ISSN 2620-8423 (print) | 2620-5653 (online)

Improving recruitment process for nurses, professions supplementary to medicine and paramedical staff

Pamila Sadeeka Adikari [a,1,*], Dileep De Silva [b,2], Sunil De Alwis [b,3], KYPK Weerasekara [b,4], Parmelalagapillai Karthikeyan [b,5], HHDAU Hettiarachchi [b,6], Kapuge Ranjith Kumara [b,7], HW Sunil Shantha [b,8]

[a,b] Ministry of Health and Indigenous Medical Services, No. 385, Rev. Baddegama Wimalawansa Thero Mawatha, Colombo 10, Sri Lanka.
[1] m19604@pgim.cmb.ac.lk*; [2] dileepdenta@yahoo.com; [3] sbalwis@hotmail.com; [4] yasoma.kumari@yahoo.com; [5]thirumagal@gmail.com; [6] upulananda65@gmail.com; [7] kapuge07@gmail.com; [8] sunilshanthahw@yahoo.com
* corresponding author

ARTICLE INFO

Article history
Received, 20-th August 2020
Revised, 3-th September 2020
Accepted, 22-nd September 2020

Keywords
Human resources for health
Recruitment
Service improvement
Human resource management
Computer-based system

ABSTRACT

The recruitment process of nurses, professions supplementary to medicine and paramedical staffs had been a lengthy and labourers work for the Ministry of Health and Indigenous Medical Services (MoHIMS) of Sri Lanka. The process affected the regular recruitment of mentioned staff categories. Flaws in this system contributed negatively to the country's shortage of human resources for health (HRH) as well as efforts to improve the healthcare service delivery.

The aim of the study was to identify the gaps in the traditional paper-based recruitment system of the MoHIMS and to design a suitable intervention to improve the process and to assess the improvements brought about by the intervention.

A service improvement project with full participation of stakeholders was planned by the Human Resource Coordination Division (HRCoD) of the MoHIMS. Qualitative methods were used to identify the gaps in the existing recruitment system and to gather the ideas for improvement. A computer based online recruitment system was implemented with the collaboration of the Department of Computer Science Engineering, Faculty of Engineering, University of Moratuwa. The perceived satisfaction of the stakeholders was reassessed by qualitative methods.

Long lag between advertising and recruitment for training was revealed. Deficiencies such as, lack of transparency, negatively affected routine office processes, inability to validate examination results during application process and frustrated applicants leaving the training programs due to lengthy selection processes were also among the main gaps identified. The implemented online recruitment system was recognised by the stakeholders for its improved timeliness, transparency and minimal interference to the routine office functions.

Service improvement projects to be successful, should be implemented with full stakeholder participation. Computer based online recruitment systems can be successfully implemented in public sector recruitments to improve the efficiency and transparency.

1. Introduction

Predominantly the Sri Lankan health system is allopathic and has both curative and preventive health sectors (Jayasekara, R. S., & Schultz, 2007). Free health services are offered at the point of delivery to the public via a network of healthcare institutes maintained by the Ministry of Health and Indigenous Medical Services (MoHIMS) (Perera, A., & Perera, 2017). Sri Lankan MoHIMS possesses 128,000 finest health manpower ranging from specialists to the semi-skilled assistants when considered collectively known as the health workforce whose primary intent is to enhance health of the people (D. De Silva, 2019). The Sri Lankan Ministry of Higher Education trains the Doctors and Dental Surgeons and recently started producing a few categories of professions supplementary to medicine. Specialists are trained only by the Postgraduate Institute of Medicine, affiliated to the Faculty of Medicine, University of Colombo (De Silva, A. P., Liyanage, I. K., De Silva, S. T. G., Jayawardana, M. B., Liyanage, C. K., & Karunathilake, 2013). The other categories of human resources for health (HRH) are trained in-house by the training schools belonging to the Ministry of Health (Perera, A., & Perera, 2017).

The MoHIMS has identified several challenges related to Management of Human Resources for Health including fragmentation of human resource functions within MoHIMS, shortages, maldistribution, retention and adapting the HRH for rapidly changing demographic, epidemiological, technical and sustainability of development contexts (de Silva, A., Ranasinghe, T., & Abeykoon, 2016; De Silva, 2019). In support of this, the cabinet has approved the establishment of the Human Resource Coordination Division (HRCoD) directly under the purview of the Secretary of Health, while consulting the Director General of Health Services on relevant issues (De Silva, 2019; Medical Statistics Unit, Ministry of Health, 2017). One of the main functions performed by the HRCoD is recruitment of HRH.

Recruitment can be defined as the process of finding and engaging the people that the organization needs which will be followed by selection; deciding which applicants or candidates should be appointed to jobs. It is a complex process that involves defining requirements, attracting candidates, sifting applications, interviewing, testing, assessing candidates, obtaining references, checking applications, offering employment and following up (Armstrong, 2012). Recruitment is the single most important activity which can front-load an organization by investing more on correct people to achieve organisational outcomes (Bock, 2015).

The MoHIMS annually trains approximately 4000 trainees of different categories; nursing, professions supplementary to medicine including medical laboratory technologist, pharmacist, occupational therapist, radiographer and also paramedical services including school dental therapists, health entomology officer, ophthalmic technologists, prosthetist and orthotists, public health inspectors, electro cardiographer (ECG recordist), electroencephalographer (EEG recordist) (Medical Statistics Unit, 2018).

Traditionally, recruitment of the said categories was done manually. After publishing the vacancies in the government gazette, 20,000 to 30,000 applications were received by post at the MoHIMS, consuming significant hours of clerical work entering details on the database. Selected applicants were called for interviews and selections were made based on the z-score of their general certificate of education advanced level examination.

Traditional paper-based recruitment systems are known for their shortcomings of lack of transparency, cost efficiency, timeliness, non-traceability, manual data-base keeping and increased space required for storing paper-based applications (Marsden-Huggins, 2014).

The world has shifted to electronic recruitment systems due to their increased efficiency and lower costs (Borstorff, P. C., Marker, M. B., & Bennett, 2007). It has been found that people are more comfortable with online recruitment irrespective age (Borstorff, P. C., Marker, M. B., & Bennett, 2007). Candidates satisfaction could have been increased by enhancing the user friendliness of the online recruitment system (Sylva, H., & Mol, 2009). Possibility of integration of an online system with means of communication such as short messaging services and email with the candidates is another advantage over the traditional methods. Data from online recruitment software can be easily imported to spreadsheet or other databases effortlessly saving clerical time spent on mentioned activity. Moreover, entered data by the candidates could be easily verified and validated by supportive other web services through integration is a definite advantage.

In today's electronically connected world the presence of online recruitment software makes life easier for both applicant and recruiter providing a more streamlined application process while recruiters can manage all applications easily from one place. Traditional job application process consumed almost 12 to 18 months to complete a recruitment cycle. The training schools were unable to recruit students annually due to increased lead time. The MoHIMS was affected by inability to extend service quality, infrastructure expansions and making services available on round the clock basis due to shortage of HRH. High lead time further turned down several trainees from taking up selected courses. Internally, office staff were exhausted and overburdened with increased workload in a confined office environment dealing with piles of job-applications. Service improvement of the recruitment process was a vital need at MoHIMS to meet her long-term goals.

The aim of the study was to identify the gaps in the traditional paper-based recruitment system of the MoHIMS and to design a suitable intervention to improve the process and to assess the improvements brought about by the intervention.

2. Method

This was a service improvement research project carried out in the Human Resource Coordination Unit of the Ministry of Health during the period of 2018. Qualitative methods were used to study the gaps in the traditional paper-based recruitment system. Key informant interviews were held with the Head and the consultants of the HRCoD, senior medical administrators, administrative officers and principals of the training schools to identify the gaps and suggest ideas for improvement. The intervention was selected based on administrative and operational feasibility and key stakeholder perspectives. The improvements of the implementation were assessed using qualitative techniques using key informant interviews with the stakeholders including the Head and the consultants of the HRCoD, senior medical administrators, administrative officers and principals of the training schools.

A structured key informant interview guide was developed by the study team containing open-ended questions to identify the gaps in the recruitment process and suitable interventions. Similar key informant guide was developed with open-ended questions for the assessment of perceived satisfaction from the key stakeholders on the improvements brought about by the intervention. Members of the study team recorded down responses of the key informants.

Online recruitment system was implemented based on all stakeholder perspectives. Initially, it was decided to apply both online as well as sending a generated hard (printed) copy to the Ministry of Health by post. It was decided to outsource the development of the online recruitment software to the Department of Computer Science Engineering, Faculty of Engineering, University of Moratuwa, based on their experience in working with similar recruitment processes in the public sector.

A team of engineers appointed by the head of the Department of Computer Science Engineering (CSE) collected the requirements with respect to the proposed system from the staff of HRCoD, MoHIMS. From the MoHIMS the requirements included a tri-lingual user interaction with the application, validation of inputs, reducing and handling of errors, module-level testing, quality assurance of data, secure system for data, email and short message service gateway and barcode support. The CSE team also assisted the MoHIMS on procurement of necessary hardware procurement and in other areas of system deployment and operations. The MoHIMS gave inputs on required design, system functions and user interface. Upon building the most suitable system the MoHIMS appointed staff to clarify, configure the system and run a few test cases. CSE provided technical support throughout the course.

3. Results and Discussion

Key informants revealed several existing gaps in the routine paper-based information system. The main issue was the unacceptably high lead time to finalize the intake for training, which ranged between 12 to 18 months from the time of advertisement. They also stressed the whole process was less transparent due to manual data processing. Stakeholders further described, storing applications within the office premises was not possible due to the large number of applications received. They lacked office space for routine operations. Few clerical staff had to be released daily, impairing routine office work, to handle the recruitment process. Further, no validation process for applications by the Department of Education led to several non-qualifying applicants to submit their applications for

consideration adding up to the delays. Key informants also mentioned several applicants were frustrated over the lengthy selection process and took alternative career pathways.

All stakeholders were unanimous on implementation of computer based online recruitment system. They were positive for a said system as Sri Lanka was already operating a similar system for university entrants by the Ministry of Higher Education. The senior administrators further expressed that the MoHIMS would need to carry out both the online and paper-based system during the initial stage of implementation and the latter could be abandoned later.

Post intervention perceived satisfaction on the online recruitment revealed improvement of efficiency as noted by reduction in lead time to 02 months. The interviews also revealed more importantly, the transparency of the whole recruitment process has been improved by implementation of the computer-based system. Office staff confirmed that the routine office activities were minimally affected by dealing with the online recruitment process. Service improvement projects with full stakeholder participation had been successful in several times in Sri Lankan health sector (Adikari, P., & Dalpatadu, 2020).

Traditional paper-based recruitment systems are known for their reprehensible issues; increased lead time, lack of transparency, inefficiency and possibly higher cost as confirmed by Marsden-Huggins. Similar findings were revealed by the key informant interviews in the present study.

ICT based solutions are popular and more attractive throughout the world for streamlining recruitment processes (Manager, 2019). When designing the interventions need to fully address the needs of the hiring organization (Garrett, 2011) as carried out in the present service improvement project. Implementing interventions with the full participation of stakeholders would improve the acceptability and the sustainability of the intervention leading to higher perceived satisfaction among the stakeholders (Adikari, P., & Dalpatadu, 2020).

The cost effectiveness data of implementing an online application system is not readily available within the system for a comparison. Reduction in lead time for the recruitment process and reduction of man hours spent on the process would definitely have contributed to cost efficiency as suggested by Phillpott (Phillpott, 2019). Not capturing cost savings by implementing the project is a definite limitation. Similarly, improved timeliness incurred due to implementation was approximately 02 months. Exact details on studying the timeline of individual applications were not possible due to time constraints, another limitation of the study.

4. Conclusion

A service improvement project on improving the recruitment process of nurses, professions supplementary to medicine and para-medical service categories were carried out by the Human Resource Coordination Division of the Ministry of Health and Indigenous Medical Services of Sri Lanka during 2018. High lead time, lack of transparency, negatively affected routine office processes, inability to validate examination results during application process and frustrated applicants leaving the training programs due to lengthy selection processes were the main gaps identified. An online recruitment system was introduced to improve the process considering the perspectives of stakeholders. High perceived satisfaction over improved timeliness and transparency were noted with minimal interference to the routine office functions. Service improvement projects with the full participation of stakeholders are successful in the Sri Lankan Health sector. Computer based online recruitment systems can be successfully implemented in the public sector to improve the efficiency and transparency of the process.

Acknowledgment

Staff of the Human Resource Coordination Division of the Ministry of Health and Indigenous Medical Services.

References

Adikari, P., & Dalpatadu, S. (2020). A Research Project to Improve Human Resource Record Management System of Nurses In A Teaching Hospital, Sri Lanka. *Jurnal Manajemen*, *11*(1), 18. https://doi.org/10.32832/jm-uika.v11i1.2911

Armstrong, M. (2012). *Armstrong's handbook of human resource management practice (12. ed)*. Kogan Page.

Bock, L. (2015). *Work rules! Insights from inside Google that will transform how you live and lead*. Murray.

Borstorff, P. C., Marker, M. B., & Bennett, D. S. (2007). Online recruitment attitudes and behaviors of job seekers. *Journal of Strategic E-Commerce*, *5*(1+), 1–2.

de Silva, A., Ranasinghe, T., & Abeykoon, P. (2016). Universal health coverage and the health Sustainable Development Goal: Achievements and challenges for Sri Lanka. WHO South-East Asia. *Journal of Public Health*, *5*(2), 82. https://doi.org/10.4103/2224-3151.206257

De Silva, A. P., Liyanage, I. K., De Silva, S. T. G., Jayawardana, M. B., Liyanage, C. K., & Karunathilake, I. M. (2013). Migration of Sri Lankan medical specialists. *Human Resources for Health*, *11*(1), 21. https://doi.org/10.1186/1478-4491-11-21

De Silva, D. (2019). An update on the human resources of Ministry of Health, Nutrition & Indigenous Medicine, Sri Lanka. *Journal of the College of Community Physicians of Sri Lanka*, *24*(4), 170. https://doi.org/10.4038/jccpsl.v24i4.8170

Garrett, J. . (2011). *The Elements of User Experience: User-Centered Design for the Web and* Beyond, *Second Edition*. New Riders.

Jayasekara, R. S., & Schultz, T. (2007). Health status, trends, and issues in Sri Lanka. *Nursing & Health* Sciences, *9*(3), 228–233. https://doi.org/10.1111/j.1442-2018.2007.00328.x

Manager, C. (2019). *Online Recruitment System*. Candidate Manager; ATS. https://www.candidatemanager.net/online-recruitment-system/

Marsden-Huggins, S. (2014). *Contact us via LiveChat!* https://secure.livechatinc.com/

Medical Statistics Unit, Ministry of Health, N. and I. M. (2017). *Annual Health Bulletin 2016*. http://www.health.gov.lk/moh_final/english/public/elfinder/files/publications/AHB/2017/AHB_2016.pdf

Medical Statistics Unit, M. of H. (2018). *Annual Health Bulletin Sri Lanka 2017*.

Perera, A., & Perera, H. S. R. (2017). *Primary Healthcare Systems (PRIMASYS)- case study from Sri Lanka*. World Health Organization. https://www.who.int/alliance-hpsr/projects/alliancehpsr_srilankaprimasys.pdf?ua=1, pg 15

Phillpott, S. (2019). *The Advantages and Disadvantages of Online Recruitment*. CareerAddict. https://www.careeraddict.com/advantages-and-disadvantages-of-online-recruitment

Sylva, H., & Mol, S. T. (2009). E-Recruitment: A study into applicant perceptions of an online application system. *International Journal of Selection and Assessment*, *17*(3), 311–323. https://doi.org/10.1111/j.1468-2389.2009.00473.x.