

The Level Of Preparation For Pandemic Influenza (Covid-19) Among Early Childhood Education Centre

Hazhari Ismail¹, Syazwani Aniyah Manja², Iylia Mohamad³, Mohd Shawani Ahmad Sabri⁴

¹*Department of Early Childhood Education Faculty of Human Development, Sultan Idris Education University 35900 Tanjung Malim, Perak, Malaysia*

²*National Child Development and Research Centre (NCDRC) Sultan Idris Education University 35900 Tanjung Malim, Perak, Malaysia*

³*Department of Early Childhood Education Faculty of Human Development Sultan Idris Education University
35900 Tanjung Malim, Perak, Malaysia*

⁴*Department of Management, Faculty of Management, PICOMS International University College 68100 Batu Caves, Kuala Lumpur, Malaysia*

Email: ¹hazhari@fpm.upsi.edu.my, ²syazwanianiyah@upsi.edu.my, ³iylia@fpm.upsi.edu.my,
⁴shawani@picoms.edu.my

ABSTRACT: *The preparation for disasters such as pandemic is essential across the academic institutions. Evidence has shown that greater readiness for disasters saved lives, however, with not enough preparation costs lives. The pandemic influenza causing serious emotional and psychological distress can take place at any time often without notification. Hence, collecting data on the most effective measures for each type of critical incident will give crisis responders the opportunity to intervene efficiently when reacting to the outbreak. This study was examine the preparation level among early childhood education centres in facing the COVID-19 in terms of planning and organization, students learning and program operations, infection control policies and actions, and communication planning. The online questionnaire was given to the owners and principals of children centres and a total of 44 completed the survey during the movement restriction order on March and April 2020. The results shown there were no significant result of preparedness among the types of early childhood centres followed with the years of operation, and the top positions preparation. Therefore, results were referred to means score and found among the centres, both get higher with (M:55.23), the centre which operate less than 5 years shows high means of preparedness (M=52.23) and owner seems more prepared with mean score (M=53.25). In other word, this pandemic is their first time experienced, thus results show not significant. However this will be their new experience to be well-prepared in all aspects such planning, student, infection policy and also communication so that they can manage well if a pandemic happen again.*

Keywords: *crisis management plan, early childhood education, pandemic influenza, COVID-19*

1. INTRODUCTION

A outbreak is an pandemic of globalized disease. A flu outbreak happens once a new and specific flu virus develops which individuals have next to no resistance or immunity to

protect and do not have a vaccination to against. The virus quickly passes to people and causes severe illness. This could very rapidly spread across the country and around the world. This is difficult to guess whether there will be the next global pandemic, and how terrible it becomes (Perlroth et. al. 2009).

Early childhood centre such as nursery and kindergarten services may help improve the health of the employees including their supporting children and families. Hiccups in childcare programs while on the pandemic influenza period might result in issues for parents who work which might lead to high occupational tardiness. This may be anticipated that several of the issues would impact staff and organizations that seem to be vital to the emergency relief plan. Therefore, pandemic crisis management is necessary not only due to the effects of the 2009 H1N1 pandemic and also due to the danger of a possible pandemic or an outbreak of a developing influenza, such as extreme acute respiratory syndrome (Ablah, Konda ang Kelley, 2010). According to the Centre of for Disease Control and Prevention (2009), many other forms of school preparedness for biological hazards have to be reviewed, such as a formal strategy to handle biological incidents, accessibility to individual protective equipment for school, and involvement in community surveillance operations.

BACKGROUND

On 31 December 2019, a pneumonia of underlying condition found in Wuhan, China had first been confirmed to China's World Health Organization (WHO) Country Office. The WHO operates every single hours to evaluate data, provide guidance, collaborate with stakeholders, support plan and prepare nations, improve availability, and coordinate resources of experts. On 30 January 2020, the pandemic was announced a Public Health Emergency of International. After 2 weeks, COVID-19 was declared as a new coronavirus disease that consider as respiratory disease spreading from one another and poses a severe risk for public health (WHO, 2020). COVID-19's total clinical view is not really completely known. Recorded diseases varied from quite mild (along with some individuals without any signs and symptoms) to severe, which include death-induced illness. Hence, according to Wu et. al. (2020), tracing the record of travel and contact while treating a suspicious patient back from an outbreak region is important.

In Malaysia, the first case of COVID-19 was reported on 25 January who was travelled back from China through Singapore after the outbreak happened in China. Confirmed cases stayed fairly small and mainly limited to imported reports, till the emergence of localized clusters outbreak in March. Malaysia had reported the highest total number of reported COVID-19 confirmed infections in Southeast Asia in a month. The government of Malaysia has taken an action to announce a 'Movement Order Control (MCO)' nationwide effective on 13 March 2020 by the prime minister (Prime Minister's Office of Malaysia, 2020) However, not all industries were affected as considered as critical services such as essential services include electricity, water, postal, energy, broadcasting, finance and banking ,health and pharmacy, oil and gas, retail and food supply and others.

For education, the Ministry of Education was ordered to introduce home-based learning programs under MCO's tenure as a school closure across the country during the time for every single level include preschool, primary, secondary, tertiary and higher educational for both public and private institutions. Evaluations and assessments for respective higher education programs have been scrapped because several institutes have been turned into

partial monitoring and quarantine centres, and academic evaluations of students have been substituted by continuous performance ratings. As the government were keeping the campaign for students and parents in taking care of the public health across the ministries by using all medium of communication and social media(Prime Minister's Office of Malaysia, 2020).

LITERATURE REVIEW

Preparation and crisis management plan during pandemic

Influenza could contagious rapidly within schools. Based on the previous study by Choa (2010) during H1N1 pandemic, the opening season of school after break was one of the main factors that triggered the second wave of the outbreak where it caused a mandatory action for school to have preparation for all types of disaster including pandemic in order to reduce morbidity and motility. Several local education authorities are advised to establish standards and structures for schools in terms of crisis management preparation. Nonetheless, they are also focused on regional expertise obtained, 'common sense,' clinical advice or individual expert experiences, instead a systematic analysis of evidence, which carries the risk whether well-meaning action may potentially exacerbate consequences in the quick or prolonged term (MacNeil and Topping, 2007). According to Flannery and Everly (2000), crisis could be understand as the disruptions of the psychological circumstances, failure of the coping mechanism of individual and organizations, the endanger distress encounter that cause functional impairment. When it comes to crisis management, it requires planning and preparation.

The commonly accepted model of prevention, response, reaction, recovery (PPRR) is often applied as a model through which studies can be classified as it is usually used. The work of Caplan (1964) involves three levels of intervention of PPRR;

- Primary intervention includes the activities designed to avoid the crisis
- Second intervention where actions made in the initial stages of the crisis to mitigate the consequences and avoid the worsening of the problem
- Tertiary intervention require the provision of lengthy-term follow-up support towards those suffering a critical crisis

Preparation consists of education, planning, training, and implementation. Kennedy (2018) suggested that the education crisis management strategies would be a compulsory component of successful preparation and management of the education setting. Furthermore, Poland (1997) believed that, through early preparation and continually changing contingency strategies, education setting would enhance their monitoring of school emergency situations. Effectiveness of the school crisis response in resolving issues like the past of school emergencies, obtaining operational preparation resources, and coordinating school crisis management. According to MacNeil and Topping, 2007), crisis management plan for school settings is equally important not only to reduce the outbreak, but as part of legal and rules oblige by the schools to fulfil as a duty of care for children, teachers and staffs, as well as parents. Hence, crisis management plan preparedness process includes several components. The potential interdependencies and co-dependence of such components, ranging from legislation and policy to home-based education programmes, school continuity still remain unclear. For this planning process, the generally recognized and established strategies tend to be primarily based on good practice, professional opinion or preference instead of a structured compilation of facts.

The role of owner and principal of the schools

Principals that are effective leaders and are competent decision makers are capable of handling crises efficiently (NECIC, 2020). While this is valuable knowledge, in despite being considered effective decision-makers, the research did not determine the unique skills that leaders would acquire (Oreiden, 2010). Furthermore, according to Cornell and Sheras (1998), principals' decision-making are important to give a direct implications for any actions taken to response the crisis. For example, they are responsible from evaluating the circumstance, decision making process, assigning instructions and order to others and managing activities. If they leader could apply a competent and skilful to the risks of the emergency settings, using the important skills of leadership, coordination and duty, the consequence was a faster recovery and back to normality. However, if the principal unable to identify a crisis situation, applied shortcomings in leadership, unable to implement a proactive cooperation feedbacks or refused to hold roles and responsibility, the incident actually escalated. As shown, principals need to have the requisite expertise and preparation to find solutions and minimize the impacts of a crisis incident in their schools.

The closing of schools is a non-pharmaceutical way that was included in several national outbreak strategies established prior to the beginning of the H1N1 influenza pandemic, which received substantial coverage throughout the pandemic period (Lee et. al. 2008). As Shearer et. al. (2020) stated that by modelling the well-established actions that happened previously could enhance the response capacity and preparedness. This is a subject which has now gained substantial coverage from the top down stakeholders such as policy makers, the public health and academic research community, the media and the citizen. During the 2009 outbreak, an interdisciplinary viewpoint was shown at a seminar organized under the French Presidency of the European Union (2008) to evaluate the different aspects of school closures in order to assess the public health (Cauchemaz, 2009). The analysis noted how the seriousness and effect of each pandemic is distinct and the way of effect and importance of school closures will primarily rely on the pandemic epidemiological and virologic features, and disease seriousness. The strategy of school closing could be proactive where the period of closing might be varied based on the pandemic severity situation. This was also recognized that closure of schools is related to higher societal, economic and educational impacts and may possibly affect the delivery of healthcare services by raising the absence of healthcare professionals to look after their children. In addition, beside the main aim of the school closure is to reduce and stop the pandemic, however, it could provide another positive effect whereby this strategy effectively implied on cost-effectiveness of the organization including schools during the outbreak (Araz et. al. 2012).

Social distancing strategies would decrease interaction frequency could give a major role in emergency response by increasing the space between people during the outbreak of influenza. This will decelerate the spread of viruses in schools and local areas, help ease burden on overloaded front liners and healthcare systems and allow time for the production and supply of pandemic vaccines. Since schools are societally packed areas in which students meet for plenty of hours in daily basis, schools could fuel transmission of diseases across the society (Gog et al., 2014). As a result, school activities that encourage social distancing may possibly safeguard high numbers of children and young people, and restrict continuous spreads within their families and neighbourhoods. However, work on school activities to encourage social distance in primary and secondary schools based on extended closure of schools is more important by focusing to the effective intervention which are less costly to the community (Rashid et.al. 2015). Therefore, the purpose of this study is to see in

what level of preparedness the children's centres are ready to face pandemic influenza particularly for COVID19 in the current situation.

METHODOLOGY

This study was aimed to explore the planning and preparation on crisis management for pandemic influenza particularly for COVID-19 among early childhood education centre in Malaysia. Hence, a quantitative methodology was adopted to response the questions stated by using a questionnaire.

Therefore, the research questions of this study are;

1. What is the level of preparation in facing Pandemic Influenza among early childhood centre?
2. Is there any different between early childhood centre and level of preparedness in terms of planning and coordination, students learning and program operations, infection control policies and actions, and communication planning?
3. Is there a difference between types of early childhood centre in terms of level of preparation in facing Pandemic influenza?
4. Is there a difference between years of operation of early childhood centre in terms of level of preparation in facing Pandemic influenza?
5. Is there a difference between top position of early childhood centre in terms of level of preparation in facing Pandemic influenza?

Sampling

44 respondents were participated in this study. They were among owners or/and principal for private early childhood centres in Malaysia. Pilot study was run before the actually study was undertaken.

Instrument

The instrument was replicated from the childcare and preschool pandemic influenza checklist offered by the Centres of the Disease Control and Prevention (CDC) from the US Department of Health and Human Services. This checklist focuses on four main constructs in terms of planning and preparation that involve in the crisis management for pandemic influenza among early childhood centre which are (i)planning and organization, (ii) students learning and program operations, (iii) infection control policies and actions, and (iv) communication planning. The items of each construct are varied. The total 29 items for all constructs were using 'completed', 'in progress' and 'not started' as a performance standards to indicate the planned and preparedness among early childhood centre.

Upon replication of the instrument, this study has provided additional questions particularly for the demographic data analysis. The types of early childhood centre, number of staff and children, years of operations were added to indicate the variables of the respondents. For the last section, one question inquired the level of overall planning and preparation from the perspectives of top position of the centre by using 1-10 scale satisfaction (1 is less prepared, and 10 is most prepared). This self-evaluation scale was expected to determine the overall crisis management planning in facing pandemic influenza in general.

The questionnaire was distributed by using a Google Form link via email, WhatsApp and Telegram applications. Due to movement control order (MCO) announced by the government, whereby early childhood centre was not included under the critical services,

hence no centre was allowed to proceed the operation. It is therefore, by giving questionnaire link was one of the strategy to collect the data from the respondents.

Data Analysis

The results was analysed by using Statistical Package for Social Sciences (SPSS) version 23 software to obtain mean, standard deviation (sd), percentage (%), and T-test analysis in order to answer the research questions. For the analysis purpose, all four main constructs are grouped as ‘preparation’ due to there are interrelated and the study is aimed to explore the level of preparedness of the centre as whole.

FINDINGS

a. Descriptive Analysis and Pilot Testing

Demographic Information

The survey participated by 44 owner and principals of early childhood education centre in Malaysia. Table 1 shows the demographic details of the respondents.

Table 1: Demographic Distribution of respondent

Demographic	Frequency (n=44)	Percentage (%)
Survey filled by		
Owner	31	70.5
Principal	13	29.5
Types of centre		
Nursery (TASKA)	18	40.9
Kindergarten (TADIKKA)	13	29.5
Both	13	29.5
Years of operation		
< 5 years	17	38.5
5-10 years	13	29.5
> 10 years	14	31.8

Pilot test

Before scaling for full research, a pilot test were initiated with 10 respondents from early childhood centre. It will test the validity and reliability of the questionnaire. Thus, for this part, the researcher deliberated about the results of the survey for pilot study in order to see the reliability of Alpha Cronbach based on questions provided.

Table 1.1: Reliability Statistic

Cronbach’s Alpha	No. of Items
$\alpha = .862$	29

Based on the pilot test conducted, the value of reliability shows that *Alpha Cronbach’s* value for all items is $\alpha = .862$ Therefore from the result we can see the reliability fulfil the validity of research. In addition the result of Alpha Cronbach’s value by section also provided in the table.

Relationship between four aspects of planning

A Pearson’s correlation was computed among four variables on data of 44 among respondents. Table 2 shows the correlation between planning and coordination, students learning and program operations infection control policies and actions, and communication planning.

Table 2: Correlation between planning and coordination, students learning and program operations, infection control policies and actions, and communication planning.

	Planning	Total students	of Infection	communication
planning	1	.676**	.507**	.502**
Total of students	.676**	1	.699**	.634**
Infection	.507**	.699**	1	.734**
communication	.502**	.634**	.734**	1

**correlation is significant at the 0.01 level (2 tailed)

The results shown above all four variables were interrelated among each other with all results are statistically significant $p < .005$. There was a positive correlation among the variables test. Thus all these variables were group together called as ‘preparation’ for other results. This group is needed to see the preparation of facing the pandemic as whole, rather isolated.

Level of preparation of early childhood centre

Table 3 : Histogram of The Level of Preparation In Facing Pandemic Influenza Among Early Childhood Centre.

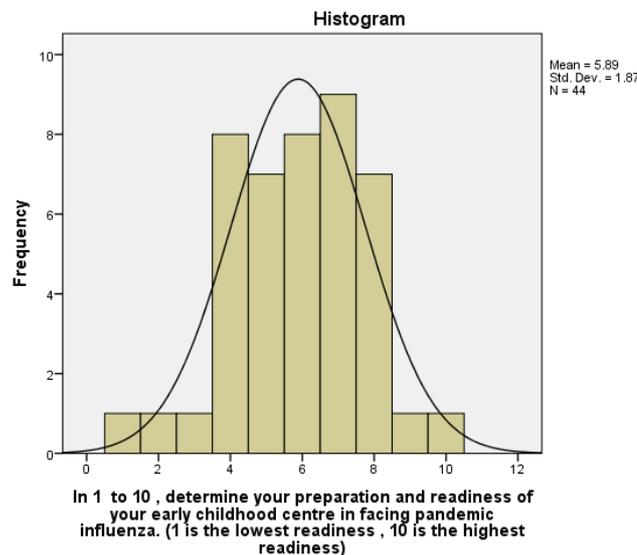


Table 3.1 : The percentage of Preparation In Facing Pandemic Influenza Among Early Childhood Centre.

Scale	1	2	3	4	5	6	7	8	9	10	Total
Frequency	1	1	1	8	7	8	9	7	1	1	44
Percentage %	2.3	2.3	2.3	18.2	15.9	18.2	20.5	15.9	2.3	2.3	100

Referring to the above table, it is clear to see, the centre preparation and readiness in facing the pandemic influenza high scored was at the level 7 with descriptive result shown at value of 20.5% followed at second higher result at level 4 and 6 with value of (18.2%) and at third higher result at level 5 and 8 with value of (15.9%). Among 44 respondents, 9 answered preparation and readiness to face pandemic influenza at level 7. This shows they are ready in facing the pandemic but need some improvement. Due to the outbreak is unpredictable and emergency situation, they is a needed to reconfirm that their preparation is always beyond the par.

b. Inference Analysis

By aspects of preparation

Table 4 : Multivariate Analysis of Variance of The Early Childhood Centres and Level of Preparedness.

Multivariate Tests^a							
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Types of Centre	Pillai's Trace	.233	1.286	8.000	78.000	.263	.117
	Wilks' Lambda	.779	1.267 ^b	8.000	76.000	.274	.118
	Hotelling's Trace	.269	1.246	8.000	74.000	.285	.119
	Roy's Largest Root	.191	1.864 ^c	4.000	39.000	.136	.161
a. Design: Intercept + R1							
b. Exact statistic							
c. The statistic is an upper bound on F that yields a lower bound on the significance level.							

Table 4.1 : The Descriptive Report Of MANOVA Test of The Early Childhood Centres and Level of Preparedness.

Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	PLANNING	126.533 ^a	2	63.266	3.131	.054	.132
	STUDENT	6.596 ^b	2	3.298	1.245	.299	.057
	INFECTION	29.804 ^c	2	14.902	.694	.506	.033
	COMMUNICATION	12.838 ^d	2	6.419	.800	.456	.038
Corrected Total	PLANNING	954.977	43				
	STUDENT	115.182	43				
	INFECTION	910.727	43				
	COMMUNICATION	342.000	43				

a. R Squared = .132 (Adjusted R Squared = .090)
b. R Squared = .057 (Adjusted R Squared = .011)
c. R Squared = .033 (Adjusted R Squared = -.014)
d. R Squared = .038 (Adjusted R Squared = -.009)

Based on the above MANOVA inference test, $F(8,76) = 1.267$, $p > 0.05$; Wilk's $\Lambda = .274$, partial $\eta^2 = .118$. There was not a statistically significant difference in early childhood centres to face the pandemic influenza. These can be seen where all significant results shown $p > 0.005$.

Although result was not significant, among four variables tested, their planning and coordination towards facing the pandemic influenza was the nearest to significant $p = .054$ with $M = 63.266$. It shows that the centres are giving more attention or more prepared on the planning and coordination compared to other variables. Then, continue with infection control policies and actions, $M = 14.902$, communication planning $M = 6.419$ and the least attention given by the early childhood centres was on the students learning and program operations with $M = 3.298$. With this, it can be conclude, the centres are more prepared on the planning and coordination to overcome the pandemic influenza.

By types of the early childhood centre

Table 5 : Means And Standard Deviation on the Types of Childcare Centre and Preparation of Influenza

<i>Length of Operation</i>	<i>n</i>	<i>Self-directed learning inventory score</i>		
		<i>M</i>		<i>SD</i>
Both	13	55.2308		9.66
Kindergarten	13	47.0769		8.37
Nursery	18	51.7222		14.1
Total	44	51.3864		11.58

Table 5.1 : One Way Analysis of Variance of Types of Childcare Centre with Preparation of Influenza

<i>Source</i>	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between Group	2	435.590	217.795	1.674	.200
Within Group	41	5334.842	130.118		
Total	43	5770.432			

Based on the results tested with one way Analysis of Variance (ANOVA) on types of centres and the preparation, result shown there is not statically significant $F(2,41) = 1.674$ $p > 0.05$ among the centres and their preparation. But when we compare the mean score, those who are in BOTH centres $n(13)$ are at the highest level with ($M:55.23$, $SD 9.66$). Then, followed with KINDERGARTEN ($M:47.08$, $SD 8.37$) and the lowest mean point was NURSERY at ($M:47.077$, $SD 8.37$). These can be concluded that, those who operate BOTH are more prepared in facing this Pandemic Influenza.

By years of operation

Table 6 : Means And Standard Deviation on the Measure of Length of Operation and Preparation of Influenza

Length of Operation	n	Self-directed learning inventory score		
		M	SD	
5 years and below	17	54.9412	12.331	
5-10 years	13	52.2308	9.671	
More than 10 years	14	46.2857	2.999	
Total	44	51.3864	1.75	

Table 6.1 : One Way Analysis of Variance of Length of Operation with Preparation of Influenza

Source	df	SS	MS	F	p
Between Group	2	588.326	294.163	2.327	.110
Within Group	41	5182.106	126.393		
Total	43	5770.432			

Based on this above result, there is no statically significant towards the years of operations of the centres and their preparation in facing pandemic influenza. Result of ANOVA inference shown was $F(2,41) = 0.11$, $p > 0.05$. Referring to the mean points among the centres, centre which operate less than 5 years was at high scored with mean ($M=52.23$, $SD 9.67$) compared to centres who has operate more than 10 years with mean score ($M=46.29$, $SD 2.99$). This can be conclude, centres which are new or operate less than 5 years are more prepared to face this pandemic. The possible in relation with this result are they might be more exposed with the new teaching methods using online or ICT and teachers are also might be the fresh graduates who just finish their studies and were taught the latest teaching method compared to centres who operate more than 10 years usually prefer face to face and using the conventional way. So, the new centres, they can think of the teaching method even though not face to face.

By position of the early childhood centre

Table 7 : T-test of between owner or principal with Preparation of Pandemic Influenza

What position are you in the ECE centres?		n	Mean	SD	t	df	p
Preparation	Owner	31	53.2581	12.4632	1.69	42	0.98
	Principal/Headmaster	13	46.9231	7.8683			

The above table is the result of T-Test of top position between the owner or principal of preparation on facing the pandemic influenza. Results shown was ($t(42) = 1.69$, $p > 0.05 = 0.98$) which is not significant $p > .005$. However, referring to their mean score, owner shows the highest result with ($M=53.25$, $SD 12.46$) compared to the principal ($M= 46.28$, $SD 11.1$). thus, it can be concluded, owner are more prepared in facing this pandemic influenza. This is because owner has the strong feeling of belongingness towards the centre since it is theirs. They need to think of their stakeholders which the students and also the staffs. Therefore, they are the person who need to think more on how to overcome the pandemic influenza.

DISCUSSION

Preparation and planning

The COVID-19 declared by WHO as a pandemic around the world in March 2020 has affected millions of children, where most of the school was closed. The management of the school and centre are facing difficulties in handling this crisis. The findings of this study show that the owner and principal surveyed in the low country of Kuala Lumpur are not ready enough to respond to a crisis situation. Despite having undergone crisis management training, they believe that more training is required. This information is relevant because it is prepared for coursework and continuous training and development programs by preschools committees, state administration agencies and education leadership programmes. This is similar with a previous study where many early childhood centres lack an adequate outbreak program in place (Daughtry, 2015). Even more critical than improving overall preparedness for school emergencies is improving the preparedness for a pandemic case.

Results from this study found that nursery is less ready for the COVID-19 outbreak compare to kindergarten. In terms of the policy aspect, both nursery and kindergarten are governed by different ministries where nursery is controlled by Ministry of Women, Family and Community Development and kindergarten is under Ministry of Education. On top of that, both types of centres are following a different standard operation procedure, act and policy. Although, the minimum requirement to be a teacher or childminder in the early childhood centre is Diploma level where it is believed that they receive the similar program standards and content during the study at the higher education institution. The exposure for dealing with children should be balanced between centres in managing the outbreak as whole. It is no different in terms of planning and preparation when facing the pandemic influenza outbreak likes COVID-19 if there is a group of young children in the school (Oredein, 2010). From the teaching and learning aspects up to managerial and administration, the centres should be in all-rounded preparation.

It is more alarming in terms of years of operation where the study results showed that centres operating under 5 years are more prepared compared to those with longer operating years. Apparently the longer the better and the more experienced, but in this case it has not happened. Recent influenza pandemic outbreak occurred in 2009 and, after nearly 11 years, the COVID-19 brutally affected the world. In any centre that has been operating for more than 10 years, the H1N1 epidemic scenario has been witnessed and it is expected that they should be advanced in readiness, but it is needless to assume that due to the pandemic never happens, because there is no training to deal with such types of crises. Therefore, years of operation do not play an significant role in signalling preparedness level. All centres should be improved and constantly trained to cope with the situation, particularly when shifting the learning of the students from conventional pedagogy to hybrid learning during the order of movement control and the closure of the school (NECIC, 2020). In every level of education systems, technology literacy should be updated including staff, teachers, children, parents and society.

Both the owner and the principal were playing the vital responsibilities for making an urgent emergency decision. For example, when the government declared that all schools were deemed non-critical facilities and had to close for the movement control order. Closure of

school programs, typically psychological distancing interventions and group behaviour changes, will result in a delayed impact of the overall pandemic by the current pandemic outbreak height and the overall epidemic. Nevertheless, it is predicted that the vulnerable population slightly saved during first wave may be infected during the ensuing second or third outbreak waves. It is also worth remembering that this may take a couple of weeks before accurate assessments of outbreak intensity can be estimated, and this may have an implication on the efficacy of decisions about whether to cause school closures. Therefore, in making a smooth decision during the pandemics, the children's centre owner or principal would follow the relevant policy and always keep their eyes in close contact with any decision taken by local authorities and government (Araz et al. 2012). Nonetheless, there may be some uncertainty for parents who would need to operate during school closure due to regulation of movement order such as for members of the healthcare team, or any service that the government deemed essential.

Implications

When too many mass casualty incidents hit schools, societies and our children's health, greater attention is drawn to how schools react to these critical events. The effective crisis management response has the aim of rising the uncertainty and maintaining the emotionally and physically well-being of those concerned. While crisis committees with experience in handling such events are always called upon to respond quickly and in a coordinated manner, it is still the school leadership who performs the early steps to execute and see the initiative through to the end (NECIC, 2020). Consequently, the decision lies with the preschool owner and principal to execute a thorough and successful response to the crisis whereas children, teachers and staffs, parents and communities can return to the learning operation.

This research will further help the early childhood centre in having a proper contingency planning where that is a part of the management tools to analyse the impact of the potential crisis and to ensure the appropriate arrangements are made to respond effectively. This will enable the management to make critical differences in handling crisis by establish the working relationship. This is in line with the United Nations Inter-Agency Standing Committee where they noted that the effectiveness response on the crisis will heavily influence by the level of preparedness and contingency planning. In further, the study will help the agencies involves in early childhood education to look at the whole process of managing the crisis. It can be suggested that agencies of early childhood centre to start planning for proper guidelines for all centres in facing these difficulties. As the objective of this study mentioned to identify the level of planning and preparation in facing pandemic influenza (COVID19) among Early Childhood Education Centre (ECE), the findings of this study can be transformed into a proper guidelines for agencies to upgrade the level of preparedness and contingency planning based on the view of centre's readiness in handling and managing the crisis.

Besides, the policies maker also plays important roles in handling this crisis. The study discussed on the preparation and proper planning that help to protect children, educator and education itself. The continuous planning is needed to safeguard education sector investment where we can see the practise in Malaysia, most of our early childhood centre managed by the private sector. The study urged the policies maker to investigate the important roles of having holistic guidelines for all in this sector. The study also contributes towards the development of students learning and program operation during pandemic where the

communication is the important tools in managing the crisis. The tools of this communication will help the early childhood centre to overcome most of the issues and difficulties.

Limitations

The research faced a range of limitations. First, much of the literature was frequently referred to as common to the schools without providing a clear study of the settings for early childhood education. It is important to be aware that in Malaysia early childhood education is regulated by two separate government, as in the case of nursery, the Ministry of Women, Families and Communities and the Ministry of Education for the kindergarten. Therefore, according to the authority, the communication between two separate ministries can have a slightly different one. Next, this study is only focused on the private early childhood education centre. Although there are policies according to agencies that need to be binding on the centre, such as the Health, Safety and Fire Brigade Department and the Municipal Council, some centres are not registered and do not have a license to operate. Therefore, it became possible to challenge the practice for unregistered private centres. This study was carried out during the period of the pandemic, while Malaysia is still at the phase of movement control order where people are not allowed to move freely. Consequently, the responses of the principals and the owners of the Early Childhood Centre may reflect the overview of the pandemic planning and preparation for the event.

Recommendations for further research

The study was an investigation on to what extend the owners and principals of the children centre for both nursery and kindergarten are prepared to face the pandemic influenza for their crisis management planning and preparation. It is indicated that the demographic and sample size for this study are limited, thus limiting the methodological rigor of these results. As a result, it is suggested that more work on this subject be carried out at a time of year when there are less demands put on a principal, and on a wider population of directors from around the country, including rural and urban children centres. In order to collect sufficient data on the self-reported level of preparedness of owners and principals of the centre for a crisis situation, it would be proposed that more work be carried out on the different roles and obligations that principals have to handle when leading a crisis management, and their established level of preparation for each of these. The results could then be used to include more information and analysis on what exact training is expected. For example, an evaluation may be made as to whether principals require adequate training to make public comments, to reassure frustrated parents and community, or to collaborate with departments of health and safety, and local authorities for each centre.

CONCLUSION

Since the owners and principals handles the solution to the crisis from start to finish, the question arises as to whether or not they are adequately qualified and prepared to deal with the situation properly, as well as the level of preparedness of the centres themselves. This is the concern that the researchers hoped the study would answer. It was a qualitative analysis of 40 owners and principals for private kindergarten in the Kuala Lumpur. The study was a survey replicating the instrument for childcare and preschool planning checklist by CDC. The findings showed the level of preparation and planning for owners and principal in order to be an effective leader for their children centres. Future

studies are proposed to have a large number of samplings that comparable to the total number of registered nursery and kindergarten in Malaysia for both rural and urban areas. With the additional data and information on the centre's preparation in pandemic influenza likes COVID19, it is hoped to ensure the children centres in Malaysia will be more organized and coordinated to response in emergency crisis such as the outbreak.

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