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# Development of an Intervention to Foster Post-traumatic Growth and Perceived Social Support Among Economically Disadvantaged Students in Thailand: A Design-based Research Study

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## Abstract

**Background:** In Thailand, there is a lack of studies investigating the assistance provided for children who are economically disadvantaged. Therefore, in this study, we aimed to develop assistance specifically designed for economically disadvantaged students (EDSs) which takes into account both psychological and social dimensions.

**Methods:** We utilized a design-based research (DBR) approach for a study with 33 participants. The key participants consisted of nine Thai EDSs, aged between 13 and 15 with trauma resulting from emotional abuse by parents. Non-key participants consisted of twenty-four parents, peers, and teachers. The design involved two iterations in the design cycle.

**Results:** The completed intervention design consisted of nine sessions. Sessions 1 to 3 were conducted individually. Sessions 4 to 8 involved collaboration with parents, peers, and teachers. Session 9 was the summarizing session. Following the intervention, participants demonstrated notable improvements in their levels of EDSs' post-traumatic growth (PTG) and perceived social support (PSS).

**Conclusion:** The intervention fostered PTG and PSS among EDSs, thus demonstrating improved students' mental health and well-being. In addition, this innovation added to the body of knowledge which fosters PTG and PSS among EDSs and integrates psychological counseling and social work.

**Keywords:** Design-based research, Economically disadvantaged students, Intervention, Perceived social support, Post-traumatic growth

## 1. Introduction

Economically disadvantaged children tend to suffer traumatic events such as child abuse and an unsafe environment. Moreover, there are often family conflicts which result in domestic violence towards economically disadvantaged children, including sexual, physical, and emotional abuse, as well as child neglect [1]. Such violence eventually causes both physical and emotional damage to children [2]. Exposure to crises has a domino effect, causing traumas, and eventually post-traumatic stress disorder (PTSD) [3].

According to the 2013 education statistics of the Office of the Basic Education Commission (OBEC),

there were 4,585,207 Thai students who were economically disadvantaged. These disadvantaged students are in the education system, but are at high risk of dropping out of school. Such students need extra support, for example, for educational opportunities and basic necessities of life due to the economic status of their parents. This support will lead the economically disadvantaged students (EDSs) to have a better quality of life and academic achievement in the future [4]. Moreover, the information system for equitable education reported that economically disadvantaged Thai students faced severe family adversity. Between 2018 and 2019, the number of families experiencing economic dependence increased slightly from 1.27 million to 1.28

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million. Economic dependence was defined as having a family member who was economically disadvantaged and needed financial help. Reasons for being economically disadvantaged included being unemployed, disabled, a single parent, elderly, or having chronic disease. The adversity that economically disadvantaged students experienced had a detrimental effect on their mental health and well-being. Thus, it is important to help them in both psychological and social aspects [5].

A review of the related literature and studies showed that post-traumatic growth (PTG) enables an individual who has experienced traumatic events to embrace positive changes, to have a positive attitude towards his/her life, to have positive relationships with others, and to become optimistic [6–8]. However, PTG is merely a mental experience. It will be promoted and sustained better if an individual also perceives that he/she is receiving some social support, which is termed as “perceived social support” (PSS) [9]. In addition, PSS is a good indicator of the promotion of child development which focuses on holistic development incorporating both psychological and social dimensions [10]. Therefore, to foster PTG and PSS in children, a development program should apply a holistic approach or provide integrated assistance incorporating both psychological and social dimensions.

Social justice counseling is one approach that can be applied to help economically disadvantaged children. It involves the assistance emphasizing psychological, social, economic, and cultural conditions as well as changes of the society that marginalizes its individual members. Psychological and adaptation problems result from a lack of opportunity, human rights violations, and social discrimination. Social justice counseling is beneficial to human growth; it enables individuals to overcome challenges and difficulties in life [11]. According to the review of literature and studies related to social justice counseling, there are studies of counselors providing assistance to encourage social justice and empower economically disadvantaged populations [12–14]. However, there is a lack of clear practical steps and processes of assistance for economically disadvantaged populations. In the research literature, the provision of assistance for children and those for economically disadvantaged people are investigated independently in separate studies [15]. Thus, there is also a dearth of studies investigating the processes of assistance that is provided for children in the area of intersectionality, who experience the challenges of both a child and an economically disadvantaged person. In this study, the researchers aimed to

develop an assistance intervention which was specifically designed for EDSs that incorporated both psychological and social dimensions. The I-CARE Model [16] is a technique used in social justice counseling which integrates with ecological system theory – the life model of social work practice. It divides assistance at the micro and mezzo levels [17] and incorporates both psychological and social dimensions.

Many EDSs have undergone complex life experiences in which they have been abused and discriminated against because of social habits and culture. Consequently, EDSs almost always need specific types of help that can help them cope with their life's challenges and solve problems that happen in their daily life. This help could include training in academic, vocational, and financial management skills, development of problem-solving skills, and emotional support in everyday living. Therefore, any program to help EDSs should take into account their life experiences and personal characteristics to prevent them from dropping out of counseling before the sessions are completed. The researchers chose a design-based research (DBR) approach. DBR is a systematic methodology that is contextually appropriate to EDSs who have experienced traumatic events. For many EDSs, poverty has a direct effect on poor mental health and well-being. The researcher aimed to use a DBR approach to design an intervention that would foster PTG and PSS; such an intervention would serve the EDSs' needs and provide them with more effective assistance.

## 2. Method

### 2.1. Context of study

This study was conducted in the Suksa Songkhro schools, which were located in southern and northern Thailand. Suksa Songkhro schools are boarding schools which look after students 24 h a day and 7 days a week in open semesters. There are school and dormitory regulations that students must strictly follow. Additionally, their parents can visit the students on the weekend. Most parents of the students in poverty; having insufficient income is the primary reason some parents take their children to these schools.

The researcher conducted DBR composing of three phases: [18–20]

1. *The pre-intervention phase* involved an exploration of the EDSs' context to obtain information for the design of the intervention. In-depth interviews were conducted with the participants.

## 1.1 Participants

The study participants included:

1.1.1 Six Thai EDSs at one of the Suksa Songkhro Schools in Thailand, aged 13–15 years old and whose annual household income did not exceed 20,000 baht. The researcher used a purposive sampling method with the following inclusion criteria for student participants: 1) Experienced at least one traumatic event and suffered emotional abuse from their parents, 2) Had a total score of 30 or higher on a screening for traumatic symptoms, 3) Had average PTG and PSS scores ranging from 1.0 to 2.50 (lowest score range), 4) Was willing to participate in this study, 5) Was a student at one of the Suksa Songkhro Schools, and 6) Had a parent that was willing to participate in the study. If the parent of a student wasn't able or willing to join the study, the student was excluded from the study.

1.1.2 Six parents of Thai EDSs who perpetrated emotional abuse against EDSs and perceived traumatic events of EDSs affecting conflict in the family.

1.1.3 Six teachers of Thai EDSs who take care of the students in the dormitory during the school year.

## 1.2 Instruments

The study instruments included: 1) Screening for traumatic event perception [21]. 2) Screening for traumatic symptoms [22]. 3) Post-traumatic growth inventory (PTGI) based on the concept of PTG [23]. 4) Perceived Social Support Scale (PSSS) based on Child and Adolescent Social Support [24]. 5) Semi-structured interview protocols for the exploration of the EDSs' context. The questions for interviewing EDSs, parents, and teachers were categorized into three sections: The first section involved the questions about the traumatic experiences of EDSs. The second section involved the questions about how to overcome the challenges of EDSs. Third section involved the EDSs' needs for assistance.

## 1.3 Data collection

The researcher conducted interviews to find out about the EDSs' backgrounds. The information obtained from the interviews and literature review were then used in the design of the intervention. Afterwards, three experts validated and gave qualitative critiques of the intervention.

2. *The intervention phase.* In this phase, there were 24 participants. The researcher implemented the intervention with one participant group in one design cycle. Each participant group consisted of 12 participants, including three EDSs, three parents,

three teachers, and three friends of EDSs. This study involved two interactions in the design cycles. The participants in group 1 were from phase 1 and lived in a province in southern Thailand. Those in group 2 lived in a province in northern Thailand. The inclusion and exclusion criteria were the same as in phase 1.

3. *Evaluation and improving of the design phase.* In the evaluation and improving of the design phase, there were 24 participants from phase 2. After the intervention implementation with one participant group from phase 2 had been completed, the researcher evaluated and improved it until the intervention was contextually appropriate to the EDSs' context. For the evaluation, the researcher co-evaluated the intervention with the participants, one participant group per one design cycle.

3.1 *Instruments.* The instruments included: 1) Post-traumatic growth inventory (PTGI), 2) Perceived Social Support Scale (PSSS), 3) Post-intervention interview protocol.

3.2 *Data collection.* The researcher evaluated and reflected on the outcomes of the design according to the following criteria: 1) PTG and PSS were at a high level according to Kanjanawasee's criteria [25] and 2) No suggestions from participants on refinements to the intervention were made.

3.3 *Data analysis.* Researchers conducted a qualitative thematic analysis [26] for qualitative data. We also analyzed the means and growth levels for PTG and PSS scores following Kanjanawasee's Relative Gain Score criteria [25]. The three phases of DBR in this study are shown in Fig. 1.

## 2.2. Ethical considerations

This study was approved by the Institution of the Human Research Ethics Committee of Srinakharinwirot University (SWUEC/E/G-243/2563) on August 14, 2020.

## 3. Results

The researchers will describe the results of this study in 2 parts. First, we describe the outcomes from the design-based research (DBR) process for the intervention to foster PTG and PSS. Secondly, we explain the effects of the intervention on fostering PTG and PSS, which was the result of the implementation of the designed process. Consequently, the details for the results from the design process and implementing the designed process are as follows:

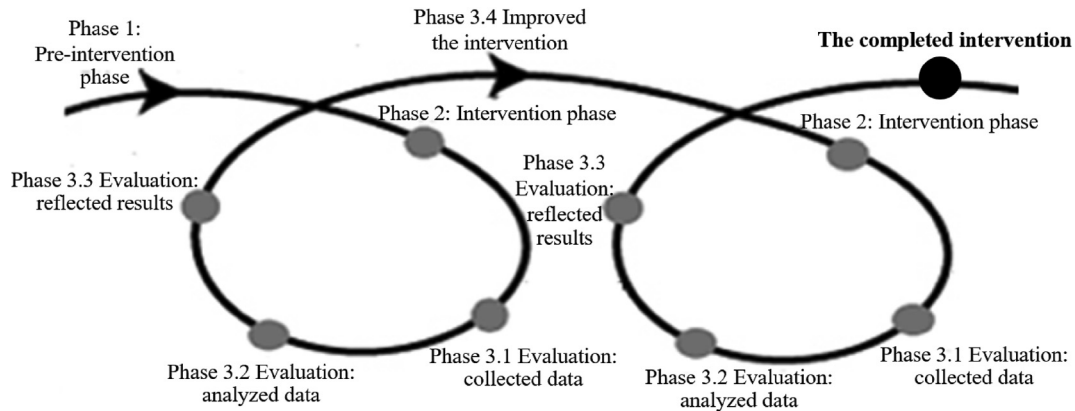


Fig. 1. Three phases of DBR.

### 1. Outcomes of the design of the intervention to foster PTG and PSS

The intervention consisted of nine sessions: Session 1 involved getting acquainted with the EDSs, showing care and attention to the EDSs, and helping the participants gain an awareness of their economic disadvantages. Session 2, “Orientation and building positive relationships,” involved working together to identify stressors, goals, strengths, and the EDSs’ resources and skills. Session 3, “Realization and adoption of new perspectives,” involved realization of economic disadvantages which deeply affected the EDSs and led to changes of their perspectives on traumatic events. These three sessions were conducted individually. Session 4, “Working with parents I,” involved understanding the causes and consequences of the EDSs’ problems in relation to their parents. Meanwhile, relationships between the EDSs and their parents were fostered. Session 5, “Working with parents II,” involved seeking solutions to the difficulties and problems the EDSs experienced while living at home and in a community, identifying strengths, seeking how to foster strengths, and providing feedback on areas of improvement to encourage the EDSs to work with their parents. Session 6, “Working with peers I,” involved collaboration with the EDSs’ peers to seek solutions to difficulties and problems the EDSs had experienced at school, to identify strengths, to foster strengths, and to provide feedback on areas of improvement which would enable the EDSs to work with their peers. Session 7, “Working with peers II,” included education in sexual behavior and reproductive health. Session 8, “Working with teachers,” aimed to seek solutions to difficulties and problems the EDSs had experienced while living at school, to identify and foster strengths, to provide feedback on areas of improvement for the EDSs to work on, and

to collaborate with the EDSs’ teachers on solving issues and facilitating coordination. Session 9, “Developments,” was conducted individually; it involved reviewing and summarizing the changes in the EDSs’ which followed from the intervention and applying what one had learned in daily life. Also, the staff performances were evaluated. Moreover, plans were made on solving the possible future problems of the EDSs.

We compared the outcomes of the intervention design process from different iterations aimed to foster PTG and PSS (Fig. 2). After the first iteration, we integrated the draft intervention with the information obtained from exploring the background of the Thai EDSs. After the second iteration, we re-designed the intervention in the light of implementing the intervention.

### 2. Effects of the intervention on fostering PTG and PSS

This study conducted two investigations on the effects of the intervention on fostering PTG and PSS which were implemented in the context of the EDSs studying in two schools located in different areas. The quantitative results were derived from calculating the Relative Gain Scores of both EDS groups with a total of six students. The results showed that the EDSs had high growth levels of PTG and PSS (Table 1).

The qualitative results for the participants in both groups (24 participants in total), including EDSs, parents, teachers, and peers yielded the following opinions on the intervention: The intervention provided good assistance. The number of group sessions was adequate. The assistance incorporated both psychological and social components. Parents and teachers wanted to use this intervention with other EDSs. Parents and teachers also reported that the EDSs had made positive changes. The



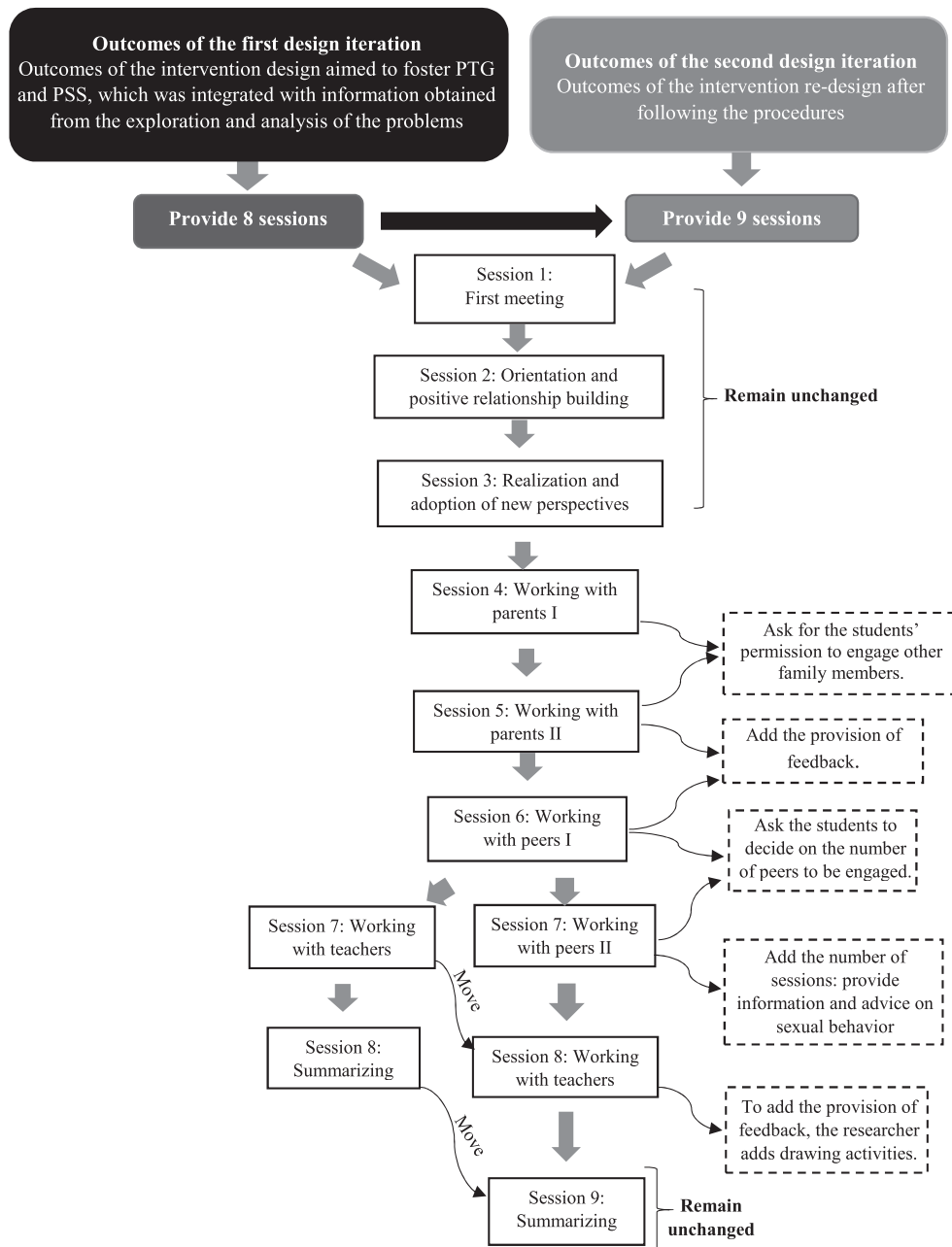


Fig. 2. The comparison between the first and second design iterations of intervention to foster post-traumatic growth (PTG) and perceived social support (PSS).

Table 1. Gain scores of Post Traumatic Growth (PTG) and Perceived Social Support (PSS) before and after intervention among Economically Disadvantaged Students (EDSs).

EDSs (Alias)/Group	PTG (Full score: 76)				PSS (Full score: 56)			
	Pre	Post	Gain score	Criteria	Pre	Post	Gain score	Criteria
Alice (Group 1)	35	75	97.5	Highest	24	51	84	Highest
Ivy (Group 1)	41	71	85.7	Highest	29	51	81	Highest
May (Group 1)	47	74	93	Highest	27	54	93	Highest
Meksai (Group 2)	41	75	97	Highest	27	52	86.2	Highest
Rainbow (Group 2)	43	71	84.8	Highest	32	51	79	Highest
Taewit (Group 2)	38	66	73.6	High	30	46	61.5	High

relationships between the parents and the EDSs had improved considerably and deepened. The EDSs improved their relationships with people close to them. Meanwhile, they were able to adapt better. They also exhibited positive behaviors such as good school attendance, nonaggression, and a volunteer spirit. They were more extroverted in their participation in school activities. Also, the EDSs had positive emotions. They had no intentions of self-injury or negative thoughts, which had been a problem before they participated in the intervention. Their perspectives on traumatic events were different from those in the past; they no longer perceived such events as serious. They had a purpose in life and wished to improve themselves.

Also, the students had experienced PTG which can be categorized into five subthemes:

- 1) *An appreciation of life.* The students perceived that they were worthy and important. They were open to opportunities and valued opportunities they were given.

“I feel lucky to have got to this point, although, in the past, I had a bad time. I used to think that I should never have been born. When I did something wrong, when I was in trouble, I felt I should never have been born. I’m the eldest daughter. I made my mom sad. Then, I came to my senses, and found that life is worth living so I must do my best .... Also, I feel lucky to be able to talk to someone about it and to realise how lucky I really am. I had some bad experiences, I went through a lot of problems, I went through so many things. When facing any problem, I can fix it. How lucky we are to be born in one piece, not like others. It’s lucky that our family has stayed together, and not broken up.” (Ivy, EDS, group 1)

- 2) *Perceiving a new life path.* The students lived a positive life, which was different from what they had experienced in the past.

“But, since having counseling, her behavior has improved and now she helps others out at the dorm. She has become more self-assertive, and in class. For example, when she was assigned to give a presentation in front of the class, she was confident to do it. She’s not shy or embarrassed, so she has become a more confident person.” (Meksai’s teacher: Participant, group 2)

- 3) *Personal strength.* The EDSs’ strength increased. They learned how to cope with problems and regulate their emotions. They became more

assertive to protect their own rights. They felt that the traumatic events in the past were not so serious to them.

“Earlier, I never cared about mom. But when I listened to what she said, I knew she was warning me and that she didn’t intend to blame me for this and that. So, it changed me, she encouraged me to do better for myself. She just said ‘Don’t behave like that.’ My views have changed now, I know my mom loves me. Before, it never crossed my mind that she loved me. I’ve come to my senses, and that’s because mom cares about me. I never thought that this would happen.” (Alice: EDS, group 1)

- 4) *Relationships with others.* The students expressed their love for their families and wanted to spend more time with them and the people close to them. They had better manners, were more lovable, had a volunteer spirit, and helped their friends who had problems regarding similar traumatic events and other issues.
- 5) *Changes in spirituality.* The students found new and different meanings in their lives.

“Now, I see myself as a sunflower because it can tolerate the sunlight, and be patient and strong. Now, I feel that I’ve grown up, I’m stronger ... than in the past, when I thought too much about my problems and had no one to share them with ... now, I go to the temple more often, and I feel better when I go there. When staying at the dorm, I pray more often before I go to sleep to relax and sleep well ... In the past, I skipped classes and I didn’t hand in my assignments; I just lived from day to day. I didn’t care if I got bad grades! But now I have goals, I want to finish school, have a future and make myself happy, and be able to help my family. I will pay attention to my studies and study hard. I want to be a soldier to serve society.” (May: EDS, group 1)

In addition, the students had experiences of PSS which can be categorized into three subthemes:

- 1) *Perceived emotional support.* Students experienced love from people close to them. They experienced tender loving care from their families, peers, and teachers.

“I could tell from my Mom’s actions that she loved me. And, mom also told me she loved me.” (Rainbow: EDS, group 2)

- 2) *Perceived instrumental support.* Students experienced tangible support, services, and basic needs assistance from people around them.

“The teacher helped me with my work. I got to know that she loves me, wants me to earn more money, and help my mom. She has talked to the other teachers about improving my zero grades. I got to know that she loves me, she asked about me, and that encourages me to study, focus on studying, and try to finish school. Sometimes, it moved me to tears because she asked about me. In the past, no one asked about me as much as Kru Tar did.” (May: EDS, group 1)

- 3) *Perceived informational support.* Students perceived that they had received useful information for their everyday lives.

“Any knowledge, we learn, whether it is nursing or vocational training, we get to learn basic knowledge about it. If we want to be a nurse, what subjects should we take? Which major should we take? How can we prepare for the entrance exam? Is there a height requirement? We must learn about helping our families, about protecting ourselves when we have a boyfriend, and about studying, and how to make a study plan.” (Ivy: EDS, group 1)

#### 4. Discussion

After refining the intervention design based on DBR, the intervention was appropriate to foster PTG and PSS among EDSs. Overall, the experts provided the following judgements about the intervention. The purposes were relevant to the selected variables. The concepts, techniques, and intervention were applicable to foster PTG and PSS among EDSs. They incorporated both psychological and social support. The learning media contained clear information. The positive feedback about the intervention might be due to the fact that the researcher systematically designed the intervention according to the DBR phases. The DBR phases were extracted from the concepts of Gravemeijer & Cobb [18], Amiel & Reeves [19], and Plomp [20] in order to obtain a fully developed intervention applicable to the background of the EDSs.

The researcher designed the intervention based on an integration of counseling psychology science, including social justice counseling within the I-CARE Model framework, and social work science, including the ecological theory – the life model. The

intervention involved two iterations to refine the design, so that the final design matched the target groups' needs [27–30]. It was essential that the design of the assistance intervention for the EDSs with exposure to traumatic events matched their needs. This is because poverty has a direct effect on poor mental health and physical well-being. People living in poverty normally exhibit twice as much stress as the general population. The assistance provided for this population must match their needs by increasing the intervention's effectiveness [15]. The first intervention consisted of eight sessions. After refining it according to the suggestions, the second one consisted of nine sessions: Sessions 1–3 and 9 remained unchanged while Sessions 4–8 were refined according to the participants' suggestions. Also, one session was added: Session 7, “Working with peers II,” involved information about sexual behavior, pregnancy prevention, and sexually transmitted diseases. Session 7 aimed to assist in solving the EDSs' difficulties and problems with sexual and reproductive health because they lacked a proper understanding of these issues. It was also aimed to reduce teen pregnancy and emotional abuse in the family, which could eventually cause traumas. These details are consistent with the studies conducted by Baumer and South [31], Cubbin, Brindis, Jain, Santelli & Braveman [32], and Juma, Alaii, Bartholomew, Askew & Van den Born [33]. These studies all stated that being an EDS was likely to result in undesirable sexual behavior such as early sexual intercourse, multiple sexual partners, and unprotected sex. The lack of understanding about these issues poses a risk of school-age pregnancy and sexually transmitted diseases, which effect the students' daily lives. For example, a teenage parent might need to drop out of school early before graduating. Health problems could develop if students do not receive proper medical treatment for sexually transmitted diseases. Also, they might have conflicts with their parents or teachers; they might be blamed by their parents or teachers, which could eventually cause traumas. According to the Child Multidimensional Poverty in Thailand Year 2021 Report [34], the rate of teen motherhood among EDSs in Thailand was high because the EDSs lacked a proper understanding of sexual behavior. Thus, the provision of information and advice on sexual behavior, pregnancy prevention, and sexually transmitted diseases is necessary for the EDSs.

The researcher designed the intervention to be flexible enough to serve the students' needs. Prior to the start of the session, the student participants were asked whether they were willing to allow their family members and peers to be involved. Some



EDSs wanted to engage additional family members and peers in their respective sessions. This is consistent with the ecological system theory; in this theory, the life model states that working with clients within their environment such as parents, family members, and peers will enable the clients to better identify their strengths, resources, and skills as well as facilitate them in solving the problems together [17]. Sessions 4 and 5 involved working with parents. Sessions 6 and 7 involved working with peers. Provision of feedback was added to Session 5, Session 6, and Session 8 according to the participants' suggestions on sharing the feedback. The provision of feedback was aimed to inform the EDSs about the areas in which they needed self-improvement and to foster personal growth. This is consistent with Hackney [35]'s study which states that EDSs generally lack good support, which results in the following conditions: poor cognitive development, poor physical and psychological well-being, and the lack of opportunity for self-improvement. Thus, the feedback provided by people close to the EDSs is necessary for facilitating positive changes in them.

The intervention based on the DBR approach effectively fostered PTG and PSS. One reason for the intervention's effectiveness was that the design was built on the framework of the I-CARE Model. The I-CARE Model included a component in which the participants acknowledged their realities. At the same time, the technique of narrative theory was also included; this theory resulted in mapping the effects of the problem (narrative therapy) [36]. The students identified several types of social oppression and self-blame which contributed to their psychological distress. Through group dialogue, the students were encouraged to talk about perceiving themselves as individuals suffering from poverty who were powerless and unable to change their circumstances. This helped them to understand the consequences of poverty and traumatic events regarding the effects on the students' relationships, studies, health, perceived abilities, and overall well-being. The students were interested and they hoped to improve themselves because they were now aware of the consequences of the situation in which they found themselves. Also, this experience changed their attitudes towards traumatic events so they came to view their problems as valuable; students began to see how traumatic events could offer them a new understanding of their problems, which led to PTG. This is consistent with other studies which applied the narrative theory for promoting PTG among groups of people who had suffered

traumatic events [6,37,38]. The intervention also included a strength-based approach which involved working with the students' parents, teachers, and peers. It was aimed to enable the students to identify their strengths, discover practical solutions, and learn how to foster their strengths and to find alternative ways of living (e.g., activities, interests, hobbies contributing to self-development). This experience would make them stronger when dealing with their problems and help them to embrace changes in spite of suffering traumatic events and gaining PTG. Moreover, the intervention included social support techniques which aimed to remove barriers to help them with emotional and instrumental support. They were provided with emotional support, services, as well as necessary resources, information or advice to solve their problems. Such social support provision increased the students' PSS, reduced negative emotions, and promoted problem-solving skills. PSS strengthened the relationships between the EDSs and people close to them such as parents, teachers, peers, researchers, and staff teachers (i.e., teachers who delivered the intervention). This is consistent with several studies which found that the provision of social support increased positive PSS among people who were facing traumatic events [39–41].

Moreover, the intervention effectively served the students' needs. The students could maintain a balance between self and the environment, deal with problems, adapt well to daily life, and pool their available resources to solve problems and improve relationships with people close to them. The application of the ecological system approach in clinical settings with students and families and using counseling practices enabled the students to improve their potential. These practices gave them a sense of purpose and the motivation to change themselves. The EDSs also adapted to their environment and learned to be satisfied with their lives [42]. The intervention was designed to be consistent with a toolkit called Helping Adolescents Thrive (HAT). HAT has concepts for facilitating mental health and the wellbeing of youth. Individuals, families, and communities need to design care systems that give EDs the information and skill-building knowledge they need [43]. It is also helpful to take into account the sociocultural context that EDSs experience. Assistance based on the ecological theory facilitated changes within both individuals and society, as well as emphasized children's empowerment. This strategy brings about long-term beneficial effects and improves their quality of life [44].

## 5. Conclusion

This study aimed to develop an intervention to promote PTG and PSS among Thai EDSs through a DBR approach. The results of this study fostered PTG and PSS among EDSs, assisted in the reduction of social inequality, and improved students' mental health and well-being. In addition, this innovative intervention added to a body of knowledge to foster PTG and PSS among EDSs by integrating psychological counseling science (i.e., social justice counseling within the I-CARE Model framework) and social work science (i.e., the ecological system theory, the life model), which is relevant to the Thai EDSs' background.

### 5.1. Limitations

This intervention in the study was developed for EDSs who attend Suksa Songkhro schools. It helping them by working at the school level. However, in order to implement the intervention to EDSs who go to ordinary schools, this intervention would need to be appropriately adjusted. Important people in the EDSs' lives such as parents, teachers, and their friends can be invited to participate in the intervention. Furthermore, for students that attend ordinary schools, any teacher who is close to the children or trusted by them can also be involved in the intervention and provide help.

## 6. Recommendations

### 6.1. Research implications

The protocol on the intervention to foster PTG and PSS among EDSs was developed. The intervention was contextually appropriate for EDSs who had suffered from traumatic events resulting from family conflicts in which parents inflicted emotional abuse on their children. This intervention was carried out among two groups of EDSs living in different areas of Thailand. The intervention was found to successfully foster PTG and PSS among EDSs.

### 6.2. Recommendations for future research

The intervention developed in this study was appropriate to the EDSs who study at boarding schools. Future researchers should expand on the results of this study by further developing interventions to give support to the EDSs who attend regular schools or other populations of economically disadvantaged adolescents.

## Notes on contributors

This study is part of student's dissertation.

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## Conflict of interest

The authors declare that there was no conflict of interest.

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No additional information is available for this paper.

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