



EXPLORING RESILIENCE DEVELOPMENT AMONG TVET STUDENTS: A SYSTEMATIC RAPID REVIEW

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Abstract:

This narrative Systematic Rapid Review (SRR) synthesises empirical evidence on resilience, psychological well-being, and protective factors among youth and students in educational and training settings. Twenty-two Scopus-indexed studies published between 2021 and 2025 were systematically identified and screened using defined inclusion and exclusion criteria. Findings indicate that resilience functions as a dynamic psychological process, influenced by both internal and external factors. In addition, personal strengths such as optimism, coping ability, emotional regulation, and self-efficacy consistently supported students' persistence and well-being, while social supports from family, peers, and institutions enhanced adaptive capacity. Furthermore, intervention-based studies, including mindfulness, social emotional learning, and counselling programmes, demonstrated measurable improvements in resilience and psychological adjustment. However, limited evidence exists within Technical and Vocational Education and Training (TVET) contexts, despite the growing recognition that vocational students must adapt to the Volatility, Uncertainty, Complexity, and Ambiguity (VUCA) of modern work environments. Within this setting, resilience is increasingly viewed as a trainable soft skill essential for employability, lifelong learning, and mental health. Accordingly, future research should examine how resilience develops through training, experiential, and psychosocial dimensions of the TVET system.

Keywords:

Resilience; Psychological well-being; Protective factors; Technical and Vocational Education and Training (TVET); Students; Systematic Rapid Review

Introduction and Scope

Resilience has gained increasing attention in recent decades as a key psychological and social construct in understanding how young people adapt positively despite adversity. It is commonly described as the capability to withstand challenges, recover from setbacks, and continue progressing towards personal goals despite difficult circumstances (Masten, 2021; Ungar, 2019). Rather than a fixed trait, resilience is a skill that may be developed, as well as strengthened through experience and training (Leys et al., 2019; Masten, 2021; Ungar, 2019). In youth development, it often represents the quality that distinguishes persistence from withdrawal and thriving from vulnerability.

In Malaysia, where approximately 6.1 million youth contribute to the nation's human capital, educational inequality continues to impact their educational opportunities and psychological well-being (DOSM, 2023). However, many of these youth face unstable financial difficulties, family dynamics, and limited access to supportive learning environments, which place them at risk of school dropouts and social exclusion. Although a considerable proportion of vocational students come from socioeconomically challenged backgrounds, the psychological processes that enable them to adapt and thrive within training environments remain insufficiently understood (Schmid & Haukedal, 2022).

Technical and Vocational Education and Training (TVET) has been recognised as an essential pathway that equips students with both occupational and adaptive competencies. The structure of learning is to ensure that students can meet the skills needed in the workforce. Despite this, vocational students often struggle to navigate the Volatility, Uncertainty, Complexity, and Ambiguity (VUCA) of the modern world, requiring them to become more adaptive and emotionally competent learners (Rahayu et al., 2024; Gideon, 2023). Increasingly, resilience is viewed as a core soft skill vital for employability and lifelong learning, yet it remains insufficiently developed among TVET graduates (Wheelahan & Moodie, 2017; Paryono, 2017).

In addition, the TVET has been positioned by policymakers as a strategic pathway to reduce inequality and support sustainable livelihoods, aligning with the aspirations of the Sustainable Development Goals (SDG 1 and SDG 4) and national strategies such as TVET Madani and the Dasar TVET Negara 2030. While resilience research has expanded across education and psychology, much of the focus has been on general schooling and higher education contexts. Still, the development and experience of resilience among students, particularly in TVET settings, remains underexplored. Moreover, the limited evidence on how protective factors operate in vocational contexts creates a knowledge gap that needs to be addressed. This Systematic Rapid Review (SRR) therefore aims to synthesise existing literature on resilience among youth in educational and training contexts, with emphasis on vocational pathways. The guiding research question is:

RQ: What protective factors contribute to the development of resilience among students in TVET?

Literature Review

Resilience has long been recognised as a notable quality that enables individuals to recover, adapt, and grow through adversity. Anchored in Bronfenbrenner's Ecological Systems Theory (1979) and Ungar's Socioecological Model of Resilience (2011), scholars have described

resilience as both a process and an outcome, emphasising that it develops through continuous interaction between individuals and their environment (Ungar, 2012; Masten et al., 2003). In the educational context, this interaction becomes especially significant for students who encounter various life challenges and limited resources. According to Wang and Gordon (2012), educational resilience reflects the likelihood of academic success despite adversities shaped by social or environmental conditions. In this sense, resilience is an internal trait and a capability that can be nurtured through external protective factors such as family support, positive peer relationships, and a nurturing school climate (Lie et al., 2018; Schwarze & Wosnitza, 2018).

Research on educational resilience suggests that individual traits such as optimism, emotional regulation, and problem-solving skills are essential in sustaining academic engagement (Yule et al., 2019; Luthar et al., 2000). These attributes also align with the Positive Psychology Framework (Seligman, 2011), which emphasises the development of personal strengths that contribute to well-being. However, these internal qualities often flourish in supportive environments where families, schools, and communities provide encouragement and opportunities for growth (Subra et al., 2019; Holz et al., 2020). Studies further indicate that parental involvement and teacher-student relationships foster self-efficacy and persistence, which are essential in building resilience (Tudor et al., 2020; Salvo-Garrido et al., 2021). Building on this, cultural and socioeconomic contexts may shape how these supports are experienced and interpreted, suggesting that resilience cannot be universally defined. Instead, it must be understood within its local setting (Ungar, 2012; Ramlan & Ahmad, 2023).

In Malaysia, research on resilience in vocational or technical education remains limited. While studies highlight the role of family, school, and peer systems in strengthening resilience (Zainal Abidin, 2019; Sulong et al., 2020), few have explored how these factors interact within the TVET context. Hence, a focused examination of resilience among students in vocational training is necessary to identify protective conditions and strategies that help them adapt, thrive, and prepare for employability in changing socioeconomic realities.

Taken together, these perspectives offer the foundation for this review. Bronfenbrenner's ecological systems theory positions the student within interconnected settings such as family, peer groups, and the training institution, each shaping their capacity to adapt. Ungar's socioecological model extends this idea by highlighting how youth draw upon available resources in their surroundings to manage challenges. Meanwhile, the Positive Psychology perspective provides insight into how inner strengths, such as self-regulation and optimism, support adaptive functioning. Using these three lenses together enables this review to interpret resilience not as a single factor but as a dynamic process shaped by individual, relational, and institutional influences. Figure 1 provides an overview of conceptual framework of resilience dimensions.

Conceptual Framework of Resilience Dimensions



Figure 1: Conceptual Framework of Resilience Dimensions

Methodology

This review adopted an SRR approach, guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) approach, with slight modifications to suit the limited time frame of the study. The SRR design was selected to balance methodological robustness with time, ensuring that the review will be completed within a shorter timeframe (four to twelve weeks) to achieve the study's conceptual framework and the following phases (Tricco et al., 2017).

In this review process, the SRR streamlines several steps. This contrasts with the Conventional Systematic Review (CSR) approach. It involves comprehensive steps, including exploring the databases, dual-reviewer screening, extensive critical appraisal, and meta-analysis, which typically take a longer duration of six months to two years (Higgins et al., 2022). This review will focus on a single, high-impact academic database, Scopus, due to its extensive coverage of peer-reviewed literature in the fields of Education, Psychology, Social Sciences, and related areas. Thus, for this SRR, the Scopus database was considered sufficient for capturing relevant literature in line with the RQ.

Given the conceptual and methodological diversity of the included studies, a narrative synthesis approach was employed rather than a meta-analytic technique. This allowed the incorporation of both quantitative and qualitative findings, summarised in narrative and tabular forms to highlight recurring patterns, thematic relationships, and research gaps (Hamel et al., 2021; Khangura et al., 2012). Additionally, the screening process will be conducted by a primary reviewer and verified independently to ensure accuracy, and a simplified quality appraisal tool will be applied, followed by a narrative and tabular synthesis (Hamel et al., 2021; Khangura et al., 2012). While Systematic Literature Reviews (SLR) also use structured methods, they primarily map conceptual literature and are less suited for generating decision-oriented evidence (Tricco et al., 2015). Notably, the SRR process aligns with the PRISMA guidelines for transparent reporting of the search strategy, inclusion criteria, study selection, and synthesis (Higgins et al., 2022). Figure 2 provides an overview of the article selection process.

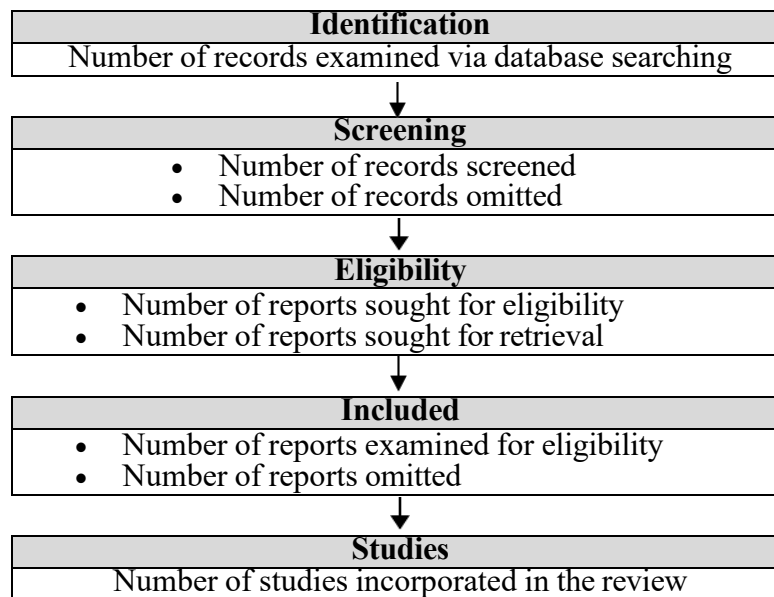


Figure 2: Flow Diagram of Article Selection

In this study, the SRR approach employed the PRISMA to ensure transparency and consistency in the selection of studies (Page et al., 2021), emphasising methodological transparency, timeliness, and adaptability to limited resources. In line with this, the search string combined four major concepts: resilience, protective factors, youth, and TVET. The combination of Boolean operators (AND/OR) and Truncation symbols (e.g., resilien*) were used to increase the sensitivity to related terms (such as resilience, resilient, resiliency). The final search was conducted on 22 September 2025, on Scopus, with a clearly defined search string applied:

(TITLE-ABS-KEY (resilien OR "academic resilien*" OR "psychological resilien*" OR "educational resilien*")) AND (TITLE-ABS-KEY ("protective factor*" OR "supportive environment*" OR "coping skill*" OR "psychological well-being" OR "mental health" OR "social support" OR "adaptive capacity")) AND (TITLE-ABS-KEY (youth OR adolescen* OR student* OR trainee* OR "young people")) AND (TITLE-ABS-KEY ("vocational education" OR "vocational training" OR "skills training" OR TVET OR "technical and vocational education and training" OR "technical vocational education and training"))*

The initial search (2016-2025) yielded 63 peer-reviewed journal articles, providing a decade overview of resilience and related research in educational and training contexts. Following this, an inspection of annual publications revealed a steady upward trend, with the highest number of studies in 2024 (n = 18), indicating increasing attention to psychological well-being and adaptation among students and trainees. Note that the publication year was limited to 2021-2025 to observe recent developments about the issue, which produced 31 records. This period reflects a post-pandemic surge in studies addressing psychological resilience, coping, and adjustment within learning environments. Subsequently, the dataset was refined by restricting the subject area to Psychology and Social Science, in line with the SRR's objective to explore the psychological dimensions of resilience among youth. This yielded 22 empirical articles that met the inclusion criteria: (i) published in English; (ii) peer-reviewed empirical research; (iii) focused on resilience, coping, or protective factors; and (iv) involving youth, students, or trainees within educational or training contexts. Ultimately, the final 22 articles formed the

basis for synthesis and were organised in a summary matrix that outlined the authorship, publication year, country, research design, sample characteristics, and key findings.

This multi-stage screening process, guided by the PRISMA protocol (Page et al., 2021), ensured both methodological robustness and relevance through clearly defined inclusion and exclusion criteria, aligning with the rapid review principles of clarity, focus, and efficiency (Haby et al., 2016; Tricco et al., 2017). Table 1 summarises the exclusion and inclusion criteria regarding article selection.

Table 1: Summaries of the Inclusion and Exclusion Criteria for Article Selection

Component	Inclusion Criteria	Exclusion Criteria
Population	Youth, adolescents, students, or trainees enrolled in educational or vocational training institutions.	Non-teaching populations, e.g., working adults, teachers, parents, or industry employees.
Phenomenon of Interest	Studies that measure or qualitatively explore resilience, psychological resilience, academic resilience, or educational resilience, with the emphasis on coping, protective factors, or psychological well-being.	Studies focusing on unrelated constructs (e.g., intelligence, personality, motivation) without reference to resilience.
Context	Formal educational settings (e.g., schools, colleges, universities, technical/vocational institutions); any delivery format (in-person, online, hybrid)	Informal settings (e.g., museums, healthcare, corporate or clinical contexts).
Subject/Area of Focus	Indexed under Psychology or Education (focusing on psychological or behavioural constructs).	Studies from other fields (e.g., engineering, economics, medical) not centred on psychological resilience.
Study Design	Empirical studies only: quantitative (e.g., regression, SEM), qualitative (e.g., interviews, observations), or mixed-methods research.	Theoretical/conceptual papers, literature reviews, editorials, commentaries, and other non-empirical formats.
Publication Type	Peer-reviewed journal articles and full conference papers with complete data and methodology.	Abstract only (publications, posters, book chapters, dissertations).
Language	English only	Non-English publications
Time period	2021 to 2025	Articles outside the time-period

Result and Discussions

The Table 2 below outline 22 empirical studies published between 2021 and 2025 that examined resilience, psychological well-being, and related protective factors among students and youth in the context of education and training. From the overall studies, several clear patterns were identified. Intervention studies typically reported improvements in emotional regulation, coping skills, and short-term coping outcomes. Studies focusing on personal characteristics emphasize the role of optimism, self-efficacy, and cognitive flexibility in helping students cope with challenges, while research on social contexts emphasised family relationships, peer support, and the broader learning environment as important factor in

resilience building. These patterns guided the following sections, which discuss the main themes (1) individual psychological strengths, (2) social and institutional protective factors (3) structured interventions and programmes and implication for TVET and policy.

Table 2: Articles Obtained from Scopus

Author & Year	Country	Title	Key Findings
Villarreal et al. (2021)	United Kingdom	Feasibility, acceptability and effect of the mindful practice curriculum in postgraduate training of general practitioners	The inclusion of a mindful practice curriculum makes a big difference in terms of improvements in well-being, resilience, and stress management among trainees. Participants reported enhanced mindfulness and reduced emotional exhaustion, confirming the programme's feasibility and perceived value. However, limited participation indicated a need for strategies to improve engagement and long-term implementation.
Wu et al. (2021)	China	The associations of executive functions with resilience in early adulthood: A prospective longitudinal study	Higher executive functioning was significantly related to greater resilience over time, with bidirectional links identified between executive subdomains and resilience. The findings suggest that strengthening cognitive flexibility and self-regulation may enhance resilience. Due to single-site and self-report design, study results may not be applicable for all.
Pierce et al. (2021)	United States	Resilience for the rocky road: lessons learned from an educational program for first year collegiate student-athletes	A resilience-based educational programme enhanced student-athletes' coping abilities during the transition to university life. Participants are more aware of their potential and receive support from peers. Study shown that early intervention during transitions period helps in managing academic, athletic, and social stressors.
Curran et al. (2021)	United States	Associations between mother-child communication apprehension, and Young Adult Resilience, depressive symptoms, and self-esteem	Communication apprehension within families was linked to poorer psychosocial outcomes among young adults. Higher maternal apprehension predicted greater communication difficulty in children, which in turn was associated with lower resilience and self-esteem, and higher depressive symptoms. The study highlights the importance of communication skill-building to support family mental health.
O'Sullivan et al. (2021)	Ireland	Decider Life Skills training as	The Decider Life Skills programme was effective in equipping student nurses with

		a method of promoting resilience with mental health student nurses on clinical placement	practical coping and emotional regulation tools. Participants found the skills useful for both professional and personal level, reporting better self-care and mindfulness. The programme help to enhance psychological resilience during stressful clinical placements.
Schwartz et al. (2022)	Switzerland	Feasibility and relatability of cultural adaptation amongst conflict-affected populations	Cultural adaptation greatly increased the involvement and importance of the START NOW intervention for migrating teens. The study utilised community-informed content testing to identify characters and narratives that more accurately represented participants' life experiences, hence improving relatability and skill acquisition. The study showed a way to change evidence-based programs so that they work for groups that speak different languages and come from different cultures.
Martinez Jr et al. (2022)	United States	Effects of dialectical behavioral therapy skills training for emotional problem solving for adolescents (DBT STEPS-A) program of rural ninth-grade students	The curriculum effectively enhanced students' social resilience and emotion regulation in a rural school context. Participants in the treatment group reported improved understanding and application of emotional problem-solving skills. The programme's school-based, preventive approach showed positive for large-scale social-emotional learning initiatives.
Tidmarsh et al. (2022)	United Kingdom	Assessing the fidelity of delivery style of a mental skills training programme for young people experiencing homelessness	Result shown improvement in young people's resilience and well-being. Key enablers such as staff training, communication, and organisational support, while logistical and behavioural challenges posed barriers were being identified. Study also show that community practitioners can effectively implement psychologically informed programmes for marginalised youth.
Lee et al. (2023)	United States	The effectiveness, acceptability, and sustainability of a 4-week DBT-informed	The programme, in the form of group therapy, brings positive impact to psychological resilience, mindfulness, and emotion regulation among college students. Participants maintained improvements at follow-up, demonstrating the intervention's sustainability. The programme's time-

		group therapy in increasing psychological resilience for college students with mental health issues	efficient and cost-effective structure makes it a practical option for university counselling services seeking to strengthen student resilience.
Fakkel et al. (2023)	Netherlands	Decline in positive future orientations among adolescents during covid-19: The role of socioeconomic status, parental support, and sense of control	The study found that while socioeconomic inequality in adolescents' sense of control and future orientation remained stable during COVID-19, parental support gaps were reduced. A heightened sense of control was associated with more optimistic perspectives, emphasizing agency as a protective factor. Both short- and long-term interventions are required for adolescents from lower social economic background to reinforce support.
Solberg et al. (2023)	Norway	Scoping review of positive mental health research for students in vocational education and training	The study reveals that positive mental health among vocational students was most often examined through dimensions of well-being, resilience, and quality of life. A supportive school environment, physical activity, and a strong vocational identity were frequently associated with better outcomes.
Zaker et al. (2024)	United States	Integration of equine assisted services and social-emotional learning: A preliminary evaluation of a life skills training program for at-risk youth	The programme led to reductions in stress, emotional pain, and other distress indicators, with some reaching statistical significance. Its home-based structure made it accessible and affordable for at-risk youth. In general, the results show that emotional control and resilience became better while depression and anxiety got better after the intervention.
Ceballos et al. (2024)	United States	Denial, attention-seeking, and posting online while intoxicated: Three key predictors of collegiate sadfishing	The study found that college students who used denial, attention-seeking behaviour, and posting while drunk were more likely to sadfish. The findings indicated that poor emotional regulation and poor coping abilities contribute to online distress expression, highlight the need for treatments in digital literacy and coping skills.
Csirmaz et al. (2024)	Hungary	A Home-based approach to	The REST-TA online intervention significantly reduced test anxiety and

		reduce test anxiety using a combination of methods: A randomised controlled trial	improved resilience compared with controls. Participants in the intervention group-maintained well-being, while the control group reported increased anxiety and burnout. The findings highlighted the scalability and accessibility of low-cost digital resilience programmes for university students.
Chye et al. (2024)	Malaysia	Building resilience among undergraduate health professions students: identifying influencing factors	Life experiences, socioeconomic background, personal attributes, support resources, and role modelling were found to shape student resilience. Mentoring, soft skills, and workplace-oriented learning are effective ways to help health professions students become ready for employment and improve emotional well-being.
Bendeck et al. (2024)	United States	Life after foster care: The importance of human and social capital for post-emancipation outcomes	Study revealed that former foster youth experience adverse outcomes in education, employment, housing, and mental health due to instability and lack of mentoring during care transitions. Training in life skills and regular support from adults are both very important for building resilience and improving the paths people take after they leave home.
Ciff et al. (2024)	Netherlands	Whether and how coaching for mental health and well-being should be offered in post-Covid-19 pandemic Dutch higher vocational education: coaches' perceptions	Coaches reported high awareness of student mental health issues but felt they lacked the skills to provide adequate support. Female coaches showed higher perceived awareness, and those with 5–25 years of experience noted clear training gaps. Face-to-face, on-request support was preferred, alongside clearer boundaries between coaching and specialist services.
Lokman et al. (2024)	Malaysia	Teleworking and Psychological Well-being: Insights and Applications for TVET	Resilience, time management, and technological competency were recognised as fundamental factors influencing psychological well-being in teleworking settings. The study suggested a conceptual framework connecting these variables to preparedness for hybrid and remote employment. It also suggested that TVET schools use mentorship, therapy, and

			relationships with employers as ways to help students become more flexible and improve their mental health.
Glaser et al. (2024)	Israel	The effects of the Friendship Online Intervention Program on physical activity, substance abuse, psychosomatic symptoms, and well-being among at-risk youth	Study shows that vocational students at risk who took part in the online Friendship Programme are more active, reduced smoking and less likely to have psychosomatic symptoms. The findings emphasised that peer-driven, technology-facilitated treatments can significantly enhance resilience and foster well-being among at-risk youth.
Côté et al. (2025)	Canada	Adverse childhood experiences and trauma symptoms in maltreated children: The role of child and caregiver protective factors	The study found that personal protective factors such as peer support, internal control, and future orientation moderate the negative effects of adverse childhood experiences on trauma symptoms. Caregiver factors, although beneficial, did not significantly improve outcomes. These findings highlight the importance of fostering intrapersonal and interpersonal skills in trauma-informed care.
de Vries et al. (2025)	Netherlands	Social contexts of isolation, vulnerability, and resilience among minors with experiences of commercial sexual exploitation in the Netherlands	Minors who experienced commercial sexual exploitation frequently expressed feelings of loneliness and instability in familial and peer connections. Supportive relationships among school, family, and service networks were identified as promoting social resilience and reducing harm. The study suggested that a socioecological model be applied in vulnerabilities context and as a guide for preventative and intervention initiatives.
Ma et al. (2025)	China	Self-consistency and congruence, perceived social support, and psychological resilience as predictors of professional identity of male nursing students	The study shows that resilience and congruence help reduce gender-stereotype pressures and suggesting the need for educational innovation and family-school partnership. Psychological resilience, particularly tenacity and self-flexibility, shown to be significant determinants of professional identity among male nursing students. Support from family and personal interest made them even more dedicated to

among their jobs.
consecutive
secondary and
higher
vocational
education

Individual Psychological Strengths

The reviewed literature consistently highlights resilience as a dynamic psychological resource that enables students to cope with stress, regulate emotions, and sustain motivation. Across multiple studies, higher resilience was associated with lower anxiety, greater emotional balance, and stronger coping abilities (Lee & Arora, 2023; Csirmaz et al., 2024). Several studies emphasised that resilience is formed by personal attributes, for example, optimism, emotional regulation, and problem-solving ability. Interventions that promote mindfulness and self-awareness were particularly effective in helping students identify their inner strengths and apply them in daily challenges. For instance, O’Sullivan et al. (2021) reported that mindfulness practice improved emotional balance and stress tolerance among undergraduates, while Martinez et al. (2022) asserted that relaxation-based activities strengthened self-control and general well-being. Villarreal et al. (2021) also observed that mindfulness practice among postgraduate trainees led to better stress management and emotional regulation.

Together, these studies suggest that psychological resilience can be developed through intentional practice and continuous support rather than being viewed as a fixed trait. In line with Positive Psychology theory that self-control, optimism, and self-reflection form the cognitive and affective foundation of adaptive functioning that enables students to persist through academic and personal difficulties. At the same time, Bronfenbrenner’s model positions these personal strengths as core components of the individual system that shape how students respond to challenges in their wider environment.

Social and Institutional Protective Factors

Beyond individual capacities, resilience is shaped significantly by the protection factors contributed by social and institutional environments. Research involving vocational and higher-education students highlighted that peer relationships, mentoring, and family involvement are crucial sources of support (Chye et al., 2024; Fakkal et al., 2023; Solberg et al., 2023). Chye et al. (2024) noted that mentoring and role modelling in universities encouraged confidence and persistence, while Fakkal et al. (2023) linked parental involvement and perceived control with adolescents’ positive outlook and motivation. Similarly, Ma et al. (2025) noted that self-consistency, social support, and perseverance predicted stronger professional identity among male nursing students in China. Solberg et al. (2023) further suggested that supportive school environments and a clear sense of vocational identity promoted psychological well-being among VET learners.

Despite these protective influences, some institutions are not equipped to support students’ psychological needs. Ciff (2024) discovered that university coaches in the Netherlands felt unprepared to address students’ mental-health concerns, signalling the need for stronger institutional effort. Wu et al. (2021) further observed that executive functioning and resilience reinforce one another, suggesting that cognitive flexibility and emotional adaptability jointly sustain learning motivation.

Collectively, these studies support Bronfenbrenner's ecological view that meaningful connection within learning communities, help build resilience. Similarly, Ungar's socioecological model also supports this by suggesting that young people become more resilient in supportive and accessible social setting. Institutions that foster mentoring, counselling, and collaborative learning create a climate of psychological safety that enables students to adapt and sustain engagement.

Structured Interventions and Programmes

Resilience can also be strengthened through experiential or context-specific interventions programmes that combine emotional, behavioural, and reflective components. Studies have suggested that such interventions are especially beneficial for vulnerable or at-risk youth. The Equine Partnership Programme in the United States, has reported reductions in anxiety and depressive symptoms through therapeutic engagement with horses (Zaker et al., 2024). Similarly, in the United Kingdom, the *My Strengths Training for Life*TM programme enhanced self-worth and motivation among young people experiencing homelessness (Tidmarsh et al., 2022). This finding was further supported by Mindfulness and skill-based interventions like Dialectical Behavior Therapy (DBT) have help to improve emotional regulation among tertiary students (Lee & Arora, 2023; O'Sullivan et al., 2021). Building on the growing evidence, educational products, such as the REST-TA online program (Csirmaz et al., 2024), have shown promising result as digital interventions that focus on resilience and well-being. This product is produced at low cost on a large scale, making it accessible to a wide range.

Although the reviewed studies generally support the value of psychological strengths, social support, and structured interventions, several inconsistencies are worth noting. Some programmes reported to being benefit for short-term improvement in emotional regulation and coping, but these results were not sustained in long run. Protective factors such as parental support or mentoring shown different result for different group. This indicate that resilience may differ across contexts and populations.

Moreover, methodological limitation, like as small data sample, self-report data approach, limited cross-sectional designs, further restrict the ability to generalise outcomes across populations (Fakkel et al., 2023; Martinez Jr et al., 2022). Despite these gaps, the collective evidence supports that resilience can be intentionally cultivated through structured learning experiences (O'Sullivan et al., 2021; Martinez et al., 2022). These findings are consistent with Ungar's view that resilience strengthens when individuals gain access to supportive and culturally relevant resources. From an ecological lens, such interventions act as structured influences within the learning environment that reinforce students' internal coping abilities.

Implication for TVET and Policy

This finding aligns well with Malaysia's policy on TVET Madani and TVET Strategic Plan 2021- 2025, which emphasises on strengthening soft skills and nurturing learners' capacity for self-management among TVET graduate.

Across the reviewed literature, resilience emerged as a multidimensional process shaped by both internal strengths and external supports. Educational programmes that integrate emotional and social learning into everyday teaching tend to produce more lasting outcomes compared to short-term workshops (Solberg et al., 2023). However, only a limited number of research focused specifically on resilience within technical and vocational education, particularly in

Asian contexts. This limits the direct applicability of current findings to Malaysia's TVET landscape, where culture and values are different from Western context.

Looking into Malaysian context, these insights point to several practical applications and incorporating resilience training into curriculum design. Incorporating resilience-building components into routine teaching such as reflective journaling, mentoring, and peer collaboration can help students stay motivated and emotionally grounded throughout their training.

Limitations and Future Directions

There are several limitations that must be considered when examining the findings from these 22 studies. The search was confined to a specific five-year period and to studies indexed in selected databases, which may have excluded relevant qualitative work. Most of the reviewed studies employed quantitative designs, providing limited insight into how students interpret and experience resilience in their own contexts.

Therefore, future research should adopt qualitative or mixed method approaches to explore how resilience is constructed and sustained within vocational education. Such studies would help explain how personal, social, and institutional factors interact to influence students' capacity for adaptation.

Conclusion

This rapid review critically explored the recent studies on resilience, psychological well-being, and protective factors among students and youth across educational and training settings, addressing the research question. The findings indicate that resilience grows through the interaction of personal coping abilities, supportive relationships, and meaningful learning experiences. Hence, incorporating resilience-building interventions into Malaysia's TVET curriculum may improve student adaptability and mental health in the evolving job market. While Malaysia continues its efforts to make TVET a vital channel for youth development, there remains a lack of focused research on resilience within vocational education and training. Thus, in-depth research on resilience based on students' real-world experiences fills the knowledge gap and could be used by policymakers, educators, as well as institutional leaders in designing evidence-based psychosocial support systems, teaching practices, and policies.

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