

A Research Project to Improve Human Resource Record Management System of Nurses in A Teaching Hospital, Sri Lanka

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ABSTRACT

Poor quality records management in Sri Lankan Hospital offices is a major dissatisfaction and demotivation for healthcare staff. An intervention research project to improve the record management of selected Human Resource (HR) records of nurses in an Office of a Tertiary Care Hospital in Sri Lanka was carried out to identify the gaps, implement improvements and to test the outcome. Grade promotion and annual increment HR processes considered for the improvements. Qualitative and quantitative techniques used for gap identification, planning of interventions and assessment of the effectiveness. A package of quality improvements initiatives implemented following literature review and stakeholder participation. Absence of instructions/sample filled-forms and issues in the document flow were the inconsistencies noted. The record processing time was 30.83 days with an SD of ± 4.84 for completion of annual increments and 24.33 days with an SD of ± 4.21 for authorisation of grade promotions. The package of interventions included e-based/ paper-based guides and specimen request forms and a document movement register to track the records. Increased accessibility, accuracy, improved quality, timeliness and improved traceability of submitted forms and improvements in the average time spent for annual increments and grade promotions noted; 17.52 days (SD ± 3.39) and 12.13 days (SD ± 2.33) respectively, a statistically significant reduction ($p < 0.05$). Implementation of quality improvement interventions using computer based initiatives with stakeholder participation can improve office management issues in the tertiary hospital setting.

1. INTRODUCTION

The office is an integral element of a Hospital where planning and coordinating of tasks according to organisation objectives takes place (Balachandran & Chandrasekaran, 2009). Hospital office records comprise clinical records and non-clinical records. Clinical records deal with information regarding patients and their management. Several types of non-clinical records exist, human resource management, financial and administrative records are the most common. Human resource (HR) records capture information on staff job security, salary administration, performance appraisal, promotions, incentives, training, development and retirement details.

The aim of the study was to assess the current process and identify the gaps, develop interventions and assess the effectiveness of the new intervention on HR-related office records management of nurses in a tertiary hospital in Sri Lanka.

2. LITERATURE REVIEW

Lost records, poor record organisation, record storage problems, wasted time, reduced productivity and clutter are significant gaps in record management in office environments that are paper-based (Kokemuller, 2018; Waters, 2017). Being entirely paper-based, healthcare

managers of Sri Lankan hospitals are burdened with effective management of HR-records of staff. Timeliness and accuracy of records are paramount for the hospital function and a strong sense of fulfilment for employees. Staff satisfaction and improved motivation are strong retention factors for the staff, resulting in better patient outcomes and satisfaction. Most of the staff complaints to hospital management in Sri Lanka are related to poor quality of handling HR-related records. Employee satisfaction has a significant impact on customers (Gazzoli et al., 2010). A unilateral relationship between employee and customer satisfaction is reported (Jeon & Choi, 2012). A healthy employee relationship with the organisation is needed for high productivity, developed by assuring them fair decisions, proper incentives and achieving personal goals, and will only be possible by having a sound HR record management system (Management Study Guide, 2017). Poor record management leads to high stress and dissatisfaction among employees (Hilinski, 2017).

Office processes should be changed according to the customers' needs and organisational goals (Thilakaratne, 2017). Total Quality Management (TQM) techniques have been strongly used to improve organisational performance successfully (Reed et al., 2000). Karia et al. have shown that applying TQM principles in a workplace

significantly improves job involvement, satisfaction and organisational commitment (Karia & Hasmi Abu Hassan Asaari, 2006). Dias (2017) has shown significant improvements in timeliness by implementing TQM techniques in a regional healthcare office context in Sri Lanka (Dias, 2017). An intervention project carried out in a rural hospital in Ethiopia showed, using simple ICT based interventions improved timeliness, completeness, user satisfaction and accessibility of records (Wong & Bradley, 2009). An interventional project that used TQM techniques has been carried out to improve all aspects of clinical record management in a UK hospital setting (Glen et al., 2015).

3. RESEARCH METHODS

This was an interventional research project to improve the HR record management system of nurses in a tertiary hospital within a six-month period from January to June 2018. Nurses were selected following discussions with experts in the field based on the number of documents submitted, their importance and urgency.

Preliminary work. Two records were prioritised according to the number of transactions, the urgency of the matters and importance of the issues. Processes selected for the project were the application for grade promotions and annual increment forms. Each

step of the process for selected records was process-mapped as in Figure 1 and 2.

Figure 1. Mapping the process of applying for grade Promotion

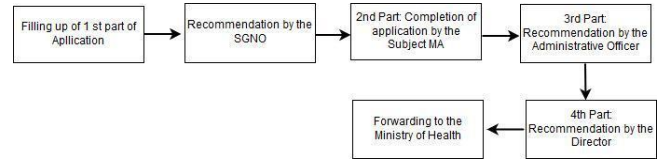
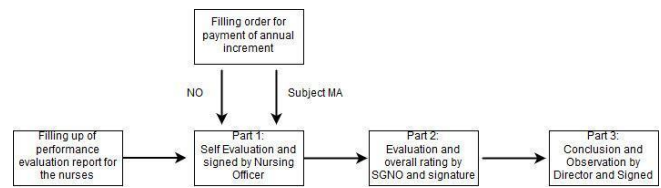


Figure 2. Mapping the process of annual increments



Definition of selected processes. Application for grade promotions is filled by nurses promoting from their recruitment grade/ Grade III to grade II and grade II to grade I. A nurse should fill their application forms to apply for grade promotion and forward it through the head of the institute to the line ministry.

Annual increment form is a financial incentive request form that a nurse should submit to the head of the institute to earn the annual increment following the satisfactory performance (Ministry of Public Administration and Management, Sri Lanka, 2013).

The average time taken to authorise annual increment is the average number of days taken for the initiation of annual increment record by a nurse to authorisation by the Hospital Director.

The average time taken to complete grade promotion form is the average number of days

spent for initiation of grade promotions records by a nurse to the authorisation of it by the Hospital Director.

Project formulation. Project formulation used qualitative and quantitative methods. Key informant interviews (KII) and focus group discussions (FGD) were held with healthcare management specialists, hospital administrative staff and human resource clerks. KII and FGD guides were developed for this purpose. Quantitative assessment was performed on all grade promotions and annual increment records one month prior to the intervention extracting dates from the submitted records. To quantify the findings identified during KII and FGD, a self-administered questionnaire was given to all nurses who attended the office seeking HR services. The pre-tested questionnaire had straightforward and self-explanatory questions that were validated by experts in the field.

KII and FGD also contributed several innovative ideas for improvement. Appropriate interventions for improvement were selected based on cost, time availability, acceptability and administrative feasibility.

Project assessment. Project assessment contained qualitative and quantitative approaches similar to project formulation. Separate KII and FGD guides were used to assess the perceived satisfaction of interventions. The average time taken for selected processes after implementing

the interventions were marked for the records understudy for two months after implementing the interventions. Thematic analysis was performed on the qualitative data. The average number of days spent on selected processes were compared pre-and post-intervention using independent t-test. Ethical clearance was obtained from the Ethics Review Committee of the PGIM, Faculty of Medicine, University of Colombo.

4. RESULTS

Assessment of gaps. The qualitative assessment into gaps revealed non-availability of updated instructions, sample filled-forms and all forms in a bundle were important identified gaps. Incomplete details on submitted forms, not knowing the correct HR clerk and delays in superior approval and forwarding of the documents were also identified as important contributing gaps.

Identified issues in the qualitative assessment were quantified. Annual increments and grade promotions comprised over 77% of causes for office attendance by the nurses. Table 1 confirms the magnitude of the gaps identified in the qualitative assessment.

Table 1. Main difficulties faced by nurses during their visit to the office

Difficulty experienced at the office	Respondents (n=45)
Mistakes in completed documents	41
Delay	40
Repeated visits to the office	38
Not having a filled sample form for referral	36
Not including all essential documents to complete the task	27
Loss of documents after submission	24
Not Knowing the responsible person to contact	23
Non-availability of a responsible staff member	23
Delayed Authorization from the Head	17

Source: (data processing results, 2020)

Intervention. Ideas for improvement were identified during the KII and FGD. Based on selection criteria following interventions (i to v) were selected. Staff were made aware by an internal circular, notices placed on common areas and staff forums.

- i. Development of a guide with instructions to fill annual increment forms and grade promotion forms
- ii. Sample filled-forms were included in the guide for reference
- iii. An online-printable form for annual increment and grade promotion with a downloadable guide and sample filled-form was created using an online word processing

- software. The resource could be accessed using any computer or personal device, completed and printed out. Links for the relevant documents were made available by email, short message or scanning QR codes.
- iv. Whiteboard was placed in the office to display human resource clerks’ duty arrangements
- v. A movement register was introduced to improve the traceability of submitted documents

Assessment of improvements. Assessment of the success of the interventions was done qualitatively by assessing perceived satisfaction and quantified by calculating the duration spent on the two processes. The average time for approval of annual increment form has been reduced from 31 days to 17 days (Table 2).

Table 2. Average time duration for the annual increment form approval
t=10.4677 Source: (data processing results, 2020)

The average time duration for approval of grade promotion form has been reduced from 24

Pre-intervention time duration (days)		Post-intervention time duration (days)		p-value
n	Mean ± SD	n	Mean ± SD	
12	24.33 ± 4.21	15	12.13 ± 2.33	<0.05

days to 12 days (Table 3).

Table 3. Average time duration for authorisation of grade promotion form

Pre-intervention time duration (days)		Post-intervention time duration (days)		p-value
n	Mean ± SD	n	Mean ± SD	
23	30.83 ± 4.84	21	17.52 ± 3.39	<0.05

t=9.5781. Source: (data processing results, 2020)

Both improvements were statistically significant ($p < 0.05$).

Post-intervention KII and FGD revealed improved perceived satisfaction on accessibility to the required forms. Improved accuracy, quality of submitted applications, timeliness and improved traceability were also noted.

Office record management is often overlooked and underrated in many organisations as recorded by Hilinski. Poor record management process seen in Sri Lankan hospitals is a major dissatisfaction among healthcare staff.

The study designed to improve applications for annual increments and grade promotion processes of an office of a tertiary hospital in Sri Lanka. The project used mixed methods to identify gaps, design interventions and to assess outcomes. The interventions were planned considering cost, time, administrative feasibility and staff acceptability.

Outdated instructions and non-availability of sample filled-forms were solved by a comprehensive guide available as both soft and hard copy. Accuracy timeliness completeness and quality of submitted applications improved following the intervention. Similar

improvements were recorded by Wong and Bradley, 2009 by implementing ICT based interventions. The delayed processing of records overcame by implementing a movement register, a recommendation by record management unit of the University of Edinburgh (University of Edinburgh, n.d.). The register increased the traceability and strikes the bottlenecks.

The project used similar interventions, internal circular and notices, as used by Murali to raise awareness of the staff to use the interventions (Murali, 1999). Paper-based records were maintained to ensure fair access to nurses with low ICT literacy.

Outcomes of this service improvement project were enhanced user satisfaction and a reduction in average process time for the selected two processes. Gains in process times were shown statistically significant. Dias (2017) has shown similar interventions successful in the office of regional healthcare setting in a suburban town of Sri Lanka.

5. CONCLUSION AND SUGGESTION

Conclusions. A process improvement research project was carried out to improve the HR records management of nurses in a tertiary care hospital in Sri Lanka. Non-availability of updated instructions and sample filled-forms, all required forms in a bundle, the incompleteness of submitted forms, not knowing the responsible

person to perform the process and delayed approval by superiors were the main identified gaps.

Annual increment ran through 30.83 days with an SD of ± 4.84 and grade promotion 24.33 days with an SD of ± 4.21 . The package of interventions developed with the full participation of stakeholders comprised an electronic and paper-based comprehensive guide, an online system of generating requests, display of duty arrangement of HR clerks of the hospital office and a movement register the selected records. Recorded improvement for annual increment and grade promotion fell short to 17.52 days with an SD of ± 3.39 and 12.13 days with an SD of ± 2.33 respectively, a statistically significant reduction ($p < 0.05$). All stakeholders indicated high perceived satisfaction over the improvements in the processes.

Recommendations.

1. Service improvement projects to set right the record management process of the hospital offices should be implemented with the full participation of the stakeholders.
2. Electronic-based applications can be successfully implemented in HR records management in healthcare offices.
3. Implement electronic tools for HR record management in all major health staff categories.
4. Service improvement projects should also be aimed at upgrading financial and administrative record management processes using a similar approach.

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