

## Attachment Styles: Fear of Compassion and Callous-Unemotional Traits among Juvenile Delinquents

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### Abstract

Literature on adolescent delinquency indicated strong family bonds acted as protective factors against delinquent behaviors, hence brings significance to study attachment styles. The purpose of the present study is to determine the relationship between Fear of compassion and then, Callous-unemotional traits in relation to attachment styles. The study further examined the relationship between Fear of compassion and Callous-unemotional traits. A purposive sample of 177 adolescents in detention centers were assessed using a Relationship Questionnaire with Fear of Compassion Scale and Inventory of Callous-unemotional Traits - Youth. Findings of the study indicated Fear of compassion is not significant in relation to attachment styles. However, Callous-unemotional traits were significantly related to attachment styles. Additionally, Fear of Compassion suggested predictive value to Callous-unemotional traits. The study provides a contextual perspective on the importance of attachments styles in the wider context of familial relationships for adolescents.

**Keywords:** Attachment styles; Fear of compassion; Callous-unemotional traits; Juveniles; Delinquency

### Introduction

Recent data suggest a global increment of juveniles in conflicts with the law [1]. It is consistent with the scenario in Malaysia [2], with a recorded 1,632 criminal cases in 2014 compared with 1,042 cases in 2012 (an increase of 57%), in all sectors of criminal acts committed by juveniles [3]. Studies were conducted within the country to understand the causes of misdemeanor by juveniles. One of the trends found in juvenile delinquents is mostly poor relationships with their parents [4,5], supported by a meta-analysis on the attachment of parent, peer and child, with delinquency [6]. It appears that situations of deficits in receiving affection and companionship by caregivers that occur concurrently in juvenile delinquents are in need of further studies [7].

Recent studies on youths with antisocial behaviours suggest callousness and unemotional traits to be contributory factors for difficulties in forming interpersonal relationships following release from institutions [8-11]. Furthermore, it has been reported that a subtype of juveniles with high callousness do not respond well with traditional rehabilitation strategies such as disciplinary actions but have higher aggression tendencies [9,12,13]. What is lacking, are studies on juvenile delinquents and attachment styles along with Callous-Unemotional Traits and Fear of Compassion which may be important components that fuel the acts of delinquency [9]. With these aspects in mind, we shall outline them in the following sections to help put them in contextual perspective.

### Attachment styles

One of the constructs that have been associated with juveniles' conduct behaviors is that of attachment styles [6,7,14]. Attachment in

humans can be described as the connectedness in relationships with others [15]; seen as important components that influence interpersonal relationships [16-19]. As a consequence, early representations of childhood relationships with parents leads to the generalization for future "attachment-related thoughts, feelings, and behaviors" [16]. In this study, the focus would be on four attachment styles that are heavily influenced by Bowlby's [20-22] and Ainsworth's [17] theory of attachment which are secure attachment style and three insecure attachments namely anxious-preoccupied, dismissive avoidant and fearful avoidant [23-25].

Secure attachment styles in toddlers occur when the attachment figure provides a secure and safe environment that develops into a stable trust amongst parent-infant relationships, that is then manifested in future social interactions [21-23]. In contrast, individuals with insecure attachment styles have profound difficulties in forming trusting social relationships. For example, anxious-preoccupied or ambivalent infants explore without confidence, exhibiting mixed emotions of resisting and seeking emotional contact, meanwhile avoidant infants actively avoid emotional contact with their caregivers [26].

The regulation of emotions is heavily influenced by childhood developmental experiences [27]. The presence of attachment security helps facilitate understanding of negative emotions and lesser avoidance of the topic when caregivers are capable of validating their emotions [28]. Insecure attachments increases perceived risk of rejection and social withdrawal from their surroundings. That, then, induces feelings of uselessness that may result to further psychopathological problems [29,30]. The consequence of difficulties in regulating emotions due to insecure attachment styles may channel children's view of the environment which makes them less capable of responding to traumatic experiences effectively [31]. Such insecure attachment style has been linked to susceptibility for development of

Fear of Compassion, as reflexes are built in to flee from uncomfortable feelings [32]. This can be further understood by examining evidence that supports the relationship of attachment styles in relation to Fear of Compassion [33].

### **Fear of compassion in relation to attachment styles**

Consistent with the concept outlined in the previous section, the literature supports the impact of attachment security on compassion leading to amelioration of social interactions [34,35]. Compassion from others could trigger a desire for affection, but it could create a sense of grief that is overwhelming for insecurely attached individuals resulting in blocking and denying the emotion [36]. Individuals with insecure attachment styles that are related to the feelings of neglect and abandonment could respond negatively or be avoidant when compassion is present [37]. This understanding leads to the possibility of the development of fear towards the positive emotions due to the insecure attachment system as avoidant attachment patterns are found in individuals with difficulties in expressing themselves similar with those with Fear of compassion for others [38].

As the need for affection builds, but remain unfulfilled, an avoidance of the compassionate behavior and emotions may occur, as a mode to defend themselves from the emotional pain that may emerge [36]. The emergence of fear may be explained using the Behavioral Approach System and the Behavioral Inhibition System (BAS/BIS) theory [39]. In effect, the two systems create a scheme for acceptance of positive emotions that are currently injured that leads to avoidance of the emotion [40]. However, understanding of the fear and resistance to affiliative emotions and compassion is limited on the consequence of the attachment theory [37] and clinical studies [41-43].

### **Callous-unemotional traits in relation to attachment styles**

Much of the literature suggested that children with high Callous-unemotional traits have tendencies for psychopathy due to repercussions from challenging childhood developments [9,44,45]. A recent study on the presence of Callous-unemotional traits on different attachment styles indicated insecure attachment, and more specifically the disorganized attachment style is associated with higher levels of Callous-unemotional traits [45]. It is supported by a study demonstrating that children who have high Callous-unemotional traits and who display avoidance of eye-contact behaviors with their caregiver have maternal reports of negative feelings towards the child [46]. Nonetheless, both of the studies reflect upon the construct of insecure attachment development from infancy and childhood, suggesting the major influence of caregivers in the development of attachment styles, which may result in difficulties with emotional regulation [47]. However, there is a lack of studies on children with high Callous-unemotional traits that explain the emotional responsiveness due to the influence of the attachment relationships [48]. Hence, the present study will seek to gain insights on the possible relationships that may lead to the development of the traits.

From childhood experiences with caregivers, individuals' protect their emotional well-being unconsciously as a defense that allows them to feel safer in facing uncomfortable situations [49,50]. This creates the possibility for suppression of emotions to induce callousness and unemotional traits [51]. As portrayed in a study by Pasalich, et al. [45], insecure attachment styles, especially that of avoidant attachment style, may have associations with the development of the traits. This is because there is a possibility for insecure attachment styles to be a risk

relational factor with projection of disregard towards others and hostile attribution that is common in those that acquire the Callous-unemotional trait [52]. To date, there does not appear to be any study that examines the degree of Callous-unemotional traits in relation to attachment styles despite growing interest on its impacts.

### **Fear of compassion and callous-unemotional traits**

With the background outlined earlier one question is the possibility of a relationship between Fear of compassion and Callous-unemotional traits whereby escaping from compassion by avoidance, may result in behavioural adaptation that may lead to detachment from the emotion altogether [39]. It is based on the understanding that Fear of compassion is defined as avoidance of empathetic and affective emotions [53], while Callous-unemotional traits refer to deficits or lack of affective emotions [9]. The study that supports the similarity effect of the Callous-unemotional traits in relation to Fear of compassion mentioned the limited emotional depth, low regards of others, and lack of guilt that is due to the mechanism of avoidance of the compassionate feeling [48]. With that in mind, this study will investigate the link that Callous-unemotional traits may have been developed from the presence of high level of Fear of compassion and hopefully enhance understanding of attachment styles.

### **Aim of Study**

The purpose of the present study is three-fold. Firstly, it aims to determine the relationship between Fears of compassion in relation to attachment styles. Secondly, the study examines the relationship between Callous-unemotional traits in relation to attachment styles. Thirdly, the study seeks to determine if Fear of compassion and Callous-unemotional traits are further related. That may serve to give us a bigger picture of how attachments styles are important in the wider context of familial relationships and conceptualising understanding of attachment styles in adolescents.

### **Methods and Procedure**

#### **Research design**

A total of 193 participants were recruited using purposive sampling from two detention centers in the state of Malacca. The inclusion criteria are that participants must be adolescents within the delinquent school system within the age range of 13-18 years. Both genders were obtained by recruiting participants from both of the schools to avoid gender bias. The participants were administered with three self-reported questionnaires for the study. However, due to unforeseen completion of the questionnaires by some participants, only 177 participants' responses were included in this study.

#### **Materials**

During the course of the study, a study info sheet, informed consent form, a demographic questionnaire and three self-reported questionnaires were administered. The questionnaires are as listed below:

1. Demographic questionnaire, consisted of questions to categories the participants in terms of gender, age, race, family status and order among siblings. These questions were required to enable identification of patterns within the population and the variables studied.

2. Relationship questionnaire [25] is a four-item questionnaire that categorises an individual into the four forms of attachment styles which are secure attachment style and three insecure attachments which are anxious-preoccupied, dismissive avoidant and fearful avoidant. Validation of the questionnaires are found in the constructs on attachment interviews of secure and fearful ratings  $r(75)=-0.55$ ,  $p<0.001$ ; and preoccupied and dismissing ratings,  $r(75)=-0.50$ ,  $p<0.001$ . Correlation of self-report and friends report attachment rating further validated the questionnaire [25].

3. Fear of compassion scale [36] scores the sum of three constructs, namely, fear of positive emotions, fear of compassion towards self and fear of compassion towards others. The scale has internal validities of 0.92 for fear of compassion for self; 0.85 for fear of compassion from others and 0.84 for fear of compassion for others. Items were presented on a Likert scale of 0 as "Don't agree at all" to 4 as "Completely agree". The subscales of Compassion for self (positive emotions) has 15 items, Compassion from others has 13 items and lastly, Compassion towards Others has 10 items [36].

4. Inventory of Callous-unemotional traits – Youth [54] is a scale that assesses the three themes within the Callous-unemotional trait, namely: uncaring, unemotional and callousness. It has 24 items, rated on a Likert scale from 0 as "Not at all true" to 3 "Definitely true". Confirmatory analysis results show consistencies of three independent factors relating to a higher-order Callous-unemotional dimension. In that study, there was correlation of Empathy and Positive Affect scales Emotional-Quotient Inventory or EQI ( $r=-0.51$  and  $r=-0.46$ ,  $p<0.001$ ) and Callous-Unemotional construct of the Antisocial Process Screening Device or APSD by ( $r=0.45$ , ICU total;  $r=0.32$ , Uncaring;  $r=0.36$  Callous; all  $p<0.001$ ), thus, determining the construct validity of the scale.

### Translation of the questionnaires/scales

The self-reported questionnaires were available only in English. Due to the fluency in Bahasa Malaysia of the population, translation of the English version questionnaire to Bahasa Malaysia was executed using the back-translation method [55]. A pilot study was carried out on adolescents that are fluent in Bahasa Malaysia. Inputs in regards to the difficulty of the questionnaires were collected to further increase comprehension of the questionnaire. Throughout the study, only the translated Bahasa Malaysia version was used for the study.

### Procedure

Following approval from the International Medical University Ethics Committee requests letters to conduct the study and the study proposal were sent via online application to the relevant government authority, 'JKM.GOV.MY'. The questionnaires were translated piloted and indicated in the previous section. With the feedback, test revision was done and then the questionnaires were back-translated to English again, it showed no change of meaning in all three questionnaires. Once the approval and informed consent had been granted by the Welfare Department of Malaysia, appointments were scheduled to conduct the study with participants from two delinquent schools. Informed consents of the youths were obtained following explanations in Bahasa Malaysia regarding the confidentiality and their rights as participants such as withdrawal rights if requested. The questionnaires were collected after their completion.

Data analyses were undertaken with one-way MANOVA with one categorical predictor that is the four different attachment styles against two continuous dependent variables that are the Fear of compassion and Callous-unemotional traits. Between the Fear of compassion and Callous-unemotional traits, a multiple regression was conducted to examine the relationship between the different types of Fear of compassion and Callous-unemotional traits. The data were also analysed using multiple regression between Fear of compassion and Callous-unemotional traits. A reliability test was also carried out with the provided data.

### Results

The mean age of the participants was 16 years with a mode of 17 consisted of 51 participants ( $SD=1.617$ ,  $N=177$ ). The mean age for the male adolescents was 14 years with a mode of 13 years ( $SD=1.609$ ,  $N=43$ ) and for the females was 16 years; the mode was 17 years with 42 of the participants ( $SD=1.196$ ,  $N=134$ ).

Preliminary analysis shows, almost all of the sample were Malay (92.2%) with the remainder from Indian (5.0%), Chinese (1.7%) and Sabahan and Sarawakian (1.1%). Most of the adolescents in the detention centers had both of their biological parents married (40.8%), while the second highest percentage of 24.6% were divorced, followed by widowed parents (16.2%), orphaned or unrecorded parents (15.1%) and lastly 3.4% had unmarried parents. The sample size collected is adequate given the suggested sample of 148, to achieve a confidence level of 95%, with a margin error of 5.0%.

Table 1 shows The Multivariate test of Attachment styles factor ( $F(12,439)=1.793$ ;  $p=0.047$ ) and the Gender factor ( $F(4,166)=7.312$ ;  $p=0.001$ ) are statistically significant. The univariate tests show that only attachment styles and Callous-unemotional traits ( $F(3,169)=2.912$ ;  $p=0.036$ ) and gender towards fear of compassion towards others ( $F(1)=23.073$ ;  $p=0.001$ ) towards other show statistically significant differences. Therefore, based on this analysis, post hoc has been done to see the differences and relationship of the significant results.

Pairwise comparison was observed for gender differences in fear of compassion towards others, while post hoc was conducted for attachment styles and Callous-unemotional traits as there are more than two variables measured as shown in Table 2.

Callous-unemotional traits present statistically significant mean differences between Dismissive-Avoidant Attachment in comparison to Fearful-Avoidant Attachment ( $p=0.40$ ) with a bigger mean difference of 3.11 and Dismissive-Avoidant Attachment compared to Anxious-Preoccupied Attachment ( $p=0.033$ ) with a bigger mean difference of 3.62.

As for the analysis of gender and Fear of Compassion towards others was also analyzed presenting results of Females has higher mean in fear of compassion towards others in comparison to males with a mean difference of 5.370 ( $p=0.001$ ).

Other than that, multiple regression analysis was used to test if the different types of Fear of compassions significantly predicted Callous-unemotional traits. Data analysis for multiple regressions was done using the backward method because it allows the emergence of the best predictor while showing the differences of the prediction value of each one through elimination [56].

Source	Dependent Variable	df	F	Sig.	Partial Squared	Eta	Observed Power
AttachStyle	Callous Unemotional Traits	3	2.912	0.036	0.049		0.686
	Fear of Compassion towards others	3	0.869	0.458	0.015		0.237
	Fear of Compassion from others	3	1.735	0.162	0.030		0.447
	Fear of Positive Emotions	3	0.330	0.804	0.006		0.113
Gender	Callous Unemotional Traits	1	1.337	0.249	0.008		0.210
	Fear of Compassion towards others	1	23.073	0.000	0.120		0.998
	Fear of Compassion from others	1	1.037	0.310	0.006		0.173
	Fear of Positive Emotions	1	0.944	0.333	0.006		0.162
AttachStyle Gender	Callous Unemotional Traits	3	0.901	0.442	0.016		0.245
	Fear of Compassion towards others	3	0.310	0.818	0.005		0.109
	Fear of Compassion from others	3	0.440	0.725	0.008		0.137
	Fear of Positive Emotions	3	2.125	0.099	0.036		0.535

Table 1: Univariate Tests between attachment styles and gender.

Dependent Variable	(I) Attachment Style	(J) Attachment Style	Mean Difference (I-J)	Sig.
Callous Unemotional Traits	Secure Attachment	Fearful-Avoidant Attachment	0.0081	0.996
		Anxious-Preoccupied Attachment	0.514	0.782
		Dismissive-Avoidant Attachment	-3.1068	0.057
	Fearful-Avoidant Attachment	Secure Attachment	-0.0081	0.996
		Anxious-Preoccupied Attachment	0.5059	0.773
		Dismissive-Avoidant Attachment	-3.1149	0.04
	Anxious-Preoccupied Attachment	Secure Attachment	-0.514	0.782
		Fearful-Avoidant Attachment	-0.5059	0.773
		Dismissive-Avoidant Attachment	-3.6208	0.033
	Dismissive-Avoidant Attachment	Secure Attachment	3.1068	0.057
		Fearful-Avoidant Attachment	3.1149	0.04
		Anxious-Preoccupied Attachment	3.6208	0.033

Table 2: Post Hoc Test on Attachment styles and Callous-unemotional traits.

After meeting the assumptions of multiple regression analysis, the results of the regression indicated the two predictors explained 4.3% of the variance ( $R^2=0.043$ ,  $F(2, 174)=3.882$ ,  $p=0.022$ ,  $p<0.05$ ). As shown in Table 3, It was found that Fear of compassion from others significantly predicted Callous-unemotional traits ( $\beta=-0.200$ ,  $p<0.001$ ), as did fear of compassion positive emotions ( $\beta=0.176$ ,  $p<0.05$ ). The results obtained shows that for fear of compassion from others ( $F(1,173)=-2.098$ ;  $p=0.037$ ) and fear of positive emotions ( $F(1,173)=2.679$ ;  $p=0.008$ ) has statistically significant prediction values towards Callous-unemotional traits. This results shows that a change of

-0.185 standard values of fear of compassion from others or 0.237 standard values of fear of compassion positive emotions results in a change one standard deviation value of Callous-unemotional traits. However, by looking at the R square value of fear of compassion from others and fear of compassion of positive emotions are only 4.3% that is a low prediction value. Nonetheless, the results show a likely possibility of a relationship between certain types of Fear of compassion with Callous-unemotional traits.

Additional analysis of reliability is done to ensure the reliability of the scales to be used in this population as shown in Table 4. The

Cronbach Alpha in all the scales are above 0.6 which has moderate reliability scores.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Fear of Compassion from others	-0.2	0.096	-0.185	-2.098	0.037	0.705	1.418
Fear of Positive Emotions	0.176	0.066	0.237	2.679	0.008	0.705	1.418

**Table 3:** Coefficient table of multiple regression of different types of fear of compassion against callous-unemotional traits.

Questionnaire (Items)	Cronbach Alpha	No of items
Fear of Compassion Towards Others	0.667	10
Fear of Compassion From Other	0.648	13
Fear of Compassion Positive Emotions	0.819	15
Inventory of Callous-Unemotional Traits	0.617	24

**Table 4:** Cronbach Alpha for reliability test of items.

## Discussion

In contrast to the literature, the results did not support the first hypothesis, whereby there are no significant mean differences between different attachment styles and fear of compassion. This finding may be explained due to the different aspects such as individual differences including age, the social desirability factor and gender, cultural understanding of Fear of compassion and limitation of convenience sampling. First of all, at this adolescent stage, there are relentless peer discriminations as mentioned in previous research by Huynh and Fuligni [57]. The presence of possible peer discrimination if the participants are indifferent to one another may have impacted the results. Another possible explanation for this occurrence is the social-desirability factor. According to Ray, et al. [58], adolescents who have conduct problems find it easier to answer positive extremities and harder to answer lower social acceptable questions. Therefore, the aspect that Fear of compassion scales questions is mostly constructed to be of lower socially acceptable situations might have caused difficulty for the participants to respond. Other than that, the number of female participants in this study is higher by three-fold which may have highly affected the results as females have tendencies to have a high Fear of compassion [36,41]. In terms of cultural differences, that language sensitivity may have occurred as “fear” is considered to be self-defeating character, thus admitting to having fear may seem disadvantageous in order to regain community acceptance that is vital in the Asian culture [59,60]. Lastly, although purposive and convenience sampling is needed in the study due to the specific population, it may be a possible source of error that had affected the results as it caused an under-representation or over-representation of the population.

For the mean differences between attachment styles in relation to Callous-unemotional traits, the main difference was a higher dismissive-avoidant mean in comparison to fearful avoidant supporting the second hypothesis. Individuals with dismissive-avoidant attachment style have tendencies to generally disregard emotions. This may have resulted in emotional disconnection

behaviours, more similar to Callous-unemotional traits than fearful avoidant [61,62]. On the other hand, fearful-avoidant attachment individuals may have a concern of the emotions that emerge, which shows the presence of emotional acknowledgement and response. However, the fear evoked due to learned rejection of their emotional needs may cause interpersonal connection distances [63] Interestingly, the study has different outcomes compared with a recent western study on children where avoidant attachments are not associated with Callous-unemotional traits [45]. It is possible that Asian cultural values with lesser positive social interactions between caregivers and child may lead to avoidant attachment strategies by the child to be more positively adaptive [64]. Hence, the development of avoidant attachment is beneficial for them than secure attachments [64,65].

The findings also suggest that dismissive-avoidant attachment is more dominant compared to anxious-preoccupied attachment individuals. As mentioned above, there may be prominent detachment features in dismissive-avoidant individuals in comparison to anxious-preoccupied who yearn for belongingness and emotional connection [61]. Anxious-preoccupied attachment individuals desire attention. In doing so, there is a higher regard for others’ thoughts and emotions compared to dismissive-avoidant attachment individuals [45,66]. However, the presence of disappointment or attachment anxiety evoked by unrealised affection or affirmation from others may impact on anxious-preoccupied individuals increasing the probability for manifestation of Callous-unemotional traits.

On the whole, it is suggested that people with dismissive-avoidant attachment may be less likely to be affected by forms of affection or needs for affection. Of importance, it may seem that the dismissive-avoidant attachment results indicate a plausible similarity with the Callous-unemotional traits characteristic. This may be explained by the fact that individuals with dismissive-avoidant attachment styles exhibit callousness, unemotional and uncaring features.

Lastly, the third hypothesis is supported by the findings as there are different types of Fear of compassion that predicts Callous-unemotional traits. It is interesting to note that in all the three types of

Fear of compassion, two out of three of the types of Fear of compassion shows significant prediction possibility towards Callous-unemotional traits. They are fear of compassion from others and fear of compassion positive emotions. This finding suggests that a decrease of fear of compassion from others increases Callous-unemotional traits. It may be explained by the mechanism of eradicating fear from memory [67]. For instance, when individuals disregard the fear of people's perception towards them, it promotes de-empathizing behaviour, hence dissociating one from being emotionally involved [36,41,67]. In addition to that, elimination of fear of compassion from others may have been reinforced in the population as it indicates social dominance that is regarded as "rewarding" [68]. One anticipated finding was that an increase of fear of compassion positive emotions predicts an increase of Callous-unemotional traits. This result shows promising similarities with contemporary literature as individuals in this population has tendencies of higher depression traits and low self-esteem that is also high in individuals with fear of compassion positive emotions [36,41,69]. With that, it may lead to dissociation of needs for positive responses and thoughts [68,70]. Another reason to explain this result may be due to the learnt behaviour to avoid from experiencing positive emotions. Based on cognitive appraisal theory and Behavioural Inhibition Scheme /Behavioural Activation Scheme theory, undesirable meaning towards positive emotions may have induced fear of positive emotions [39,49]. Theoretically, fear of positive emotions could have been conditioned to eliminate the need for positive affiliations in, and avoid dependency for it [71].

### Reliability of the scales

A moderate to high Cronbach alpha was obtained from the items in all the questionnaires shows the promising reliability of the scales in this population in Malaysia. It suggests that the items are good but probably could be improved [72]. Reliability of all the Fear of Compassion scales [36] showed that it is reliable to be used in juvenile populations in Malaysia. This is similar to findings with non-institutionalised populations in the western population [36,69,73]. Other than that, the Inventory of Callous-Unemotional Traits [74,75] that is popularly used in conduct problem juveniles is also seen as reliable to be used within this population in Malaysia. This is supported by similar findings of Ray et al. [58], Roose et al. [76] and Kimonis et al. [77].

### Limitations and Suggestions

Due to the pioneer usage of the scales in this population, the findings lack resources to support the findings. It is also important to note the need for an officially translated questionnaire as the translated questionnaire in this study is considered as a piloted questionnaire. This may strengthen the reliability and validity of the questionnaires to be used in this population. On top of that, being one of the first Asian populations for the study on Callous-unemotional traits, a need for cross-cultural research is needed, as there are possibilities that individualistic culture [78,79] countries may have different understanding and emphasis in acknowledging the Fear of compassion and Callous-unemotional traits.

Besides that, using quantitative measures limited the study from a deeper understanding of the variables based on the thoughts and behaviors of the students that may be more expressive than what can be seen on pen and paper. Therefore, it is suggested that use of qualitative measures or even mixed methods may provide richer data of depth for the current situation and emotions the adolescents go

through. In order to improve the external validity, there is a need to increase on sample spread of the population for future studies, as increasing sample size would increase the chance of finding associations of Fear of compassion and Callous-unemotional traits [80-83]. In addition to that, a replication of incarcerated adolescents may provide new insights or findings in comparison to detention centers as the culture, exposure to the environment and level of delinquency differ.

### Research Implications

This study has served to provide further insights for improvement of the juvenile system as well as alluding to positive approaches for Callous-unemotional traits individuals [84-87]. It is crucial for improvements in the rehabilitation programs and may well open up opportunities for programme enhancements for the betterment of the adolescents. Besides that, the findings show a promising, albeit preliminary, relationship between attachment styles, Fear of compassion and Callous-unemotional traits that may trigger future studies that may help in determining better options of therapeutic approaches. The findings have provided insights into the confounding factors to be considered such as individual differences and culture when implementing emotional regulation assessments.

### Conclusion

Overall, attachment style is a significant variable to consider in addressing the challenges of juveniles in relation to Callous-unemotional traits. Although, the present study did not find significant association of attachment styles and Fear of compassion, possibly be due to cultural differences or individual differences, Fear of compassion shows positive relationship with Callous-unemotional traits, hence providing further insights for a more comprehensive conceptualisation of the subject.

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