

# **TEACHERS' KNOWLEDGE LEVEL OF EMOTIONAL DISTURBANCE AND REGULATION OF STUDENTS WITH SPECIAL EDUCATION NEEDS**

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## **ABSTRACT**

Emotional disturbance and regulation are key elements in special education classes but are still understudied. This study explores the topic of the emotions of students with special educational needs (SEN). The objective of this study is to examine the level of special education teachers' knowledge of (i) emotional disturbance and (ii) emotional regulation in SEN students. This study uses a quantitative approach in the form of survey as research design. A total of 74 primary school special education teachers were involved as respondents through a simple random sampling technique. Instrument used is a questionnaire adapted from the Emotion Regulation Skills Questionnaire by Mirabile (2014). Cronbach's Alpha validity obtained for the instrument after adaptation and pilot study was .838. Data was collected by distributing online questionnaire to the population of primary special education teachers through social media. Descriptive analysis was conducted on collected data through Statistical Package for Social Sciences (SPSS) software and summarized in table form. The findings of this study show a high level of special education teachers' knowledge of emotional disturbance in SEN students (mean=3.56) while teachers' knowledge of emotional regulation in SEN students recorded a moderate level (mean=2.94). Special education teachers have basic knowledge of emotions in SEN students but yet to reach the optimal level. The planning and implementation of learning in special education classes needs to emphasize the importance of regulating students' emotions and the role of teachers in emotions coregulations with SEN students.

**Keywords:** emotional disturbance, emotional regulation, special education

## **1. INTRODUCTION**

Children's mental health problems are not new terms discussed in the field of education and research especially after the COVID-19 pandemic where an increase in mental health problems including anxiety, loneliness, sadness, and stress have been found among children globally (Redde, Salamuddin & Othman, 2022). Based on the findings of the National Health and Morbidity Survey of year 2019 (NHMS, 2019), emotional problems are one of the four main contributors to mental health problems among children aged five to 15 in Malaysia, which includes children with typical development and children with special needs.

In fact, special needs children with neurodevelopmental disorders have a higher tendency to experience emotional symptoms in mental health problems compared to children with typical development which is 42 percent versus 15 percent (Nonweiler et al., 2020; Deighton et al.

2019 ). Accordingly, individuals with autism spectrum disorder (ASD) were found to experience more emotional disturbances as well as using less effective emotional regulation strategies compared to individuals with typical development (Cai et al., 2018). The findings of Schoorl et al. (2016) also support the idea that emotional disturbances and emotional regulation are important problems in children with oppositional defiant disorder or behavioral disorder.

Emotional disturbance is usually referred to negative emotions that include three criteria which is (1) frequent and strong negative emotional experiences, (2) negative reactions to intense emotional situations, and (3) efforts to dampen, escape or avoid negative emotional experiences (Barlow et al., 2014; Bullis et al., 2019). These emotional disturbances can often be seen among SEN students, including disturbing emotions such as anxiety, anger, meltdown, tantrum and aggression (Samson et al., 2014). However, excessive positive emotions such as being too happy or overexcited to the point of shouting loudly and laughing non-stop are also emotional disturbances that can be experienced by students with special education needs (SEN) in class. Indirectly, this emotional disturbance affects various aspects including children's willingness and readiness to learn, interact and develop.

Identifying disruptive and disturbing emotions is difficult for children with special needs. This contributes to the situation where children with special needs, especially children with ASD, are more dependent on others to manage their own emotions (Nuske et al., 2017). Accordingly, Cibralic et al. (2019) suggested the development of emotional regulation such as the transition from external to internal emotional regulation strategies may be delayed in ASD individuals. In an educational environment, special education teachers may find that SEN students face difficulties to express their feelings accurately and can contribute to other issues such as inappropriate responses and tantrums in class.

Student management in class from various aspects including emotions is one of the skills that special education teachers need to master in order to prepare students for their learning. Therefore, teachers need to play their role actively in the management and regulation of children's emotions that occur (Spilt et al., 2021). According to Gross (2015), the first step in emotional regulation is to identify the emotions that need to be managed. Indeed, the level of special education teachers' knowledge of their students' emotions is closely related to the teachers' ability and effectiveness in managing students as well as the classroom atmosphere. Accordingly, the level of teacher knowledge can trigger the implementation of appropriate emotion regulation strategies whether necessary to encourage or reduce the emotions that students are experiencing (Cai et al., 2018).

The level of teachers' knowledge includes different categories such as content knowledge, pedagogical knowledge, as well as knowledge about students and their characteristics (Hill & Chin, 2018; Ball et al., 2008; Shulman, 1987). In this context, the level of teachers' knowledge about their students in the emotional aspect has been prioritized. Actually, special education teachers should always develop their own level of knowledge when facing SEN students who suffer from emotional and behavioral disturbances. However, teachers are more likely to feel stressed, experience emotional exhaustion and express the intention to withdraw, especially when they have to spend more time outside of school to plan and refer to experts about the management of student disturbances (Bettini et al., 2020). Indirectly, these effects can affect the level of teachers' knowledge in the emotional disturbances and regulations of students because they become less enthusiastic and less positive to improve knowledge which subsequently make it difficult for them to get involved in the regulation of students' emotions.

The knowledge level of a special education teacher is very vital to maintain a fun and conducive learning atmosphere where a special education teacher who is knowledgeable in student emotions can identify, monitor and modify students' emotions that are not appropriate. However, one factor that affects the awareness raising about the importance of knowledge regarding the emotional disturbance and regulation of students among special education teachers is the lack of resources and exposure that prioritizes these topics. According to Idris et al. (2019), lack of research on the emotional and behavioral problems of children to be found in the Malaysia context. In addition, according to Murray and Rosanbalm (2017), studies on the emotional co-regulation ability of professional caregivers (not parents) such as teachers in middle childhood are limited. In other words, the level of teachers' knowledge about students' emotions, especially in Malaysia, is poorly known.

The constraints of SEN students in managing their own emotions make the teacher's role becoming more pivotal, especially being knowledgeable in managing students' emotions as stated by Mainhard et al. (2018) that teachers may be more important to students' emotions compared to previous studies. This study is limited by the education stream and the location of the study, where the study only involves primary school special education teachers in the Petaling Utama district, Selangor. With this, the objective of this study is to:

- i. Assess the knowledge level of special education teachers about emotional disturbances of SEN students in Petaling Utama district, Selangor
- ii. Assess the knowledge level of special education teachers about emotional regulation of SEN students in Petaling Utama district, Selangor

## **2. LITERATURE REVIEW**

In general, the American Psychological Association (APA) defines emotion as a complex response pattern that involves elements of experience, behavior and physiology where emotions can bring physical and psychological changes that affect thinking and behavior (Cherry, 2022). Therefore, emotions can appear as information to guide how a person interacts with the world through restricting or broadening behavior based on the situation (Steimer, 2002). Directly, obstacles that appear in the emotional development of children in the form of emotional disturbances affect them both externally and internally.

Emotional disturbances occur as a result of a person not being able to achieve balance or harmony on their own towards an emotion that occurs. This disturbance can be caused by either a negative experience of emotion or the appearance of an emotion that is poorly recognized let alone controlled. According to the study of Gupta, Mohammad and Wani (2020), children categorized as having special needs including those diagnosed with hyperactivity, learning problems, autism, and intellectual and developmental disabilities usually have a low level of emotional intelligence. Emotional intelligence includes four dimensions which are recognizing emotions, using or reasoning emotions, understanding emotions, and managing emotions (Panneerselvam & Sujathamalini, 2014). In other words, SEN students can experience difficulty or delay in recognizing and understanding emotions. This can make them have a higher frequency in facing emotional disturbances compared to other students who have normal emotional development.

Previous researchers have conducted studies on emotional disturbances in individuals with special needs including SEN students. In a study that assessed emotional functioning in individuals with high-functioning ASD and Asperger's syndrome, it was found that individuals

with ASD and Asperger's syndrome had higher levels of negative emotions in terms of emotional experience and had greater difficulty identifying and describing their emotions in aspects of emotion labeling when compared to typically developing individuals (Samson, Huber, & Gross 2012).

This finding is consistent with the study of Mayes et al. (2011) who found that children with autism reported higher levels of anxiety and irritability in addition to the presence of depression found in them. In addition, Graziano et al. (2013) conducted a study on emotions in children with attention deficit and hyperactivity disorder (ADHD), the findings showed that emotional reactivity, which refers to the tendency to experience frequent and tense emotional awakenings, is related to ADHD symptoms, especially with aggressive symptoms that occur together

However, it cannot be denied that both aspects of emotional disturbance and behavioral problems are often linked together in studies. In Hassan's (2015) study which was conducted to find out the emotional and behavioral problems of children with learning disabilities, the findings showed emotional and behavioral problems among these children including thinking problems, lack of concentration, activeness, interaction, and self-confidence, as well as lowering self-esteem in addition to sadness, confusion and emotional disturbances, aggression, phobias, and anxiety. However, the difference in emotional and behavioral problems among children with learning disabilities is based on the type of learning disability (Hassan, 2015).

In relation to emotional disturbances, an action to reduce or overcome the disturbances has been emphasized, which is emotional regulation. Emotional regulation in SEN students refers to the process of reducing the disturbance from an emotion that triggers an issue, whether it is a negative or positive emotion that appears in the student. The topic of emotional regulation in individuals with special needs has been discussed from different aspects in past studies.

The study of Cai et al. (2018) supports the finding that individuals with autism experience more problems in emotional regulation, show less adaptive patterns in the use of emotional regulation strategies, and higher tendencies in internal and external issues compared to individuals of typical development. At the same time, the study of Mazefsky et al. (2013) found that the understanding of emotion regulation in adolescents with ASD is still poorly understood but suggested that poor emotion regulation may exist in ASD and is linked to socioemotional and behavioral problems in this population.

In addition, the issue of emotional regulation among SEN students is further discussed through the findings of a study which shows that dysregulation and emotional disturbances are important problems among children with oppositional defiant disorder or conduct disorder but these problems are not realized by these children (Schoorl et al., 2016). A study by Samson et al. (2014) also found that children and adolescents with ASD showed higher levels of dysregulation and emotional regulation disorders and this was related to all the core features of the disorder.

Next, the study of Samson, Huber, and Gross (2012) which has discussed findings about emotional disturbances also contributed findings about emotional regulation, that is, individuals with high functioning ASD or Asperger's syndrome used less frequency of reappraisal than individuals of typical development and showed lower level of self-efficacy reappraisal. Accordingly, Berkovits, Eisenhower, and Blacher (2016) found that dysregulation

or emotional regulation disorders exist stably and are related to social and behavioral functioning and IQ levels.

At the same time, the study of Cibralic et al. (2019) suggested that children with ASD have weaker emotional regulation abilities than typically developing children and are more dependent on others to manage their emotions. Thereby, the importance of other parties, especially the closest adults such as parents and teachers, should be taken seriously in emotional regulation for SEN students. Indeed, the study of Spilt et al. (2021) reported that teachers' dialogue with children about past emotional events in special education can help children regulate their emotions through understanding the child's own emotional and behavioral disturbances.

The study of Mainhard et al. (2018) has also outlined the importance of teachers towards the emotions experienced by students in class, where students' emotions can be affected by the way the teacher adjusts to each student. This is closely related to the level of knowledge of a special education teacher about SEN students in a class. In the meantime, accurate knowledge and understanding regarding the student's condition, especially in terms of emotions, allows the teacher to deal with each student in an appropriate way. This is necessary in establishing a positive and close relationship between teachers and students, which is considered crucial for the emotional, academic and social development of students (Ewe, 2019) especially for students with special needs (Archambault et al., 2017; Crum, Waschbusch & Willoughby, 2016). However, research on the relationship between teachers and students with special education needs and the importance and relationship between these two parties is limited (Prino et al., 2016; Rogers et al., 2015).

In addition, Quinlan (2016) concluded that emotions are an essential aspect of relationships and has been supported by the study of Hagenauer, Gläser-Zikuda, and Volet (2016) that emotions and relationships are closely related. Emotional disturbances that occur among SEN students can interfere with the development of a positive relationship with the teacher, especially when the teacher's knowledge about the students' emotions is limited. As evidence, the findings of Ewe's (2019) study show that ADHD students generally feel less close to their teachers compared to other non-ADHD friends while teachers also experience more conflict in their relationships with ADHD students compared to students with typical development.

Pupils can experience various types of emotions while at school, either positive emotions such as joy, excitement, desire to know, pleasure, pride, and relief or negative emotions such as depression, sadness, boredom, anger, anxiety, and shame (Çetin, Mustafa, & Doğanay, 2021; Lei, Cui & Chiu, 2018). Previous studies have found that student emotions are related to teacher support (Lei, Cui & Chiu, 2018; King, McInerny & Watkins, 2012; McMahon, Coker & Parnes, 2013; Liu et al., 2016). Teacher support can exist in different forms, for example encouragement and guidance, which are largely based on the teacher's level of knowledge about his students. Pöysä et al. (2018) in their study showed that emotional support in the classroom is positively related to students' emotional involvement and help-seeking. In the context of special education, when teachers successfully detect and understand the emotions experienced by SEN students, support can be done by guiding students to recognize emotional disturbances that take place and manage them through appropriate emotional regulation strategies.



### 3. METHODS

This study uses a quantitative approach in the form of survey as the research design to assess the level of special education teachers' knowledge of emotional disturbances and regulation in SEN students. Quantitative research focus on objective measurement with statistically processed data in which the use of scientific methods in data collection and analysis makes generalization possible for a population (Bloomfield & Fisher, 2019; Eyisi, 2016).

This study targets teachers who are currently serving in the Special Education Integration Program (PPKI) in primary schools around the Petaling Utama district as the study population. In this district, there are 15 primary schools that have PPKI and a total of 82 special education teachers. To obtain the appropriate number of study samples, the researcher has referred to Krejcie and Morgan's (1970) sample size determination table where the sample size is related to the population size. Based on the table, the appropriate sample size for this study is around 70 special education teachers in a population size of around 85 people.

In relation to the selection of the study sample, the researcher used a simple random sampling technique which means that each member of the selected population has the opportunity to be selected as a sample of this study. This sampling technique is suitable for use when the entire study population is reachable and the researcher has a list of subjects in the population (Elfil & Negida, 2017). Among the strengths is that each subject in the population has the same opportunity to be a sample and thus making the data obtained generalizable as population data.

#### 3.1. Instrument

The researcher used only one kind of instrument, a questionnaire for this study. The questionnaire instrument was built through adaptation to the existing instrument *Emotion Regulation Skills Questionnaire* by Mirabile (2014). Adaptation is carried out from two aspects, the first is translating the questions in the original English-language questionnaire into Malay-language and the second is modifying the questions according to the suitability of the Malaysian context as well as the needs of the researcher in this study. A pilot study was conducted after instrument adaptation and obtained Cronbach's alpha value of .838.

The instrument consists of three main sections, which are section A to collect the demographic information of the study participants, section B for data regarding the level of teachers' knowledge about SEN students' emotional disturbances, and section C for data regarding the level of teachers' knowledge about emotional regulation of SEN students. Section A collects data about the background of the respondents from the aspects of gender, age, academic qualifications, and teaching experience in the field of special education. While the items in section B and C have been measured with a five-point Likert scale from 1 to 5 based on frequency (1=never, 2=rarely, 3=sometimes, 4=frequently, 5=almost always). The content and construction of each section is as in table 1.

Table 1: Content of the Questionnaire Instrument

Section	Construct	Item Number	Source
A	Demographics	4	-

B	Emotional Disturbances (Angry, Sad, Scared, Excited/ Happy)	16	Mirabile (2014)
C	Emotional Regulations (Angry, Sad, Scared, Excited/ Happy)	36	Mirabile (2014)

### 3.2. Data Collection and Analysis Procedures

The first step in the data collection procedure is to obtain supporting documents from Universiti Kebangsaan Malaysia, the Malaysian Ministry of Education, the Selangor State Education Department and the Petaling Utama District Education Office to conduct the researcher's study. Next, followed by the implementation of a pilot study as a practice in conducting the actual study in addition to making necessary revisions and improvements. The researcher continued with the step of finding study participants among special education teachers from the designated population. The researcher explained the purpose of the study while distributing the online questionnaire in the form of Google Form to PPKI teachers in the Petaling Utama district through the schools' official email and Whatsapp groups.

Data analysis is carried out after the data collection process is completed. To analyze the data, Statistical Package for Social Sciences (SPSS) software of version 26 was used to conduct descriptive analysis. Descriptive analysis is essential for research projects with the goal of either identifying and explaining trends and variations in a population, producing new measures of main phenomena, or simply describing samples in studies that aim to identify causal effects (Loeb et al. 2017).

In this study, descriptive analysis was conducted to summarize the data in percentages in addition to obtaining the mean and standard deviation for each item measured. Data interpretation is based on the mean score by referring to the mean score interpretation table for the five-point Likert scale by Moidunny (2009) as in table 2.

Table 2. Mean Score Interpretation

Mean Score	Interpretation
1.00 – 1.80	Very low
1.81 – 2.60	Low
2.61 – 3.20	Moderate
3.21 – 4.20	High
4.21 – 5.00	Very high

Source: Moidunny (2009)

## 4. RESULTS

### 4.1. Respondent Demographics

There are 74 special education teachers who teach at primary schools' PPKI in the Petaling Utama district involved as respondents of this study. The background of the respondents was reviewed from four aspects, namely age, gender, academic qualifications, and teaching experience in the field of special education. Table 3 shows the distribution of respondents involving frequency and percentage for each demographic aspect.

Table 3. Demographic distribution of respondents

N	Background	Category	Frequency	Percent (%)
74	Gender	Male	19	25.7
		Female	55	74.3
	Age	21 - 30 years old	15	20.3
		31 - 40 years old	25	33.8
		41 - 50 years old	29	39.2
		51 - 60 years old	5	6.8
	Academic qualifications	Diploma	9	12.2
		Bachelor/Degree	61	82.4
		Masters	4	5.4
		Doctorate	0	0.0
	Teaching Experience in the Field of Special Education	< 5 years	13	17.6
		6 - 10 years	23	31.1
		11 - 15 years	27	36.5
		16 - 20 years	11	14.9
		> 21 years	0	0.0

The total number of male respondents is 19 people (25.7%) while the total number of female respondents is 55 people (74.3%). The majority of the respondents of this study are between the ages of 41 and 50 years, which is 29 people who reach 39.2 percent of the total. There are 25 respondents (33.8%) who are between the ages of 31 and 40 years, followed by the age range of 21 to 30 years which is a total of 15 respondents (20.3%). Respondents aged 51 to 60 years were 5 people (6.8%).

As for academic qualifications, the majority of respondents, 61 people (82.4%) have a bachelor degree. While the diploma level of study was recorded by 9 respondents (12.2%) followed by the least academic qualifications among the respondents, which was the master degree which was recorded by 4 people (5.4%). None of the respondents have a doctoral academic qualification.

Most of the study respondents, 27 people (36.5%) have teaching experience in the field of special education for 11 to 15 years, followed by study respondents with experience for six to 10 years, totaling 23 people (31.1%). 13 study respondents (17.6%) have experience of five years and below while 11 study respondents (14.9%) have teaching experience ranging from 16 to 20 years. No respondent has more than 21 years of teaching experience in the field of special education.

#### 4.2. Level of Knowledge about Emotional Disturbances

The findings of descriptive analysis of teachers' knowledge of the frequency of SEN students showing emotional disturbances are discussed based on four basic emotions, namely anger, sadness, fear, and overexcitement or over happiness. Table 4 shows the frequency distribution, mean, standard deviation and interpretation based on the mean score for the level of teachers' knowledge of emotional disturbances.

Based on table 4, the item for emotional disturbance, anger that reached a interpretation of very high level with the highest mean score of 4.41 is that students show anger by hitting, kicking, throwing things, or hitting things or people. The highest mean score in emotional disturbance of sadness also recorded as much as 4.41 for the item students show sadness by crying or



pouting, showing that the level of knowledge of the respondents for this item is very high. Descriptive data for other items measured are as in table 4. In general, the level of respondents' knowledge of the frequency of both types of emotional disturbances, anger and sadness in SEN students is high with an average mean score of 4.12 and 3.89 respectively.

On the other hand, referring to table 4, the level of respondents' knowledge of emotional disturbances of fear and overexcitement in SEN students only reached a moderate level with an average mean score of 3.14 and 3.09 respectively. Among them, the item with the highest mean score in emotional disturbance of fear is the student showing fear by crying or screaming (mean=3.85), while the item with the highest mean score in overexcited emotional disturbances is the student showing joy or excitement by shouting or running around the area (mean= 4.42). The two emotional disturbances of fear and overexcitement each have one low level item as shown in table 4. Overall, the level of knowledge of special education teachers about SEN students' emotional disturbances in Petaling Utama district, Selangor is at a high level with an average mean score of 3.56.

Table 4. Frequency distribution, mean, standard deviation, and interpretation of emotional disturbances

No.	Emotions	Item (Students...)	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)	Min	S. P	Interpretation
B1	Anger	Showing anger by crying/screaming	0 (0.0)	0 (0.0)	2 (2.7)	48 (64.9)	24 (32.4)	4.30	.516	Very high
B2		Show anger by banging/ kicking/ throwing or hitting things or people.	0 (0.0)	0 (0.0)	4 (5.4)	36 (48.6)	34 (45.9)	4.41	.595	Very high
B3		Persistently asking for objects they can't have/ makes them angry	0 (0.0)	0 (0.0)	7 (9.5)	47 (63.5)	20 (27.0)	4.18	.582	High
B4		Threaten/run away from something that makes them angry.	0 (0.0)	9 (12.2)	23 (31.1)	33 (44.6)	9 (12.2)	3.57	.861	High
<b>Average Value (Anger) 4.12 .420</b>										
B5	Sadness	Showing sadness by crying/pouting.	0 (0.0)	0 (0.0)	3 (4.1)	38 (51.4)	33 (44.6)	4.41	.571	Very high
B6		Show sadness by banging/ kicking/ throwing or hitting things or people.	0 (0.0)	7 (9.5)	17 (23.0)	42 (56.8)	8 (10.8)	3.69	.793	High
B7		Persistently asking for objects they can't have/ makes them sad	0 (0.0)	4 (5.4)	7 (9.5)	46 (62.2)	17 (23.0)	4.03	.740	High
B8		Threaten/run away from something that makes them sad.	0 (0.0)	10 (13.5)	28 (37.8)	30 (40.5)	6 (8.1)	3.43	.829	High
<b>Average Value (Sadness) 3.89 .504</b>										
B9	Fear	Showing fear by crying/screaming.	1 (1.4)	8 (10.8)	16 (21.6)	25 (33.8)	24 (32.4)	3.85	1.043	High
B10		Show fear by banging/ kicking/ throwing/ hitting things/ people.	8 (10.8)	29 (39.2)	23 (31.1)	11 (14.9)	3 (4.1)	2.62	1.003	Moderate
B11		Face the situation that they are afraid to face	14 (18.9)	32 (43.2)	16 (21.6)	10 (13.5)	2 (2.7)	2.38	1.030	Low
B12		Threaten/run away from something that causes them afraid	2 (2.7)	12 (16.2)	11 (14.9)	30 (40.5)	19 (25.7)	3.70	1.107	High
<b>Average Value (Fear) 3.14 .758</b>										
B13	Over-excited	Showing excitement by shouting/running around	0 (0.0)	1 (1.4)	4 (5.4)	32 (43.2)	37 (50.0)	4.42	.662	Very high

B14	Show excitement by banging/ kicking/ throwing/ hitting things/ people.	8 (10.8)	19 (25.7)	28 (37.8)	16 (21.6)	3 (4.1)	2.82	1.025	Moderate
B15	Remove objects/stop playing with anything that gets them too excited.	11 (14.9)	32 (43.2)	17 (23.0)	11 (14.9)	3 (4.1)	2.50	1.050	Low
B16	Threaten/run away from something that makes them too excited	8 (10.8)	28 (37.8)	25 (33.8)	10 (13.5)	3 (4.1)	2.62	.989	Moderate
<b>Average Value (Overexcited)</b>							<b>3.09</b>	<b>.664</b>	<b>Moderate</b>
<b>Average Value (Overall)</b>							<b>3.56</b>	<b>.422</b>	<b>High</b>

### 4.3. Level of Knowledge about Emotional Regulation

The level of teachers' knowledge of the frequency of emotional regulation by SEN students is discussed based on four basic emotions, namely anger, sadness, fear, and overexcitement or over happiness. Table 5 shows the distribution of the mean, standard deviation and interpretation based on the mean score for each item measured to review the level of teachers' knowledge of emotional regulation.

In the emotion regulation of anger, the item that reached the highest mean score (mean=4.46) which was at a very high level was that the students came to the teacher to calm themselves down when angry. While the item with the lowest mean score (mean=2.20) and graded low level is, students calm themselves down by talking or discussing the problem that makes them angry. Next, the item students come to the teacher to calm themselves when they are sad has recorded the highest mean score (mean=4.46) in the emotional regulation of sadness, showing that this item is at a very high level of knowledge. The item with the lowest mean score (mean=2.09) which is graded as low level is that students ignore their own sadness and talk to the teacher about other things.

As for the emotional regulation of fear, the item that reached the highest mean score (mean=4.09) and reached a high level of knowledge was that students come to the teacher to calm themselves when they are afraid. The item that the students calm themselves down by talking or discussing the problem that causes them fear is the item with the lowest mean score (mean=2.00) and is at a low level. The level of teachers' knowledge of overexcited emotion regulation in SEN students is the highest for the item students keep watching or playing with something that makes them happy or excited, which reaches a high level interpretation with a mean score of 4.19. While the item with the lowest mean score (mean=1.92) which is at a low knowledge level is that students calm themselves down by talking to themselves when they are happy or excited.

Based on table 5, the level of respondents' knowledge of the frequency of the four types of emotional regulation by SEN students is moderate with average mean scores of 3.13, 3.09, 2.81, and 2.76 respectively for the emotions of anger, sadness, fear, and overexcitement. Thus, in overall, the level of special education teachers' knowledge of SEN students' emotional regulation in the Petaling Utama district, Selangor is at a moderate level with an average mean score of 2.94.

Table 5. Frequency distribution, mean, standard deviation, and interpretation for emotional regulation

No.	Emotio ns	Item (Students...)	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)	Min	S.P	Interpretation
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C1	Anger	Calm themselves by talking/discussing the problem	18 (24.3)	29 (39.2)	22 (29.7)	4 (5.4)	1 (1.4)	2.20 .921	Low
C2		Asking questions about forbidden objects/ reasons cannot own them	10 (13.5)	25 (33.8)	29 (39.2)	10 (13.5)	0 (0.0)	2.53 .895	Low
C3		Watching/staring at forbidden objects.	0 (0.0)	0 (0.0)	11 (14.9)	45 (60.8)	18 (24.3)	4.09 .623	High
C4		Ignore their anger, talk to the teacher about other things.	11 (14.9)	40 (54.1)	19 (25.7)	4 (5.4)	0 (0.0)	2.22 .763	Low
C5		Ignoring the anger factor and looking for something to do.	5 (6.8)	41 (55.4)	23 (31.1)	4 (5.4)	1 (1.4)	2.39 .755	Low
C6		Entertain/comfort themselves by playing with their body parts/clothes/using teddy/blankets	0 (0.0)	1 (1.4)	11 (14.9)	48 (64.9)	14 (18.9)	4.01 .630	High
C7		Come to the teacher to comfort them.	0 (0.0)	1 (1.4)	4 (5.4)	29 (39.2)	40 (54.1)	4.46 .666	Very high
C8		Ask the teacher for help in solving the problem.	0 (0.0)	2 (2.7)	9 (12.2)	49 (66.2)	14 (18.9)	4.01 .652	High
C9		Try to hold back their anger/ don't want to show their feelings.	12 (16.2)	40 (54.1)	17 (23.0)	4 (5.4)	1 (1.4)	2.22 .832	Low
<b>Average Value (Anger) 3.13 .365</b>									<b>Moderate</b>
Q10	Sadness	Calm themselves by talking/discussing the problem.	14 (18.9)	41 (55.4)	13 (17.6)	6 (8.1)	0 (0.0)	2.15 .822	Low
C11		Asking questions about objects that cannot be had/ why	6 (8.1)	33 (44.6)	30 (40.5)	5 (6.8)	0 (0.0)	2.46 .744	Low
C12		Watching/staring at objects that they cannot have.	0 (0.0)	2 (2.7)	10 (13.5)	52 (70.3)	10 (13.5)	3.95 .617	High
C13		Ignore their sadness and talk to the teacher about other things.	16 (21.6)	38 (51.4)	17 (23.0)	3 (4.1)	0 (0.0)	2.09 .779	Low
C14		Ignore their sadness and find something to do.	7 (9.5)	33 (44.6)	28 (37.8)	5 (6.8)	1 (1.4)	2.46 .814	Low
C15		Entertain/comfort themselves by playing with their body parts/clothes/using teddy/blankets	0 (0.0)	1 (1.4)	13 (17.6)	49 (66.2)	11 (14.9)	3.95 .617	High
C16		Come to the teacher to comfort them.	0 (0.0)	0 (0.0)	4 (5.4)	43 (58.1)	27 (36.5)	4.31 .572	Very high
C17		Ask the teacher for help in solving the problem.	0 (0.0)	1 (1.4)	6 (8.1)	40 (54.1)	27 (36.5)	4.26 .663	Very high
C18		Trying to hold back their sadness/ not wanting to show their feelings.	11 (14.9)	41 (55.4)	18 (24.3)	4 (5.4)	0 (0.0)	2.20 .758	Low
<b>Average Value (Sadness) 3.09 .311</b>									<b>Moderate</b>
C19	Fear	Calm themselves by talking/discussing the problem.	17 (23.0)	44 (59.5)	10 (13.5)	2 (2.7)	1 (1.4)	2.00 .776	Low
C20		Ask questions about events or objects that make him afraid.	9 (12.2)	39 (52.7)	24 (32.4)	2 (2.7)	0 (0.0)	2.26 .703	Low
C21		Watching or staring at something that causes them fear	11 (14.9)	31 (41.9)	23 (31.1)	8 (10.8)	1 (1.4)	2.42 .922	Low
C22		Ignore the fear factor, talk to the teacher about other things.	10 (13.5)	37 (50.0)	22 (29.7)	5 (6.8)	0 (0.0)	2.30 .789	Low
C23		Ignore the fear factor and find something to do.	3 (4.1)	38 (51.4)	30 (40.5)	3 (4.1)	0 (0.0)	2.45 .644	Low
C24		Comfort by playing with their body parts/clothes/or using teddy/blankets	0 (0.0)	3 (4.1)	18 (24.3)	48 (64.9)	5 (6.8)	3.74 .642	High
C25		Come to the teacher to comfort them.	0 (0.0)	0 (0.0)	7 (9.5)	53 (71.6)	14 (18.9)	4.09 .528	High
C26		Ask the teacher for help in solving the problem.	0 (0.0)	4 (5.4)	22 (29.7)	37 (50.0)	11 (14.9)	3.74 .777	High
C27		Trying to hold back their fear/ not wanting to show their feelings.	10 (13.5)	40 (54.1)	19 (25.7)	5 (6.8)	0 (0.0)	2.26 .777	Low

		Average Value (Fear)					2.81 .330	Moderate
C28	Over-excited Calm themselves by talking to themselves.	21 (28.4)	39 (52.7)	13 (17.6)	1 (1.4)	0 (0.0)	1.92 .717	Low
C29	Asking questions like “Why do I need to calm down?”	16 (21.6)	40 (54.1)	15 (20.3)	3 (4.1)	0 (0.0)	2.07 .764	Low
C30	Watching/playing with something that gets them excited.	1 (1.4)	1 (1.4)	8 (10.8)	37 (50.0)	27 (36.5)	4.19 .788	High
C31	Ignore the excitement factor, talk to the teacher about other things.	17 (23.0)	45 (60.8)	9 (12.2)	3 (4.1)	0 (0.0)	1.97 .721	Low
C32	Ignore the excitement factor and find something to do.	9 (12.2)	42 (56.8)	21 (28.4)	2 (2.7)	0 (0.0)	2.22 .688	Low
C33	Calm themselves down by playing body parts /clothes	0 (0.0)	1 (1.4)	31 (41.9)	40 (54.1)	2 (2.7)	3.58 .574	High
C34	Come to the teacher to comfort them.	0 (0.0)	2 (2.7)	18 (24.3)	44 (59.5)	10 (13.5)	3.84 .683	High
C35	Ask the teacher for help to calm down.	3 (4.1)	16 (21.6)	32 (43.2)	22 (29.7)	1 (1.4)	3.03 .860	Moderate
C36	Trying to hold back their excitement/ not wanting to show their feelings.	18 (24.3)	41 (55.4)	13 (17.6)	2 (2.7)	0 (0.0)	1.99 .731	Low
		Average Value (Overexcited)					2.76 .316	Moderate
		Average Value (Overall)					2.94 .240	Moderate

## 5. DISCUSSION

Considering that students' emotional disturbances and regulations can have an impact on various aspects in the classroom, the level of knowledge of special education teachers at the primary school level regarding both aspects of SEN students' emotions has been reviewed in this study through data obtained from 74 primary school special education teachers in the specified location.

Findings show that the level of special education teachers' knowledge of emotional disturbances that occur in SEN students is high. This is closely related to the high frequency of these emotional disturbances occurring among students. The high frequency of emotional disturbances in SEN students is supported by the findings of several past studies (Park et al. 2021; Hassan 2015; Samson et al. 2014; Samson, Huber & Gross 2012; Mayes et al. 2011). In the meantime, there is also a study that states that the frequency of emotional disturbances including anger, anxiety and sadness has increased among MBPK during the COVID-19 pandemic (Berasategi Sancho et al. 2021), making the past pandemic also be considered as an element that affects the findings about the frequency of SEN students emotional disturbances now.

However, the level of knowledge about SEN students' emotional disturbances among the target population of special education teachers has not yet reached an optimal level. The proof is that the level of teacher knowledge has not reached a high level for each type of emotional disturbance if seen separately. The difficulty in identifying and differentiating emotional disturbances in SEN students with their special symptoms may contribute to this finding as stated in the study of Kanne et al. (2009) who focused on ASD children that emotional disturbances or problems in ASD children are difficult to distinguish from the specific characteristics of ASD.

Among the four types of emotional disturbances measured, the most frequently encountered and known emotional disturbances by special education teachers is anger emotions in SEN students. Anger can arise in SEN students as a result of an event or other person's actions such as requests being rejected, not being able to express requests accurately, and being messed with by their classmates. Based on the findings of this study, this anger emotion is often shown by SEN students through external expressions such as crying, shouting, throwing things, and hitting people. This is consistent with the findings of previous studies that focus on ASD children that they often experience anger and become physically and verbally disruptive and aggressive (Ibrahim et al., 2019; Ho, Stephenson & Carter, 2012), and studies on ADHD children that they are usually irritable and experience more anger than non-ADHD children (Eyre et al., 2017; Kitchens, Rosèn & Braaten, 1999). However, the study of Macari et al. (2018) did not support this finding in which they suggested that there is no tendency or bias for negative emotions in ASD.

Accordingly, emotional disturbance of sadness as a type of emotion that is often expressed externally by crying or pouting by SEN students also recorded a high level of knowledge among special education teachers. However, previous studies emphasizing emotional disturbances of sadness in children with special needs are rarely found. On the other hand, sadness is often referred as a feature related to depression or anxiety (Schiltz et al., 2021; Muris & Ollendick, 2021; Davidsson et al., 2017), or appears in studies that examine the identification of emotions by children with special needs (Rouhi et al., 2019; Song & Hakoda, 2018).

Referring to the findings, the level of teachers' knowledge of emotional disturbances of fear and overexcitement is lower than emotional disturbances of anger and sadness, which is moderate on average, but this does not mean that the frequency of these emotional disturbances is less common in SEN students. Indeed, the frequency of students crying, screaming or running away due to fear has shown a high level in this study. Uljarević and Evans (2017) in their study support that when compared to children of typical development, children with ASD experience a higher level of fear due to their limited and repetitive behavior, followed by children with Down syndrome.

Emotional disturbances of overexcitement that are considered more positive compared to the other three types of emotions are easily ignored by teachers in the classroom. This is because these emotional disturbances can be considered as a normal happy emotion rather than an overexcited emotional disturbance. In fact, the findings have shown that the frequency of SEN students screaming and running around the class due to being too excited is very high, as Boucher and Scarth (2018) said that children with ASD who are too excited can make strange sounds such as moaning, whining or roaring. Therefore, emotional disturbances of overexcitement should be given attention by teachers among SEN students so that the level of teachers' knowledge of their students' emotional disturbances becomes more comprehensive.

If the findings are reviewed more carefully, which is by item, it is found that the level of knowledge of special education teachers is higher about the emotional disturbances of SEN students that are shown externally regardless of the type of emotional disturbances. In the meantime, when students express their emotional disturbances through ways such as crying, shouting, pouting, and running around the class, the teacher has to pause from the in-progress learning activities and manage the disturbances first before continuing the learning. This makes emotional regulation in SEN students an essential aspect that should exist in the knowledge of teachers.



Compared to emotional disturbances, the level of teachers' knowledge about emotional regulation by SEN students is only at a moderate level, showing that teachers' knowledge about emotional regulation of their students is less than emotional disturbances. This finding supports the findings of the study by Mazefsky et al. (2013) who suggested a lack of knowledge regarding the understanding of emotional regulation in ASD individuals. In the context of this study, findings about emotional regulation are related to the emotional regulation methods used by SEN students as well as the role of teachers and their relationship with students in special education classes.

Based on the answers given by the teachers in this study, the emotion regulation method that is less available or known in SEN students is the method that involves only the students themselves when emotions are regulated or managed. For example, a student tries to talk to himself or herself in order to comfort or calm himself or herself down, or a student tries to hold back an emotion in himself or herself and does not want to show it. However, the frequency of implementation of this emotion regulation method is also affected by SEN students' self-ability where methods that prioritize the role and awareness of students themselves are more difficult to implement by SEN students as suggested in the study of Schoorl et al. (2016) that SEN students lack awareness of emotional disturbance and regulation. This is in line with the findings of the Samson, Huber, and Gross (2012) study that those with ASD or Asperger's use less self-efficacy reappraisal in addition to showing a low level of evaluation.

The role of teachers in emotional regulation of SEN students has an impact when measuring their level of knowledge. When teachers are involved in the process of regulating students' emotions, such as students reaching out to the teacher for help or to calm and comfort themselves, their knowledge level is clearly seen to reach a higher level. The importance of teachers towards the emotional regulation of SEN students has been stated in previous studies (Poulou & Denham, 2022; Spilt et al., 2021; Mainhard et al., 2018) and is interconnected with the relationship between teachers and students (Krték et al., 2022; Ewe, 2019). In other words, when a positive relationship between teacher and student is achieved, the level of teacher's knowledge of SEN students' emotional regulation can increase due to increased involvement in the emotion regulation process.

It cannot be denied that SEN students' dependence on others to co-regulate their emotions, especially teachers in the context of special education classes, is also proven by the findings of this study and contributes support to the findings of previous studies where children with special needs are more dependent on others to regulate their emotions (Cibralic et al., 2019). Indirectly, individuals who are involved in emotional co-regulation with students with special needs, especially teachers, can help students develop their own emotional regulation skills, which is by referring to Cai and Uljarević (2021) who stated that the ability to regulate and manage emotions can be improved through intervention.

## **6. CONCLUSION**

SEN students' emotional disturbances and regulations is an issue that is often encountered in special education classes along with other issues such as behavioral problems and management as well as learning readiness. However, unlike behavioral issues which are a hot topic in the research field, emotional issues in students with special needs are rarely studied as a main topic in research, especially in the context of Malaysia. This study, which aims to assess the level of

local special education teachers' knowledge of SEN students' emotional disturbances and regulations, was conducted with the hope of contributing to the development of the field of research on the emotional topic of students with special needs.

Overall, the findings of this study show that the level of knowledge of special education teachers is high for emotional disturbances but moderate for emotional regulation in SEN students. This finding shows that special education teachers in the study location have basic knowledge about emotions in SEN students but still improvable. This knowledge can be based on observation and interaction with SEN students while in a special education class. The high frequency of emotional disturbances in the classroom should raise awareness among teachers to pay attention to this issue and further work on the development of SEN students' emotional regulation.

In addition to raising awareness about emotional disturbances and regulations of SEN students among teachers, this study also emphasizes the importance of the role of teachers in regulating their students' emotions and should be applied in the planning and implementation of learning in special education classes. In addition, this study also brings implications which is to raise awareness among policy makers such as the Malaysian Ministry of Education and the Special Education Division to pay attention to the overall development of SEN students in terms of physical, emotional, spiritual, intellectual and social as emphasized in the philosophy of education. Emotional regulation skills need to be included in teacher education as well as student education in addition to the existing learning content.

Throughout this study, it was found that studies on the topic of the emotions of students with special needs mostly focused on ASD students and some on ADHD students. This makes previous references for this topic that concern students with special needs other than these two categories are rare and hard to find. In fact, emotional disturbances and regulation that occur in students with special needs in other categories such as Down syndrome and intellectual disabilities are also noteworthy to be studied. Besides the category of students, the types of emotional disturbances in SEN students have also not been studied in depth and comprehensively. Although emotional disturbances are often associated with behavioral problems or symptoms, there are still differences between these topics that can contribute to a more developed special education.

Aspects that have not been touched such as teachers' perceptions and opinions on emotions in SEN students can also be studied in future studies. Findings that have been linked to the relationship between teachers and students show that the relationship between teacher and student relationships with SEN students' emotions is also an interesting topic to study. Again, emotional disturbances have an impact on SEN students' performance in class. This makes emotional regulation with the guidance of teachers crucial in order to reduce the frequency of emotional disturbances or reduce the time needed to calm emotional disturbances that occur and further increase their involvement and achievement in learning.

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