

Psychological States of Rural Area's Children During Covid-19 Pandemic

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ABSTRACT

As the coronavirus (COVID-19) pandemic sweeps across the world, it has a profound effect on human psychological and daily life. However, fewer studies are focusing on children's psychological states. The purpose of the present study aimed to examine the children's psychological state and their emotions during the crisis of COVID-19. There were 14 children aged 7-12 years living in the rural areas in Sabah were recruited. By using the Collage Life Story Elicitation Technique (CLET), the thematic analysis indicated that a minority of the children expressed concern, anxiety, and gloomy verbally and non-verbally. Surprisingly, most of them accepted the new norms implemented by the Government, for instance, they understand that they must wear a face mask whenever they are outing and practice proper hygiene even though they are living in a rural area. The output of the present study reflected the children's awareness of the coronavirus pandemic and adults are playing a vital role to ensure the wellbeing and welfare of the children.

Keywords: COVID-19. Rural area, Psychological, Children.

1. INTRODUCTION

Coronavirus disease (COVID-19) was acknowledged as a pandemic by the World Health Organization (WHO) in March 2020. In a short period of time, SARS-CoV-2 continued to spread globally with the number of cases increasing worldwide with the USA (502,876 cases) followed by Spain (158,273 cases), Italy (147,577 cases), Germany (122,171 cases) and followed by France, China, Iran, UK, Turkey, Belgium, and Malaysia [1]. Following the spread of this dangerous pandemic, it has affected the human psychology in both adults and children. Most of the recent studies are focusing on medical sciences, technology invention but limited literature reviews are investigating about the possible psychological influence of the illness, lockdown, and quarantine side effects among children [2][3]. To date, for the Internet accessibility in rural area, an estimation of 67.1 percent users East Malaysia (Sabah and Sarawak) was found weak, slow, and unstable connectivity, with some being unable to log in at all. This barrier has restricted the rural area of teachers and children to conduct online learning while combating with the COVID-19 pandemic. This issue has been brought up from the residents after the incident of eight students were injured after a hanging bridge collapsed due to struggle to look for better coverage for studies in Kampung Gusi in Ranau [4].

The government in Malaysia has implemented the Movement Control Order (MCO) to restrict the movement of residents. It believes that had a profound effect on children's emotions especially in remote area. Evidence showed that children who were aged 7-12 years old have poorer emotional control and coping strategies hence it generated a greater stress and trauma after experiencing disaster.[5][6]. Few studies done in China [7][8] demonstrated that the COVID-19 crisis yield a significant impact for psychosocial, for instance, lack of socialization on children and adolescents, were increased level of depression, anxiety. However, few of the researchers are exploring the children who are living in the remote area indeed. With the unclear reports of the virus, children in the rural area feeling worry and anxiety about their daily routine and family, compared to those who got the latest news from parents and having good internet coverage. Thus, this study helps to understand the psychological state of the rural children. The research question of this study is: How do children in the middle childhood in rural areas perceived this current pandemic situation? Specifically, the study explored

how their emotions during the implementation of the MCO in their life.

2. METHOD

The present study is a qualitative approach using the *Collage-Life Story Elicitation Technique* (CLET) [9] for data collection and depth thematic analysis among the middle childhood (aged 7-12 years). We employed a thematic analysis to examine the psychological state of 14 children living in the rural areas during the COVID-19 pandemic. Prior to collecting the data, the research assistant attended workshop and was trained with the data collection to implement the procedures of the CLET. The CLET includes the process of narrating life experience using both language and non-linguistic action [9]. The inclusion criteria were aged 7 – 12 years with not diagnosed of any psychological disorder for the past year. Inform consent was collected prior to the CLET interviews [10]. The children participated voluntarily and with no pressure and they understand there is minimal risk [11]. All the recorded audios were archived and encrypted with password and only for educational purpose. This must be noted that the information given by the participants was confidential.

The CLET interview was conducted in a focus group. There were five to six participants in a group. The duration for conducting the five steps in the CLET for was approximately 45 to 60 minutes per group. The children could select four to five images locally resourced from any printed materials, for instances magazines, picture books and/or newspapers. This images that selected for collage making that must applicably represent their life during the COVID-19 crisis and pasting these on A1 paper provided (CLET Step 1). Stationery such as scissors and glue are provided for the cut and paste activity. Each child was given time to present based on their selection of images, which mainly taken from images of cartoons and animations, food, transportation, household items, amateur, and clothing. Following completing a collage, the facilitators will be monitoring the participants in telling their stories based on the collage. There are three guided questions are proposed [9][10], (1) "*Can you tell me a story about this image that you have chosen,*" followed by (2) "*what does this image mean to you during COVID-19 crisis,*" and lastly (3) "*where would you position yourself in the collage?*". Next in the CLET Step 3, guided question asked to indicate for any missing images "*what kind of image would you like to put in the collage but could not get*

in the printed material". Initially, the researchers provoked for their initial views and emotions about self-positioning and missing images by asking "what" and "how" questions to obtain the rich data. Next in the CLET Step 4, the children displayed upon related and dissimilar images or compare the negative events with positive events to interpret possible challenges embedded in the storytelling about their life during the pandemic crisis. CLET Step 5 ended the entire focus group interview which involving the participants in a final expression and interviewing from the facilitators.

The first step in analysis was based on the collages that presented from participants. Later, we analysed the narrative stories and coded each collage in two criteria: (1) *content of images (nature or symbolic)*, and (2) *the structure of the collage making*. Then, evaluating the percentage of images per collage. For instance, to understand whether is a human-like or object-related content, the benchmark of the percentage must be higher than (> 50%). Next, we examined the non-verbal of the stories by assessing the stories that shared. Also, self-positioning in CLET Step 3 and missing images, and the interpretation related to similarities and differences and/or positive events and negative events in CLET Step 4. Self-positioning on the collage symbolized the child's accuracy as the dominant personality in their stories and triggering emotions of the children during the crisis. This step helps to differentiate the similar images with different images on the collage and whether the children can provide some perceptions regarding the child's memories and experiences during the COVID-19 pandemic. Finally, all cases are analysed to provide justification for their life stories.

The interpretations of the CLET collage making proceeded with the authors autonomously and thoroughly examine the coded text and retaining a reflective position to limit potential biases [12]. Cross-case synthesis was performed on the participants and thematic coherence that emerged from documenting the repetitive and justified the emerging themes (both visual and verbal). To determine credibility and confirmability of the interpretations, the authors consistently reviewed their analyses and interpretations throughout the analysis [13].

3. RESULT

Table 1 shows the completion of the 5 Steps in CLET by comparing the three groups, children aged 7-12 years.

Table 1. Comparison of the three groups of children for the 5 Steps in CLET.

Respondents (N= 14 children)	Group 1	Group 2	Group 3
Average number of images	6 (range: 5-8)	5 (range: 5-6)	6 (range: 6-9)
Number of human related images	93%	89%	51%
Coherence between collage and micro-narratives *	.78	.67	.89
Self-positioning **	.9	.6	.9
Missing image identification (completed Step 3)	-	8	23
Juxtaposition (completed Step 4)	3	1	2

Note: * Coherence: Approaching 1.00 indicates greater interconnectedness between collage images and micro-narratives

** Self-positioning: Approaching 1.00 indicates close to the center of the collage, approaching 0 indicates positioning the self on the periphery.

Collage-making (CLET Step 1). The first step making a collage by using four to five images for each person that either cut from the magazines, picture books or newspapers. The printed material (magazines and newspapers) where social products could support the children to select images that represented their lives and emotions during the pandemic freely. The children selected images to tell a story (non-verbal) about their life. The collages were generally constructed in a free style pattern to represent how the child recalled events related to the life during the COVID-19 pandemic.



Figure 1 Sample from Group 1

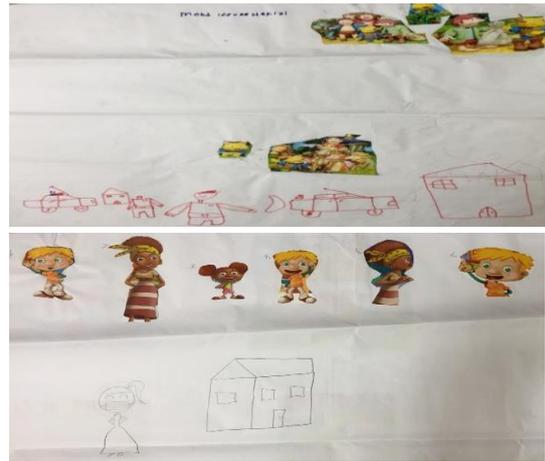


Figure 2 Sample from Group 2



Figure 3 Sample from Group 3

Storytelling (CLET Step 2). The collage making help to test the ability of the children to assimilate the meanings of the visual images. In addition, it inspired the storytelling about the life during pandemic instead of using paper pencil. In the rural area settings, coherence appeared indicating the children's capability to incorporate representational meanings of the images and describing their stories about the COVID-19. They also managed to create a coherent

storyline smoothly without any assistance, showing some degree of cognitive organization. The size of images on the collages indicated variety of memories related to the life during COVID-19, and the children telling dramatic experiences stories (non-verbal) about their life during the Movement Control Order (MCO) period.

Micro-narratives appeared as a female from group 1 (aged 12 years) described her story for a house pasted on her collage and sadly expressed that everyone needs to be checked to ensure the body temperature is around 35-37 degree Celsius as one of the family members needed to be home quarantine for 12 weeks. She also pasted a picture of a school on her collage, telling the story that her school adopted and practiced new norms during the MCO period.

Two children from Group 1 selected images related to their life during the MCO, by staying at home with their families and attending online classes every morning during the weekdays. Both children aged 12-year-old related the following story about their life during the pandemic when pointing to a human-like image on the collage.

Another two children from Group 2 and Group 3 (aged 9 and 7 years) narrated the following story, where they pasted on their collage picture of a girl wearing face mask during outings and practicing proper hygiene all the time.

In summary, minority of the children indicated that they were scared during the pandemic even though they were staying at home and following the Standard Operating Procedure (SOP). However, some were feeling happy as they managed to spend quality time to play with family members and were more relaxed.

Self-positioning (CLET Step 3a) and missing image. When the children asked to tell a story about their position on the collage, it helps to explain the child perceived their situation to the story (e.g., memories of events) and to the actors (e.g., the virus, family members) in the story. The higher percentage of self-positioning in the centre of the collage (Group 1 and 3: 90%) rather than (Group 2: 60%) was interpreted as the self as the central character of their stories, perhaps having a bad or good memory on the COVID-19 crisis. The children from Group 1 narrative stories in both non-verbally (the collage) and verbally (micro-narratives) about their life loaded with delighted memories and tried to accept the new norms implemented by the Government. In contrast, children from Group 2 and 3 told stories both narrative and non-verbally about their life filled with

gloomy and frightening memories of the COVID-19. Peripheral position of the children in Group 2 was interpreted as an indication of their life during the pandemic where everyone must stay at home during the MCO episodes. The children also indicated that they feel bored and most of their daily activities (e.g., playing outside) were replaced by watching television and indoor activities.

Pertain to the missing image in CLET Step 3b, some of the children look as if happy and satisfied with their first attempt at this activity. Most of the children from Group 3 would like to add an image, which is the symbol of coronavirus virus. One child from Group 1 and two children from Group 2 added an image, related to the implementation of the new norms by the Government (e.g., social distancing in schools, face mask). Seven children (four from Group 1 and three from Group 2) were pleased with the collage making process and did not make any changes of the collage. On the other hand, other children identified an image that is missing, referring to object-related images (e.g., big house, toy car) that were apparently essential to the child.

Juxtapositioning (Step 4). In this step, most of the children could perform on the question regarding comparing similarities and differences. Group 1 discussed different events (positive and negative) that they have done during the MCO periods (e.g., watching television, playing with friends, online classes, revisions). One child also commented on her picture that she was afraid of playing with her friends because there was no social distancing between them. Most of the children commented that they were happy with staying at home and playing with their siblings, friends, and pets. But sometimes they felt bored and gloomy of staying at home for too long. Some developed anxiety and were afraid of going outside because of the coronavirus. Only one child in Group 1 commented on comparing the positive and negative events on the COVID-19 pandemic. The other children showed not interested in this Step. We need further information to reach to the child personally to get to know the reason as he showed some negative face expression.

Closure and Debriefing (Step 5). The children disclosed the activity of the CLET as an enjoyable activity, letting them to reflect upon their memories and views freely by using collage and uncovered the underlying problem for certain children.

3.1. Discussion

The aim of this paper was to examine the psychological state of children living in the rural areas during the COVID-19 pandemic. Findings show that children in the rural areas are facing moderate level of anxiety about the infection, and the negative impact of their daily routine which causing uncertainty regarding the future [14]. It reflected the network coverage and updated news about COVID-19 in Malaysia was partially integrated and was not only limited to rural areas. Children who are staying new the downtown in the rural areas understand the current situation and accepted the new norms. Children articulated concern of the virus at anytime and anywhere. There are few causes have been identified in this study. Rural children are found fears of infections after witnessing the incidents occurs in the neighbourhood, where the patients must send to hospital with an ambulance and accompany by nurses. Besides that, inadequate information received in the rural area is causing frustration, lack of socialization with friends and family who are not staying together are the results of adding the emotion of the children. [15]. It must be noted that a few of the children in the present study had been experiencing quarantined period and it gradually established negative emotion which is four-time higher among children if compared to the children who are not experiencing it [16]. In addition, the routine changes to a new norm in a short period, children are trying to adapt the situation whereby the information mostly retrieved from the social media. The poor internet coverage in rural area will increase the psychosocial stress of their parents. Children exhibited concern and were scared when they repeatedly hear similar news everyday (Group 1). Concurrently, children are undergoing significant adjustments to their daily routine and social distancing (Group 2 and Group 3), which ordinarily promote a greater strength to difficult events [17].

The current pandemic has changed most of the children's social life and learning. Findings showed that children were attending virtual classes at home during the MCO. These children must endure interruption in their education and the possibility of revamping the educational system. Virtual learning could affect their learning potential as they must adapt to new learning methods through online and distance learning and turn to digital technology for virtual learning path. This new approach may affect the way of learning and indirectly impacting the children from low social economic group families. The stress experienced by the children at any age impacts their mental and physical wellbeing. The

children mentioned that the networking coverage is sometimes poor in rural areas and it stressed them when they could not attend the remote learning. To date, the Government has implemented the home-schooling technique. Initially, these terrific endeavours are being arranged by schools' teachers to make online lessons (such as google classroom) [18]. However, not all the family can compromise with the methods, for instances, financial problem, internet accessibility, the gadgets that need for virtual learning. All these reasons are causing harmful effects on children's mental and physical health [19]. Past studies suggested that when children are prolonged absent from school, their physically activity will be less active. Prolonged staying at home and increase the duration of screen time and changes of uncontrollable diets [20]. This negative situation effects on the children's health are expected to become worse when the children are restricted staying at home without any interaction with friends and outdoor activities.

Surprisingly, a minority of the children was feeling happy during the MCO. It helps to enhance the quality of life among family members as staying at home serves as an excellent quality time to improve the communication among the family members. Parents and children have plenty of time in engaging family activities such as house chores. In the present study, the children expressed that they were having quality time at home, for instance leisure reading, playing indoor games, and watching television with family members. The "free time" during lockdown [21] is indeed a great prospect to enhance the introspection and creativity of children. It helps to transform the negative emotions into positive feelings via playing indoor activities with family members. The bonding of family members with the children in the present study was found to be modest.

3.2. Conclusion

Through utilization of the CLET technique, the present study found that children aged 7-12 years were experiencing negative and positive emotion in the rural areas during this pandemic outbreak. The findings of the current study revealed some issues that require attention. The direct effects of the COVID-19 pandemic on psychological issues appear to affect children progressively [22]. Children must follow the precautions method to prevent the virus by practicing social distancing, hand hygiene and wearing facemask. The new norm has transformed

the children's mind and thoughts in learning and living lifestyle. A complete ABC guidelines and principles in effective virtual learning for rural areas should be implemented to ensure that the syllabus benefit to the students in all level.

AUTHORS' CONTRIBUTIONS

H.K.Y conceived of the presented idea. All authors discussed the research data and contributed to the final manuscript. All the authors carried out the interviews. H.K.Y. verified the numerical results of analysis. E.N. H wrote the manuscript and supervised by H.K.Y. N.B and W.K.A.G. worked out almost all the technical details.

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