Readiness to Change Associated with Job Performance among Health Information Management Professionals during The Covid-19 Pandemic

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Abstract
Health information management professionals (HIM professionals) are one of the essential health workers during the Covid-19 pandemic in managing patient data in hospitals. Changes in both policies and work systems were felt by HIM professionals during the Covid-19 pandemic. The impact of these changes influences the job performance of HIM professionals. This study aimed to assess the association between readiness to change and job performance among HIM professionals during the Covid-19 pandemic in RSAB Harapan Kita, Indonesia. The indicators of job performance are quality, timeliness, need for supervision, responsibility, cost-effectiveness, quantity, interpersonal impact, and empathy. The readiness to change in this study seen from self-efficacy, appropriateness, management support, and personal benefits. This study applied a mixed-methods design to assess the association between readiness to change and job performance in which respondents fill out a questionnaire independently via Google Form. Furthermore, a focus group discussion was conducted to probe deeper into what changes occurred during the Covid-19 pandemic and how these changes related to the job performance of HIM professionals. The questionnaire used in previous research has been validated. The samples used were all 27 HIM professionals and 11 of them agreed to continue the focus group discussion. Statistical analysis used the chi-square test on SPSS version 26 to assess the association between variables. The results show that readiness to change indicated significant association with job performance (p=0.001). Informants stated that changes that occurred during the Covid-19 pandemic included the use of personal protective equipment, spraying disinfectants on medical forms and workspaces, and adding Covid-19 reporting both internally and externally.

Keywords: readiness to change; job performance; health information management professional; covid-19;
Introduction

Indonesia has declared Covid-19 as a public health emergency that must be considered by Presidential Decree Number 11 of 2020 concerning the Determination of Covid-19 Public Health Emergency. Furthermore, as the Covid-19 case developed, the Government updated its previous policy and issued Presidential Decree Number 12 of 2020 concerning the Determination of Non-natural Disasters Spreading Covid-19 as a National Disaster (Keputusan Presiden RI No. 20 Tahun 2020, 2020). One of the responses from the Indonesian government in dealing with Covid-19 is to establish several hospitals as Covid-19 referral hospitals in each region by the Decree of the Minister of Health Number 169 of 2020 concerning the Designation of Referral Hospitals for the Management of Certain Emerging Infectious Diseases (Dzakwan, 2020). Based on this policy, the government has appointed 100 domestic general hospitals as referral hospitals on March 3, 2020. In addition, on March 8, 2020, Indonesia increased the number of Referral Hospitals to 227 to address the increasing number of COVID-19 patients (Organization, 2020).

Hospitals have an important role in eradicating Covid-19. Hospitals during the Covid-19 pandemic will be very different from the situation before. The Indonesian government encourages hospitals to prepare stricter safety procedures for all hospital components to follow. The tightening is carried out as a form of hospital administration that prioritizes the safety of patients and health workers on duty even during the Covid-19 pandemic. To prevent transmission during healthcare service and also for patient safety, hospitals updated admission procedures; including universal use of masks, stricter screening procedures, setting visitation schedules, limiting visitors/patient companions, and even separating services for Covid-19 and non-Covid-19 patients (COVID, n.d.).

A health information management (HIM) professional is one type of health worker in hospitals in Indonesia (Boyle & Plummer, 2017). The job performance of HIM professionals can be seen from the work done in organizing medical records in hospitals; starting from registration, filing and storage, coding, analysis and reporting, as well as retention and destruction of medical records (Nuraini, 2015). Russel (1993) stated that job performance can be formed from quality, timeliness, need for supervision, responsibility, cost-effectiveness, quantity, interpersonal impact, and empathy. Quality is the result of work in accordance with organizational goals. Timeliness is the ability of employees to work according to time standards. The need for supervision is the ability of employees to work well without supervision. Responsibility is the employee's responsibility for the work done. Cost-effectiveness is the use of resources from employees efficiently and effectively. Quantity is the work of employees with certain value standards. Interpersonal impact, namely employees have a high sense of self-esteem towards their work. Empathy is empathy for other co-workers.

The emergence of the Covid-19 pandemic that occurred in Indonesia affected the job performance of HIM professionals. Along with the increase in the number of patients at the Covid-19 referral hospital, the HIM professionals, especially those placed in the
registration section; also increase their working shift hours. Moreover, the risk of HIM professionals being exposed to Covid-19 is also high; not only among patients and colleagues but also from patient documents. If the HIM professional gets Covid-19, surely a lot of work will be delayed (Titiasari & Fani, 2021). In addition, a study in China concluded that the Covid-19 pandemic resulted in increased workload and stress for hospital staff (Jiang, 2020).

Employees are expected to be able to adapt to changes both inside and outside the organization (Koirala & Acharya, 2020) and so are the work changes that the HIM professionals have to face during the Covid-19 pandemic. A positive response to change is the key to successful job performance. Readiness to change is the belief that employees can make changes which they present on the right choice of the organization through the leader's commitment to change and generate benefits for the organization and employees (Holt et al., 2007). Indicators of readiness to change can be explained as the implementation of changes proposed by management (self-efficacy), changes proposed by management are appropriate for employees (appropriateness), management's commitment to the proposed changes (management support), and proposed changes will produce benefits for employees (personal benefits).

Rumah Sakit Anak Bunda (RSAB) Harapan Kita is one of the hospitals appointed by the Indonesian government as a reference for handling Covid-19. It has medical record installation with a total of 27 HIM professionals. HIM professionals with Covid-19 have been delayed due to having to spend several days recovering. In addition, additional work in the form of data collection related to Covid-19 which must be reported regularly both internally and externally makes the workload increase. Based on this situation, Covid-19 comes as a form of change in the work system in the medical record installation. Several studies have shown that employees who are ready to change tend to have high job performance (Asbari et al., 2021; Novitasari et al., 2020; Yuwono et al., 2020). Therefore, this study aims to assess the association between readiness to change and job performance of HIM professionals during the Covid-19 pandemic.

Methods

The general purpose of this study was to assess the association between readiness to change and job performance during the Covid-19 pandemic which was conducted in RSAB Harapan Kita, Indonesia. Therefore, we carried out a mixed-methods research approach. A quantitative approach was conducted by collecting data through Google Form for 3 weeks in September 2021. Furthermore, a qualitative approach was implemented for respondents who were willing to conduct focus group discussions online via the Zoom application in the first week of October 2021.

This study obtained ethical clearance approval by the research ethics committee of RSAB Harapan Kita with letter number IRB/42/09/ETI/2021. All respondents had explained the purpose, procedure, and benefits of the study and also filled out an informed consent before data collection.
The respondents were HIM professionals in medical record installations RSAB Harapan Kita who met both inclusion criteria, which have 6 months of working experience at medical record installation; and exclusion criteria which have off to work at the time of the study. Due to the minimal number of HIM professionals in the medical record installation of RSAB Harapan Kita and all of them have met both the inclusion and exclusion criteria as samples, hence all HIM professionals were taken as samples. The total number of samples was 27 health information management professionals. The informants in the focus group discussion were obtained based on the agreement of the health information management professionals with a total of 11 health information management professionals.

The study instrument was adopted from previous study conducted by Muhdin (2018) on the effect of readiness to change on job performance (Zainal Mustafa EQ, 2018). The validity and reliability tests were carried out on 30 respondents with a significance level of 5%. The validity test showed that all statement items on the questionnaire were valid (R>0.239). The reliability test showed reliability of each variable (Cronbach's Alpha>0.80).

The dependent variable was the job performance of health information management professionals during the Covid-19 pandemic. Health information management professional job performance is defined as the perception of the work carried out by health information management professionals during the Covid-19 pandemic which is measured through indicators of quality, timeliness, need for supervision, responsibility, cost-effectiveness, quantity, interpersonal impact, and empathy as outlined in 16 statement items on the questionnaire. Respondents were asked to answer statements on the questionnaire with a Likert scale with values: Strongly Disagree (1), Disagree (2), Agree (3), and Strongly Agree (4). From the total score on the job performance variable then grouped based on the median score (23).

Meanwhile, the independent variable was readiness to change which is defined as the respondent's perception of the ability to adapt in doing work with the changes that occurred during the Covid-19 pandemic. The variable of readiness to change is assessed from indicators of self-efficacy, appropriateness, management support, and personal benefits. Respondents were given a Likert scale in the form of Strongly Disagree (1), Disagree (2), Agree (3), and Strongly Agree (4) so that they could answer the closest to the perceived perception. From the total score on the readiness to change variable then grouped based on the median score (14).

Questions in the focus group discussion guide related to the variables of readiness for change and job performance. On readiness to change, they were asked about what changes occurred during the Covid-19 pandemic, how management's efforts in dealing with these changes, and what the obstacles to facing these changes. Meanwhile, regarding job performance variables, they were asked about the differences in work targets and achievements during the Covid-19 pandemic. The discussion was conducted about 90 minutes in Zoom application.
To assess the association between readiness for change and HIM professional job performance during the COVID-19 pandemic, this study used the chi-square test on SPSS version 26. The results of the cross-tabulation between readiness to change with HIM professional job performance was seen from the significant value of continuity correction. Meanwhile, from the results of the transcripts on focus group discussions with HIM professionals, this study used content analysis to get an overview of readiness to change and the job performance of HIM professionals during Covid-19.

**Results**

Table 1 shows that most of the respondents were female in this study; 20 respondents (74.1%). Most respondents had recent education from a medical record diploma; 21 respondents (77.8%). Respondents with length of work > 3 years were the most dominant beside others with a total of 15 respondents (55.6%). The age category of respondents in the range of 26-35 years was the most with a total of 15 respondents (55.6%).

**Table 1** Characteristics of HIM Professionals RSAB Harapan Kita, Indonesia in 2021 (N=27)

<table>
<thead>
<tr>
<th>Variables</th>
<th>No</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 25</td>
<td>5</td>
<td>18.5</td>
</tr>
<tr>
<td>26-35</td>
<td>15</td>
<td>55.6</td>
</tr>
<tr>
<td>36-45</td>
<td>7</td>
<td>25.9</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>7</td>
<td>25.9</td>
</tr>
<tr>
<td>Female</td>
<td>20</td>
<td>74.1</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>4</td>
<td>14.8</td>
</tr>
<tr>
<td>Non-Medical Record Diploma/Bachelor</td>
<td>2</td>
<td>7.4</td>
</tr>
<tr>
<td>Medical Record Diploma/Bachelor Medical Record</td>
<td>21</td>
<td>77.8</td>
</tr>
<tr>
<td>Length of Work (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≤ 3</td>
<td>12</td>
<td>44.4</td>
</tr>
<tr>
<td>&gt; 3</td>
<td>15</td>
<td>55.6</td>
</tr>
</tbody>
</table>

Table 2 presents the descriptive results of job performance variable which have quality, timeliness, need for supervision, responsibility, cost-effectiveness, quantity, interpersonal impact, and empathy as the indicators. Moreover, this table also presents readiness to change variable which have self-efficacy, appropriateness, management support, and personal benefits as indicators.

Based on the total score of the job performance variable, the median is 23, the minimum score is 19, the maximum score is 48, and the standard deviation is 10.05. The majority of respondents stated that they disagreed with statements related to the
perception of being empathetic between colleagues, employee engagement related to policy, and the quality of work produced during the COVID-19 pandemic.

Based on the total score of readiness to change variable, the median is 14, the minimum score is 13, the maximum score is 52, and the standard deviation is 14.73. The majority of respondents stated that they disagreed with statements related to the perception of changes decided by the hospital were the right things for employees, management's commitment to implementing change, and the benefits that will arise if the changes are implemented.

Table 2 Descriptive statistics of study variables (N=27)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Median</th>
<th>Min</th>
<th>Max</th>
<th>SD</th>
<th>95% CI Mean</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job performance</td>
<td>23</td>
<td>19</td>
<td>48</td>
<td>10.05</td>
<td>25.10</td>
<td>33.05</td>
<td></td>
</tr>
<tr>
<td>Timeliness</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>2.04</td>
<td>2.86</td>
<td>4.47</td>
<td></td>
</tr>
<tr>
<td>Need for supervision</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>2.04</td>
<td>2.75</td>
<td>4.36</td>
<td></td>
</tr>
<tr>
<td>Responsibility</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>1.07</td>
<td>2.91</td>
<td>3.76</td>
<td></td>
</tr>
<tr>
<td>Cost-effectiveness</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>0.98</td>
<td>3.10</td>
<td>3.87</td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>5</td>
<td>3</td>
<td>6</td>
<td>0.92</td>
<td>4.82</td>
<td>5.55</td>
<td></td>
</tr>
<tr>
<td>Interpersonal impact</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>0.71</td>
<td>3.46</td>
<td>4.02</td>
<td></td>
</tr>
<tr>
<td>Quality</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>1.99</td>
<td>2.70</td>
<td>4.27</td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>2.07</td>
<td>2.88</td>
<td>4.52</td>
<td></td>
</tr>
<tr>
<td>Readiness to change</td>
<td>14</td>
<td>13</td>
<td>52</td>
<td>14.73</td>
<td>19.69</td>
<td>31.35</td>
<td></td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>4</td>
<td>4</td>
<td>16</td>
<td>4.68</td>
<td>6.04</td>
<td>9.74</td>
<td></td>
</tr>
<tr>
<td>Appropriateness</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>2.28</td>
<td>2.99</td>
<td>4.79</td>
<td></td>
</tr>
<tr>
<td>Management support</td>
<td>4</td>
<td>4</td>
<td>16</td>
<td>4.67</td>
<td>5.97</td>
<td>9.66</td>
<td></td>
</tr>
<tr>
<td>Personal benefits</td>
<td>4</td>
<td>3</td>
<td>12</td>
<td>3.35</td>
<td>4.60</td>
<td>7.25</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 Results of chi-square test to assess the association between readiness to change and HIM professional job performance during the COVID-19 pandemic in RSAB Harapan Kita, Indonesia in 2021 (N=27)

<table>
<thead>
<tr>
<th>Readiness to change</th>
<th>Job performance</th>
<th>Total</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
<td>No</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

After categorizing the variables based on the median value from Table 2, the results of the chi-square test are shown in Table 3. The results of the association between readiness to change with job performance show that there are 10 (83.3) HIM Professionals who have high readiness to change and have high job performance. Meanwhile, among HIM Professionals who are low readiness to change, there are 2 (13.3) who have high job performance. The chi-square test shows that there is a significant association between readiness to change and HIM Professionals job performance during the Covid-19 pandemic (p=0.001).
From the results of the focus group discussion, it was known that RSAB Harapan Kita had implemented health protocols while working during the Covid-19 pandemic which was supervised by the infection prevention and control department (IPCD) of the hospital. The Covid-19 pandemic has made changes during the implementation of medical records in hospitals. All informants agreed that the use of personal protective equipment is a prerequisite at work.

At the beginning of the Covid-19 pandemic in Indonesia (March to April 2020), RSAB Harapan Kita did not serve several health services with patients who were very vulnerable to Covid-19 transmissions, such as physical therapy and immunization. This is stated by HIM Professional who is placed in the registry.

The HIM Professional placed in the filing and distribution stated that there was an instruction from the IPCD for the medical records of Covid-19 patients to be covered with specific plastic. Furthermore, if the patient has been declared negative from Covid-19 and is admitted to the ward, the return of the medical record is postponed 1x24 hours after the patient returns home. Furthermore, every day the medical record storage room is sprayed with disinfectant during Covid-19.

The HIM Professionals placed in the reporting section stated that during the Covid-19 pandemic there was additional reporting that must be continued both internal and external management of the hospital. Reports that must be carried out including tracing Covid-19 patients, reporting the number of available beds, and deaths due to Covid-19. These are reported both daily and monthly. Some reports were entered into a spreadsheet and others into the online system.

The HIM Professional placed in claim submission section stated that there was a separate claim management for Covid-19 patients. Until 2021, there have been 3 changes to the Covid-19 claim policy issued by the government with the aim of improving services. However, this actually became an obstacle in the claim process because several requirements must be completed following the latest regulations so that the hospital can be paid its claims.

Several HIM Professionals at RSAB Harapan Kita were infected with Covid-19. The impact of the infection was the number of jobs that were delayed. To respond this problem, the management had carried out the procurement of freelance daily workers during Covid-19. The problem is that because the transfer process of the work process is carried out by permanent workers at a fast time, sometimes the work has not been effectively carried out by freelance workers. In addition, management has also provided facilities such as drugs and options for treatment in this hospital for employees infected with Covid-19.

**Discussion**
This study found that readiness to change associated with job performance among HIM professionals at RSAB Harapan Kita, Indonesia during Covid-19. It is undeniable that Covid-19 has had a major impact on job performance for health workers (Roslan et al., 2021). This study is in line with previous studies that readiness to change associated with job performance (Balau, 2017; Vandayani & Sumarni, 2022; Yuwono et al., 2020; Zainal Mustafa EQ, 2018).

Self-efficacy as one of readiness to change indicators is the belief possessed by individuals to be able to implement the proposed changes. Furthermore, self-efficacy is expressed as an individual's response in determining right-false, correct-incorrect, and good-bad in carrying out any changes. Employees with high self-efficacy contribute to improving job performance. Self-efficacy can be formed from the experience and physical and emotional conditions of a person. The presence of the Covid-19 pandemic has disrupted the physical and emotional aspects of health workers and added to the excessive workload during the COVID-19 pandemic (Jiang, 2020). This is certainly a threat in achieving the performance of health workers, including HIM professionals. Therefore, to avoid poor performance during the Covid-19 pandemic, a positive attitude from employees is needed. Employees who have a positive understanding of Covid-19 will find it easier to work (Roemer et al., 2021).

In addition, appropriateness showed individual need for a change and they feel the organization is right in deciding the change. The most interesting aspect to prepare employees who can accept change is part of management to provide an understanding of the change. If the understanding has been given, it is hoped that a positive attitude will emerge and be a factor in the success of organizational performance (Asbari et al., 2020; Marques et al., 2021). The implementation of health protocols at the medical record installation at RSAB Harapan Kita was in accordance with the circular issued by the National Association of Health Information Management Professionals (DPP PORMIKI); such as employees should wearing masks, cleaning hands with hand rubs or sanitizer after handling medical records, and practicing social distancing (Safitri et al., 2021). In addition, the medical record maintenance procedure for Covid-19 patients at RSAB Harapan Kita is the same as the procedure applied at RSUD dr. Loekmono Hadi (Indriyani & Abi Yusya, 2021). However, the rapidly changing policies during the Covid-19 pandemic forced every HIM Professional to keep updating the information. This is what HIM Professionals felt in the reporting section that there were a lot of data that needs to be reported during Covid-19 both to the provincial health office, the ministry of health, and also to the hospital director. The claim section felt the same way, where the flow of health financing claims for Covid-19 was different from other patients and the obstacle in disbursing claims to hospitals is the rapidly changing claim policy. This is in line with previous research that hospitals are still constrained in managing Covid-19 service claims so that it has an impact on hospital cash flow (Ambarwati, 2021).

Changes during the Covid-19 pandemic that affect the performance of health workers in hospitals certainly cannot be separated from management support. This is also
done by RSAB Harapan Kita. Monitoring and evaluation are part of the supervision carried out by management. Supervision is the process of observing the implementation of all organizational activities to ensure that all ongoing tasks are in accordance with previous plans. Good supervision will make the implementation of the work run well too (Waleleng et al., 2020). This is in line with study by Yuliana (2021) which stated that good supervision will produce effective work (Yuliana et al., 2021). The head of the medical record installation with IPCD hold meetings with all HIM Professionals to see how far the protocols are applied and the obstacles while working during covid 19 regularly.

Another important thing in readiness to change is the work engagement felt by employees. Every policy made by the organization should involve employees so that employees can feel the benefits personally at work (Imawati, 2014). This has not been seen implemented in the formulation of policies at RSAB Harapan Kita, HIM Professionals tend to know the policy is decided after socialization by management. Previous study stated that involving employees minimizes negative employee perceptions while working during the Covid-19 pandemic (Liu et al., 2021).

Conclusion

This study proved that there was an association between readiness for change and job performance among HIM Professionals at RSAB Harapan Kita during the Covid-19 pandemic. In addition, HIM Professionals stated that policy changes and being infected with Covid-19 were obstacles in achieving work performance. Management is expected to involve HIM Professionals in making a policy. This is important to make employees feel they have value at work. Another thing that management can do is to avoid negative perceptions from HIM Professionals during the Covid-19 pandemic, it is better to hold training or activities that can reduce anxiety levels at work during Covid-19.
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