Comparative Analysis on Child Depression Inventory among Islamic Educational Institutions in Malaysia

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Abstract

Childhood and adolescent depression commonly emerge within a society and as the affected children grows into adulthood, they tend to carry the negative implications of the depression including in school performances, peer relationship and also behavioural functioning. This also indicates that childhood depression is grievous to the mental and cause destructives on child development. This study aims to identify the differences in the level of depression in 'madrasah' and 'pondok' based on the five factors in Children's Depression Inventory by Kovacs which are Anhedonia, Negative self-esteem, Ineffectiveness, Interpersonal Problems and also Negative Mood (Gomez and Vance, 2016). The sample of this study consists of 135 respondents from madrasah and 117 respondents from 'pondok' which sum up to a total of 252 respondents altogether. The respondents were instructed to complete Children's Depression Inventory (CDI) questionnaire. A vast number of mental development research have occupied the CDI model to measure childhood depression. The questionnaire was constructed using 5 scales in which it starts with Scale 1 that represents 'Strongly Disagree' until Scale 5 that indicates 'Strongly Agree'. From the result, it can be identified that there are distinguishable differences in the level of depression between madrasah and 'pondok'. Among five factors of CDI, the only one that shows significant difference between madrasah and 'pondok' is interpersonal problems. In conclusion, there is a probability that mental illness might be number one disease in future and can affect the child. Therefore, it is necessary to prevent this from now.

Key Words: *Children Depression Inventory (CDI), Islamic Institutions, 'Madrasah' and 'Pondok', Mental Illness, Depression.*

Introduction

Nor et al., (2012) stated that Islamic education outlines a significant matter to gain peace and fulfilment in human life. They added that the education is a basic in building knowledge to mould an individual and a society where this way can be more dynamic and educational from

a physical and spiritual angle. This means that education from an Islamic perspective emphasizes on a deep and comprehensive meaning which comprises the processes of mental, physical and spiritual training based on the Qur'an and Hadith as the central principle in life. In Malaysia there are several types of institutions that are specific to Islamic education, such as *madrasah* and *pondok*. However, students at this institution, especially children, are not exception from depression diseases.

Olorunju et al., (2018) have mentioned that one of the major contributors to the critical diseases worldwide is depression and it has been recognized as the main cause of disability in terms of total years lost. The estimation by the World Health Organization (WHO) shows that until the year 2021, depression will probably be the second largest cause of the global disease burden (Lima et al., 2013). Lima et al., (2013) also found that there are increment in the cases of depressive disorders and it involves both the adults and children, with a prevalence of 0.3% to 7.8% involving children below 13 years old. Moreover, depression is said to be a common and persevering mental illness among children and adolescents (Costello et al. 2011; Merry et al. 2012; Pinquart and Shen 2011).

Gould et al., (2012) claimed that, as a bio psychosocial phenomenon, special attention must be given to the childhood depression problem due to the dangerous and lasting consequences of the disease to child development, specifically ranging from physiological changes to the impairment of social and cognitive functions. In just a short time, depressive disorders can be a source of psychological suffering for these children, whereas in the long-term they can compromise social, cognitive, and emotional aspects of child development, becoming an important predictor of psychopathologies in adulthood. (Gould et al. 2012).

According to Birmaher (1996); Brent and Birmaher (2002), a child and adolescent depression may not only shown through sadness but also by the irritability, boredom, or hardly be pleasured. Eventually makes depression as a chronic, recurrent and a number of it is an inherited illness. It is common that depression would first appear during childhood or adolescence. Sadly, depressive episodes that is continuous, happen in an individual with dysthymic disorder (a milder depression that is constituted by an insidious and chronic course) which later on become a major depression. (Birhamer, 1996; Brent and Birhamer, 2002).

It is saddening that depression and other mental health problems are rarely recognized during childhood, not until they become severe and it is difficult to treat (Tolan and Dodge 2005). Allgaier et al., (2014) found that it is hard to observe the symptoms of depression especially

among the young children who are still in struggle to give insight to their own life. Meanwhile, Thompson (2012) mentioned that depression in childhood can be detected by looking at their behaviours for instance in oppositional behaviour, aggressiveness, and bed-wetting. Hence, analysing and treating childhood depression is of massive public health significance (Sun and Wang, 2015).

Referring to the study by Olorunju et al., (2018), before the year 1960, childhood depression is barely mentioned in the literature, but in the past five decades, the matter have been widely known. Consequently, over the years, assessment tools to assess the nature of childhood depression have been developed. Among the scales used to assess are the Centre for Epidemiological Study Depression Scale for Children (CES-DC), The Children's Depressive Rating Scale (CDRS), the Children's Depression Scale (CDS), the Reynold's Child Depression Scale (RCDS) and the Child Depression Inventory (CDI). From the various scales, the CDI has appeared to be one of the most viable tools to assess depressive symptoms both in children and adolescence. As mentioned in the abstract, Kovacs in the original model of CDI, proposed a five-factor of depression which are Anhedonia, Negative self-esteem, Ineffectiveness, Interpersonal problems and Negative mood (Olorunju et al., 2018).

Methodology

The respondents are randomly selected in this study are the student who are in *madrasah* and *pondok*. A total respondent are from *madrasah* students (n=135) and *pondok* students (n=117).

A Children Depression Inventory (CDI; Kovacs, 1992) is a frequently used self-report measure to assess for depression in school age children and adolescents (Matthew, 2002). CDI is also a trusted and well tested symptom-oriented scale which measures symptoms of depression among adolescence. In this study, the researcher uses quantitative method by solving CDI questionnaire with 26 questions to all *madrasah* students and *pondok* students (age 13-18). In the questionnaire there are also have five factors that cause depression that is anhedonia, negative mood, ineffectiveness, negative self-esteem, and interpersonal problems. The measurement in likert scale used to investigate the related issues that marks from scale 1 until 5. The scale 1= really disagree, 2= disagree, 3= not sure, 4= agree, and 5= very agree.

Cronbach's (1951) alpha is one of the most commonly used reliability coefficients (Hogan, Benjamin & Brezinksi, 2000) and for this reason the properties of this coefficient will be emphasized here. In this study, there are five factor that have higher value of alpha Cronbach

for anhedonia is (α= 0.751), negative mood (α= 0.681), negative self-esteem (α= 0.605), infectiveness (α=0.591), and lastly interpersonal problems (α= 0.55).

Descriptive Statistic

Descriptive statistic are numbers that summarize the data with the purpose of describing what occurred in the sample. In contrast, inferential statistics are numbers that allow the investigator to determine whether there are differences between two or more samples and whether these differences are likely to be present in the population of interest. Descriptive statistics also can be used to compare samples from one study with another and help researcher detect sample characteristic that may influence their conclusion.

Chua (2006) descriptive statistics used to describe the characteristics of variables. Descriptive statistic use indicators such as mean, standard deviation, median, mod, normal distribution and z score to state the characteristics of a variables.

Two Sample Z-Test

Two sample z-test is a statistical test where normal distribution is applied and is basically used for dealing with problems relating to large sample with n≥30 (n=sample size). Two Sample z-test also provides sample size and power calculation for one-or two-sided two- sample z-tests when variances of the two group (population) are assumed to be know and equal. The assumed difference between means can be specified by entering the means for two groups and letting the software calcite the difference or by entering the difference directly. The Two Sample z-test was conducted in this study for the major test to achieve the objectives. It was used to compare two independent samples of equal or different samples sizes for example like in this study to comparison of children depression inventory (CDI) among *madrasah* students and *pondok* students.

The two-sample z-test to evaluate the difference two group the formula is:

$$z = \frac{\text{observed difference - expected difference}}{\text{SE for difference}}$$

$$z = \frac{(\overline{X}_1 - \overline{X}_2) - (\mu_1 - \mu_2)}{\sqrt{\sigma_{\overline{X}_1}^2 + \sigma_{\overline{X}_2}^2}} = \frac{(\overline{X}_1 - \overline{X}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$$

Result

The purpose of this study is to compare the factors of children depression among Islamic educational institutions that is *madrasah* and *pondok* based on the five factors depression that have been listed. Table 1 shows the descriptive statistic for students from *madrasah* and students from *pondok* in this study. The highest mean among the group dominated by *madrasah* and second is *pondok*.

Table 1 shows five depression factors affecting *madrasah* students and *pondok* students, for anhedonia factor of *madrasah* students and *pondok* students shows the same result minimum and maximum values of 9 and 40. The differences *madrasah* students and *pondok* students in terms of mean and standard deviation values. The *madrasah* students are 22.007 while the *pondok* students are 20.726. Standard deviation of these two institutions is 5.550 and 5.950. Hence this clearly shows that this anhedonia factor is more influenced by *madrasah* students than *pondok*.

For the negative mood factor, *pondok* students showed higher values than then *madrasah* students. The minimum and maximum grade students for *pondok* were 9 and 8, mean 8.744 and the standard deviation is 3.066, while *madrasah* students shows the minimum and maximum values of 4 and 16, mean and standard deviation for this institution is 8.659 and 2.805.

The third factor is ineffectiveness, *madrasah* students showed high impact on these factor, the minimum and maximum values 5 and 21, mean and standard deviation is 12.311 and 3.448. The *pondok* students had the minimum and maximum values of 5 and 25. Mean and standard deviation is 12.026 and 3.485.

Negative self-esteem for *madrasah* students are higher than *pondok* students. The minimum value both of institutions is same 4, for *madrasah* students the maximum value is 16, an mean of 7.363 and standard deviation of 2.825 while maximum students of *pondok* is 15, an mean of 7.265 and standard deviation of 2.591.

The last factor is factor of interpersonal problems, *madrasah* students score higher than *pondok* students. Both institutions have the same minimum value of 4. *Madrasah* students maximum value is 17, mean and standard deviation is 3.018, while *pondok* students had maximum values is 18, mean and standard deviation of 7.880 and 2.745.

Table 1: The descriptive statistic of two group of students, *madrasah* and students *pondok* based on the five factors

Islamic educational institutions that is *madrasah* and *pondok*. Four factor is not significant (anhedonia, negative mood, ineffectiveness, and negative self-esteem) while one factor is significant is interpersonal problems. The result shows that there are no significant differences of anhedonia between these two group of *madrasah* and *pondok* respondents   [$x^2 = -1.758$, p = 0.079]. Since the p-value is greater than the importance level of alpha= 0.05, the null hypothesis is accepted. Confidence interval on the difference is -1.281. There is no significant factor of negative mood [$x^2 = 0.227$, p = 0.821] because p-value is highest than level of alpha= 0.05, the null hypothesis is accepted. The difference value for negative mood is 0.084. The third factor, ineffectiveness shows no significant the [$x^2 = -0.652$, p = 0.515], the p-value highest than value of alpha so hypothesis null has to accepted. Confidence interval on the difference is -0.285. Forth factor is negative self-esteem shows in the table no significant [$x^2 = -0.287$, p =0.774] null hypothesis is accepted. The confidence interval on the difference values is -0.098. The last factor is interpersonal problems shows that there are significant [$x^2 = -2.267$, p= 0 .023]. As the computed p-value is lower than the significance level alpha= 0.05, null

| Factor	Group	N	Minimum	Maximum	Mean	SD
Ahn	*Madrasah*	135	9	40	22.007	5.550
	Pondok	117	9	40	20.726	5.950
Nm	*Madrasah*	135	4	16	8.659	2.805
	Pondok	117	4	18	8.744	3.066
Inf	*Madrasah*	135	5	21	12.311	3.448
	Pondok	117	5	25	12.026	3.485
Nse	*Madrasah*	135	4	16	7.363	2.825
	Pondok	117	4	15	7.265	2.591
Ip	*Madrasah*	135	4	17	8.704	3.018
	Pondok	117	4	18	7.880	2.745

hypothesis Ho have to reject and accept the alternative hypothesis Ha. The risk to reject the null hypothesis Ho while it true is lower than 2.34. Difference values of interpersonal problems is -0.823.

Table 2: The two sample z-test of five factors evaluated among Islamic educational institutions that is *madrasah* and *pondok*.

The figure 1: Boxplot and whisker of two institutions based on five factors.
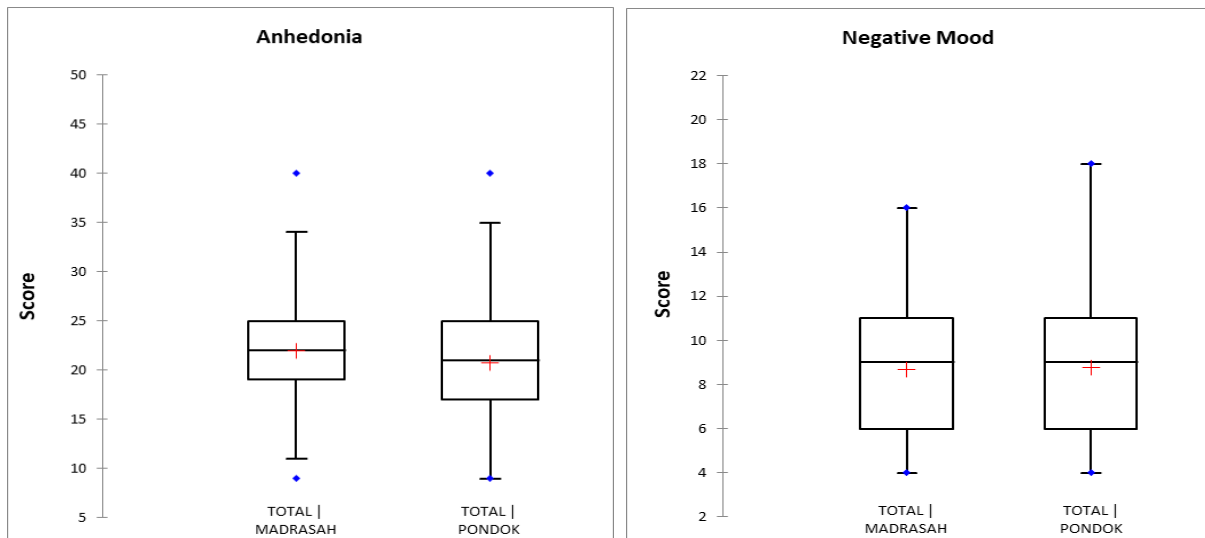
Factor	Difference	z (Observed value)	|z| (Critical value)	p-value (Two-tailed)	Significant
Anh	-1.281	-1.758	1.960	0.079	No
Nm	0.084	0.227	1.960	0.821	No
Inf	-0.285	-0.652	1.960	0.515	No
Nse	-0.098	-0.287	1.960	0.774	No
Ip	-0.823	-2.267	1.960	0.023	Yes

Negative Self-esteem
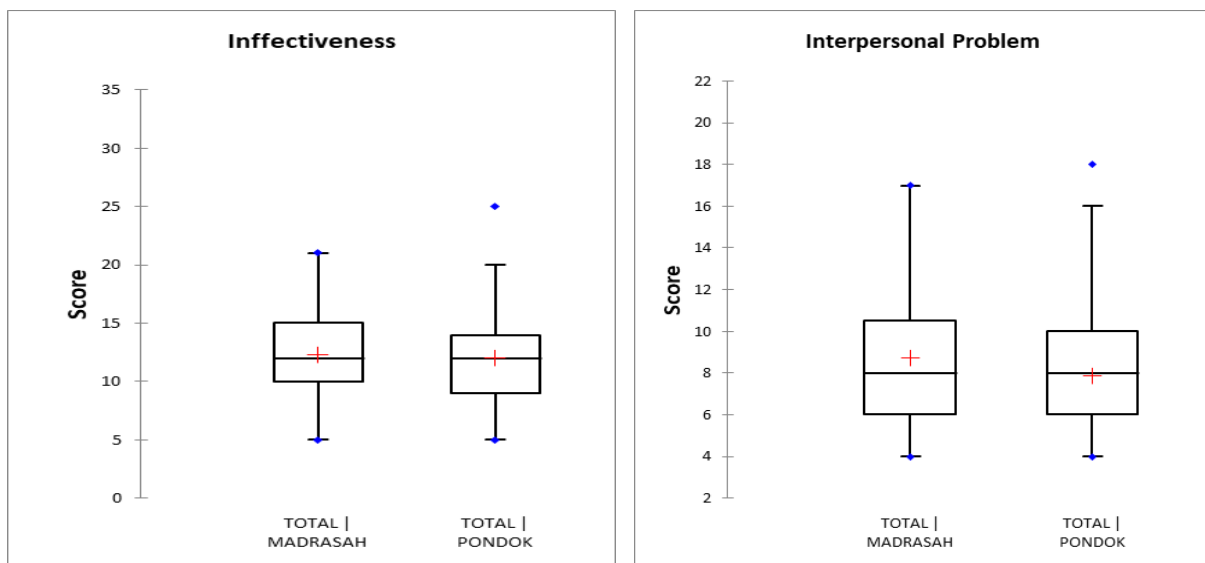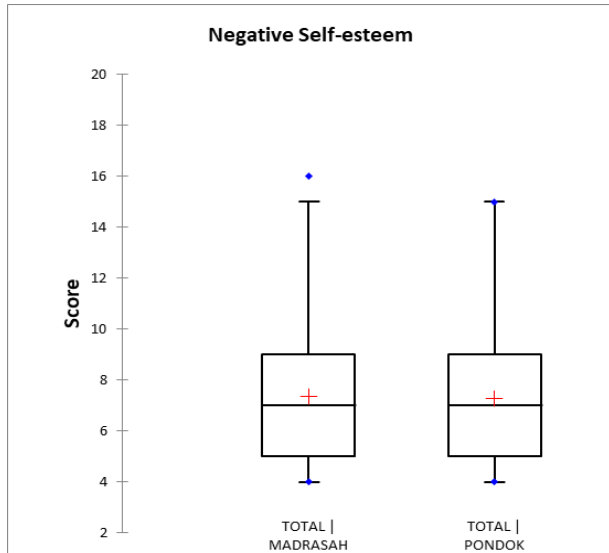
Discussion

In the present study, the relative importance of the attitude toward the principal to take care about the student is because they are the father and mother for the teenagers at the institution. The student should have a quiet environment to have a good environment for learning. The purpose of this study is to investigate the difference between the *madrasah* and *pondok*. Z-test was conducted in the study for the main test to achieve the objectives. Z-test and descriptive compare more than independent variable (IV) of equal of different samples sizes in the data to find out whether there are significance differences between *madrasah* and *pondok* in measuring the depression level.

Based on this study's findings, by the using, Z-test and Descriptive statistic shows that there are significant for the element that we could analyse. The *madrasah* is proven 22 for mean and the *pondok* are proven 21 mean. For both respondents namely, *madrasah* 135 and *pondok* 117. Although the number of respondents from *pondok* least compared to the *madrasah*, it is proven that the smallest number of respondents also can have the largest depression which is representing them. From the result, a conclusion can be made which is quantity do not determine the quality. Has a large number of sample size does not guarantee that they will have a good result and having a small number of sample sizes does not mean that they will get a bad result. This statement supported by Kosni et al. (2018).

According Chan (1997) and Helsen and Matson (1984) studies, recommend that CDI is more accurately inventory to identify depressive symptoms in teen. Obtained during the test, it can be concluded that Children Depression Inventory (CDI) give the important think to tested depression rate student. Which stated that CDI was very important function to know about the

depression and able to reduce it. When the depression able reduce, all the activities will be smooth and cheerful and the individual will show the good achievement. By conducting the follow-up, the result show that five of factor contributed like anhedonia, negative self-esteem, negative mood, interpersonal problem and ineffectiveness.

Depression at *madrasah* and *pondok* show that anhedonia as a higher then another factor. From the result shows the factor and we have found out what the solution that we can help them. Children Depression Inventory (CDI) is an option for *madrasah* and *pondok* to knows the level depression on their student. From the finding's study, *madrasah* and *pondok* has a higher mean compared with the five factors. Mean for Anhedonia 22, negative self-esteem 7, negative mood 9, ineffectiveness 12, and interpersonal problem 9. When the depression lower, the study become a smooth and get the best learning.

These five factors show that interpersonal problems more significant affecting to *madrasah* students than *pondok*, learning process in *madrasah* has a steady daily schedule as opposed to a non-dependent learning system in pondok that relies solely on the teaching of teacher which may cause lesser stressed learn there. The learning system at the *pondok* students, his religious teacher will check (tasmik) memorization of Al-Quran only, they do not have an examination system such as *madrasah* students they are take the twice a year examnination called *imtihan*, if the student fails they have to repeat for a year. This is obviously making *madrasah* students more stress than *pondok* students.

Conclusion

Madrasah and *pondok* is a good institution to learn Islamic content that classification about the depression. There were five factor which are anheadonia, negative mood, negative self-esteem, interpersonal problem and ineffectiveness. As a student we should have a psychology skill, motivation, confident, and concentration to a located in the situation study. From that, knowledge can be easily perceived. Meanwhile, mental does not prepare as a factor student have a poor performance. The principal must apply new learning for the student to feel interested to study. Students should have an interest, and principals should provide them support and they must always have innovation in the lesson to excel constantly.

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