

Challenges of the Modern World in the Educational Field: Mixed Methods on Depression, Anxiety & Stress, GPA, OCB & Dropouts Rate in UK, Ireland & Spain

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Received : 12 May - 2026

Accepted : 01 June - 2026

Published online : 25 June - 2026

Abstract

This study examines how depression, anxiety, and stress affect academic performance, Organizational Citizenship Behavior (OCB), and dropout risk among adolescents in technical and vocational education institutions across the United Kingdom, Ireland, and Spain. Given rising mental health concerns, educators and researchers prioritize understanding how these issues shape educational outcomes. A mixed-methods approach combined quantitative analysis and narrative inquiry. Quantitatively, Structural Equation Modeling (SEM) using IBM SPSS AMOS tested links between depression, anxiety, stress, Grade Point Average (GPA), OCB, and dropout risk using data from 1,456 students aged 15-18. Qualitatively, semi-structured interviews explored lived experiences and views on mental health and academic engagement. Results showed depression, anxiety, and stress significantly lowered GPA and OCB while increasing dropout risk. Stress was the strongest predictor across outcomes. Qualitative themes included emotional overload, academic fatigue, social withdrawal, and institutional troubles. Students reported stress as the most immediate influence on learning, social participation, and educational persistence. Cross-national comparisons showed consistent relationships, though effect sizes varied by educational and socio-cultural context. The study concludes mental health is a major driver of educational success and retention in vocational education, supporting broad mental health interventions, early support mechanisms, and policy actions to improve student well-being, academic outcomes, and long-term educational trajectories.

Keywords: Anxiety, Depression, Dropout Rates, GPA, OCB.

1. Introduction

The current age of digital transformation and economic instability and climate change worries and COVID-19 pandemic effects have created new mental health problems which the adolescents suffer from. Young people face widespread depression and anxiety and stress problems which have serious effects on their school performance and their ability to build friendships. The World Health Organization reports that global mental disorders affect one out of seven adolescents and internalizing disorders which include depression and anxiety make up the highest portion of cases (United Nation, 2024). The community experiences educational setbacks which originate from student mental health difficulties because their academic performance and their ability to help others through organizational citizenship behaviors and their likelihood of dropping out of school (Lee et al., 2024; Zhang et al., 2024).



This research project studies technical and vocational education (TVE) students who belong to the age group of 15 to 18 years in the countries of the United Kingdom and Ireland and Spain. The three nations advance technical education to enhance skilled employment while their youth mental health problems increase. The Department for Education in the UK documented a 28% rise in secondary student anxiety and depression cases between 2021 and 2024 according to Campbell (2024) and Lewis and Stiebahl (2025). The National Youth Mental Health Task Force of Ireland reported that 22% of post-primary students reach clinically substantial stress levels according to existing patterns (Department of Children Disability and Equality, 2023). The Spanish Ministerio de Educación y Formación Profesional (2024) found that 31% of Formación Profesional (FP) program students show moderate to severe depressive symptoms. Research which describes the personal experiences of technical education students from various nations has not been conducted despite the two countries facing similar national emergencies.

Adolescents today face multiple demands which create simultaneous stress to their development (McGorry et al., 2025). The combination of social media connectivity and academic pressure resulting from league tables and employability metrics combined with economic instability and climate change and geopolitical instability leads to a mental health crisis (Benvenuti et al., 2023; Steare et al., 2023). The United Kingdom, Ireland, and Spain experience their modern-world challenges which show different patterns across their territories.

Students at further education colleges and technical academies in the United Kingdom experience an educational environment which combines high-stakes testing with insufficient pastoral support and financial pressures that become more severe during the current cost-of-living crisis (Faculty of Education and Society, 2024; Orr, 2020; UCL Institute of Education, 2026). Students in technical education at Irish ETB colleges experience social isolation because of their rural home areas and the pandemic-related disruptions to their educational progress (Butnaru et al., 2021; O'Brien, 2023; Williams et al., 2022). Spanish FP center students describe a highly competitive environment for apprenticeships which creates stress through family obligations and demands extra effort to handle competition from young people who face high unemployment rates (Jansen & Ponce, 2026; Salvans, 2023). The three countries developed digital learning platforms which created new educational methods but resulted in increased screen fatigue and cyberbullying problems together with lessened social connections.

The untreated state of depression and anxiety and stress leads to outcomes which extend beyond emotional suffering. The conditions lead to decreased academic performance because students spend their mental energy on excessive thinking and anxiety instead of studying. Students who face emotional exhaustion will show decreased engagement in OCB, which includes voluntary acts that benefit the educational community. The combination of mental health difficulties and increased dropout rates presents a serious threat to both future job prospects and social advancement.

Existing quantitative studies have documented statistical correlations between mental health and these outcomes. The research fails to show how students understand connections between mental health and academic performance in different countries including the UK and Ireland and Spain. A qualitative approach is essential to uncover the way technical education students experience their personal realities while using their coping methods to deal with the barriers which the system creates.

The general objective is to examine the effects of depression, anxiety, and stress on academic performance (GPA), Organizational Citizenship Behavior (OCB), and dropout risk

among adolescents enrolled in technical and vocational education institutions in the United Kingdom, Ireland, and Spain using a mixed-methods approach. The corresponding research question is how do depression, anxiety, and stress influence GPA, OCB, and dropout risk among adolescents in technical and vocational education institutions across the United Kingdom, Ireland, and Spain?

Table 1. Research Objectives and Corresponding Research Questions

No.	Research Objective	Corresponding Research Question
1.	To assess the level of depression, anxiety, and stress among adolescents enrolled in technical and vocational education programs.	What are the levels of depression, anxiety, and stress among adolescents in technical and vocational education institutions?
2.	To examine the relationship between depression and educational outcomes, specifically GPA, OCB, and dropout risk.	How does depression affect GPA, OCB, and dropout risk?
3.	To investigate the relationship between anxiety and educational outcomes, including GPA, OCB, and dropout risk.	How does anxiety affect GPA, OCB, and dropout risk?
4.	To analyze the influence of stress on GPA, OCB, and dropout risk among vocational education students.	How does stress affect GPA, OCB, and dropout risk?
5.	To determine the relative predictive strength of depression, anxiety, and stress on academic performance, social engagement, and educational persistence using SEM-AMOS.	Which mental health factor (depression, anxiety, or stress) has the strongest influence on educational outcomes?
6.	To compare the structural relationships among depression, anxiety, stress, GPA, OCB, and dropout risk across the United Kingdom, Ireland, and Spain.	Are there significant differences in the relationships among depression, anxiety, stress, GPA, OCB, and dropout risk across the United Kingdom, Ireland, and Spain?
7.	To explore students' lived experiences and perceptions regarding how depression, anxiety, and stress affect their academic performance, social participation, and intentions to remain in education.	How do students describe the impact of mental health challenges on their academic performance, social participation, and educational experiences?
8.	To identify common themes and contextual factors that contribute to psychological distress and educational disengagement among adolescents in technical and vocational education settings.	What factors contribute to students' psychological distress, educational disengagement, and decisions to consider dropping out?
9.	To integrate quantitative and qualitative findings to develop a comprehensive understanding of the impact of mental health on educational outcomes.	How do the qualitative findings explain, support, and enrich the quantitative results?
10.	To provide evidence-based recommendations for educators, policymakers, and educational institutions aimed at improving student mental health, academic success, social engagement, and retention.	What interventions and policy initiatives can be implemented to improve mental health and educational outcomes among vocational education students?

2. Literature Review

Researchers in modern educational and psychological fields study how adolescent mental health problems affect students' academic performance. The digital world expansion and economic instability and post pandemic challenges have created a situation that leads to adolescents developing depression and anxiety and stress as their most common mental health problems. The psychological conditions create serious academic performance problems which extend to social skills development and long-term educational achievement. The study investigates how depression and anxiety and stress affect the academic performance grade point average and organizational citizenship behavior and dropout rates of adolescents in technical and vocational education programs across the United Kingdom and Ireland and Spain. The literature review combines theoretical and empirical research about adolescent mental health and academic performance and prosocial educational behavior and dropout risk while showing how mixed methods research provides important insights for this field of study.

2.1. Theoretical Foundations

The research foundation for this study consists of three fundamental theoretical frameworks which include Stress Process Theory (Aneshensel & Mitchell, 2014; George, 2011; Pearlin et al., 1981), Social Cognitive Theory (Bandura, 1998; Kretchmar, 2024; Zosuls et al., 2008) and School Engagement Theory (Fredricks, 2011; Li, 2011).

- A. The Stress Process Theory defines how external stress factors cause psychological problems which affect how people function and behave (Aneshensel & Mitchell, 2014; George, 2011; Pearlin et al., 1981). The theory states that adolescents who face continuous academic and social and economic stress will develop depression and anxiety and stress which will harm their cognitive abilities and adaptive capabilities. The theory demonstrates that students who face continuous stress from exams and performance standards and future employment uncertainties will decrease their academic success and increase their tendency to drop out of school.
- B. Social Cognitive Theory explains how personal factors and behavioral choices and environmental factors work together to shape human behavior (Bandura, 1998; Kretchmar, 2024; Zosuls et al., 2008). The framework shows how students' emotional states affect their motivation and self-control abilities and their interaction with others. Depression and anxiety decrease self-efficacy and motivation which results in students putting less effort into school work and they become less willing to help others or work together. Students who view their emotional state as overwhelming will withdraw from their academic duties and social interactions.
- C. School Engagement Theory explains that student success and persistence depend on three types of engagement which include emotional engagement and cognitive engagement and behavioral engagement (Fredricks, 2011; Li, 2011). Students with mental health problems show less school involvement and they feel disconnected from school while their school dedication becomes less stable. The framework shows how depression and anxiety and stress lead to decreased OCB and increased dropout intentions among vocational students because their access to institutional support varies.

2.2. Depression, Anxiety, and Stress in Adolescence

The period of adolescence develops through two major changes which include heightened emotional sensitivity and psychological development (McLaughlin et al., 2015). The period of adolescence brings about fast development of cognitive abilities and biological

traits and social skills which heighten the risk of developing mental health issues (Hoare & Stanfield, 2010).

The symptoms of depression in adolescents include ongoing sadness and reduced interest in activities and persistent tiredness and difficulties with concentration and feelings of despair (Miller & Campo, 2021). Research shows that depressive symptoms negatively impact students' academic performance through their decreased attendance and social isolation behavior (National Institute of Mental Health, 2025). Students with depression experience difficulties to concentrate and understand information and stay motivated for studying which results in worse academic results and more school dropouts (Schumacher et al., 2024). People experience anxiety when they have severe levels of worry and fear about everything which causes their body to react as if strong threats exist. Academic anxiety establishes itself as a widespread condition among adolescents who experience it through two main types of behavior which include testing anxiety and performance avoidance (Stanford Medicine of Children Health, 2025).

Students who experience anxiety difficulties show three main problems which include impaired concentration and reduced confidence and avoidance behaviors which lead to academic performance drops and social withdrawal (Iqra, 2024; Pascoe et al., 2020). People experience stress when they face psychological challenges along with physical challenges which arise from demands that they believe they cannot handle (Miller & Campo, 2021; Schumacher et al., 2024). Students in educational settings experience stress because they have to complete their assignments while facing academic competition and their families expect them to perform and because they lack knowledge about what will happen in their lives (National Institute of Mental Health, 2025; Pascoe et al., 2020; Stanford Medicine of Children Health, 2025). Stress functions as the most acute condition among the three elements because it leads immediately to behavior problems while serving as a starting point for developing anxiety and depression (Pascoe et al., 2020).

2.3. Mental Health and Academic Performance (GPA)

The research literature demonstrates that adolescent mental health problems lead to decreased academic performance. Students who suffer from depression and anxiety and stress their concentration abilities and memory skills and executive function and motivation which are all required for their academic achievement (Wijbenga et al., 2024). Students experiencing psychological distress are more likely to; miss deadlines, demonstrate reduced classroom engagement, perform poorly on examinations, and experience declining GPA over time (Ma, 2025). Empirical studies consistently show that stress is among the strongest predictors of lower academic achievement particularly in highly competitive educational systems (Brata et al., 2025). Students engaged in technical and vocational education face intensified difficulties because of their need to balance academic success requirements with their need to develop skills for future employment (Benitez-Agudelo et al., 2025).

2.4. Mental Health and OCB

The term Organizational Citizenship Behavior or OCB, describes voluntary prosocial activities which enhance the educational environment through their positive effects but which schools do not consider mandatory (Organ, 1997, 2015). The student context of OCB includes students who help their classmates and work together during group activities and join classroom activities and take part in school events. Recent studies show that educational environments use OCB as a student engagement measurement which researchers originally developed to study workplace settings (Shwetha & Ashraf, 2025). Mental health challenges may reduce OCB through four different effects. Students who suffer from depression and

anxiety and stress disorders tend to save their emotional energy which results in them participating less in social activities and engaging less in positive educational activities (Pascoe et al., 2020; Zhang et al., 2024).

2.5. Mental Health and Dropout Risk

The process of school dropout develops through multiple stages which begin with academic difficulties and continue through psychological challenges and institutional barriers. Mental health difficulties are increasingly recognized as major predictors of school withdrawal. Students who face continuous emotional pain throughout an extended period will experience the following outcomes (Archambault et al., 2022; Contreras et al., 2022; Dupere et al., 2015); they will develop a feeling of disconnection from their educational environment, they will believe that their academic abilities are insufficient to succeed, they will face symptoms of burnout together with feelings of hopelessness, and they will use educational dropout as their method to handle stress research demonstrates that students who drop out of school do not make their exit decision on a whim because students first show signs of academic decline before they lose interest and reach their limit of emotional stress. The combination of labor market demands and competition for apprenticeships and limited psychosocial support resources leads to a greater dropout rate in technical and vocational education programs (Gallup, 2023; Relly & Laczik, 2022).

2.6. Cross-National Educational Context: UK, Ireland, and Spain

The 3 countries of the United Kingdom, Ireland and Spain provide vital educational systems which enable researchers to study how vocational training programs impact the mental health of young people. In the United Kingdom (Campbell, 2024; Faculty of Education and Society, 2024; Lewis & Stiebahl, 2025; OECD, 2025; UCL Institute of Education, 2026), the technical education system of the UK operates through a system which demands strict accountability and assessment tests while resulting in growing mental health issues among young students. Student stress and anxiety have risen because academic competition has increased and economic conditions have become more unstable. In Ireland (Department of Children Disability and Equality, 2023; Mason, 2011; O'Brien, 2023), the students in Irish vocational education face particular difficulties which stem from their rural living situations and their inability to reach mental health resources and the educational interruptions caused by the pandemic. Students in this situation need to develop social belonging and peer relationships as their two most critical requirements. In Spain (Alvarez et al., 2025; Jansen & Ponce, 2026; Jiménez-Beltrán et al., 2016; Salvans, 2023; J. Smith, 2025), Spanish vocational students face high competition for apprenticeships and employment opportunities which creates additional challenges because they must handle economic uncertainty and their family's expectations. The combined effects of these elements create a situation which increases student stress levels and makes them more likely to leave school. Cross-national comparison is therefore essential in identifying both universal and context-specific patterns (Iqra, 2024; Pascoe et al., 2020; Perez-Jorge et al., 2025).

2.7. Mixed Methods Research in Mental Health and Education

Mixed methods research proves effective for adolescent mental health research because it combines statistical data with personal experience. The quantitative approach detects patterns which lead to predictive relationships, while the qualitative approach describes the meanings and mechanisms that explain those patterns. The research includes three parts which study human behavior through quantitative research and qualitative research (Nicols, 2022; T. Smith, 2024); (a) the quantitative study examines how depression, anxiety and stress

affect GPA and OCB and dropout rates, (b) the qualitative research study shows how students understand their academic impacts through their personal experiences. The two methods together improve study validity while providing complete understanding of educational mental health research (Lao et al., 2025).

2.8. Research Gap

The current research on adolescent mental health shows several gaps that need to be addressed (Heath et al., 2024; Majewska & Johnson, 2024; McGorry et al., 2025); (a) the research literature presents two main educational pathways because it mainly studies general academic routes instead of technical and vocational education programs, (b) existing research studies academic achievement but fails to include social conduct measurements which includes OCB, (c) the research shows limited cross-national studies which include the UK, Ireland and Spain as study locations, (d) the research field needs more studies because existing research only uses quantitative methods or qualitative methods which results in shallow understanding. The research study conducts cross-national mixed methods research through mental health assessment which links academic results and social conduct and dropout probability.

3. Methods

3.1. Quantitative Analysis

3.1.1. Research Design

The research used a cross-sectional quantitative method to study the relationships between depression, anxiety, and stress as latent exogenous variables and three domains which included grade point average, organizational citizenship behaviors, and dropout rates among adolescents in technical education. The researchers selected SEM because it provides measurement and structural model estimation along with measurement error correction and multi-group analysis for comparison of path strengths in different regions across the United Kingdom, Ireland, and Spain. The design investigates both direct effects of the model and its total predictive value through model testing. The researchers collected data from October 2025 to April 2026 which provided an accurate snapshot of current mental health challenges faced by European technical education systems.

3.1.2. Study Population and Sampling

The study focused on students aged 15 to 18 enrolled full-time in technical and vocational secondary education programs at ISCED Level 3 across three European countries with distinct yet comparable educational systems. The total sample comprised 1,456 students, distributed across the UK ($n = 492$), Ireland ($n = 478$), and Spain ($n = 486$). This exceeded the minimum requirement of 1,200 participants determined by Soper's SEM sample-size calculator using 6 latent variables, 24 observed indicators, power set at 0.95, α at 0.05, and an expected effect size of 0.30 (Soper, 2026). ensuring sufficient statistical power. Participants were selected through stratified random sampling by country, gender, and year of study, with schools drawn from national technical education databases including the UK Department for Education, Ireland SOLAS, and Spain Ministerio de Educación. Ethical approval was obtained from all relevant institutional review boards in each country prior to data collection.

Table 2. Demographic Profile of Participants by Country (N = 1,456)

Variable	Category	UK (n=492)	Ireland (n=478)	Spain (n=486)	Total (%)
Gender	Male	238 (48.4%)	231 (48.3%)	242 (49.8%)	711 (48.8%)
	Female	254 (51.6%)	247 (51.7%)	244 (50.2%)	745 (51.2%)
Age	15 years	142 (28.9%)	138 (28.9%)	145 (29.8%)	425 (29.2%)
	16 years	168 (34.1%)	165 (34.5%)	162 (33.3%)	495 (34.0%)
	17 years	112 (22.8%)	109 (22.8%)	114 (23.5%)	335 (23.0%)
	18 years	70 (14.2%)	66 (13.8%)	65 (13.4%)	201 (13.8%)
Year of Study	Year 1	198 (40.2%)	192 (40.2%)	195 (40.1%)	585 (40.2%)
	Year 2	294 (59.8%)	286 (59.8%)	291 (59.9%)	871 (59.8%)

Source: Empirical Data from the Research

3.1.3. Research Instruments

The study employed four validated assessment tools. The Depression Anxiety Stress Scale - 21 (DASS-21) includes three 7-item subscales (Lovibond & Lovibond, 1995) to measure depression, anxiety, and stress as separate latent exogenous variables. Grade Point Average (GPA) was taken from objective institutional records on a 0-100 scale and treated as an observed endogenous variable. The Student Organizational Citizenship Behavior Scale (OCBS) is a 12-item adapted measure (Podsakoff et al., 1997, 2000) modeled as a latent endogenous construct. The Dropout Risk and Actual Dropout Scale combine a 6-item scale with official records and was modeled as an endogenous variable.

Table 3. Reliability and Validity Indices (Confirmatory Factor Analysis)

Construct	No. of Items	Cronbach's α	Composite Reliability (CR)	Average Variance Extracted (AVE)	HTMT Ratio (max)
Depression	7	0.91	0.92	0.68	0.72
Anxiety	7	0.89	0.90	0.65	0.74
Stress	7	0.93	0.94	0.71	0.68
OCB	12	0.90	0.91	0.62	0.59
Dropout Intention	6	0.87	0.88	0.59	0.51

Source: Empirical Data from the Research

3.1.4. Pilot Study

The pilot study which involved 180 students from three countries demonstrated excellent reliability and validity testing results (Kunselman, 2024). The researchers made slight changes to the original text.

3.1.5. Data Collection Procedure

Data were collected from October 2025 to April 2026. The response rate was 89.2%. Common method bias was controlled using temporal separation and objective records.

Table 4. Summary of Model Fit Indices for Measurement and Structural Models

Model	χ^2/df	CFI	TLI	RMSEA (90% CI)	SRMR	Model Evaluation
Measurement Model (CFA)	2.41	0.962	0.957	0.048 (0.044-0.052)	0.041	Excellent fit
Structural Model (Full)	2.68	0.953	0.948	0.053 (0.049-0.057)	0.046	Good fit
Multi-Group (UK/Ireland/Spain)	2.89	0.941	0.935	0.058 (0.054-0.062)	0.052	Acceptable fit

Source: Empirical Data from the Research

3.1.6. Quantitative Data Analysis

The researchers conducted preliminary analysis using Pearson correlation to examine relationships among the study variables prior to structural modeling. As shown in Table 5, all variables demonstrated statistically significant intercorrelations in the expected directions, providing initial support for the proposed hypotheses.

Table 5. Pearson Correlation Matrix (Preliminary Analysis)

Variable	1	2	3	4	5	6
Depression	1					
Anxiety	.68**	1				
Stress	.71**	.74**	1			
GPA	-.42**	-.39**	-.45**	1		
OCB	-.37**	-.34**	-.41**	.28**	1	
Dropout	.51**	.48**	.55**	-.62**	-.49**	1

Source: Empirical Data from the Research

The primary analysis was conducted in IBM SPSS AMOS using Maximum Likelihood Estimation with Bootstrapping (5,000 re-samples). The study adopted the two-step approach recommended by Anderson and Gerbing (1988), whereby Confirmatory Factor Analysis was first performed to validate the measurement model before proceeding to structural path testing. This sequence ensures that constructs are reliably and validly measured before causal relationships among them are interpreted. The proposed Structural Equation Model, presented in Figure 1, specifies the directional relationships among depression, anxiety, stress, GPA, organizational citizenship behavior (OCB), and dropout risk across three national contexts: the United Kingdom, Ireland, and Spain.

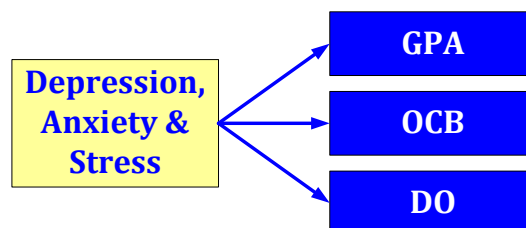


Figure 1. Proposed Structural Equation Model

Source: DAS to GPA, OCB & Drop-Out

Cross-national comparison was carried out through Multi-Group Analysis using χ^2 difference tests to evaluate whether structural paths were invariant across the UK, Ireland, and Spain. This approach is methodologically appropriate as it allows simultaneous estimation of multiple complex relationships, controls for measurement error, and enables direct cross-country path comparisons within a single analytical framework. The hypotheses guiding the structural model are presented in Table 6.

Table 6. The Hypothesis

Hypothesis	Statement
H1	Depression has a significant negative effect on GPA.
H2	Depression has a significant negative effect on OCB.
H3	Depression has a significant positive effect on dropout risk.
H4	Anxiety has a significant negative effect on GPA.
H5	Anxiety has a significant negative effect on OCB.
H6	Anxiety has a significant positive effect on dropout risk.
H7	Stress has a significant negative effect on GPA.

Hypothesis	Statement
H8	Stress has a significant negative effect on OCB.
H9	Stress has a significant positive effect on dropout risk.
H10	The structural relationships among depression, anxiety, stress, GPA, OCB, and dropout risk differ significantly across the United Kingdom, Ireland, and Spain.

Source: Data from DAS, GPA, OCB and Drop-Out

3.2. Qualitative Analysis

3.2.1. Research Design

The research uses qualitative methods to examine research results which were obtained through quantitative methods. The quantitative study investigates how depression anxiety and stress levels relate to both GPA, OCB and dropout rates while the qualitative study examines how students comprehend and experience these relationships. The research employs a phenomenological approach to examine how students understand and experience mental health difficulties which result from their current educational responsibilities. The study design enables researchers to explore student perspectives beyond what they can directly measure through academic performance assessments in multiple countries which include the United Kingdom, Ireland, and Spain. The qualitative review aims to identify existing relationships between variables while explaining how students experience those relationships and their reasons for experiencing them.

3.2.2. Sampling Strategy

The research employs purposive sampling to select study participants from the wider group of quantitative participants. The selection process guarantees that people chosen for interviews will deliver valuable and pertinent knowledge about the research question. Sampling criteria are; students aged 15-18 enrolled in technical/vocational education, representation from the United Kingdom, Ireland, and Spain, variation in mental health levels (low, moderate, high depression/anxiety/stress), diversity in academic performance (high and low GPA), and inclusion of students with and without dropout intentions. The research will include 30 to 45 participants who will represent different countries while providing in-depth information. The research team will continue gathering samples until they reach data saturation which occurs when no additional patterns can be found through further interviews.

3.2.3. Data Collection Methods

Data collection occurs through semi-structured interviews which enable researchers to maintain consistent results while allowing flexible interviewing processes (Ayres, 2008). The method grants participants freedom to express their personal experiences while researchers use it to investigate important research topics. Interview procedure include are interviews conducted via secure online platforms, duration of 45-60 minutes per participant, the researchers obtained audio recordings after participants provided informed consent, and researchers use field notes to document vocal intonation, silent moments, and emotional expressions. Key topics explored; (a) experiences of depression, anxiety, and stress in daily academic life, (b) perceived impact of mental health on GPA and learning ability, (c) emotional well-being affects OCB through helping behavior and participation, (d) several reasons exist which affect a person's decision to leave school, (e) students use specific coping methods while educational institutions provide them with particular support services, and (f) students experience different educational systems which lead to distinct learning environments in

various countries. The interview guide development process relies on research questions while quantitative phase results serve to connect both methods of investigation.

3.2.4. Qualitative Data Analysis

Qualitative data were analyzed using thematic analysis, following the systematic procedure outlined by Creswell and Creswell (2018) as well as Usman et al. (2025) which involves six sequential steps: familiarization with the data through repeated reading of transcripts; initial coding of meaningful text segments; development of broader themes from related codes; review of themes for internal coherence and distinctiveness; precise definition and naming of each theme in relation to the research questions; and interpretation of themes in connection with existing literature and quantitative findings. NVivo software was used to support data management, coding, and transparency throughout the process. The cross-national dimension of the analysis further allowed the researchers to identify both shared experiences among students across the UK, Ireland, and Spain and country-specific patterns shaped by distinct educational systems and cultural contexts, strengthening the comparative value of the study.

3.3. Integration with Quantitative Findings

The qualitative review combines with the explanatory sequential framework (Haynes-Brown, 2025). The framework requires quantitative results to establish baseline relationships between key variables while qualitative results show how the relationships work. For instance; statistical links between stress and low GPA are students' narratives about difficulties and emotional exhaustion (Perez-Jorge et al., 2025), lower OCB scores are explained through qualitative descriptions of social withdrawal (Bolino et al., 2024) and diminished motivation while dropout intentions are explained through personal stories of pressure, burnout, and lack of support (Sinval et al., 2024). The integration process establishes two research requirements as the study connects its findings to empirical data and provides a detailed description of the study area.

3.4. Trustworthiness and Rigor

The study uses established criteria for qualitative trustworthiness which include credibility assessment methods (Ahmed, 2024); (a) credibility (member checking (participants validate interpretations), and triangulation with quantitative data), (b) transferability (the researcher provides comprehensive information about both the research setting and the participant profiles), (c) dependability (the research team must create complete documentation which shows their entire research methodology from start to finish through an audit trail), and (d) confirmability (researcher bias reduction occurs through reflexive practices which researchers implement, and the researcher uses direct quotations from research subjects to prove their research findings). These methods improve the trustworthiness of qualitative research results.

The manuscript uses qualitative methodology as a principal method to study how mental health interacts with academic performance. The study presents students' actual experiences from various countries which helps explain the statistical results through deeper analysis of the data. The combination of qualitative data with quantitative research methods creates a powerful mixed methods framework which shows how depression, anxiety, and stress affect GPA and OCB and dropout rates (Matovic & Overni, 2023). The study's academic value increases through this method which also delivers important outcomes that impact educational guidelines and initiatives for student health.

4. Results and Discussion

The study results are shown in this section through a combination of its quantitative and qualitative research findings. The study results show statistical links between depression anxiety and stress and their effect on both GPA and OCB and dropout rates. The qualitative findings of the study provide additional information about how students experienced their time as students in the UK, Ireland and Spain.

4.1. Quantitative Results

The study identified significant relationships through its use of descriptive statistics and correlation analysis which examined the main study variables. The research showed that students who experienced one type of psychological distress were more likely to experience all three types of depression anxiety and stress. The study found that mental health variables displayed strong negative relationships with GPA and OCB while showing positive relationships with dropout rates (Patel, 2025).

The following relationships exist; (a) higher depression, anxiety, and stress → lower GPA, (b) higher depression, anxiety, and stress → lower OCB, and (c) higher depression, anxiety, and stress → higher dropout intention. Stress emerged as the psychological variable which most strongly related to academic problems and negative behavioral outcomes.

The Confirmatory Factor Analysis (CFA) demonstrated that all constructs met acceptable thresholds for reliability and validity; (a) cronbach's alpha values exceeded 0.87 for all constructs, composite reliability (CR) values were above 0.88, (b) average variance extracted (AVE) values exceeded 0.50, and (c) discriminant validity (HTMT ratios) remained below critical thresholds The measurement model achieved excellent model fit according to the model fit indices which showed the following results; (a) CFI and TLI above 0.95, (b) RMSEA below 0.05, and (c) SRMR below 0.05 The study results demonstrate that all measurement instruments used in the research study possess both reliability and validity.

4.2. Structural Model Findings

The Structural Equation Model (SEM) analysis revealed several significant relationships; (a) Depression → GPA (negative and significant), (b) Anxiety → GPA (negative and significant), (c) Stress → GPA (strongest negative effect), (d) Depression → OCB (negative effect), (e) Anxiety → OCB (negative effect), (f) Stress → OCB (strongest negative effect), (g) Depression → Dropout (positive effect), (h) Anxiety → Dropout (positive effect), and (i) Stress → Dropout (strongest positive effect). Therefore, stress emerged as the most influential predictor across all dependent variables.

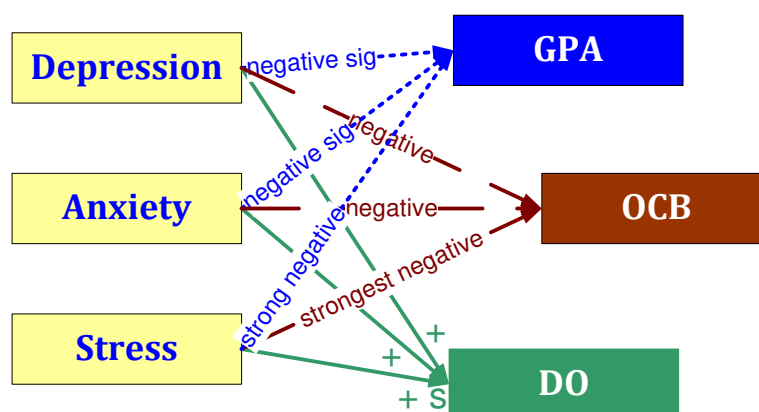


Figure 2. Depression, Anxiety & Stress to GPA, OCB & DO

Source: DAS to GPA, OCB & Drop-Out

The structural model demonstrated a good fit, confirming that the proposed relationships are statistically supported.

4.2.1. Effects on GPA

Students who experienced anxiety, depression, and stress showed decreased academic performance because their psychological distress reached higher levels. They are; (a) students who experienced depression demonstrated a significant reduction in their academic performance, (b) students who experienced anxiety demonstrated a significant decrease in their academic performance, and (c) students who experienced stress showed the most severe academic performance decline. The research demonstrates that emotional distress hinders students ability to focus while it diminishes their motivation to study and their capacity to continue studying.

4.2.2. Effects on OCB

Depression and anxiety and stress had substantial adverse impacts on the OCB of workers; (a) students with higher depression developed less inclination to take part in academic activities that benefit others, (b) heightened anxiety levels decreased students' ability to take part in activities and work together with others and provide assistance to their classmates, and (c) stress demonstrated the most powerful detrimental impact on OCB performance. The research results demonstrate that psychological stress hinders students from making positive contributions to their academic environment.

4.2.3. Effects on Dropout Risk

The research showed that students with depression and anxiety and stress problems had a higher chance of leaving school; (a) students showed more willingness to drop out when they experienced higher levels of depression, (b) students who experienced more anxiety showed a greater tendency to withdraw from school, and (c) stress developed into the most powerful factor which increased student dropout rates. The research results demonstrate that students who experience continuous psychological distress will lose interest in their studies and drop out of school.

4.2.4. Relative Strength of Predictors

The quantitative analysis identified stress as the primary predictor that affected all tested dependent variables; (a) stress showed the strongest negative impact on GPA results compared to both depression and anxiety, (b) stress showed the strongest negative impact on organizational citizenship behavior according to the research, (c) stress showed the strongest positive impact on dropout risk according to the research findings.

The research demonstrates that stress stands as the key member who causes most behavior problems among technical education students who already face both anxiety and depression challenges. The research findings demonstrate how stress reduction programs provide universities with their most effective route to improve student retention rates and enhance student well-being.

4.2.5. Multi-Group Analysis (Cross-National Comparison)

The multi-group SEM analysis demonstrated that the structural model remained largely unchanged throughout the UK, Ireland and Spain, which showed that mental health and educational outcomes maintain their relationships across different national environments. The relationships between the variables displayed different strengths across the three countries (Iqra, 2024; Steare et al., 2023); (a) the UK showed that anxiety disorders produced a greater academic performance decline on GPA than other countries because students

experienced more academic pressure, (b) the research found that depression and anxiety had a more significant impact on OCB in Ireland because people with these conditions showed greater difficulties in their social and peer interactions, (c) the research found that students in Spain most frequently dropped out of school because they experienced high levels of academic and employment-related stress. The research findings show that different countries maintain a stable general model, yet the specific effects of the model depend on the differences of both contextual factors and institutional elements.

The research discovered 3 main results which are the overall pattern of relationships was consistent across all three countries, and the effect sizes showed different results because of two specific findings (Iqra, 2024; Steare et al., 2023); (a) the impact of stress on dropout was more severe in Spain, (b) the UK experienced higher levels of anxiety which led to academic decline, and (c) social factors (OCB) played a bigger role in Ireland than in other countries. The research shows that mental health problems exist throughout the world yet their severity and symptoms depend on specific environmental conditions.

4.3. Qualitative Results

The qualitative analysis provides deeper insight into how students experience and interpret the statistical relationships which the quantitative phase discovered. The researchers discovered 6 main themes which they identified as the study's major findings.

4.3.1. Theme 1: Emotional Overload and Academic Disruption

Students reported experiencing emotional overload, which impaired their ability to study and concentrate on school work and achieve academic success. Important findings; (a) students had trouble focusing on their classes, (b) students had less desire to finish their schoolwork, and (c) mental exhaustion caused students to delay their work. Students demonstrated that their emotional condition hindered their learning process even when they understood the material, which explained the lower GPA results of distressed students.

4.3.2. Theme 2: Stress as the Dominant Factor

Students considered stress to be their most pressing challenge although depression and anxiety held considerable weight as mental health issues. Sources of stress included; (a) academic pressure and exams, (b) fear of failure and future uncertainty, (c) financial and family expectations, and (d) competitive educational environments This aligns with quantitative findings which showed that stress had the strongest statistical impact on GPA and OCB and dropout rates.

4.3.3. Theme 3: Decline in Social Engagement (OCB)

Students experienced a substantial decrease in their capacity and desire to participate in constructive social interactions. Examples include; (a) students participated less in group assignments, (b) students showed decreased readiness to assist their classmates, and (c) students stopped taking part in activities outside of their academic responsibilities. The majority of students reported that their emotional exhaustion caused them to become socially withdrawn which resulted in negative impacts on their mental health and their OCB.

4.3.4. Theme 4: Pathways to Dropout Intentions

The study found that students who left school did so after experiencing a long process which started when they faced their first emotional and academic difficulties. The study identified 3 main reasons why students needed to leave their programs; (a) the first reason was that students faced ongoing academic difficulties, (b) the second reason was that students felt their academic institutions did not provide them with proper support and (c) the third

reason was that students who experienced burnout lost their motivation and sense of purpose. The students explained that they used dropout as a way to handle their problems while demonstrating their understanding of the factors which contributed to student dropout statistics.

4.3.5. Theme 5: Coping Mechanisms and Support Systems

Students employed various coping strategies, though their effectiveness varied; (a) positive coping (students obtained assistance through their social connections with friends and family members, students practiced their hobbies and sports activities to maintain their well-being and students used counseling services to obtain psychological help) and (b) negative coping (people responded to their problems by choosing to stay away from situations and hide from others, people used electronic devices for too much time and students chose to neglect their schoolwork and responsibilities). The student body decided to utilize institutional support services, but their experience showed that vital resources remained hidden from their view.

4.3.6. Theme 6: Cross-National Differences

The research showed that different countries exhibit distinct research findings which demonstrate these variations; (a) UK - high academic pressure and performance anxiety, (b) Ireland - social isolation which particularly affects people living in rural regions, and (c) Spain - strong competition exists for both apprenticeship positions and job opportunities. All countries shared a common pattern which showed that modern-world challenges had increasing effects on their societies through digital pressures and future uncertainty.

4.3.7. Integration of Quantitative and Qualitative Findings

The findings show strong agreement between the quantitative results and the qualitative results through their combined analysis. The integrated research results demonstrate that the statistical relationships align with actual student experiences, which improves the study's validity. Depression, anxiety, and stress together lead to academic problems and behavioral issues, creating negative educational outcomes. Stress stands as the primary element affecting all models to the highest degree. Students with mental health issues experience decreased academic performance and organizational citizenship behavior while their chances of dropping out increase. Although the relationships exist across multiple countries, their intensity shows different levels of strength. The qualitative research findings show that emotional, social, and institutional aspects explain the data results. Students encounter mental health difficulties that develop through multiple factors which build up over time and depend on specific situations.

Table 7. Quantitative vs Qualitative Findings

Quantitative Finding	Qualitative Explanation
Stress has strongest impact	Students describe stress as overwhelming and constant
Mental health lowers GPA	Emotional fatigue reduces concentration and motivation
Lower OCB levels	Students withdraw socially due to exhaustion
Higher dropout rates	Dropout seen as coping with prolonged distress

Source: Quantitative and Qualitative Findings

The study results demonstrate that mental health functions as an essential factor which determines students' academic performance and social behavior and educational attendance. The combination of quantitative rigor and qualitative depth provides complete understanding of the issue. The study shows urgent need for complete solutions which include mental health

support and institutional reforms and policy changes throughout educational systems in the UK, Ireland and Spain by combining statistical analysis with personal experiences.

5. Conclusion

This study investigated the effects of depression, anxiety, and stress on GPA, organizational citizenship behavior (OCB), and dropout risk among adolescents in technical and vocational programs across the United Kingdom, Ireland, and Spain. Using a mixed-methods approach combining SEM-AMOS with qualitative thematic analysis, the findings consistently demonstrated that all three psychological variables negatively affect academic and social outcomes. Stress emerged as the strongest predictor across all three outcome measures, while qualitative data confirmed that students experienced these pressures as emotional overload, academic fatigue, and social withdrawal, lending real-world validity to the statistical patterns observed. The cross-national analysis revealed that while structural relationships were broadly consistent across all three countries, context-specific factors shaped how students experienced and responded to mental health challenges. This underscores the need to treat mental health not as a peripheral welfare concern but as a core determinant of educational success, particularly in vocational settings where students face compounding academic, social, and professional demands with comparatively limited institutional support.

The study carries significant practical implications. Educational institutions should implement early mental health screening, integrate counseling and peer-support services into daily operations, and redesign academic workloads to reduce unnecessary stress. At the policy level, national frameworks should embed mental health indicators within student retention and quality assurance standards, prioritize stress-reduction interventions, and allocate dedicated funding for psychological services in vocational schools. Teacher training to identify early signs of emotional distress is equally essential, given that educators represent the first institutional point of contact for at-risk students. Future research should employ longitudinal designs to track how mental health trajectories evolve across students' academic careers, and examine potential mediating factors such as resilience, family support, and teacher relationships. Extending this framework beyond European contexts, particularly to low-income educational systems, would strengthen the generalizability of these findings. Ultimately, this study affirms that addressing adolescent mental health is not only a psychological imperative but an educational, social, and economic priority that institutions and policymakers can no longer afford to treat as secondary.

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