



Psychological Wellbeing of Special Education Teachers with Down Syndrome Students

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ABSTRACT

This study explores the psychological wellbeing of Malaysian special education teachers working with students with Down syndrome, aiming to raise awareness of their mental health and advocate for increased societal support. Eight female teachers with at least one year of experience teaching these students were purposefully selected for semi-structured interviews. Thematic analysis revealed that these teachers faced significant challenges, including academic difficulties, behavioural issues, and negative emotional consequences. Despite these struggles, they effectively maintained their wellbeing through coping mechanisms that can be understood using Seligman's (2011) PERMA model and Lazarus and Folkman's (1984) Transactional Model of Stress and Coping. The findings provide valuable insights into effective coping strategies that could benefit other teachers and inform the Ministry of Education in designing improved training programs. Future research should include a larger and more diverse sample and consider incorporating teaching assistants, who also work closely with Down syndrome students and face similar challenges.

Keywords: Down syndrome, teachers, psychological wellbeing, special education, coping mechanisms

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1 INTRODUCTION

Down syndrome, also known as trisomy 21, is one of the most common genetic disabilities worldwide (MacLennan, 2019; Varshney et al., 2022). It affects 1 in 1000 to 1 in 1100 births globally (United Nation, 2021). It is caused by chromosome 21 non-disjunction, resulting in an extra chromosome 21 or part thereof (Antonarakis et al., 2020; MacLennan, 2019; Roy, 2022). Down syndrome is associated with dysmorphic facial features, a high risk of medical conditions, and intellectual disability, and the average IQ of a young adult with Down syndrome is 50, equivalent to a child aged eight or nine (Roy, 2022). In Malaysia, the Special Education Programme is a part of the Malaysian Education Blueprint 2013-2025, which includes provisions for students with Down syndrome (Othman et al., 2022). The Ministry of Education oversees special education through Special Education Schools, Special Education Integration Programs, and Inclusive Education Programs, with 97,220 students enrolled as of October 2021 (Ministry of Education, 2022).

Special education teachers in Malaysia receive specialised training from institutions like the Special Education Teachers Training Institute and several public universities (Nasir & Efendi, 2016). They face distinct challenges compared to general education teachers, as their responsibilities involve providing tailored instructions to meet the specific needs of small groups or individual students (Zigmond & Kloo, 2017). Special education teachers are reported to experience higher stress levels due to the demands of their role, which impacts their psychological wellbeing (Kebbi & Al-Hroub, 2018). As a result, the researcher noted a critical need to examine these special education teachers' psychological wellbeing.

The researcher is especially interested in conducting the study among special education teachers with Down syndrome students rather than other branches of special education because the researcher wanted to focus the study on the teachers' experiences dealing with Down syndrome students and how that impacted their psychological wellbeing. According to Ghani et al. (2014), the primary source of stress among special education teachers is student misbehaviour. Children and adolescents with Down syndrome frequently exhibit challenging behaviours, such as stubbornness, inattention, attention-seeking, speech difficulties, opposition, and concentration issues (Patel et al., 2018). Furthermore, six to eight per cent of Down syndrome children have ADHD, whereas 10-15% and about 10% have conduct disorder and autistic spectrum disorder, respectively (Patel et al., 2018). Based on prior literature, the researcher would like to expect that working with Down syndrome students can be difficult for special education teachers

This study aims to address a significant research gap regarding the psychological wellbeing of special education teachers working with Down syndrome students. Existing research has predominantly focused on the wellbeing of families with Down syndrome members (Fatima & Suhail, 2019; Mohammed et al., 2020) and their coping strategies (Cless et al., 2017; Dharla & Bhat, 2021; Gashmard et al., 2020; Nurmalita & Kristiana, 2019). These studies have shown that families with Down syndrome children utilise various coping mechanisms in caregiving, which significantly affect their psychological wellbeing. For instance, Mohammed et al. (2020) found a positive significant correlation between psychological wellbeing and problem-focused coping strategies. However, the psychological wellbeing of educators, who play a crucial role in

supporting Down syndrome students, remains underexplored. While some studies, such as Fu et al. (2021), have touched on this topic, most recent research has concentrated on special education teacher burnout (Park & Shin, 2020), examining the variables associated with high burnout rates.

Additionally, past research has focused heavily on job satisfaction (Abdullah et al., 2021; Pazim et al., 2021; Shafie et al., 2021), revealing that factors like workload, work environment, and leadership influence it. Notably, there needs to be more research that directly addresses the wellbeing of these teachers involved in the education of Down syndrome students. Thus, this study seeks to fill this gap by comprehensively exploring special education teachers' experiences, challenges, and coping strategies working with Down syndrome students. The general objective is to explore the psychological wellbeing of these teachers, with specific goals to examine their knowledge about Down syndrome, identify the challenges they face, and investigate the coping mechanisms they employ to manage their wellbeing.

1.1 Theoretical Framework

1.1.1 Lazarus and Folkman's Transactional Model of Stress and Coping

Lazarus and Folkman (1984) developed the transactional model of stress and coping, which is significant in understanding stress and coping strategies in various workplace settings, including education (Herman et al., 2020). This model explains how individuals adapt and cope with challenges through a dynamic transaction between them and their environment (Brooks et al., 2022). It highlights primary and secondary appraisal: determining if a situation is a threat, challenge, or irrelevant, and deciding how to respond if it is a threat (Brooks et al., 2022; Herman et al., 2020). Special education teachers assess whether working with Down syndrome students poses a threat and, if so, seek ways to respond. The model categorises coping mechanisms into emotion-focused, which reduces negative emotional responses, and problem-focused, which involves finding solutions to manage stress (Brooks et al., 2022; Herman et al., 2020). Emotion-focused strategies such as seeking support from family, peers, and colleagues (Cancio et al., 2018; Eastwood, 2021; Matthews, 2020) and engaging in relaxing activities (Eastwood, 2021; Kebbi & Al-Hroub, 2018; Matthews, 2020), while problem-focused strategies can include time management and prioritisation (Kebbi & Al-Hroub, 2018).

1.1.2 Seligman's PERMA Model

Current research applies Seligman's (2011) PERMA model to explain the wellbeing of special education teachers. Through his PERMA model, Seligman argues that wellbeing comprises five core elements, which include positive emotion, engagement, relationship, meaning, and accomplishment (Birch et al., 2019; Donaldson et al., 2022; Seligman, 2018). Seligman (2011) suggests that one can enhance one's wellbeing by pursuing these five elements.

2 METHODS

2.1 Design

This research adopted a qualitative research design. Qualitative research is multi-method, with an interpretative and naturalistic approach to its subject area (Aspers & Corte, 2019). It employs several approaches, including in-depth interviews and historical material analysis (Aspers & Corte, 2019). The researcher has opted for in-depth interviews to collect data in the current research.

2.2 Sampling Procedure

This research employed purposive sampling with detailed inclusion and exclusion criteria to select participants across Malaysia. To be eligible for the research, participants had to meet the following inclusion criteria: (a) Malaysian special education teachers who teach Down syndrome students, (b) Malaysian special education teachers who have been teaching Down syndrome students for at least one year, (c) be of either special education teachers from government or private school, (d) be of either sex, any race or religion, (e) be willing to participate since the participation is voluntary, (f) be willing to sign the informed consent form. The researcher used social media platforms such as WhatsApp, TikTok, and Facebook as communication and announcement mediums to find possible volunteers.

2.3 Participants

The sample size required in the qualitative research method is frequently smaller than that required in quantitative research, and 5-50 participants are considered adequate (Dworkin, 2012). This research interviewed eight (8) special education teachers with Down syndrome students as the research participants. The participants' demographic information is presented in Table 1.

Table 1. Demographic data of participants.

No/ Name	Age	Race	Religion	Qualifications	Option for teaching certificates	Special Education Programmes	Year of Service (in special education)	Year of Experience with Down syndrome
1. Wana	30	Malay	Islam	Bachelor	Learning Disabilities	Program Pendidikan Khas Integrasi (PPKI)	4	4
2. Asiah	45	Malay	Islam	Bachelor	Teaching of English as a Second Language (TESL)	PPKI	18	18
3. Salma	40	Malay	Islam	Bachelor	Learning Disabilities	PPKI	13	11
4. Salina	43	Malay	Islam	Bachelor	Learning Disabilities	PPKI	9	9
5. Christine	35	Chinese	Islam	Master	None	Private institution	10	10

6. Safia	49	Malay	Islam	Master	Learning Disabilities	PPKI	14	14
7. Azila	48	Malay	Islam	Bachelor	None	PPKI	1	1
8. Hana	41	Malay	Islam	Master	Special education	PPKI	12	12

*Pseudonyms have been used to refer to all participants to ensure confidentiality

2.4 Instruments

The researcher collected data for the current research through semi-structured interviews. The researcher had prepared an interview guideline to ensure that the researcher could stay focused on the research aim without being restricted by a fixed framework. The interview guidelines are shown in Table 2.

Table 2. Interview guidelines.

Part	Research Question	Questions Guide
Part A	What is the demographic background of the participants?	<ol style="list-style-type: none"> 1. Can you begin by telling me about your demographic background such as age, race, religion, qualifications, option, year of service, and which special education programs you have been teaching?
Part B	What do special education teachers know about Down syndrome students based on their teaching experiences?	<ol style="list-style-type: none"> 1. How many years have you been working as a special education teacher? 2. Could you tell me what you know about Down syndrome? 3. How many years have you been teaching Down syndrome students? 4. Do you meet a lot of Down syndrome students throughout your career? 5. Can you tell me about your most meaningful experience in teaching Down syndrome students?
Part C	What are the challenges faced by special education teachers in teaching Down syndrome students?	<ol style="list-style-type: none"> 1. Can you tell me what kind of challenges you have faced in teaching Down syndrome students? 2. How did the challenges make you feel? 3. How did the challenges impact your psychological wellbeing?

Part D	How do special education teachers cope with the challenges they face in teaching Down syndrome students?	<ol style="list-style-type: none"> 1. How do you cope with these challenges? 2. How do you maintain your motivation to carry out your roles as an educator? 3. Can you tell me about who has helped or supported you?
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2.5 Procedure

The current research collected data through a semi-structured interview. The first step in conducting a semi-structured interview is to identify eligible participants. The researcher sought special education teachers who matched all of the inclusion criteria specified when searching for participants. Next, the participants were provided with a participant information sheet and informed consent before the interview session. Following signing the informed consent form, the participants had a one-on-one interview with the researcher. The interview was done via Google Meet at a time the participants agreed upon. In the data collection process, video recordings were utilised. The researcher used the Google Meet feature to record the interview. The recorded interview videos were then extracted to assist the researcher in writing the transcription of the interview session.

3 RESULTS

For the data analysis approach in the current research, the researcher used Braun and Clarke (2006) thematic analysis to uncover themes that reflected the general trends in the participants' responses to the research's objectives and questions.. Thematic analysis implementation consists of six core phases of analysis: (1) data familiarisation, (2) generation of initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming the themes, and (6) producing the research report.

Through the data analysis process, three main themes and seven sub-themes emerged. The three main themes include the teachers' understanding of Down syndrome, the challenges of being a Down syndrome teacher, and the coping mechanism (refer to Table 3)

Table 3. Themes, subthemes, and categories.

Themes	Sub-themes	Categories
The Understanding of Down Syndrome	Knowledge About Down Syndrome	Genetic Condition Physical Features Deficiencies Health Risk Behavioural Aspects
	Memorable And Meaningful Experience	Meaningful Memories

Challenges Of Being a Down Syndrome Teacher	Academic Challenges	Repetition Task Avoidance Limited Focus Weak Motor Function Communication Issues Applying Diverse Teaching Strategies
	Behavioural Challenges	Misbehaviour Unpredictable Mood Swing Attention Seeking Clinginess Dependency Parent's Expectation
	Negative Emotional Consequences	Frustration Anger Stress
The Coping Mechanism	Perma Model Of Wellbeing	Positive Emotion Engagement Relationship Meaning Accomplishment
	Transactional Model Of Stress And Coping	Emotion-Focused Coping Problem-Focused Coping

3.1 Theme 1: The Understanding of Down Syndrome

This theme explores the participants' understanding of Down syndrome. By exploring how special education teachers understand and perceive Down syndrome, this theme seeks to reveal the basic knowledge that shapes how they teach and interact with their students (refer to Figure 1).

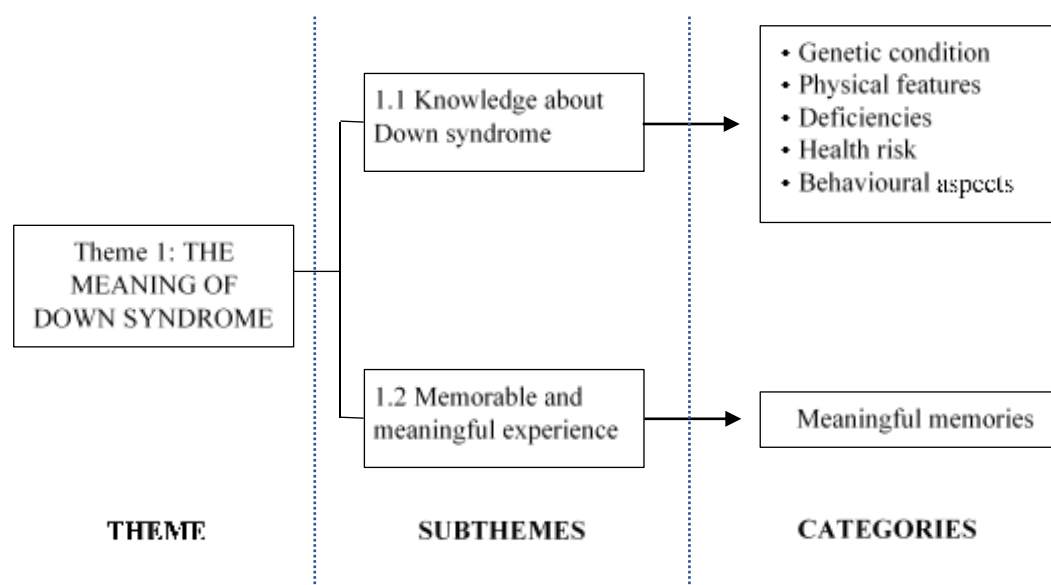


Figure 1. Teachers' understanding of Down syndrome.

3.1.1 Knowledge About Down Syndrome

Based on participants' experiences with the Down syndrome students, they can explain what they know about Down syndrome.

Genetic Condition. Based on the participants' knowledge of Down syndrome students, Wana, Azila and Salina explained that Down syndrome is a type of genetic disability that is caused by extra chromosomes.

*"...From what I know, Down syndrome is a condition that is caused by extra chromosomes."
(Wana)*

Physical Features. Next, Wana, Asiah, Salina, Catherine, and Salma mentioned about the physical features of Down syndrome students.

"...Extra chromosomes on chromosome 21 cause the Down syndrome child, as we can see, to have similar physical features such as narrow eyes, flat nose, and others. " (Wana)

Deficiencies Participants also mentioned the deficiencies of the Down syndrome students. Asiah, Wana, and Salina illustrated that some students have cognitive deficiencies.

"They have low IQs." (Asiah)

Salina and Azila mentioned their slow developments. Salina mentioned, *"...So due to its abnormal chromosome, it causes slow development of an individual."*

Azila and Catherine mentioned their language deficit. As Azila mentioned, *"Then, apart from the physical features, some of them can speak well, some of them can barely speak, and some of them cannot speak at all."*

Health Risks. Hana, Azila, Salina, and Catherine mentioned that based on their experiences, Down syndrome students that they had met usually suffer from medical conditions. They noted that Down syndrome students are at high risk of having heart disease.

Behavioural Aspects. Participants also describe the behaviour of their Down syndrome students. Safia, Asiah, and Salina describe their Down syndrome students to be loving and clingy. Wana and Hana mentioned that their Down syndrome students usually have something they are obsessed with.

"If they like something, they will be obsessed with it." (Wana)

"She has one specific thing she likes and does it as a routine." (Hana)

Wana mentioned that Down syndrome students' behaviour is unpredictable.

"One thing about Down syndrome students' behaviour is they are unpredictable. Sometimes he can throw a tantrum, but the next second his mood returns to normal and then his mood changes again." (Wana)

3.1.2 Memorable and Meaningful Experience

Meaningful Memories. All participants mentioned that they have had good experiences with Down syndrome students throughout their teaching journey. Each participant has their own story about their Down syndrome students, but they all agree that their memories with their students are great and meaningful to them. As noted by Wana, *"They like to hug. That is one of my memorable experiences with Down syndrome students. They like us to treat them tenderly and pay attention to them."*

3.2 Theme 2: Challenges of Being a Down Syndrome Teacher

The second theme focuses on the various challenges that special education teachers encounter when working with Down syndrome students (refer to Figure 2).

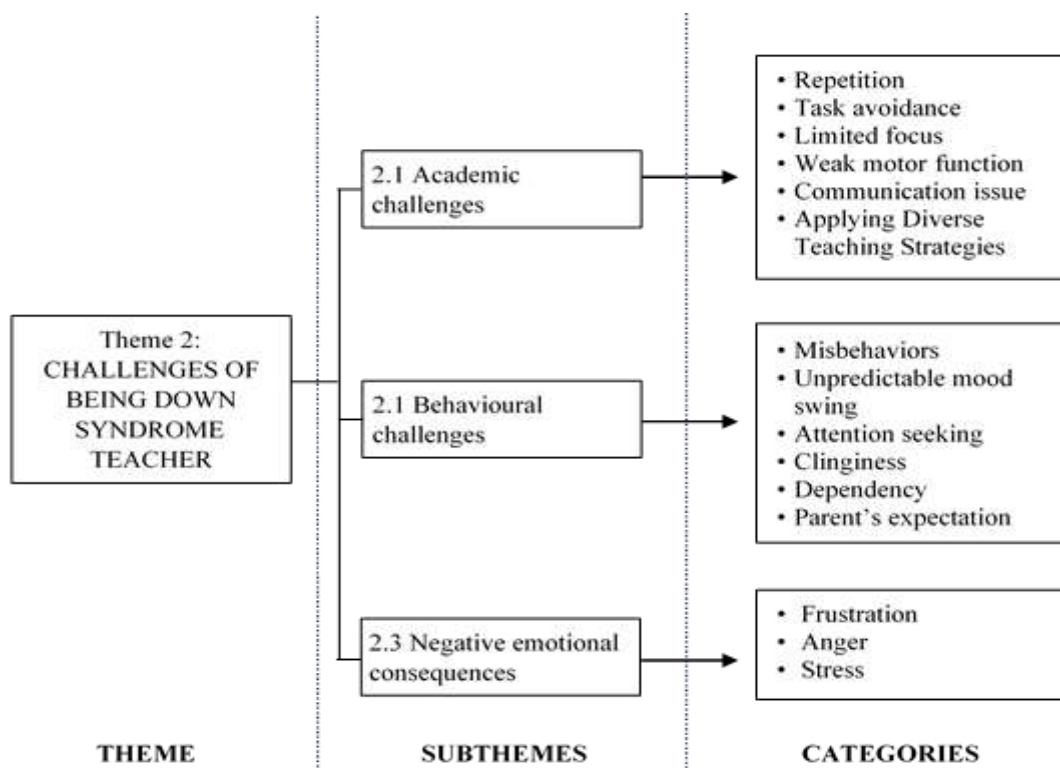


Figure 2. Challenges of being a Down syndrome teacher.

3.2.1 Academic Challenges

Most of the challenges mentioned by the participants during the interview involve academics. This includes:

Repetition. Wana, Asiah, and Azila mentioned that their struggles in teaching Down syndrome students involved much repetition. They need to repeat the things they had taught many times before the Down syndrome students can grasp it as mentioned by Asiah:

“So I need to repeat many things. Repeating the same things over and over. So, it is a bit challenging for me. I taught them something today, but then the next day, they would forget about it. They do not remember anything” (Asiah)

Task Avoidance. Wana, Salina, Catherine, Hana, and Salma mentioned that they struggled with Down syndrome students since they tend to avoid doing tasks and refuse to participate in class activities that they dislike.

“Sometimes when they refused to do a certain task, they will never do it. Hahaha, so from the very beginning until the end of the class, the task remains there” (Salina)

Then, he knew he was not supposed to do it, but he would do it just because he did not want to complete his task. That is task avoidance. (Catherine)

But if it is not what they like, no matter if we ask them or force them to do it, they will not. (Hana)

Limited focus. Furthermore, Wana, Salina, and Salma said that they struggled to teach the Down syndrome students because they had limited focus in class.

Oh regarding focus, their focus is minimal. If they could focus even for 10 minutes, I would be grateful. (Wana)

Weak Motor Function. Azila, Hana, and Salma noted that they struggle in teaching because Down syndrome students have weak motor functions that make it difficult to do certain things.

Number one, their finger coordination is limited. So, when it comes to writing, they are extremely slow. So it feels like, "Erghh... hahaha. (Azila)

Communication Issues. Hana, Salina, and Salma also stated that communication issues are the challenges in teaching Down syndrome students. Some Down syndrome has verbal-linguistic deficiencies; hence, the participants need to deal with communication problems.

"They cannot communicate because, due to their low function, they are unable to communicate." (Hana)

"Maybe it is due to his verbal issues; he cannot speak. He has a verbal-linguistic problem, so he really cannot speak, and he is in the low-function category. We need to help him move his hand, and sometimes we talk, like me, and I will talk to him. I pray that he would understand what I told him." (Salina)

Applying Diverse Teaching Strategies. Applying different teaching strategies is also a challenge for Salina.

"It is one of the challenges. I think every PPKI school needs to face this issue. Because we have different categories in a class. In a class, we have a low function, but there are also some of them are okay, and some are not. Some of them cannot even speak. Some of them can speak. It is like that. So diversity in PdP is needed." (Salina)

3.2.2 Behavioural Challenges

Next, the participants also mentioned challenges that are attributed to the behavioural aspects.

Misbehaviour. Salina, Catherine, and Wana mentioned that they struggle to deal with Down syndrome students' misbehaviour, such as being naughty and stubborn. Some of them are hyperactive.

"Maybe in those times, something is disturbing their emotions. I think that is a challenge for me. When their stubbornness comes." (Salina)

Challenges are when they are very naughty, so-called naughty. It is like misbehaving time. They purposely do something to make us suffer. (Catherine)

Unpredictable Mood Swing Wana and Azila mentioned dealing with the unpredictable mood of Down syndrome students:

"It is not easy to handle Down syndrome students. Everything depends on their mood. Sometimes they are, and suddenly they are not. We cannot predict their mood swings." (Wana)

"Next, number two, is in terms of their emotions. When they are happy, they are too happy, and when they are sad, they are too sad." (Azila)

Attention Seeking. Asiah mentioned that they need to deal with the attention-seeking behaviour of the Down syndrome students.

"Because SD students often want us to pay attention to and care about them. So some other students get envious a lot, you know, so they keep calling "teacher, teacher, teacher" Hence, sometimes we cannot only pay attention to SD students. This leads them to do all sorts of tricks to get our attention." (Asiah)

Clinginess. Safia mentioned in the interview that she faced a struggle when Down syndrome are too clingy or too loving since it made her unable to get strict or mad at them while teaching.

"Then, if he found some tasks complicated to do, he would be like, "Alah baby," hahaha. So for me, that is the challenge: we wanted to be fierce, but then we could not; we wanted to be strict, but we also could not." (Safia)

Dependency Asiah and Hana said they struggle with Down syndrome and are entirely dependent on them and cannot be independent.

"But for the severe level. It is very challenging. They need to be guided all the way. They need a teacher or ppm to guide them." (Asiah)

So, the main challenge for people with Down syndrome is that those who cannot be independent are they are entirely dependent on us. (Hana)

Parents' Expectations Other than a behavioural problem from the Down syndrome students themselves, Azila mentioned that they came from their parents. Parents have high expectations for their children.

“What is not fun is when parents send their kids to school expecting their kids to be as excellent as mainstream students.” (Azila)

3.2.3 Negative Emotional Consequences

Due to the challenges in teaching, some participants mentioned it led them to face negative emotional consequences.

Frustration. Wana and Asiah said that the teaching challenges made them feel frustrated.

“If talking about feelings of course I feel frustrated sometimes.” (Wana)

“Would be impossible to say that I am not frustrated.” (Asiah)

Anger. For Catherine, the challenges make her upset and angry.

“Okay, sometimes it always makes me feel upset and angry, like that.” (Catherine)

Stress. Wana and Safia mentioned that stress is sometimes inevitable when dealing with challenges. Wana noted, *“I would be lying if I said I have never been stressed out.”* Safia mentioned, *“Sometimes I do indeed feel stress, but not as far as making me feel depressed or making my headache. I think it is normal.”*

3.3 Theme 3: The Coping Mechanism

The third theme examines the coping mechanisms employed by special education teachers to manage the challenges associated with teaching Down syndrome students (refer to Figure 3). It aims to explore the strategies and support systems that enable teachers to maintain their wellbeing.

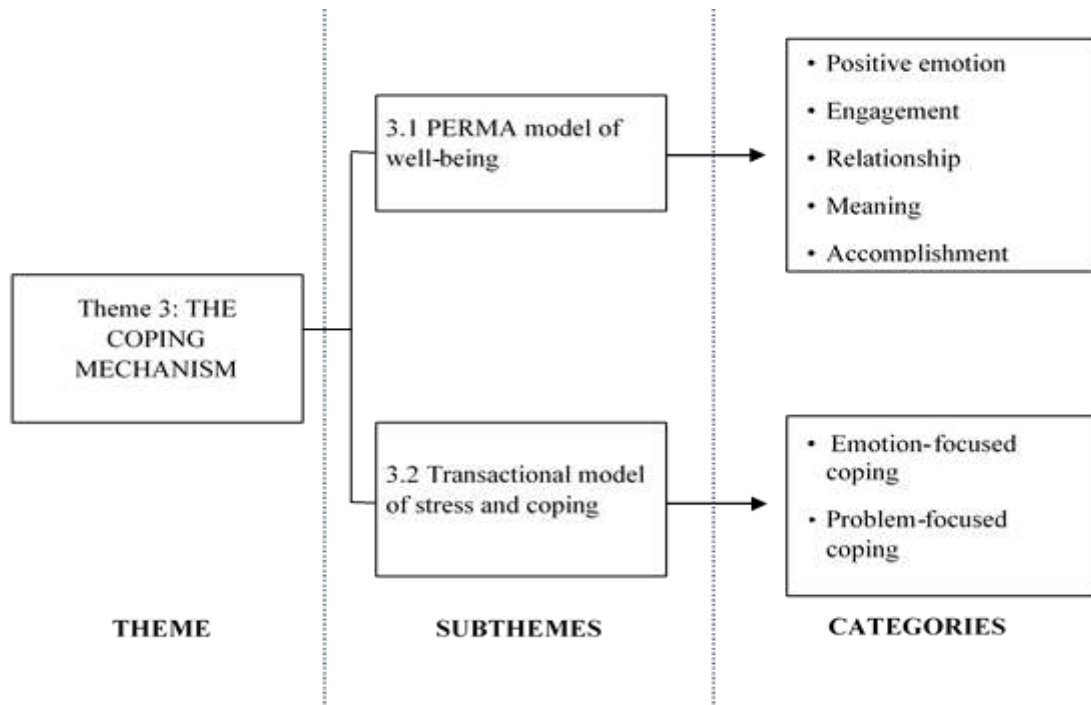


Figure 3. Coping mechanisms.

3.3.1 PERMA Model of Wellbeing

The coping mechanism used by the participants can be linked to the five core elements of the PERMA model of wellbeing

Positive Emotion. Salina, Wana, and Asiah mentioned that despite having to deal with challenges in teaching Down syndrome, they felt positive emotions in teaching these students.

“I am close to them. So for me by far Alhamdulillah, I am doing good. I am happy ...” (Salina)

“... maybe they are my source of motivation. I enjoy teaching them.” (Wana)

Engagement. Hana is very engaged with teaching her Down syndrome students; even when she faces challenges, she always tries her best to achieve her goal despite all the challenges.

“So, as I said, my main challenge is with the non-verbal. So, I am the type that, if I cannot do something, I will keep trying.” (Hana)

Relationship. All participants agreed that their relationships with people around them act as a support system in their journey as special education teachers. This includes their relationships with their family, colleagues, students' parents, and school authorities.

“My close friends, my Husband, family, parents, school administrators, and school authorities also collaborated so no one is being left out.” (Asiah)

Meaning. Hana is motivated by a higher purpose in pursuing a career as a special education teacher despite all the challenges she faces. Hana views her role as a special education teacher as an obligation, and she was chosen by god to fulfill the obligation.

“This is what Allah has written for me, and I am fulfilling my obligation as a teacher.” (Hana)

Accomplishments. Salma, Catherine, Asiah, and Hana mentioned that some aspects of teaching Down syndrome students bring them a sense of satisfaction. Most participants noted that their sense of satisfaction comes from seeing how their students develop over time.

“Because it is for our sense of satisfaction. The satisfaction from watching their development. Like their development from they started school until they graduated from high school.” (Asiah)

Safia and Azila's relationship with the students gives them a sense of satisfaction.

“The sense of satisfaction comes from my bond with the students. Because I dealt with adults whom people refer to as special. For a long time, I used the term special needs, and I meant the word special” (Safia)

3.3.2 Transactional Model of Stress and Coping

In addition to the PERMA model, the coping mechanisms used by the participant can also be explained using Lazarus' transactional model of stress and coping.

Emotion-Focused Coping. Emotion-focused coping is one of the coping methods used to deal with the challenges of teaching Down syndrome students. This includes methods like expressing feelings, as suggested by Wana: "Sometimes I also have a discussion with other teachers at my school. I would express my feelings to them."

Acceptance also helps Asiah in dealing with their challenges.

“So as a teacher, we must treat them as it is. We need to accept their needs. So even when I need to repeat things again and again, it is okay just do it.” (Asiah)

Problem-Focused Coping. To cope with the challenges of dealing with Down syndrome students, participants engaged in problem-focused coping strategies whereby the coping strategies are used to solve the challenges they faced. For example, Asiah, Wana, Salina, and Salma cope with the challenges of teaching Down syndrome students by utilizing teaching aids in class.

"Teaching aids are a need, and when we have things like LCD it helps a lot." (Asiah)

Participants like Wana, Salina, and Salma opted to give their students rewards or punishments to cope with their challenges.

"We always prepare rewards for them. What I mean is, if they manage to complete their task, then I would give them something as a reward." (Wana)

Hana and Safia believe that researching and gaining more knowledge helps them tackle their challenges. Hana noted, *"I need to research. Learn more. I always ask questions to therapists and people who are familiar with Down syndrome."* Discussing with the student's parents helps Wana, Safia, and Hana cope with the challenges. Wana mentioned, *"For me, what I always do is contact their parents. I would discuss it with their parents."*

Furthermore, Wana, Asiah, and Catherine also mentioned overcoming the challenges by doing class activities that the Down syndrome students can enjoy based on what they like. As Catherine suggested, *"...we need to understand what he likes, and based on what he likes, We follow through on his preferences to come up with some of the activities."*

Catherine finds that having a proper plan for what activities to do with her students can help her overcome the struggle. *"I need to plan. I mean, plan the activities. To prevent things from happening on that day."* Hana also found that intervention activities decrease the challenges. *"Now, after a year of intervention, I can see the progress."*

4 DISCUSSION

The discussion outlines special education teachers' knowledge of Down syndrome as well as the challenges and coping mechanisms of special education teachers working with Down syndrome students, connecting these findings to previous studies and relevant theories.

Participants demonstrate a comprehensive understanding of Down syndrome, describing it as a genetic condition known as trisomy 21, where extra chromosomes are produced on chromosome 21. This aligns with research of MacLennan (2019) and Roy (2020). They noted distinctive physical features such as slanted eyes, a flat nose, and tiny lips, making Down syndrome students easily recognisable. Additionally, they mentioned common cognitive limitations, linguistic deficiencies, and delayed development, consistent with findings by Almoghyrah (2021) and Patel et al. (2018). Participants also highlighted the higher risk of heart conditions of these students, as stated in MacLennan (2019) research. This finding shows that participants understand Down syndrome well, recognising its genetic basis and typical physical, cognitive, and developmental characteristics.

Behaviourally, most participants described Down syndrome students as loving and clingy, consistent with Carbone et al. (2023) findings. They also noted unpredictable behaviour and mood

swings, with students often showing obsessive behaviour towards things they like, similar to as reported by Neil and Jones (2016). Participants shared meaningful and positive memories with their students, reflecting on their close relationships and caregiving experiences, which left a lasting positive impact on them.

The study revealed several challenges faced by special education teachers when working with Down syndrome students in Malaysia. These Down syndrome students, who are regarded as special needs students, often have deficiencies in academic capabilities and low IQ, as mentioned by participants and supported by researchers like Almoghyrah (2021) and Patel et al. (2018). Participants reported the need for frequent repetition due to the students' mild to moderate intellectual disability and working memory deficiencies. Task avoidance and limited focus were also significant issues, aligning with findings by Patel et al. (2018) and Manshi et al. (2023), who noted Down syndrome children's shorter attention spans and restlessness. This finding indicates that special education teachers in Malaysia face significant challenges related to the academic and cognitive limitations of Down syndrome students.

Behavioural challenges were prominent, with participants describing Down syndrome students as often naughty, stubborn, and hyper, similar to findings by Razali and Ali (2016) and Ahammed (2021). Mood swings and attention-seeking behaviour also posed difficulties, as noted in studies by Ahammed (2021) and Carbone et al. (2023). Additionally, teachers struggled with students' clinginess and dependency, particularly in severe cases, requiring full guidance, as highlighted by Haydon (2018). Parents' high expectations further added to the teachers' burden, mirroring Ahammed (2021) findings. This finding reveals behavioural challenges from both Down syndrome students and their parents may impact the psychological wellbeing of special education teachers. The participants frequently reported emotional consequences, such as stress and frustration, consistent with prior studies by Razali and Ali (2016) and Kebbi and Al-Hroub (2018). Teachers also experienced anger when dealing with Down syndrome students, as supported by research from Sessiani and Syukur (2020). These findings suggest that, in addition to managing the emotional outbursts of Down syndrome students, special education teachers also need to face their own emotional challenges, including stress, frustration, and anger.

The present research also reveals that special education teachers face numerous challenges in teaching Down syndrome students but remain resilient through effective coping mechanisms, categorized using the PERMA Model by Seligman (2011) and the Transactional Model of Stress and Coping by Lazarus and Folkman (1984). The five components of the PERMA model apply to categorising special education teachers' coping mechanisms for dealing with their Down syndrome students. Participants experience happiness and joy in teaching, helping them stay motivated, aligning with Fu et al. (2021), which highlights that positive emotions enhance teachers' involvement and enjoyment in their work. They are fully engaged, showing dedication and passion for teaching Down syndrome students, aligning with the high work engagement described by Fu et al. (2021). Support from family, colleagues, parents, and school authorities helps participants cope with challenges, consistent with findings by Cancio et al. (2018) and Matthew (2020). Finding purpose in their roles, whether fulfilling an obligation or contributing to students' development, helps participants remain resilient, supported by research findings from Schippers and Ziegler (2019). Satisfaction from students' development and rewarding interactions contribute to teachers' wellbeing, as noted by Madeson (2022). The findings highlight that special education

teachers cope with the challenges of teaching Down syndrome students by finding joy in their work, maintaining passion, and relying on strong support networks. Their sense of purpose and satisfaction from student progress further enhance their resilience and overall wellbeing

Lazarus and Folkman's (1984) Transactional Model explains how teachers cope using emotion- and problem-focused strategies. Regulating emotions by expressing feelings to colleagues and accepting struggles helps teachers adapt, aligning with Brooks et al. (2022), who noted talking to friends and acceptance as effective strategies. Strategies like rewards and punishments, engaging activities, teaching aids, proper planning, and gaining knowledge help teachers manage challenges, supported by Ahammed (2021), Amjad and Muhammad (2019), and Zigmond and Kloo (2017). Interventions and discussions with parents also further aid in managing Down syndrome students. Both of these strategies were mentioned in Amjad & Muhammad (2019) research, in which they found that interaction with the parents and counselling sessions with Down syndrome students helped in dealing with Down syndrome students. These insights suggest that a balanced approach, including both emotional and practical strategies, is crucial for teachers to effectively handle challenges and sustain their wellbeing.

This study highlights that while special education teachers face significant challenges when working with Down syndrome students, they can maintain their well-being through effective coping mechanisms. The findings have important implications for the Malaysian special education system, guiding the Ministry of Education and private sectors to develop improved training programs that enhance both teacher skills and student learning outcomes. Additionally, these insights could boost job satisfaction and productivity among special education teachers, indirectly benefiting their students. The study also offers valuable lessons for future educators and raises societal awareness about the mental health of these teachers, advocating for increased support from families and the community.

Despite these insights, the study has limitations. The relatively small and homogeneous sample size may not fully capture the diversity of experiences among special education teachers. Expanding the number and diversity of participants in future studies could offer broader insights. Additionally, selection bias is possible, as those who volunteered for this study may have better well-being than those who did not. Future research should include teachers struggling more with their well-being to provide a more comprehensive understanding of the challenges faced in this profession.

The study also primarily focuses on the psychological well-being of special education teachers, yet it overlooks the significant role that teaching assistants play in supporting Down syndrome students. Teaching assistants often work closely with these students, who face challenges and demands similar to those of teachers, which can also impact their psychological well-being. Therefore, including teaching assistants in future research is essential to gain a more comprehensive understanding of the overall support system in special education settings.

In conclusion, special education teachers encounter a range of challenges while working with Down syndrome students, including academic difficulties, behavioural issues, and emotional stress. Despite these struggles, they find satisfaction and joy in their roles. Effective coping mechanisms play a crucial role in helping them manage these challenges and maintain their well-being.

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