunity, but for all the support I received from my colleagues whilst researching and writing up this dissertation.

However, without the participation of the management, doctors and nurses at Kabutare, Ruhengeri and Gicumbi district hospital in Rwanda the study would have been colorless and I would like to express my gratitude for providing me with the insight into their day to day life at the hospital and

Introduction: The African Health Workforce Crisis

Today Sub-Saharan Africa is coping with 24% of the world's disease burden, while concurrently local health systems are unresponsive, inefficient, inequitable and even unsafe (WHO 2006). The reasons for this underperformance are multiple; nevertheless it has been suggested that motivation and performance of health workers, as the foundation for any health-care system, are a main determinant of health-care service quality, efficiency and equity (e.g. WHO 2006; Dieleman et al. 2006; Buchan 2005; Franco, Bennett & Kanfer 2002). However, African health systems[1] are not only experiencing one of the greatest staff shortages, but clinical staff is currently faced with weak institutional frameworks and distortive incentive structures, ineffective management practices and adverse work environments at systemic and organizational level, resulting in an overburdened health workforce with low levels of work motivation (Mathauer & Imhoff 2006; Ferrinho & Lerberghe 2000). It is believed that this underperformance has not only undermined the capacity of health-care organizations, but even threatens the achievement of the Millennium Development Goals (MDGs) to: "reduce child mortality; improve maternal health; and combat HIV/AIDS, malaria and other diseases" (UN 2007, WHO 2006; Dielemann & Harnmeije 2006).

Accordingly the African Human Resources in Health (HRH) crisis has been placed high on the development agenda and finding appropriate solutions has become a crucial task.

A vast theoretical literature and immense variety of approaches have been generated and applied in an attempt to scale-up and strengthen existing health-care systems in Africa and elsewhere. In particular strategies that aim at improving services and the performance of health facilities through optimizing scarce resources available through effective Human Resource Management (HRM) have attracted much attention (Martinez & Martineau 1996).

The current debate on HRM in the health-care sector is based on both concepts of motivatie ;[(T)-3(t)--109(t)5(

that pure financial incentive systems are not sufficient and moreover have adverse effects on the quality of health-care services (eg. Mathauer & Imhoff 2006; Barr et al. 2005; Franco & Bennet, Kanfer 2002; Gauri 2001; Hicks 2001).

Accordingly the questions, whether PBF strategies in health are appropriate to motivate health workers and increase the quality of service provision in low-income countries remains controversially discussed. Thus with regard to the African HRH crisis a better understanding of what determines health worker motivation and behavior as well as how these are influenced by incentives set in PBF systems, is urgently needed (Luoma 2006).

The dissertation will be divided into four main parts. Part I will explore current background literature on health worker motivation and the role of PBF systems, a topic which is situated at the intersection of two literatures: The first deals with motivation[2] and motivation in the work context[3] and particularly intrinsic motivation of public health personnel[4]. The second relates to performance based management and particularly Performance Based Finance (PBF) approaches[5]

Part I) Work Motivation and Performance Based Financing in Health

The literature and theoretical arguments that will be subsequently explored have been selected because in one way or another they reflect or challenge the assumptions of the dissertation namely that: PBF systems in resource poor environments can stimulate necessary changes in health-care provision through motivating staff by rewarding them with financial incentives linked to a set of performance criteria, while at the same time a restriction to allocating financial incentives as motivators can produce adverse effects that risk health service quality.

The scale of this dissertation does not permit to fully present the abundance of often overlapping theories explaining motivation or performance approaches; hence a synthesis of motivation and performance approaches will be provided drawing on a combination of these literatures and on a small but growing body of qualitative work on motivation and PBF systems in the context of public health in developing countries[6].

The following part will introduce the debate on whether PBF approaches are appropriate to solve the African HRH crisis. To begin with the importance of work motivation in health will be explained (Part I.1) to then demonstrate how PBF systems in health can motivate employees (Part I. 2). While evidence wieevn nceeklaenw can thpl

Buchan 2004; Dieleman 2004, 2003; Franco, Benett & Kanfer 2002; Segal 2000, Lerberghe 2000; Pangu 2000).

Yet, issues around staff shortages, brain-drain, low work motivation and poor performance of HR in health in Sub-Saharan Africa are so enormous that it has been termed the 'African health workforce crisis' (WHO 2006; JLI 2004). A body of evidence confirms the relation between health worker numbers and output such as increased immunization coverage or infant, child and maternal survival (WHO 2006; JLI 2004). To achieve MDGs in health, however, the region would require a 139% increase in health workers (WHO 2006, 8). Apart from the severe staff shortage there is a common understanding that as health workers are faced with inadequate institutional and organizational arrangements health services perform less well than they should do (Meessen 2007; Van Lerberghe et al. 2000). Moreover de-motivation of health workers has been identified as a central problem that has led to poor work attitudes, and absenteeism and shirking are widely observed (Dieleman & Harnmeje 2006; Garcia-Prado 2005).

Hence, the development of an adequate, capable, motivated and well-supported health workforce is crucial to achieve health goals (WHO 2006, xv). Yet, while overcoming health worker shortages is one of the greatest challenges, training of new staff will not be solved in the short term, thus a consensus has emerged that there needs to be a shift from service expansion towards new approaches that manage and optimize the use of available resources.

Disappointing results of conventional input based financing approaches especially in the poorer countries in Africa underline the need for new strategies (Moore 1996). In addition, donor resources are gradually becoming scarce, thereby increasing the pressure for accountability and value-for-

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systems a central question concerns what will happen to a person's intrinsic motivation if they begin receiving extrinsic rewards for doing an intrinsically interesting activity (Deci & Ryan 1985, 43).

The first effect of financial incentives on intrinsic motivation has become known as the 'crowding-out effect' and has been examined by a group of cognitive psychologists demonstrating that under particular conditions:

> "When subjects receive monetary rewards for working on a variety of activities under a variety of circumstances (…) their intrinsic motivation for the rewarded activity decreased" (Deci and Ryan 1985, 48).

Frey (Frey & Jeger 2001; Frey 1997) made two psychological processes responsible for this. Impaired self-determination happens when the actor feels that an outside intervention is restricting their autonomy. The perceived locus of causality changes from internal motivation to external control and as a result the actor feels that rather than themselves, the person undertaking the external intervention is responsible. Likewise impaired self-esteem takes place when an agent feels that n external interference does not acknowledge his or her motivation and consequently lessens efforts.

Outside interventions can crowd-out intrinsic motivation when it is perceived as controlling, thus not only financial rewards, made conditional on performance, can crowd-out intrinsic motivation but also threats, competitive pressure, or regulations together with negative sanctions (Frey & Jegen 2001, Deci & Ryan 2000).

3.2 Crowding-Out in Health

PBF systems are based on the assumption that as rational utility maximizers health workers are primarily concerned with their own private benefit, yet this do not take the existence of intrinsic and

A major consequence of undermining intrinsic motivation has been recognized as ‘gaming’. Paying medical staff that is intrinsically motivated to do

On the basis of this knowledge the second part of the dissertation will briefly explain the background considerations for the case study choice and formul

Target groups were chosen through stakeholder analysis and in relation to availability, comprising three different levels: Government/MoH, international partner organizations and district hospitals.

Level	Category		Number
MoH	Celulle Approche Contractuelle (CAAC)		1
International Organizations	German Technical Cooperation (GTZ), Belgian Technical Cooperation (BTC); Management Sciences for Health (MSH), World Bank (WB); United States Agency of International Development (USAID); Cordaid/Health Development & Performance (HDP); Family Health International (FHI); IntraHealth		8
District Hospitals	Management and Administration		8
	Medical Staff	Doctors A0	9
		Nurses A1	5
		Nurses A2	10
		Nurses A3	1
	Patients		15

Table 1: Number and Profile of Respondents

A qualitative approach was selected as there is little written about the issue of the PBF initiative at hospital level and as such methods are helpful in gaining an endemic understanding, for exploring contextual factors and for understanding those components of interventions that work well or not

Additional Sources

Informal discussions with an expatriate doctor at one hospital gave further insight into the PBF. In addition, participatory observations were made during a quarterly PBF evaluation at one of the hospitals.

Procedures

Time limitations only allowed pilot testing of the health worker questionnaire, the others were sent to the GTZ for technical advice. Questions were slightly adopted during the research according to circumstances. All interviews were conducted by the researcher herself, during which notes were taken. In order to avoid disrupting the interview full details were recorded after each interview. Prior to the interviews the research aim was explained and anonymity of the respondent guaranteed.

Most of the interviews were conducted in French language and were translated by the author. Patients' questionnaires were conducted in Kinyarwanda for which an external translator was employed. Interviews were carried out in separate rooms (where possible) in order to guarantee confidentiality and make respondents more comfortable in replying about sensitive issues. Their length and depth depended on the availability of the respondents.

Analysis

The results of the explorative interviews with CAAC and the international organizavees.h(l)-5()]TJ 1 t

In addition the researcher herself can be considered to be a bias since she was associated with an international organization providing funds, and some respondents might have been hesitant to express their feelings.

Nevertheless this dissertation hopes to contribute to a better understanding of which institutional structures can sustainably motivate health personnel to provide better quality care in resource poor environments and in particular in the Rwandan health sector.

Based on the research results the third part of the dissertation will briefly outline the Rwandan PBF background (Part III.1) and the new institutional arrangements introduced at district hospital level (Part III.2). Subsequently, the impacts of the PBF initiative will be assessed, first exploring the improvements in the motivation of health workers and functioning of the hospital (Part III.3) and then, in a second step, look at the risks and challenges encountered (Part III.1).

Part III) Rwanda's Performance Based Initiative

1. Background

backn 3PBF initiat-1((d)-1(a)-14)-

Already in 2001 PBF was introduced by two Non Governmental Organizations (NGOs) and following

(70% of funds) and ii) improving the functioning of the district hospital through a better management of resources and providing supervision to health-care centers (30% of funds).

Primes are paid based on qualification as well as performance. Most hospitals do not yet assess individual performance, but determine rewards based on departmental or hospital performance, this way aiming to avoid unwanted competition and to promote teamwork and internal accountability. While rewards are not determined by individual performance the system includes a formalized individual sanction mechanism, whereby in case of misbehavior or absenteeism workers do not receive the full reward.

The PBF initiative is revised regularly in cooperation with CAAC, collaborating partners and service providers in order to create a flexible system that can adapt to changing contexts and needs.

3. Assessing the Impact of the Performance Based Initiative

So far evidence on the impact of PBF on motivation and performance of staff and quality improvements is still scarce and often based on perceptions. From this limited experience, however, a general consensus emerged and quality scores from evaluations at hospitals demonstrate that there is a steady improvement. The results of this research support this perception and confirm the first assumption made above that PBF systems in developing countries can increase the motivation of health workers to perform and stimulate necessary changes in the quality and quantity of health service provision.

3.1 Improvements

3.1.1 Perceived Motivation and Performance

Findings of the research indicate that both motivation and performance have increased as a result to PBF and organizations and hospital management agree that staff is more motivated to work, to take over responsibility and to participate actively in improving health-care services. PBF further seems to have introduced a spirit of progress and engagement. 56%[11] of the interviewed health workers stated that PBF gives them a feeling that their work is appreciated more and that the salary increase is motivating to them. In fact if other colleagues get rewarded 88% of respondents feel inspired to increase their own efforts.

This enhanced motivation is reflected in the perception that availability of health workers and willingness to work supplementary hours, even though they are not paid for, have improved and as 88% agree the system has made it more difficult to misbehave and be absent since sanctions, i.e. reducing the reward, are clear and frequently enforced.

One of the administrative directors summarized this as following:

> “Before there has been an environment of ‘laissez faire’, everybody worked when they wanted to. Today with PBF control is not necessary, the system controls itself and hence the availability of

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staff, supplementary hours and the respect of rules has improved. This is mainly due to the financial incentives offered".

Moreover, performance appears to have improved and since PBF has set incentives to work according to introduced norms and values staff is "reminded about what they should be doing" (IntraHealth 2007) and 96% of the staff believes that PBF has encouraged them to work better.

The initiative further intended to make the organization at all levels more responsible through for example clarifying descriptions and responsibilities. In consequence 96% of medical staff pointed out that PBF has increased their feelings of responsibility for the service quality.

3.1.2 Quality and Quantity

The research further revealed improvements in quality and quantity indicators that support the above perception.

Findings of the interviews with hospital management and staff suggest that through tying the performance payments to indicators involving infrastructure and functioning of the hospital, these criteria have developed. The pharmacist at one hosphe

Hospital management is aware that the relationship between health workers and patients and the feeling of responsibility towards patients has increased because indicators standardize treatment procedures. This feeling is reflected in patients' opinion that they are treated with more respect and the way they are received has improved.

Meetings have also increased creating more opportunity for cooperation and information exchange. Likewise, participation and communication structures improved through establishing a formalized reporting system. As the management affirms before reports, registers and patient records were often not obtainable but now since hospitals are evaluated on availability and completeness of documentation, these documents not only exist but there is an understanding of their importance. Furthermore, as a positive side effect several evaluation results have created a 100% availability of data on hospitals.

In addition, developing the quantity plays an issue and organizations interviewed suggested that there has been an increase in the number of services provided. At hospital level this impact is most noticeable as all stated they can now contract more personnel and that staff seems to be more attracted to work in public hospitals because of the prime. Indeed, it has been suggested that through PBF salaries have doubled (MSH 2007).

3.2 Risks and Challenges of the Performance Initiative

As the above data demonstrated, in relation to the new PBF system important developments have been achieved, yet it was also assumed that PBF systems can crowd-out of intrinsic motivation and introduce incentives for gaming. The research findings verify this second assumption and drawing mainly on the results from the health worker interviews part III.3.2 will illustrate that Rwandan health professionals are driven by a strong professional work ethic and that the current institutional arrangement risks crowding-out, contains incentives for gaming and hence threatens the sustainability previous achievements.

3.2.1 Intrinsic Motivation and Rwandan Health Workers

The majority of medical professionals interviewed chose their career because of a desire to help and treat people. Others mentioned scientific interest (17%), intellectual challenge and interesting work (10%) as both reasons for career choice as well as intrinsically motivating factors.

Statements such as "helping people that suffer gives me joy" and the feeling of being needed were frequently mentioned. Most feel that the medical profession is a noble one and 76% instantly agreed that saving lives to them is more important than having a high salary and some pointed out that:

> "The medical profession is not just a job, it is a dedication to life. If we would look after money we would have gone into business".

As another 80% asserted, receiving the respect and appreciation by their patients is the highest remuneration they can receive, as one doctor illustrated:

> "Saving somebody's life and seeing that saved person alive and thanking you on the next day, that gives more pleasure than if we get money".

Results also revealed a strong dedicated to society. 76% felt most responsible to their patients and all felt very strongly about making a contribution to the development of their country and making up for the past. Indeed some mentioned that because they have seen so much misery in their childhood they have a strong desire to help reduce suffering.

If asked how one could define work motivation, 56% stated that being motivated means providing quality work, respecting the work and enjoying it.

The ‘excludability’ of indicators while allocating points was also perceived as de-motivating i.e. if one criteria of a patients record is missing zero points are awarded even if the remainder has been completed well and patient was treated correctly.

One major difficulty relates to the common feeling of a lack of understanding. After the training of hospital management the remainder of hospital staff was informed in meetings. However, except of the indicator score card no other documents were distributed. This communication deficiency became evident during the quarterly evaluation, carried out at one of the hospitals, where on the next day a nurse expressed that:

> “Before we had our evaluation yesterday the way the system works was not clear to us, we would have preferred that everybody was told how it works and received training in order to really understand it”.

While the majority knows that PBF is a system that aims at improving the health-care quality, if asked about procedures and goals the understanding is very basic: ‘evaluation = points = rewards’. Some staff likewise complained that their knowledge has not been recognized while designing the indicators and that no one has implicated them in the planning or implementation process.

In the context of these challenges both the necessity as well as the appropriateness of some of the indicators has been questioned. While evaluation criteria have recently been revised, both management and staff mentioned that some criteria do not correspond with their work on the ground. Hospital management expressed the concern that the decisions made on national level are not appropriate at the basis and one supervisor asserted:

> “Hospitals should have much more flexibility; the system is too generalized and constrains the innovation and initiative of the staff”.

The same issue partly applies to the departmental criteria. Indicators between the clinical departments are perceived to be very similar despite the different tasks and regardless of the different work conditions. Hence, staff feels that these criteria reflect only a small part of their day to day reality. In addition, 43% of staff responded that the new fix indicators limit their decision making autonomy such as this nurse who explained that:

> ”Fix rules constrain my decision making, there are tasks that are only to be done by doctors, but then sometimes I have to perform these tasks because doctors are occupied, yet I don’t receive anything for this”.

This lack of context specific adaption is furthermore accompanied by an evaluation method solely based on the control of patient files, providing a limited picture of clinical realities and one doctor suggested: “It would be better to evaluate the competence of staff through observation”.

Nevertheless, in principal the criteria chosen are perceived as appropriate by 56% however, with regard to a lack in capacity many perceive the indicators as exaggerated and impossible to achieve which is discouraging. While some see the solution in reducing the indicators, others feel they are necessary but that capacities have to be increased if there is to be a real change in behavior. For example one doctor explained:

> “The PBF evaluation is a good idea; it motivates people to work according to good standards. At the same time it should not be an excuse for the management. They [management] cannot expect heaven from us if they don’t increase the capacities for us to be able to pursue these guidelines. So PBF should be like a process. Let it be a way of progress and not a way of judging and control only”.

While the above flaws in the system pose a serious risk to crowding-out intrinsic motivation leading to de-motivation and a reduction of work efforts, the following chapter will reveal indicators for gaming and multitasking.

3.2.3 Gaming and Multitasking

The scale of this dissertation did not allow a full exploration into the issue of gaming and multitasking, nevertheless this risk is well acknowledged by all stakeholders.

Both organizations and management recognized that since most service providers currently understand the system as being primarily about primes there is a risk that “motivation to do a good job will be replaced by the motivation to get a maximum amount of money” (GTZ 2008). A large number of health workers define motivation as financial encouragement, indicating a change in the understanding of motivation from a state of mind to that of an incentive.

This can be particularly difficult in relation to an overburdened and under capacitated workforce where staff find it difficult to comply to the time consuming procedures, here the risk that data is ‘made up’ and reports are completed a day before the evaluation is particularly big.

While few would openly acknowledge that evaluation sheets are manipulated, it was several times mentioned that ‘corrections’ to the registers are m

The results presented above reflect the perceptions of the stakeholders involved in the Rwandan PBF initiative, they are not based on an impact evaluation and need to be understood in this context. In addition the dissertation explored one particular case and the heterogeneity of other health systems limits generalized conclusions, nevertheless the last chapter (Part IV.1) will conclude with some conclusions on best practices and lessons learned that have developed from the Rwandan case study and literature.

Part IV) Lessons Learned and Best Practices

Most importantly both literature and the Rwandan case study have demonstrated that health worker performance depends on a large variety of factors starting at macro level, to the characteristics of the

ensure equal treatment of patients, yet medical staff perceives this does not acknowledge their work effort and is discouraging. It was additionally shown that not being implicated into design and implementation can induce feelings of lack of recognition.

It can thus be concluded that there are no packaged solutions and policy makers have to be aware of the complexity of the contexts they operate in and thus develop organizational goals and criteria frameworks specifically for each organization. Within health organizations capacity is also often unequally distributed and context specific goals that are consequently more attainable and more motivating should be deployed.

This could be done most efficiently through including medical staff in problem analysis and generation of solutions, thereby creating ownership that not only helps to reduce the risk of data manipulation and prevents the system from becoming a production of results rather than impacts, but also gives staff an opportunity of choice and fosters feelings of self-determination that can lead to crowding-in. In addition if rules and regulations are created in participation this will facilitate the acceptation and internalization of the new rules and norms and they will not be perceived as controlling.

The Rwandan case further served as an example to show that establishing common objectives through rewarding the organization as a team can promote team spirit and improve the work climate. Awarding the hospital as a whole and determining individual rewards according to the success of the entire hospital, means that only through working together they can succeed. This can improve participation mechanisms, reinforce feelings of responsibility and promote internal accountability and self-monitoring. In addition this interdependence can enhance interorganizational relationships.

Furthermore, as suggested by findings from the case study a lack of clear communication and transparence can lead to misunderstandings and can thus be discouraging. Hence new institutional arrangements should be complemented through clear communication structures, training all stakeholders involved and disseminating written guidelines. It was also demonstrated that the clarification of tasks and distribution of clear responsibilities can increase feelings of accountability. If procedures are further carried out transparently and processes are fair and consistent they can increase motivation. In this context it was shown that unreliable payment of rewards is de-motivating and compensation should be adjusted to the reality of workload and paid timely.

The findings from the study illustrate that effective performance evaluation is more complex than measurement of outputs by means of controlling reports. Evaluation on the basis of inspecting documents can be experienced as unfair since it reflects only a small part of clinical reality and the difficulties that staff have to deal with, which can be discouraging. In addition extensive report writing can be perceived as altering and devaluating the task of medical professionals.

Nevertheless as the Rwandan case confirms, regular evaluation can provide management and staff with essential information on their strengths and weakness and can also be formative and supportive. To avoid an evaluation system from becoming a system that mainly controls reports, including observatory visits to each department could provide a more comprehensive picture of the work condition and hospital realities. This could also give medical staff the opportunity to express and

illustrate their opinions and needs, thereby also improving the feedback mechanisms. Such evaluation systems could further be enhanced through including direct supervision and training for medical staff into each clinical visit.

In the context of the evaluation the Rwandan peer-review mechanism has proved to be a strong institutional arrangement. The fact that evaluators themselves are implicated into PBF at their own hospitals facilitates the team in advising their peers, while concurrently creating a sense of ownership. More importantly peer-evaluation can generate important knowledge spillovers and facilitate the exchange of best practices and lessons learned.

Conclusion

The present dissertation was designed to explore the debate around Performance Based Finance systems in health and their role in solving the Human Resource Crisis in Health in Africa and using the case of the Rwandan PBF district hospital model illustrated the strengths and challenges of such systems. The findings confirm the assumptions made on the basis of the literature review that PBF systems can be effective in low-income countries in stimulating important changes in service efficiency and organizational accountability and setting incentives at organizational and individual level to change attitudes towards work and improve the quality of health-care. It was further illustrated that institutional changes are anything but neutral and experiences in Rwanda confirm that current strategies underestimate the multidimensionality of motivation and behavior and may even crowd-out intrinsic motivation and thus have adverse effects on the performance of health workers, thereby risking the quality of health-care and previous achievements.

The results from the Rwandan case indicate a need for an appreciation of systemic thinking while aiming to improve the quality of African health systems and demonstrates that PBF systems in health should adopt a more holistic approach to performance management, include multifaceted incentive and sanction mechanisms that are adapted to the systemic, organization and individual contexts, if they want to achieve sustainable results. While it has been demonstrated that it is impossible to develop blue print solutions and more rigorous research on the long-term impacts of PBF systems on motivation and health service quality is needed, the Rwandan case study provided important lessons and it can be hoped that the findings portrayed in this dissertation assist policy makers in Rwanda and elsewhere in developing appropriate solutions.

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