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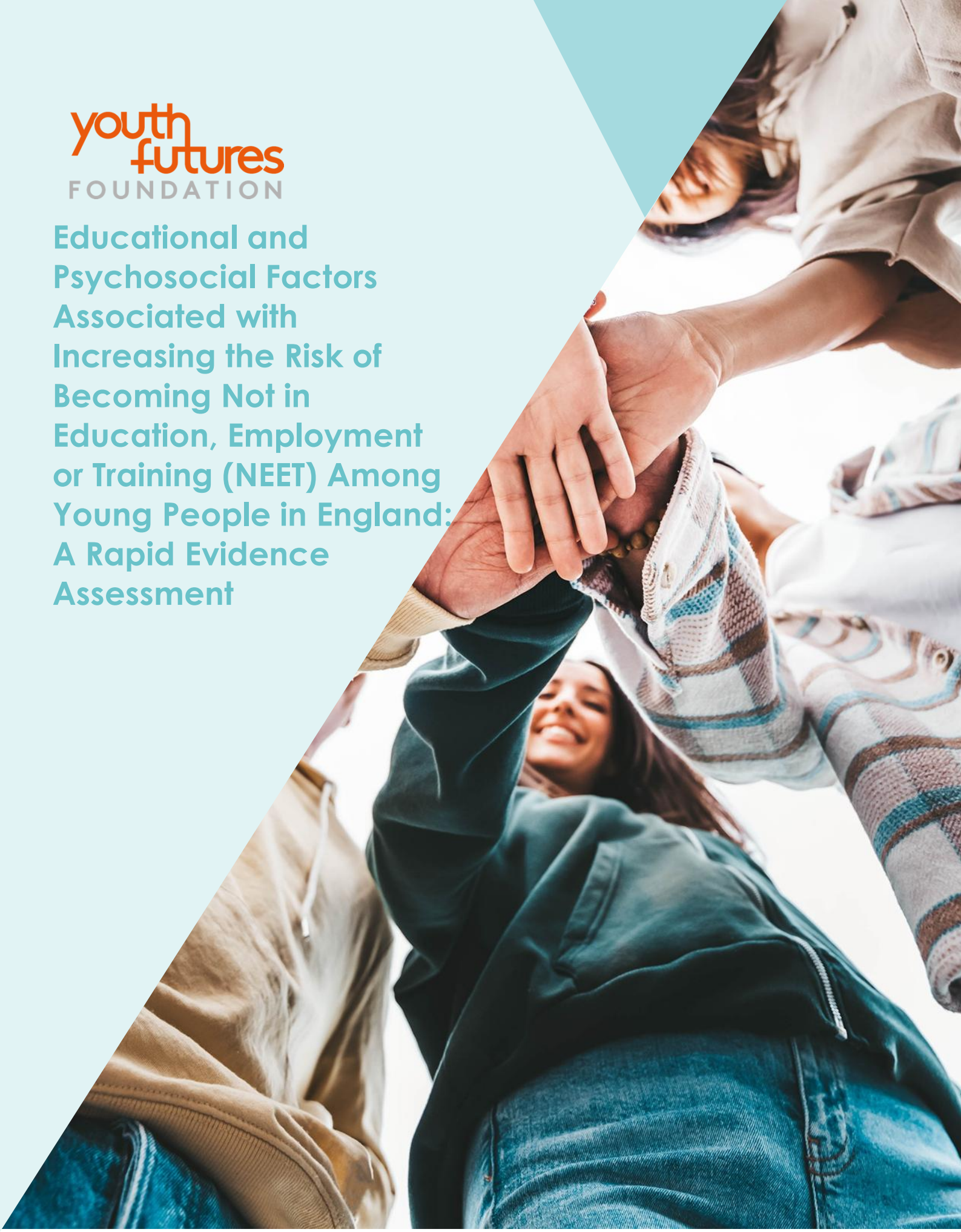
Educational and Psychosocial Factors Associated with Increasing the Risk of Becoming Not in Education, Employment or Training (NEET) Among Young People in England: A Rapid Evidence Assessment



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Acknowledgements

Youth Futures Foundation is the national What Works Centre for youth employment, with a specific focus on marginalised young people. We want to see an equitable future society where all young people have the opportunity to be in good work.

The percentage of young people aged 16-24 in the UK classified as 'not in education, employment, or training' (otherwise known as NEET) is one of the highest rates compared to other countries in the EU and OECD. This research examines factors associated with the risk of becoming not in education, employment, or training (NEET).

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This report is based on independent, quality assured research conducted by RAND Europe and funded by the Youth Futures Foundation. RAND Europe is a not-for-profit, nonpartisan policy research organisation with a long and proven commitment to high-quality research, underpinned by rigorous analysis. Based in Cambridge, Brussels, and the Hague, our mission to is help improve policy and decision making through objective research and analysis. For nearly 30 years, we have built an empirical understanding of critical topics: from education and employment to health and wellbeing; through to innovation policy and defence, justice and security issues. We approach each project as unique, informed by a deep understanding of the policy context. Our strength is in designing policy, providing analysis and making recommendations grounded in disciplined research. Believing in the power of facts, we help our clients reach better decisions with the greatest public benefit, to help make communities safer and more secure, healthier and more prosperous. We work to bring about a world where people thrive. To find out more, visit: www.randeurope.org

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Abbreviations

BCS	British Cohort Study
BHPS	British Household Panel Survey
CASP	Critical Appraisal Skills Programme
DfE	Department for Education
EHE	Electively Home Educated
GCSE	General Certificate of Secondary Education
ILoC	Internal locus of control
ICT	Information and Communication Technology
JBI	Joanna Briggs Institute
LFS	Labour Force Survey
LSYPE	Longitudinal Study of Young People in England (also known as 'Next Steps')
NEET	Not in education, employment, or training
PICOS	Population, Intervention, Comparison, Outcome and Study design
REA	Rapid evidence assessment
RONI	Risk of NEET Indicator
RoR	Review of reviews
RQ	Research Question
SES	Socio-economic status
SFSS	Subjective family social status
UK	United Kingdom
YCS	Youth Cohort Study

Glossary

TERM	DEFINITION	SOURCE
Attitudes to school and learning	Young people's feelings about education, and their like or dislike of school environment and studying.	Gorard et al. (2012)
Bullying	Exposure to repetitive and intentional behaviours causing physical, emotional, or psychological distress.	Lőrinc et al. (2020)
Demographic characteristics	Attributes of a population or specific group of individuals. In this report, we focus on gender, migrant background, ethnic minority background, and age.	Definition developed for this report
Educational aspirations	Young peoples' desire to pursue further studies after compulsory education.	Schoon and Amos (2017)
Educational attainment	The academic performance of young people, measured through GCSE scores.	Gladwell et al. (2022)
Educational engagement and psychosocial factors	Factors include, but are not limited to, attitudes, engagement, aspirations, transitions, attainment, and other psychosocial dimensions potentially related to the risk of becoming NEET for young people. Our aim is to be as inclusive as possible, capturing a wide range of factors that emerge from the literature, without adhering to an a priori definition.	Definition developed for this report
Family and parental characteristics	An umbrella term encompassing a broad array of interconnected risk factors related to family and parental background, including but not limited to family composition, the number of children, single-parent households parents' level of education, parenting styles, and parental expectations and involvement in their children's education.	Definition developed for this report

TERM	DEFINITION	SOURCE
Forethought	An individual's capacity to plan and care for the future.	Schoon and Amos (2017)
Full range of risk factors	The full range of risk factors (not just structural or educational engagement and psychosocial factors) associated with an increased risk of becoming NEET. They include key demographics (e.g. age, gender, race/ethnicity), familial, and socio-economic characteristics (e.g. income level, education, employment status), and health-related factors (e.g. disability).	Definition developed for this report
Health status (mental and physical)	Mental health was defined in terms of the presence or absence of mental health problems and psychiatric disorders, and any other psychological problem. Physical health was defined in terms of the presence or absence of disabilities and chronic conditions.	Rahmani et al. (2024)
Individual agency	The capacity to transcend the immediate constraints in one's environment and to shape one's life course.	Schoon and Amos (2017)
Level of area deprivation	The extent of disadvantage or lack of resources in a specific geographic area.	Paabort et al. (2023)
Location	The type of area where young people reside, such as rural or urban.	Isherwood (2023)
Locus of control	An individual's belief in their ability to make a difference through their own actions.	Ng-Knight T and Schoon (2017)
NEET rate	The percentage of a specific population who is not employed and not involved in education or training.	Eurostat (2024a)
Occupational aspirations	A set of preferences regarding future occupational roles and activities.	Yates et al., (2011)
Peer influences	The influence exerted by a social group to adopt certain behaviours and attitudes, which can be either positive or negative.	Pemberton (2008)

TERM	DEFINITION	SOURCE
Poor mental health	A state where individuals may experience significant challenges in coping with life stresses, realising their abilities, and functioning well in daily activities, such as work or social interactions. Poor mental health may not always align with the presence of a mental disorder but often leads to lower levels of wellbeing and increased vulnerability to mental health conditions.	WHO (2022)
Risky behaviours	An umbrella term encompassing early sexual initiation, unplanned pregnancies, and criminal or anti-social activities	Definition developed for this report
Self-efficacy/self-concept	An individual's belief on their ability in a certain area.	Descary et al. (2023)
Self-esteem	An individual's assessment of their own worth.	Tayfur et al. (2022)
Sense of self	An umbrella term created by the authors of this report. It comprises self-esteem, self-efficacy/self-concept, locus of control, subjective family social status, and forethought.	Definition developed for this report
Socio-economic status	Defined in terms of material and financial poverty or the occupational status of parents.	Rahmani et al. (2024)
Subjective family social status	An individual's perceptions of their social status in relation to others.	Rivenbark et al. (2020)
Truancy	Unauthorised absence from school on a persistent basis. Even though this specific term is used in the extracted sources, it is not commonly used in England (DfE, 2024a; DfE, 2024b). In this report we refer to low school attendance or school absence instead.	MacDonald and Marsh (2004)

Source: Authors' elaboration.

Executive summary

This project aims to deepen the understanding of factors associated with the risk of becoming not in education, employment, or training (NEET). The research focuses on educational engagement and psychosocial factors in the English secondary education context, alongside a full range of broader risk factors, such as demographic and familial characteristics, and socio-economic status, as well as non-cognitive aspects, such as aspirations, agency, and attitudes to school and learning.

The scope of this report

This final report draws on the Rapid Evidence Assessment (REA) and Review of Reviews (RoR) to explore the relationship between educational engagement and psychosocial factors, and the risk of becoming NEET for young people aged 11-16 in England. **The REA focuses on sources specific to England and the UK, while the RoR reviews international literature**. The final report examines how these factors, along with a full range of risk factors, are defined and measured, their associations with NEET status, and the causal pathways linking them with the risk of becoming NEET. Additionally, it discusses the strength of the evidence reviewed in both the REA and RoR.

Detailed findings

In the REA, we identified six key educational and psychosocial factors associated with the risk of becoming NEET, and in the RoR, we identified six additional broader risk factors.

The educational engagement and psychosocial factors include educational attainment, aspirations, attitudes to school and learning, peer influence and bullying, school absence, and 'sense of self' (i.e. self-esteem, self-efficacy, locus of control, forethought, and subjective family social status). The broader factors identified in the international literature encompass socio-economic status, family and parental characteristics, location and level of area deprivation, demographic characteristics (i.e., gender, migrant background, ethnic minority background, age), risky behaviours (early sexual initiation, unplanned pregnancies, and criminal or anti-social activities), and health status and substance misuse. Definitions and measurements for each identified factor can be found below.

Factors with a strong association with the risk of becoming NEET

- **Educational attainment**: the academic performance of young people, measured through General Certificate of Secondary Education (GCSE) scores.

- **Occupational and educational aspirations**: respectively, young people's job ambitions, and their desire to pursue further studies after compulsory education. Direct questions in questionnaires and interviews were used to identify and measure participants' aspirations.

- **Attitudes to school and learning**: young people's feelings about educations, and their like or dislike of school environment and studying. Similarly to aspirations, there was not a single measurement strategy or tool. Studies used direct questions through questionnaires and interviews to identify young people's attitudes to school and learning.

- **School absence**: unauthorised absence from school on a persistent and prolonged basis. It was usually measured in three ways: actual absences as reported by parents; self-reported absences; or propensity to truant.

- **Socio-economic status**: material and financial poverty or the occupational status of parents. The review studies did not discuss how socio-economic status was measured.

- **Family and parental characteristics** is an umbrella term encompassing a wide range of interconnected risk factors associated with family and parental backgrounds. These factors include, but are not limited to, family composition, the number of children, single-parent households, parents' level of education, and parental expectations and involvement in their children's education. No discussion about measurement tools was included in the sources reviewed in the RoR.

- **Unplanned pregnancies; Gender; Migrant background; Ethnic minority background**.[1]

Most of these factors were consistently and uniformly defined and measured across both English/UK-based and international sources. The use of clear standardised definitions verified metrics (such as GCSE scores), and robust longitudinal cohort datasets likely contributed to the transparent and consistent identification of the association between these factors and the risk of becoming NEET. **Both the REA and RoR found that educational attainment and aspirations had the strongest association with NEET status**. Additionally, we observed that the factors with the strongest association are often interconnected (see section 6.3 on causal pathways).

Factors with a weak association with the risk of becoming NEET

[1] Sources did not provide standardised definitions and measurements for these factors; please refer to respective sections in the report for a more detailed discussion on this.

- **Bullying and peer influence**: bullying referred to exposure to repetitive and intentional behaviours causing physical, emotional, or psychological distress, while peer influence referred to the influence exerted by a social group to adopt certain behaviours and attitudes, which can be either positive or negative.

- **Health status and substance misuse**: physical health was defined by disabilities and chronic conditions. Mental health was defined by mental health problems and psychiatric disorders, and any other psychological problem. Substance misuse was defined as cannabis use, alcohol use, and/or smoking. The measurement tools discussed in the sources included brief structured instruments and unspecified questionnaire items.

- **Early sexual initiation; Criminal or anti-social behaviour; Age.**[2]

Overall, these factors showed a weak statistical link to the risk of NEET status. While health status and substance use were associated with NEET status, their effect was significantly influenced by other confounding factors, such as those with stronger associations above.

Factors with an unclear association with the risk of becoming NEET

- **'Sense of self'**: self-esteem (an individual's assessment of their own worth), self-efficacy/self-concept (an individual's belief on their ability in a certain area), locus of control (an individual's belief in their ability to make a difference through their own actions), forethought (an individual's ability to plan and care for their future), and subjective family social status (an individual's perceptions of their social status in relation to others). These dimensions of self were measured using topic-specific questionnaire items.

- **Location and level of area deprivation**: location is the type of place where a young person resides, such as whether it is a rural or urban area. Level of area deprivation encompasses factors such as economic disadvantage, lack of resources, and limited access to services and opportunities, which characterise the level of deprivation in a specific area. The sources in the RoR did not discuss how location and level of area deprivation were measured.

The evidence regarding the strength of association between these factors and the risk of becoming NEET remains ultimately inconclusive due to insufficient evidence or contradictory findings. Although 'location and level of area deprivation' was found to

[2] Sources did not provide standardised definitions and measurements for these factors; please refer to respective sections in the report for a more detailed discussion on this.

have a strong association with the risk of becoming NEET, the quality of the reviewed sources was generally poor (i.e., three 'poor' sources, one 'fair, and one 'good'). Therefore, these findings should be interpreted with caution. Table 1 summarises the strength of association for each factor (see section 2.2 for a detailed explanation of the scoring system).

Table 1: Qualitative scores indicating the strength of the association between each factor and the risk of becoming NEET

FACTORS	NUMBER OF STUDIES	QUALITY OF STUDIES	RESULTS	SCORE
Educational attainment	17	Good/fair: 16	Strong association	**Strong**
Aspirations	10	Good/fair: 9	Strong association	**Strong**
Attitudes to school and learning	8	Good/fair: 8	Strong association	**Strong**
Peer influence and bullying	5	Good/fair: 5	Association is weak when confounding factors are accounted for. Small sample sizes in some studies call for cautious interpretation of their findings.	**Weak**
Self-esteem ('sense of self')	3	Good/fair: 3	Sources are of good quality, but too few (less than 5).	**Unclear**
Self-efficacy ('sense of self')	4	Good/fair: 4	Sources are of good quality, but too few (less than 5).	**Unclear**
Locus of control ('sense of self')	3	Good/fair: 3	Sources are of good quality, but too few (less than 5).	**Unclear**
Forethought ('sense of self')	1	Good/fair: 1	Source is of good quality, but too few (less than 5).	**Unclear**

FACTORS	NUMBER OF STUDIES	QUALITY OF STUDIES	RESULTS	SCORE
Subjective family social status (SFSS) ('sense of self')	1	Good/fair: 1	Source is of good quality, but too few (less than 5).	**Unclear**
School absence	6	Good/fair: 6	Strong association but complex (effects are mostly indirect and observable through other factors).	**Strong**
Health status and substance misuse	10	Good/fair: 8	Weak association due to confounding factors, and variability of health conditions. Substance use also has complex association.	**Weak**
Early sexual initiation ('risky behaviours')	5	Good/fair: 4	Weak association	**Weak**
Unplanned pregnancies ('risky behaviours')	5	Good/fair: 4	Strong association	**Strong**
Criminal or anti-social behaviour ('risky behaviours')	5	Good/fair: 4	Weak association	**Weak**
Socio-economic status	6	Good/fair: 4	Strong association	**Strong**
Family and parental characteristics	6	Good/fair: 4	Strong association	**Strong**
Location and level of area deprivation	5	Good/fair: 2	Sources indicated a strong association, but score is 'unclear' due to the poor quality of most sources (poor: 3; fair: 1; good: 1).	**Unclear**

FACTORS	NUMBER OF STUDIES	QUALITY OF STUDIES	RESULTS	SCORE
Gender ('demographic characteristics')	5	Good/fair: 3	Strong association	**Strong**
Migrant background ('demographic characteristics')	5	Good/fair: 3	Strong association	**Strong**
Ethnic minority background ('demographic characteristics')	5	Good/fair: 3	Strong association but complex due to factor's effect being highly context dependant.	**Strong**
Age ('demographic characteristics')	5	Good/fair: 3	Weak association	**Weak**

Source: Authors' elaboration.

The quality of the evidence reviewed in the REA is generally good, with quantitative studies relying on longitudinal cohort designs deemed to be of high quality. However, the statistical significance of their findings is at times insufficient to establish causal pathways between risk factors and NEET status, except for the studies on educational attainment and aspirations. Overall, **the quality of the review studies included in the RoR is fair**. The lower quality scores were primarily due to about two-thirds of these studies lacking details on inclusion criteria, critical appraisal criteria, and error minimisation strategies (see Appendix 3).

Conclusions and potential implications

The report concludes that **factors associated with NEET risk are interconnected**. Educational engagement and psychosocial factors like **educational attainment** and **aspirations are key factors associated with the risk of becoming NEET** and are often influenced by equally predictive broader factors such as socio-economic status, family and parental characteristics, and specific demographic characteristics (gender, migrant background). These interconnected factors are strongly associated with NEET status. They can lead to low academic performances, lack of minimum qualifications, social isolation and poor mental health, as well as feelings of unpreparedness, low self-esteem, and negative attitudes towards educational engagement and the future after compulsory education. See discussion below:

- **Several broader factors can have a complex influence on young people's educational attainment and consequently, lead to a higher risk of becoming NEET.** Health status can have a direct negative impact on **educational attainment**. Mild or severe mental health issues can hinder the cognitive and executive functioning of young people, resulting in poor educational attainment, as well as social isolation and exclusion. Depending on its severity, school absence, whether due to health issues, poor labour market conditions, socio-economic status, or involvement in bullying, can significantly affect academic achievement. Consequently, low educational attainment can leave young people feeling unprepared to deal with life after compulsory education and lacking the minimum academic qualifications (e.g., GCSE score above 4). Addressing the interconnected broader factors that contribute to low educational attainment is just as crucial as tackling the low attainment itself, as together these factors can increase the risk of NEET status. Educational and occupational aspirations can also significantly influence a young person's likelihood of becoming NEET. We found that factors such as location and level of area deprivation, family and parental characteristics, and socio-economic status, can shape young people's aspirations. Poor labour market conditions, particularly in rural areas and deprived urban areas, may lead young people to develop negative perceptions of available job opportunities and their quality and consequently, lower occupational aspirations.

- Low, uncertain, or misaligned **aspirations** can also stem from family and parental characteristics. Living with parents who were less involved in their children's education due to work commitments or other reasons was generally found to negatively impact young people's aspirations, thereby increasing their risk of NEET status. Additionally, overbearing or abusive parenting styles were also reported to negatively influence aspirations of young people. There were also gender-based differences: young women with unclear or low aspirations were three times more likely to become NEET than their peers. Similarly, poverty and deprivation associated with lower socio-economic status were generally found to limit young people's aspirations, potentially increasing their likelihood of becoming NEET.

This study brings forward the following implications for research, policy, and practice.

Implications for research

- **Enhance causal understanding**: Additional studies using Randomised Control Trials (RCTs) are needed to establish more robust causal pathways between educational engagement, psychosocial factors, and young people's risk of becoming NEET in England.

- **Understand the development of aspirations**: To better support the development of educational and occupational aspirations in young people, we need a deeper understanding of how these aspirations are formed.

- **Develop theory-based studies**: Investing in theory-based research to test and refine theories of change related to NEET risk factors would support the development of more targeted and effective interventions.

- **Expand longitudinal research**: Encouraging the use of existing longitudinal data, such as the Longitudinal Education Outcomes (LEO that brings together many different data sources and tracks students' education and employment outcomes) or the Longitudinal Study of Young People in England (LSYPE), will enhance our understanding of the long-term impacts of various factors on NEET status and provide valuable insights into the effects of early interventions.

Implications for policy

- **Focus on early intervention**: Policies supporting early interventions for young people aged 11 to 16 can help address the strongest NEET risk factors early, reducing the likelihood of young people becoming NEET. The quality of early intervention is as crucial as its timing, ensuring that those most at risk receive appropriate and effective support.

- **Promote educational attainment**: Given that educational attainment is one of the strongest factors associated with the risk of becoming NEET, policies should prioritise enhancing it while also addressing the broader risk factors[3] that negatively affect it.

- **Address the aspiration gap**: Occupational and educational aspirations are also very closely linked to NEET risk. Policies should focus on bridging the aspiration gap by addressing the negative impacts of low-socio-economic status, location and level of area deprivation (including poor labour market conditions), gender, and family and parental characteristics.

Implications for practice

- **Strengthening educational engagement**: Educational engagement should be a central focus of both policy and practice, as it plays a critical role in improving

[3] These were low socio-economic status (poverty and parental worklessness), disadvantaged location and level of area deprivation (including poor labour market conditions), school absence, bullying involvement, and poor mental health (see section 6.3).

educational attainment, shaping aspirations, and reducing the risk of young people becoming NEET.

- **Tailored interventions**: Designing interventions that consider the unique combination of NEET risk factors affecting each individual young person, through personalised, tailored support, will maximise their effectiveness while minimising the risk of blind spots.

- **Comprehensive support systems**: Implementing holistic support systems that integrate educational engagement and psychosocial, as well as broader risk factors, is vital. This should include mentoring programmes, career counselling, and mental health services to address the diverse and compounded needs of at-risk youth.

Table of Contents

1. Introduction

1.1. Purpose and context of the study

The objective of this study is to deepen the understanding of factors associated with the risk of becoming not in education, employment, or training (NEET) through a rapid evidence assessment (REA) and a review of reviews (RoR), followed by a synthesis of findings from both reviews.

The issue of young people who are NEET is a significant challenge, particularly in the United Kingdom (UK). The proportion of 16–24-year-olds who were NEET rose after the 2008 recession (HM Government, 2024), reaching a peak of 16.9% (1.25 million individuals) in July-September 2011 (ONS, 2021). Since that peak, the number of NEET individuals declined, but then increased following the Coronavirus pandemic. While the proportion of young people in full-time education without employment rose from 30% to 35%, the employment rates for young people dropped from 55% to 51% between 2020 and 2021 (ibid.). Official statistics also show that by the end of 2024, the unemployment rate for 16–24-year-olds was 13.4%, an increase by 1.3% compared to a year before (ONS, 2025).

Notably, the UK NEET rate tends to be higher when compared to many countries in the European Union and Organisation for Economic Co-operation and Development (Eurostat, 2024b; OECD, 2024). To effectively address this issue through targeted policies and interventions, it is crucial to gain a deep understanding of the risk factors associated with becoming NEET and the underlying mechanisms at play.

Policy documents such as the Department for Education's non-statutory Guidance on the Risk of NEET Indicator (RONI) tool (DfE, 2025) have been developed to support local authorities and education providers in identifying and assisting young people at risk of becoming NEET. This document outlines how to use data effectively to flag early signs of risk and facilitate smoother transitions into post-16 education, employment, or training. It highlights a range of relevant indicators of NEET status, and draws attention to specific at-risk groups, including Electively Home Educated (EHE) young people. The document also sets out ten core principles for effective risk identification and support, emphasising the importance of collaboration between local authorities and education institutions.

A substantial body of literature has examined the association between various **demographic, familial and socio-economic factors** and an increased risk of becoming

NEET (Rahmani et al., 2024). There has been a growing focus on the relationship between NEET status and factors related to young people's **educational engagement and experience**, as well as other **psychosocial aspects**, such as school belonging (Parker et al., 2022). Additionally, there is increasing interest in the role of **non-cognitive factors** – such as personality traits, aspirations, agency, goals, motivations, and preferences – in predicting life outcomes, particularly among young people from disadvantaged backgrounds (Tayfur et al., 2022; Descary et al., 2023; Isherwood, 2023; Heckman and Kautz, 2012). A study drawing on UK data found that individual agency, defined as the ability to overcome environmental constraints and to shape one's own life, can to some extent protect disadvantaged youth from becoming economically inactive or unemployed after the completion of compulsory education (Ng-Knight and Schoon, 2017).

Given the recent and growing interest on this subject, this study offers a clear and comprehensive synthesis of the key educational engagement and psychosocial factors associated with the risk of becoming NEET. It not only outlines the most commonly used definitions and measurement tools, but also critically examines how these factors interact with broader NEET risk factors, and how they are understood within different national context and across international literature. In doing so, the study provides **critical and actionable insights for supporting young adults most at risk of becoming NEET.** The findings – including the complexity of the causal links between factors, and the identification of educational attainment and aspirations as key factors – can inform early intervention initiatives like the Building Futures programme. This programme offers tailored mentoring and wellbeing support are designed to improve secondary school students' engagement with education and reduce their risk of becoming NEET (YFF, N.D.).

1.2. Scope and methodology of this report

This report addresses three main Research Questions using two types of reviews, a REA and a RoR, and primary and secondary evidence from England-specific and international literature.

1. Research Question 1: **What is known about educational engagement and psychosocial factors and their association with the risk of becoming NEET for young people aged 11–16 in England?**
   1.1. How are these factors defined, identified, and measured?
   1.2. How strong is the association between these factors and the risk of becoming NEET?

1.3. What are the causal pathways through which these factors are associated with NEET risk (if any)?
1.4. What is the strength of the evidence?

To answer Research Question 1, we carried out a REA, drawing on both primary and secondary sources to identify educational engagement and other psychosocial factors associated with the risk of becoming NEET among youth in the English secondary education context (ages 11-16). Relevant studies focusing on the wider UK were also included, given the limited availability of England-specific sources (see Appendix 1 for more details on the study's methodology).

2. Research Question 2: **What is known about the full range of factors associated with the risk of becoming NEET for young people internationally?**
   2.1. How are these factors defined, identified, and measured?
   2.2. How strong is the association between these factors and the risk of becoming NEET?
   2.3. What are the causal pathways through which these factors are associated with the risk of becoming NEET?
   2.4. What is the strength of the evidence?

To answer Research Question 2, we conducted a RoR to examine the full range of factors associated with the risk of becoming NEET. The evidence included secondary sources – specifically international review studies.

3. Research Question 3: **To what extent are the factors identified in relation to Research Question 1 also identified in Research Question 2?**

To address Research Question 3, we synthesised the findings from both the REA and RoR. As a result, the geographical scope for addressing this Research Question was combined, incorporating primary and secondary sources from studies based in England and the UK, as well as from international literature.

We carried out the **REA** using the following steps. We defined the search strategy (search terms were organised according to the modified Population, Intervention, Comparison, Outcome and Study design, i.e. PICOS framework; Methley et al., 2014). We conducted pilot searches in both Scopus and Google Scholar, obtaining 59 results in total. Additionally, we identified 13 more sources through snowballing. To maximise the number of potential sources, we also ran the RoR alongside the REA, which yielded an additional 43 sources. Duplicates were removed, leaving 114 identified sources that were screened against inclusion/exclusion criteria for the REA, which limited the geographical scope to England or the UK. Included texts were reviewed in full and data was extracted from **19 included sources**. We analysed and synthesised the findings of all

included sources and conducted the quality appraisal of the included studies using the Newcastle-Ottawa Scale for cohort studies (Tayfur et al., 2021), the Critical Appraisal Skills Programme (CASP) Checklist for qualitative sources, and the Joanna Briggs Institute (JBI) critical appraisal checklist for systematic reviews and research syntheses. These steps are outlined in more detail in Appendix 1.

The **RoR** followed the same process but used different search terms and inclusion/exclusion criteria, extending the geographical scope to international evidence. Nine sources were identified for inclusion in the RoR through this, and a further four sources were identified through snowballing. This gave a **total of 13 international sources** that were included for the data extraction.

While this study provides a clear, comprehensive, and critical synthesis of existing research on educational engagement and psychosocial NEET risk factors, **it does not include the collection of primary data from young people, their families, or professionals working directly with them**. This is because such data collection was outside the scope of the study. However, the absence of first-hand perspectives partially limits the depth of empirical insight and the opportunity to corroborate findings with lived experience.

1.3. Structure of the report

This report includes a synthesis of finding from both reviews. Chapter 2 provides an overview of the sources included in the REA and RoR (chapter 2.1), presents the key educational engagement and psychosocial and broader risk factors (2.2), and evaluates the quality of the sources (2.3).

Chapter 3 examines the six educational and psychosocial factors identified in England (or the UK). For each factor (chapters 3.1 to 3.6), we provide their definitions and measurements and explain their strength of association with NEET status and the related causal pathways (if and as discussed by the sources).

Chapter 4 focuses on the six full range factors drawn primarily from international evidence. Like in the previous chapter, we examine their definitions, measurements, strength of association, and causal pathway(s) (if discussed in the reviewed sources) to the NEET status. Chapter 5 explains the extent to which factors identified in the REA (in England or the UK) were also identified in the RoR (internationally). Implications from the reviews are discussed in the concluding Chapter 6.

2. Overview of the sources included in the REA and RoR

In this chapter, we present a brief overview of the included sources, risks associated with becoming NEET discussed in these and briefly comment on the quality of evidence found.

2.1. Overview of the sources

Most sources reviewed as part of the **REA** were primary studies (17 out of 19) while only two were reviews of existing studies.

Of the primary studies, most (13/16) were quantitative in nature. These included longitudinal or cohort, or cross-sectional research designs. In terms of data, there was a wide range of sample sizes across the quantitative primary studies (from 2,224 to 17,000). We summarised key information about the datasets used in the extracted sources in **Appendix 2**. Only four of the primary studies were qualitative in nature. These articles employed interviews, observation of training sessions, and focus groups.

Most primary studies focused only on England (7/15) or the UK/England and Wales (6/15). Three studies focused on specific areas within England (e.g. one study covered the Northeast of England, another focused on London and another study covered Greater Merseyside). One source using secondary data reviewed evidence from both the UK and the United States.

Among the included **RoR** sources, nine were systematic reviews, three were scoping reviews, and two sources did not specify the type of review. Their geographic scopes were varied. Three had a narrow remit, limited to England, the UK, and the US. In contrast eight sources had a broader coverage examining evidence from multiple European and OECD countries. Two sources did not explicitly specify their geographic scope. A full list of all 32 reviewed sources can be seen in **Appendix 3.** While there is strong international evidence on the long-term harms of being NEET, how early exclusion is defined and measured varies across national contexts. The UK uses the NEET classification, whereas EU member states include both NEET and Early School Leavers (ELET) (Flisi et al., 2015; Petrescu et al., 2024; Lindblad et al., 2024; Paabort et al., 2023) and North American studies take high school dropout rates in consideration instead (Gorard et al., 2012; Tayfur et al., 2021). Consequently, these frameworks differ in terms of

factors observed, age range, and school context (e.g., secondary school, high school), which affects how factors associated with the risk of becoming NEET are assessed and therefore defined and measured. These variations highlight the need to interpret findings within non-UK national and methodological contexts carefully in order to develop appropriately targeted and meaningful interventions.

2.2. Risks identified in the REA and RoR

We identified six groups of educational engagement and psychosocial factors from the England and UK-focused studies, and six groups of broader risk factors from the international literature. We developed a **qualitative scoring system** to indicate the strength of the association between various factors and the risk of becoming NEET. The purpose of this system is **to simplify the presentation of information regarding how strongly each factor is linked to NEET status**. The qualitative scores are based on narrative explanations found in the literature (Table 2).

Table 2: Overview of criteria used to determine the qualitative scores indicating the strength of the association between each factor and the risk of becoming NEET

SCORE	INTERPRETATION
Strong	(1) Number of studies: at least 5 studies[4] (2) Their quality: all/most were of good or fair quality (see Section 2.3) (3) Their results: all/most identified a **strong** association between a factor and NEET status
Weak	(1) Number of studies: at least 5 studies (2) Their quality: all/most were of good or fair quality (3) Their results: all/most identified a **weak** association between a factor and NEET status
Unclear	(1) Number of studies: fewer than 5 studies (2) Their quality: all/most were of poor quality or mixed (3) Their results: failed to determine the strength of association between a factor and NEET status or show mixed results

Source: Authors' elaboration.

[4] The average number of reviewed sources per identified factor.

These scores should be interpreted with caution, as the relationships between factors and NEET status are complex and cannot be fully captured by a single score. The scores for each factor are provided in **Table 3** and in **Appendix 4**.

Table 3: Qualitative scores indicating the strength of the association between each factor and the risk of becoming NEET

FACTORS	NUMBER OF STUDIES	QUALITY OF STUDIES	RESULTS	SCORE
Educational attainment	17	Good/fair: 16	Strong association	**Strong**
Aspirations	10	Good/fair: 9	Strong association	**Strong**
Attitudes to school and learning	8	Good/fair: 8	Strong association	**Strong**
Peer influence and bullying	5	Good/fair: 5	Association is weak when confounding factors are accounted. Small sample sizes in some studies call for cautious interpretation of their findings.	**Weak**
School absence	6	Good/fair: 6	Strong association but complex (effects are mostly indirect and observable through other factors).	**Strong**
Self-esteem ('sense of self')	3	Good/fair: 3	Strong association. Sources are of good quality, but too few (less than 5).	**Unclear**
Self-efficacy ('sense of self')	4	Good/fair: 4	Complex association. Sources are of good quality, but too few (less than 5).	**Unclear**

FACTORS	NUMBER OF STUDIES	QUALITY OF STUDIES	RESULTS	SCORE
Locus of control ('sense of self')	3	Good/fair: 3	Sources are of good quality, but too few (less than 5).	**Unclear**
Forethought ('sense of self')	1	Good/fair: 1	Source is of good quality, but too few (less than 5).	**Unclear**
Subjective family social status (SFSS) ('sense of self')	1	Good/fair: 1	Source is of good quality, but too few (less than 5).	**Unclear**
Health status and substance misuse	10	Good/fair: 8	Weak association due to confounding factors, and variability of health conditions. Substance use also has complex association.	**Weak**
Early sexual initiation ('risky behaviours')	5	Good/fair: 4	Weak association	**Weak**
Unplanned pregnancies ('risky behaviours')	5	Good/fair: 4	Strong association	**Strong**
Criminal or anti-social behaviour ('risky behaviours')	5	Good/fair: 4	Weak association	**Weak**
Socio-economic status	6	Good/fair: 4	Strong association	**Strong**

FACTORS	NUMBER OF STUDIES	QUALITY OF STUDIES	RESULTS	SCORE
Family and parental characteristics	6	Good/fair: 4	Strong association	**Strong**
Location and level of area deprivation	5	Good/fair: 2	Sources indicated a strong association, but score is 'unclear' due to the poor quality of most sources (poor: 3; fair: 1; good: 1).	**Unclear**
Gender ('demographic characteristics')	5	Good/fair: 3	Strong association	**Strong**
Migrant background ('demographic characteristics')	5	Good/fair: 3	Strong association	**Strong**
Ethnic minority background ('demographic characteristics')	5	Good/fair: 3	Strong association but complex due to factor's effect being highly context dependant.	**Strong**
Age ('demographic characteristics')	5	Good/fair: 3	Weak association	**Weak**

Source: Authors' elaboration.

2.3. Quality appraisal of the sources

We used three different tools to appraise the quality of the sources included in both reviews, based on the study's research design. For quantitative studies, we used the Newcastle-Ottawa Scale (cohort studies) (Wells et al., 2009), and the CASP Checklist for qualitative studies. We also used the modified Joanna Briggs Institute critical appraisal

checklist for systematic reviews and research syntheses (Aromataris et al., 2015). The quality of the quantitative studies was good, whereas that of the qualitative sources and review studies was overall fair. The quality of reviews was mixed. We included more information about the Quality Appraisal tools, and tables summarising the scores for each extracted source, in **Appendix 3**.

Whilst **the methodological quality of the quantitative sources in the REA was particularly good,** it should be noted that **the statistical significance of their findings tended to be not strong enough to evidence causal pathways** between all examined risk factors and NEET status. In other words, even though **these studies could prove the strength of association** between a given risk factor and NEET status, **they could not always confirm its causal pathway(s)**, with the exception of the sources on educational attainment and aspirations. We were unable to confirm certain suggested causal pathways through qualitative studies, as these were not available. **Overall, the quality of the international sources in the RoR was considered fair**. Approximately two thirds of the studies did not provide information or discussions regarding the inclusion criteria, the critical appraisal criteria and error minimisation strategies used, which **contributed to their lower quality scores** (see **Appendix 3**).

3. Educational engagement and psychosocial factors (evidence from England or the UK)

We provide below the definitions, measurements, strength of association with the risk of becoming NEET, and any causal pathway(s), for the six groups of factors identified in the literature focused on England or the UK.

3.1. Factor 1: Educational attainment

Definition and measurement

Educational attainment was by far the most widely discussed factor in the reviewed literature (12 sources). All these studies defined and measured educational attainment using General Certificate of Secondary Education (GCSE) grades.[5] Bradley and Crouchley (2020) used the Youth Cohort Study (YCS) to retrieve young people's GCSE subject test scores while Hale and Viner (2018) based their analyses of young people's educational attainment on respondents' performance on coursework for the GCSE. They specifically used the Level 2 threshold[6] as a marker of educational attainment. Both Crawford et al. (2011) and Schoon and Amos (2017) measured educational attainment by looking at young people's early academic achievement, as measured by Key Stage 2 test scores, as well as their GCSE scores.

Low educational attainment is a complex and multifaceted factor that can be difficult to define and measure consistently. The frequent use of GCSE scores as a proxy for educational attainment likely reflects their wider availability in administrative datasets, their standardised nature, and their direct relevance for access to post-16 education and employment pathways. While GCSE performance, particularly in core subjects like English and Maths, is undoubtedly significant, this approach cannot capture other

[5] GCSEs are the usual qualification taken by young people at the end of Key Stage 4 in England and Wales. All 12 sources used GCSE scores as a measurement of educational attainment: Gladwell et al. (2022); Bradley & Crouchley (2020); Hale & Viner (2018); Isherwood (2023); Lőrinc et al. (2020); Crawford et al. (2011); Pemberton (2008); Schoon & Amos (2017); Duckworth & Schoon (2012); Gorard et al. (2012); Spielhofer et al. (2009); Crowley et al. (2023).
[6] i.e. achieving a grade of 4 or C or higher.

important aspects of educational engagement, such as coursework, classroom participation, and broader learning behaviours during the school year, which are arguably harder to consistently measure through standardised measurements. In short, the prominence of GCSE scores in the literature may partly reflect practical considerations in data availability and collection rather than a comprehensive assessment of all dimensions of educational attainment.

Strength of association between the factor and risk of becoming NEET

Existing studies emphasised the strength of association between educational attainment and the risk of becoming NEET. The majority (9/12) of the sources[7] argued that GCSE scores had a direct effect on labour market outcomes and could also mitigate the detrimental effects of school absence. Some reported that both cognitive and non-cognitive skills played a substantial role in protecting or exposing individuals to the risk of being NEET. In short, **low educational attainment** (especially in English and Maths), often accompanied by disengagement from education (in the form of school absence, suspensions, and exclusion) was **a key factor associated with the risk of becoming NEET**.

Two studies found a weak association between education attainment and the risk of becoming NEET, suggesting structural barriers and parental involvement could play an important role. Pemberton (2008) found that Black, Asian, and minority ethnic young people who experienced structural disadvantages and discrimination generally had reasonable qualification attainment (GCSE A*-C) but appeared to have been NEET for a long period (on average 46 months). They therefore suggested that structural disadvantages affecting young people from minority ethnic groups was more strongly associated with the risk of becoming NEET than educational attainment. Gorard et al. (2012)[8] found that there was a plausible case that parental involvement influenced children's readiness for school and their academic attainment.

Causal pathway(s)

The literature provided a diverse range of causal pathways linking poor educational attainment to the risk of becoming NEET. Bradley and Crouchley (2020) argued that GCSE test scores **had a direct effect on labour market outcomes**. Similarly, Lőrinc et al.

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[7] Gladwell et al. (2022); Bradley & Crouchley (2020); Lőrinc et al. (2020); Isherwood (2023); Crawford et al. (2011); Spielhofer et al. (2009); Crowley et al. (2023); Schoon & Amos (2017); Duckworth & Schoon (2012).

[8] Please note that **Gorard et al. (2012)**, in their comprehensive review of both English and international literature, did not find statistically significant associations or causal pathways for most of the factors identified. We reiterate this specific aspect of Gorard et al. (2012) in each relevant section to ensure transparency.

(2020) and Isherwood (2023) also found that **poor educational attainment could cause young people to feel underconfident and unprepared for life after school, and ultimately, become NEET**. These studies highlighted that **poor educational attainment** (e.g. GCSE scores below 4) **could lead to an increased risk of becoming NEET** (see also Crowley et al., 2023). This is because low educational attainment, especially in English and Maths, significantly limits the future study options of young people, who therefore become more likely to becoming NEET. On this note, Isherwood (2023) argued that the transition from primary to secondary school is a risk-point for learners with low educational attainment and who may feel underconfident because of it. A positive transition from primary to secondary school is critical in providing positive experiences of learning and continued engagement with education.

There are **other factors that can have adverse effects on young people's educational attainment**. **Bullying involvement** and other peer problems can result in **negative attitudes to school and learning,** increasing the risk of isolation, **school absence**, and educational disengagement (Isherwood, 2023; see chapters 3.3., 3.4., and 3.5 for more details). In other words, low educational attainment can be understood not only as an early indicator or precursor of educational disengagement, but also as a potential outcome of it, shaped by the influence of various interconnected risk factors. **Poor mental health**, defined as young people's experiences of common or serious psychological problems, can lead to isolation, exclusion, and impaired executive and cognitive functioning, thereby hindering their educational attainment during the school year (Hale and Viner, 2018; see chapter 4.1. for more details). **Poor labour market conditions** in more deprived areas of England can influence young people's perceptions of available job opportunities; a perceived lack of opportunities can lead them to put less effort into educational engagement (Gladwell et al., 2022; see chapter 4.4. for more details).

3.2. Factor 2: Aspirations

Definition and measurement

The reviewed literature on young people's aspirations and the risk of becoming NEET generally distinguishes between occupational and educational aspirations, although sometimes this distinction is not made explicit.

Nine sources identified young people's aspirations as an **important risk factor** for becoming NEET. Sources defined and measured aspirations in different ways, often focusing on young people's future goals and expectations, but also on their perceptions of and responses to the labour market. Several focused on **educational aspiration**, which was defined as individuals' future orientation and the level of education they wish

to reach, or as their expectations to participate in higher education (Schoon, 2014; Descary et al., 2023; Schoon and Amos, 2017; Yates et al., 2011). Other sources focused on **occupational aspirations**, including the desire to have a job or professional career (Yates et al., 2011; Pemberton, 2008; Tayfur et al., 2022). Two sources did not define aspirations beyond young people's hopes for the future (Gorard et al., 2012; Hale and Viner, 2018). In general, it is important to recognise that aspirations stem from personal experiences and needs, resulting in a wide range of diverse educational and occupational aspirations.

Strength of association between the factor and risk of becoming NEET

The reviewed sources consistently indicated a strong association between educational and occupational aspirations and NEET status. The higher the educational aspirations, the higher the likelihood of the young person to go to higher education and be in employment. The impact of having low aspirations was not discussed as much.

High educational aspirations were viewed as an important factor influencing young people's educational attainment, career progression, and potentially preventing intergenerational worklessness (Schoon, 2014; see also Descary et al., 2023; Tayfur et al., 2022; Hale and Viner, 2018; Gorard et al., 2012; Yates et al., 2011). Descary et al. (2023) also found that educational aspirations were linked to stable, adequately compensated, and fulfilling employment in England, probably because of the longer educational pathways required for such jobs. Duckworth and Schoon (2012) found that a young person wanting to stay on in school post-16 increased the likelihood of avoiding NEET status by between 36% and 69%.

Schoon and Amos (2017) is the only study that examined the relationship between age and educational aspirations. They found that **individuals with higher academic aspirations at ages 13-14 were significantly more likely to be in higher education** after the completion of compulsory schooling at 16, compared to entering pathways such as vocational education, employment after some education, and employment right after compulsory schooling. However, after age 19-20, the strength of association between educational aspirations and the risk of becoming NEET became weaker, as other factors were deemed more relevant.

Tayfur et al. (2022) found that **occupational aspirations, more than educational aspirations, predicted NEET status**. Their study concluded that higher job aspirations, which they argued would lead to early labour market engagement during school, appeared to be a stronger factor in preventing individuals from becoming NEET.

While Pemberton (2008) also examined other educational engagement and psychosocial factors linked to NEET status, the author did not provide a clear analysis of

the strength of association between occupational aspirations and the risk of becoming NEET.

Causal pathway(s)

Misalignment or uncertainty regarding educational and occupational aspirations increase the likelihood of a young person becoming NEET. By misalignment, Yates et al. (2011) referred to the discrepancy between individuals' career aspirations and their educational expectations. For example, this occurs when young people's educational expectations fall short of the requirements for their desired job, or when they exceed what is necessary.

Yates et al. (2011) concluded that misaligned occupational aspirations leading to a higher risk of becoming NEET were arguably a byproduct of structural inequality. They found that misaligned and uncertain aspirations were considerably more prevalent and detrimental among young people from disadvantaged backgrounds in the British Cohort Study 1970 (BCS70) dataset. Yates et al. (2011) did not address the quality of the career advice received by members of the BCS70 cohort. Instead, the authors suggested that families at the time may not have fully grasped the implications of the drastic changes in the youth labour market and school-to-work trajectories happening during the 1980s. This lack of understanding may have led to their children having misaligned or mismatched occupational and educational aspirations.

Yates et al. (2011) also found **gender-based differences**. Young men with mismatched occupational aspirations and educational expectations were almost twice as likely to become NEET. Young women with misaligned ambitions were three times as likely to become NEET. Additionally, they also observed that young men and women with uncertain occupational aspirations were roughly three times more likely to become NEET.

Although the study by Hale and Viner (2018) looked at the role of low aspirations in young people's likelihood of becoming NEET, it concluded that other factors (health and social exclusion, in particular) had stronger association with NEET status. Parental influence and national policies were also discussed in relation to young people's aspirations and risk of NEET status. These findings could be interpreted as evidence that aspirations connect with other risk factors in their causal pathways to NEET status.

According to Schoon (2014), **among young people and children growing up in persistent workless households,** high levels of educational aspirations reduced the risk of becoming NEET (see chapter 4.1 for more details on socio-economic status). The study suggested that children of workless parents potentially recognised the value of higher education and did not want to repeat the predicament of their parents. Conversely,

Pemberton (2008) noted that many of the jobs young people with parents in low-skilled jobs aspired to were low-skilled or of lower added value[9], often reflecting the types of work their parents were engaged in. In other words, parental worklessness can influence young people's aspirations in two distinct ways: it may motivate young people to seek better jobs to avoid worklessness themselves or it may lead them to pursue lower skilled, insecure jobs.

Schoon and Amos (2017) did not elaborate on the potential causal pathways between academic aspirations and young people's transition pathway after completing compulsory schooling.

3.3. Factor 3: Attitudes to school and learning

Definition and measurement

A total of nine sources discussed the issue of attitudes to school and learning, and its relationship with NEET status.

There was **no standardised definition** for attitudes to school and learning, as most sources used different approaches to define and measure the factor. Gorard et al. (2012) and Spielhofer et al. (2009) defined attitude as an **individual's feelings about education and a key indicator of a young person's like or dislike for school.** Tayfur et al. (2022) and Duckworth and Schoon (2012) used similar definitions. They measured participants' attitudes to school and learning using their responses to five- and twelve-item questionnaires, respectively, with attitudinal questions as well as questions aimed at determining their levels of school motivation. Conversely, Hale and Viner (2018) defined and measured **attitudes to school and learning in relation to school behaviour.** They defined frequent troublemaking as self-reporting misbehaving of the respondents in their classes at age 13.

In some studies, although the researchers did not directly use the term 'attitudes', their measurements essentially captured aspects of attitudes towards school and learning. For example, Descary et al. (2023) conceptualised **self-regulation as an aspect of academic agency**, measured by young people's attitudes towards their school engagement at age 15-16 ('liking school' and 'working hard in school') on a 4-point scale. Similarly, Schoon and Amos (2017) examined **school engagement (self-**

[9] Kindly note that Pemberton (2008) did not explicitly define "low-skilled" or lower "added value" jobs.

directedness) as an aspect of individual agency, using five attitudinal questions about school engagement at age 13-14.

Even though they addressed the relevance of young people's attitudes to school and learning in relation to the risk of becoming NEET, Isherwood (2023) and Crawford et al. (2011) provided no definition or measurement of this factor.

Strength of association between the factor and risk of becoming NEET

Existing literature agreed that attitudes to school and learning predict young people's risk of NEET status. Having a positive attitude to school and learning lowered the risk of NEET and made it likely that young people would continue or re-engage in education or training (Spielhofer et al., 2009; Tayfur et al., 2022; Duckworth and Schoon, 2012; Crawford et al., 2011; Schoon and Amos, 2017; Descary et al., 2023). Therefore, young people who had negative attitudes about school were not likely to continue to post-compulsory education (Isherwood, 2023; Crawford et al., 2011).

Descary et al. (2023) also observed that young people with positive attitudes to school and learning were likely to continue in higher education. However, they did not find a significant association between school engagement attitudes and rapid entry into meaningful employment.

Causal pathway(s)

While the examined sources argued that the association between attitudes to school and learning and NEET status was strong, **few reviewed sources explored why the association was strong**. Only a few studies explained why negative attitudes could lead to a higher risk of becoming NEET. The absence of a standardised definition for this factor may have contributed to the limited in-depth exploration of its causal pathways to NEET status. Therefore, **caution** is advised when interpreting these findings. **Additional research is needed to explore and define this factor, which will help in effectively identifying the related causal pathways**.

According to Spielhofer et al. (2009), young people's negative attitudes to school and learning were a result of their **negative experience** of school. For example, negative interactions with peers and teachers, and lack of self-esteem associated with academic failure, could lead to negative attitudes and school disengagement, which ultimately increased the risk of NEET status.

Similarly, Hale and Viner (2018) pointed out that **troublemaking in class** may be a marker of poor mental health which was particularly predicative of poor academic attainment and NEET status. Descary et al. (2023) and Schoon and Amos (2017) did not elaborate

on the potential causal pathways linking academic agency and attitudes to school, and NEET status.

In their review, Gorard et al. (2012) did not suggest a causal link between attitudes to education and attainment or participation, due to the lack of clear evidence of association or sequence between pupils' attitudes in general and educational outcomes.

3.4. Factor 4: Peer influence and bullying

Definition and measurement

One study investigated the associations between **peer influence** and becoming NEET (Pemberton, 2008). In this case study of Greater Merseyside, researchers explored the multifaceted influences of peers on young people's education and employment decisions, drawing on interviews and focus groups with young people, and interviews with youth workers.

Two studies examined the associations between **exposure to bullying** and becoming NEET (Lőrinc et al., 2020; Tayfur et al., 2022). In the study by Lőrinc et al. (2020), information on experience of bullying was collected through interviews and focus groups with 53 young people who were NEET. Tayfur et al. (2022) drew on a nationally representative sample of young people, where experience of bullying was measured by a self-reported questionnaire item (yes/no).

Strength of association between the factor and risk of becoming NEET

Studies reviewed suggest that peer influence and bullying may influence the risk of becoming NEET. However, small sample sizes in some studies call for cautious interpretation of their findings.

Pemberton (2008) found that **peers can have both positive and negative influences on young people's transition to education, employment or training** (EET), with these effects varying by gender, ethnicity, and family background. However, due to this study's small and non-representative sample from a single area in the UK, the strength of the association between peer influence and the risk of becoming NEET was unclear, and the findings should be interpreted with caution.

The study by Tayfur et al. (2022) found that, **not being bullied during adolescence significantly decreased the likelihood of being NEET at ages 25-26, although the effect size was small**; this association remained significant after controlling individual and family

background characteristics. In a similar vein, Lőrinc et al. (2020) confirmed that bullying was one of the challenges young people faced that might have contributed to them becoming NEET. Again, due to its **small sample size in this study**, the strength of the association between bullying and the risk of becoming NEET needs to be **interpreted with caution.**

Causal pathway(s)

The reviewed studies **did not establish causal relationship** between peer influence or bullying and NEET status, **but they provided some discussion on how these factors may contributed to becoming NEET**.

Pemberton (2008) found young men were more likely to report negative influences from peers compared to young women, with the exception of young men from minority ethnics who reported that the experience of their peers encouraged them to re-engage with EET. Youth workers also noted that for young women, negative peer influences might be exacerbated by low self-confidence. Nevertheless, this study found that over time, some young people consciously rejected the negative influences from their peers. However, as explained above, these findings should be interpreted with caution due to the study's small and non-representative sample.

Lőrinc et al. (2020) explored the influence of bullying on becoming NEET. Young people in this study reported **receiving little support from parents and teachers following incidents of bullying**. This was followed by mental health issues and a loss of interest in education, which resulted in disengagement from schools; or exacerbated behaviour issues that ultimately led to school exclusion. While the study did not specifically examine the causes of bullying, the young people who reported being bullied were from an ethnic minority background, had experience in the care system, or faced poverty. However, the reviewed sources did not provide direct evidence linking these circumstances to an increased likelihood of becoming a target for bullying.

3.5. Factor 5: School absence

Definition and measurement

Five sources focused on unauthorised school absence, or truancy,[10,11] and its relationship with NEET status. All these reviewed studies used the term truancy to refer to school absence. While we acknowledge the term truancy is not commonly used in the UK, in this report we provide the definitions and measurements used in the reviewed sources. MacDonald and Marsh (2004), Bradley and Crouchley (2020), and Hale and Viner (2018) defined truancy as **unauthorised absence from school**. Pemberton (2008) and Spielhofer et al. (2009) did not provide a definition of truancy.

MacDonald and Marsh (2004) and Bradley and Crouchley (2020) measured truancy using young people's self-reported propensity to missing school on an extensive and persistent basis. MacDonald and Marsh (2004) used interviews to measure this propensity, whereas Bradley and Crouchley (2020) used the Youth Cohort Study (YCS) dataset. Hale and Viner (2018) measured truancy using parent reports of absences from school lasting 1 month or longer in the past 12 months either at age 13 years or 14 years. Pemberton (2008) and Spielhofer et al. (2009) did not provide a measurement for truant behaviour.

Strength of association between the factor and risk of becoming NEET

The extracted studies used both primary and secondary data to support **various arguments about the strength of association between truancy and the risk of becoming NEET**. Some studies argued that the association between truancy and NEET status was rather indirect and primarily observable through its effect on educational attainment; others deemed some of its unobserved components (such as a dislike of studying or school ethos) important contributors to inactivity.

MacDonald and Marsh (2004) argued that truancy has limited strength of association with the risk of becoming NEET, and that this association was rather **indirect**. Similarly, Bradley and Crouchley (2020) found that a dislike of studying and of school discipline or school ethos were **unobserved components of truancy** and that they held a more direct effect on labour market outcomes. Pemberton (2008) pointed out that truancy, exclusion, and lack of suitable options were indeed cited as a contributing factor to inactivity by interviewees, who were young people in NEET living within Greater

[10] The extracted sources defined unauthorised repeated absence from school as 'truancy'. However, this term is not commonly used in England, and the Department for Education (DfE) does not use it either (DfE, 2024a; DfE, 2024b). Instead, the DfE uses terms like 'attendance' or 'absence' when discussing support of children's educational needs in the contexts of structural challenges, such as social and economic deprivation.

[11] Please be aware that relevant search terms such as "attendance" and "absence" may have been inadvertently omitted from the search string for the REA. However, this oversight is unlikely to have significantly affected the overall search and screening processes. The key studies relevant to the topic of school attendance were still captured thanks to the inclusion of search terms like "truancy".

Merseyside. Spielhofer et al. (2009) stated that young people with higher levels of truancy were most likely to remain NEET in the medium-term.

Causal pathway(s)

The extracted studies examined potential **causal pathways *from* and *to* truancy**. When discussing how it leads to NEET status, the sources explained that this pathway was usually indirect: **school absence negatively affected young people's educational attainment**, which in turns increased their risk of becoming NEET. Other studies focused on the factors leading *to* school absence. They noted that poor labour market conditions and negative experience of school exacerbated young people's likelihood of truancy, which then increased their risk of becoming NEET.

Bradley and Crouchley (2020) and Hale and Viner (2018) argued that **truancy led to higher risk of NEET because of its effect on educational attainment**. Bradley and Crouchley (2020) argued that **repeated absence from school led to the acquisition of less knowledge**, culminating in lower educational attainment and ultimately, poor labour market outcomes. Hale and Viner (2018) argued that this was particularly the case for adolescents with emotional disorders, whose **poor mental health** primarily influenced their educational attainment because it led to behavioural and social problems, including truancy.

The remaining studies focused on the causal pathways leading **to** truancy. There are **different levels of severity of school absence** and that different causing factors will lead to a more serious pattern of school absenteeism. According to MacDonald and Marsh (2004), given the **poor job opportunities in their area,** most young people had little incentive to remain in school because even high achieving students would often end up working manual job where GCSEs were not actually required (see also Bradley and Crouchley, 2020). While they did not primarily discuss school absence, studies by Gladwell et al. (2022), Crawford et al. (2011) and Schoon (2014) similarly argued that poor labour market conditions can increase young people's levels of educational disengagement and conduct problems, leading to a higher risk of NEET status. MacDonald and Marsh (2004) argued that truancy was a **byproduct not of anti-employment attitudes, but of young people's questioning of the 'good grades equal good jobs' assumption.** In other words, poor local labour market conditions influenced young people's propensity to school attendance, thus increasing their risk of becoming NEET. **Mental health** issues, **challenging family and parental dynamics**, and involvement in **bullying** can also lead young people to disengage from school and exhibit school absence (see chapters 4.1., 4.2., 4.3., and 3.4. for more details).

Finally, Spielhofer et al. (2009) explained that **young people's negative experience of school** (including experiences of bullying and lack of support from teachers) contributed

to their propensity for school absence. Repeated absence from school resulted in poor educational attainment, and an overall lack of skills and confidence about their future career prospects. In short, the existing literature showed that school attendance has an indirect influence on the risk of becoming NEET through its effects on educational attainment. Poor labour market conditions and negative experience of school influenced young people's propensity for missing school, increasing their risk of becoming NEET.

3.6. Factor 6: Sense of self

Definition and measurement

This group of factors all related to some form of self-evaluation, was examined by six studies in this review. These included **self-esteem, self-efficacy/self-concept, locus of control, forethought,** and **subjective family social status (SFSS)**. Some, such as self-efficacy/self-concept, locus of control, and forethought, are conceptualised as subdimensions of concepts such as agency and may intertwine with factors covered in other sections of this review.

Strength of association between the factor and risk of becoming NEET

The reviewed studies, except for Gorard et al. (2012), **generally identified an association between self-esteem, and SFSS, and the risk of becoming NEET**. For other factors such as self-efficacy/self-concept, locus of control, and forethought, the relationships are **complex** and differ by socio-economic status, transition pathways, and the duration of being NEET.

In contrast, the review by Gorard et al. (2012), which includes sources in the UK and beyond, did not find significant associations between self-esteem or self-efficacy/self-concept and subsequent academic attainments.

Causal pathway(s)

Overall, there is **limited evidence on causality** between the identified sense of self factors and becoming NEET. Studies we reviewed either did not address causal relationships or found insufficient evidence to draw definitive conclusions.

However, some studies provided **tentative discussions** on the subject. For instance, one source suggested potential reasons behind variations in factors like academic self-concept (Descary et al., 2023). Others explore the varying effects of socio-economic

status in relation to factors such as self-efficacy, locus of control, and forethought in different contexts (Ng-Knight and Schoon, 2017; Schoon and Amos, 2017).

Below, we provide more detail about the definitions and measurements, strength of association between the sense of self and NEET status, and causal pathways, for each of the five factors in this group.

Self-esteem

In the two studies reviewed, self-esteem is defined as an **individual's assessment of their own worth** (Gorard et al., 2012; Tayfur et al., 2022). Tayfur et al. (2022) measured self-esteem using a questionnaire item asking participants how often they considered themselves as a worthless person, rated on a 4-point Likert scale. Gorard et al. (2012) suggested that self-esteem could also be measured by individuals' perceptions of the beliefs, expectations and attitudes that significant others held about them. Although these studies did not explicitly make this connection, reviewed sources on educational attainment (Lőrinc et al., 2020; Isherwood, 2023) highlighted that **low academic attainment can lead to feeling unprepared and low self-esteem**. In turn, low self-esteem may reduce young people's engagement in education, potentially **reinforcing a negative cycle**.

Drawing on a nationally representative sample, Tayfur et al. (2022) found that **low self-esteem during adolescence was significantly associated with an increased likelihood of being NEET** as young adults with a medium effect size. This association remained statistically significant after controlling individual and family background characteristics. The review by Gorard et al. (2012), however, concluded that overall self-esteem had little effect on young people's subsequent academic attainments.

The study by Tayfur et al. (2022) provided **little discussion** on the causal pathways between self-esteem and becoming NEET. The review by Gorard et al. (2012) concluded that there was no sufficient evidence to prove causality between self-esteem and education attainment.

Self-efficacy/self-concept

Three studies examined the role of self-efficacy or self-concept, defined as **one's belief on their ability in a certain area** (Descary et al., 2023; Gorard et al., 2012; Schoon and Amos, 2017).

In the study by Schoon and Amos (2017, p. 36), self-efficacy was understood as one dimension that constitutes '**individual agency**', defined as the capacity to transcend the immediate constraints in one's environment and to shape one's life course. They

measured academic self-efficacy through a questionnaire that asked respondents to rate their perceived proficiency in Maths, English, science and Information and Communication Technology (ICT) on a four-point scale. Similarly, Descary et al. (2023) conceptualised academic self-concept as one dimension of '**academic agency'**. They measured it by asking participants (aged 13-14) to rate their abilities in Maths and English and their overall academic performance. Gorard et al., (2012) also suggested that self-efficacy could be operationalised as one's perception of their cognitive abilities in a certain subject.

Schoon and Amos (2017) found **complex associations between academic self-efficacy and young people's transition pathways after compulsory education**. Individuals with high levels of academic self-efficacy at ages 13-14 were significantly more likely to be in the pathway of higher education (socio-economic factors controlled for), compared to following pathways into vocational training, employment after some education, employment since age 16, or unemployment after some education. However, they did not find any significant difference in self-efficacy levels between those in the pathways of higher education and those who were long-term NEET, possibly because of young people in higher education overestimating their abilities and competence beliefs. They also found that young people who had high academic self-efficacy but faced high socio-economic risks, such as family poverty and other disadvantages, were significantly more likely to be NEET after casually engaging in some further education, compared to those with low academic self-efficacy and low socio-economic risk.

Descary et al. (2023) found that for young people facing education difficulties, having **a higher academic self-concept was significantly associated with greater odds of being in higher education compared to NEET at age 20**, controlling for demographic factors as well as parental education and social class. However, they did not find a statistically significant association between academic self-concept and rapid entry into meaningful employment. The review by Gorard et al. (2012) found self-efficacy had little influence on education attainment or participation.

Descary et al. (2023) **did not provide direct evidence regarding the causal relationship between academic self-concept and higher education attainment**. However, they pointed out that, as academic self-concept was significantly influenced by social comparison with peers' academic performance, those surrounded by higher-achieving peers may have a low academic self-concept. Grouping lower achievers together may be beneficial for their academic self-concept; however, it may also limit their social mobility as students in lower academic tracks tend to have fewer educational opportunities. Schoon and Amos (2017) highlighted a potential 'dark' side of self-efficacy, given that (1) there was no significant difference in self-efficacy level between those in higher education and those being long-term NEET, and (2) high socio-economic

risk and high academic self-efficacy were associated with an increased risk of becoming NEET after casually engaging in some further education.

Gorard et al. (2012) concluded in their review that there was no sufficient evidence to suggest that self-efficacy had a causal influence on education attainment.

Locus of control

Three studies examined the role of locus of control, defined as **one's belief in their ability to make a difference via their own actions** (Gorard et al., 2012; Ng-Knight T and Schoon, 2017; Tayfur et al., 2022). A high *internal* locus of control (ILoC) indicates a perception of **personal control over one's environment**, while a high *external* locus of control indicates a belief that external forces govern one's life. In the study by Ng-Knight and Schoon (2017), locus of control is viewed as an **indicator of individual agency**.

Researchers mostly used questionnaire items to measure locus of control. Ng-Knight and Schoon (2017) adopted a 3-item measure, asking young people aged 14-15 to rate their agreement with statements about personal responsibility for success, decision-making power in life, and the link between hard work and success. Similarly, Tayfur et al. (2022) measured locus of control by asking participants to rate their agreement with a statement about the link between hard work and success.

Ng-Knight and Schoon (2017) found **ILoC was a significant indicator of the number of months being NEET**, particularly for youth from the lowest socio-economic backgrounds. Higher ILoC was associated with fewer months spent in the NEET status between ages 16 to 20, even after controlling for demographic factors, academic attainment and parental socio-economic status (SES). When examining how the influence of ILoC varied across SES levels, Ng-Knight and Schoon (2017) found high ILoC reduced time spent as NEET for youth from a low socio-economic background but had little effect for those in middle and high socio-economic groups. This indicated that high ILoC may help mitigate the negative impact of socio-economic disadvantage.

However, when a dichotomous measure of NEET duration was used – prolonged (six months or longer) and short-term (fewer than six months), the protective effect of high ILoC for low SES youths ceased to exist. This suggested that **while ILoC may help reduce short-term periods of NEET for disadvantaged youth, its protective effect was limited against prolonged NEET** (Ng-Knight and Schoon, 2017). The study also showed that among youths with higher educated parents, high levels of ILoC were associated with an increased likelihood of experiencing NEET (though not for prolonged periods of six months or more).

Similarly, Tayfur et al. (2022) found **having external locus of control significantly increased the risk of being NEET as young adults** with a medium effect size, even after controlling for background characteristics. However, this association lost its significance when accounting for missing data, indicating that the relationship may not be as robust and should be interpreted with caution. Conversely, the review by Gorard et al. (2012) found little evidence that suggested locus of control can influence educational participation or attainment.

In terms of **causal pathways**, Ng-Knight and Schoon (2017) argued that the impact of ILoC on the time spent as NEET after controlling SES suggested individuals could influence the direction of their life despite structural constraints. The finding that **ILoC was particularly important for youth with low socio-economic status**, supports the 'resource substitution' assumption, which posited that either high SES or high ILoC could compensate for each other to reduce the risk of becoming NEET. The reason high ILoC reduced time spent NEET for low SES groups but had little effect for middle and high socio-economic groups may be that a high ILoC might lead **some privileged youth to be over positive about their ability to find employment**, especially during economic downturns.

Tayfur et al. (2022) provided little explanation regarding the causal pathways between locus of control and NEET status. Gorard et al. (2012) concluded in their review that there was no sufficient evidence to suggest that locus of control had a causal influence on education attainment.

Forethought

One study by Schoon and Amos (2017) conceptualised **forethought, or goal certainty, as an aspect of individual agency**. They measured it using a questionnaire, which asked participants to rate how likely they believed it was that they would be accepted if they applied to university, on a 5-point scale.

Schoon and Amos (2017) found that individuals with **higher forethought (goal certainty) at ages 13-14 were significantly more likely to be in the pathway of higher education** following the completion of compulsory schooling (socio-economic factors controlled for), compared to following pathways into vocational training, or unemployment after some education, or NEET. In other words, they argued that **forethought** is an underlying factor that can shape the specific goals of young people, including those related to their **educational and occupational aspirations**. Furthermore, young people with high goal certainty, yet facing socio-economic adversity, were more likely to enter employment after casually engaging in some further education.

Regarding the association between low socio-economic status, high goal certainty, and an increased likelihood of entering employment after casually engaging in some further education, Schoon and Amos (2017) propose that this **causal pathway** may be **because strong expectations of successfully applying to university (goal certainty) are linked to continuing education**. However, socio-economic constraints or other factors might prompt them to seek employment before pursuing university studies.

Subjective family social status (SFSS)

Rivenbark et al. (2020) examined the role of subjective social status, defined as **individuals' perceptions of their social status in relation to others**, in predicting health and wellbeing outcomes. They measured SFSS using an adapted MacArthur scale, where adolescents (at ages 12 and 18) were asked to choose a ladder rung best representing their family's socio-economic status. A higher rung suggested a perception of being relatively better off compared to others in the country. The review by Gorard et al. (2012) also suggested that one's perception of their family's relative economic status can be used as an indicator of self-concept.

Rivenbark et al. (2020) found that **adolescents with lower SFSS at 18 were significantly more likely to be in NEET status,** after controlling for objective SES, childhood negative affect, externalising behaviours, neuroticism, and intelligence quotient.[12] This association continued to be significant even using a same-aged and same-sex twin design, which accounted for access to objective financial resources during childhood and other environmental and genetic factors.

Rivenbark et al. (2020) provided **limited explanation about potential causal pathways between SFSS and NEET status**. They also cautioned that, given to the cross-sectional nature of the data, reverse causation cannot be ruled out – it could be that adolescents who are NEET perceive their families as having lower social status. The authors emphasised the need for more robust tests, such as RCTs, to understand whether interventions targeting status-based perceptions can have measurable impacts on young people's outcomes.

[12] According to Rivenbark et al. (2020), childhood negative affect refers to a temperament trait characterised by the tendency to experience emotions more frequently and intensely, including anger, sadness, fear, and frustration. Externalising behaviours are outward-directed behaviours that can be disruptive or problematic. Neuroticism is a personality trait where negative emotions such as anxiety, depression, and irritability, are experienced more frequently and intensely. Intelligence quotient is a measure of a person's cognitive abilities in relation to their age group.

4. Full range of factors (international evidence)

Below, in line with Research Questions 2.1, 2.2, and 2.3, we outline the definitions, measurements, strength of association with the risk of becoming NEET, and any identified causal pathway(s) for the factors highlighted in the international literature.

We identified a total of eleven factors associated with the risk of becoming NEET from the international sources reviewed. These are presented in order of their association with the risk of becoming NEET, from strongest to weakest, based on the qualitative scoring system outlined in Section 2.2. We did not apply any alternative classification systems, as many of the factors are highly specific and context dependent. The factors associated with the risk of becoming NEET span a broad range of individual, social, and structural dimensions, making them difficult to categorise in a consistent way. As such, there is no universally accepted classification system; developing one that adequately reflects the complexity and diversity of factors associated with the risk of becoming NEET across different studies and populations remains a significant challenge.

This chapter presents limited evidence on the causal pathways associated with the full range of factors identified in the RoR. The international review studies included in the RoR primarily relied on meta-analyses and other quantitative approaches, which did not consistently provide narrative syntheses regarding the causal pathways between the examined factors and the risk of becoming NEET. Many of the sources reviewed include research from different countries, where the way NEET is defined and measured can vary. Because of these differences – and because the studies often look at several NEET-related factors at once — it can be hard to identify clear and consistent causes across all the factors explored. However, in Chapter 5, we address these limitations where possible by linking the findings from the REA with those from the RoR. Informed by Research Question 3, this integrated approach allowed us to trace the causal pathways connecting the full range of factors and the educational engagement and psychosocial factors identified in the REA – especially educational attainment and aspirations (see Chapter 5 for more details). While we were not able to identify causal pathways for all the factors discussed in this report, we use the full range of factors to better capture the complexity surrounding the causal pathways of educational engagement and psychosocial factors. This, in turn, allows us to draw out practical implications grounded in the most robust and consistent evidence available for these specific factors.

4.1. Factor 1: Socio-economic status

Definition and measurement

Six sources discussed the relationship between socio-economic status and the risk of becoming NEET. **Socio-economic status** was defined in terms of either **material and financial poverty** (Rahmani et al., 2024; Rahmani and Groot, 2023; Paabort et al., 2023) **or parental occupational status** (i.e., professional, intermediate, working class, or workless[13]; Petrescu et al., 2023; Isherwood, 2023). These reviews did not discuss how socio-economic status was measured, except for Isherwood (2023), which measured it based on the occupation of an individual's highest earning parent or carer.

Strength of association between the factor and risk of becoming NEET

All six sources identified **a strong association between socio-economic status and NEET status**. Socio-economic disadvantages, especially in the form of **lower parental income and social class**, were also found to have a significantly negative impact on young people's educational attainment and work transition, increasing their risk of becoming NEET (Petrescu et al., 2024; Isherwood, 2023; Paabort et al., 2023; Rahmani et al., 2024).

Causal pathway(s)

The reviewed literature emphasised that young people from lower-income families living in deprivation are **less likely to complete school and often lack the social networks and opportunities needed to secure employment** (Rahmani and Groot, 2023; Isherwood, 2023; Paabort et al., 2023; Maguire, 2015). Isherwood (2023) indicated that lower **socio-economic status** is also **linked to various confounding factors and circumstances, which increase the risk of young people becoming NEET**. Socio-economic family hardships characterised by parental worklessness, poor income, and overcrowded housing, **negatively affect young people's development and adjustment** (Rahmani and Groot, 2023). Additionally, low socio-economic status is often associated with **poor living conditions**, including precarious and overcrowded housing and social housing (Isherwood, 2023). These living arrangements can heighten vulnerabilities and exacerbate barriers to entering the labour market (Isherwood, 2023).

[13] Isherwood (2023) defined the different levels of parental occupational status as follows: higher managerial, administrative, and professional occupations; intermediate; working class (routine and manual occupations); and workless. This classification was determined by the occupation of the highest-earning parent or family member residing in the household.

4.2. Factor 2: Family and parental characteristics

Definition and measurement

By family and parental characteristics, we refer to a **broad array of interconnected factors such as household composition, parenting style, and parental involvement in their child's education.** The reviewed sources (six, in total) did not provide a single definition and measurement of family and parental characteristics.

Rahmani and Groot (2023) addressed issues such as **household composition**, such as number of children, single-parents, teenage parenthood, dependent elder children, marital status, or care responsibility.

Other sources (Rahmani et al., 2024; Petrescu et al., 2024; Gorard et al., 2012; Paabort et al., 2023) put more emphasis on **parental characteristics**, such as **parental level of education**, **parenting styles, and parental involvement in and expectations** about the child's education and wellbeing. In the reviewed sources, parental involvement referred to the active participation and engagement of parents in their child's learning process and school activities. Parental expectations were broadly defined as a parent's beliefs about future outcomes, such as whether they believe their child will succeed in a test (Gorard et al., 2012).

Strength of association between the factor and risk of becoming NEET

The sources reviewed found a strong association between family and parental characteristics and the risk of becoming NEET (Paabort et al., 2023; Petrescu et al., 2024; Rahmani et al, 2024; Rahmani and Groot, 2023). Factors such as family breakdown due to divorce, lower parental education levels, and lack of parental interest and involvement in a child's education increased the risk of young people becoming NEET (Gorard et al., 2012; Petrescu et al., 2024; Paabort et al., 2023; Rahmani et al., 2024; Isherwood, 2023). Overbearing parenting styles or parental abuse were also reported to have negative effects on young people's wellbeing and aspirations (Gorard et al., 2012; Isherwood, 2023 Petrescu et al., 2024). Factors connected to household composition, like number of children, marital status, and care responsibility, were also associated with NEET status.

However, Rahmani and Groot (2023) found that family and parental characteristics **affected women and men, differently**. For example, marital status and care responsibility had little effect on men but could lead to an increased risk of becoming NEET for women (Rahmani and Groot, 2023). They also found that intrusive and overbearing

parenting styles and excessive parental involvement were more detrimental to young women, while living in a single-parent household was more harmful to young men. Additionally, having a head of household with low or no education increased the risk of young women becoming NEET, whereas a lack of employment of the head of the household heightened the risk for young men.

Causal pathway(s)

Whilst the reviewed sources indicated that **unstable family conditions and lack of parental interest** can result in an increased likelihood of becoming NEET, **they did not discuss any causal pathways**.

4.3. Factor 3: Demographic characteristics

Definition and measurement

Five sources identified the following demographic characteristics associated with NEET status: **gender, migrant background,**[14] **ethnic minority background,** and **age**. The reviewed studies did not offer standardised definitions for these factors, as they drew upon a wide range of studies that relied upon different measurements for each of them.

Strength of association between the factor and risk of becoming NEET

Demographic characteristics interact with each other in their impact on NEET status, and some have stronger links with NEET status than others (Petrescu et al., 2023; Rahmani et al., 2024). According to Rahmani and Groot (2023), **gender is a crucial element related to becoming NEET**. The other reviewed sources indicated that gender influences the effect that other NEET risk factors (e.g., family and parental characteristics; ethnic minority background) have on young people. For example, research showed that married women and migrant women were considerably more likely to become NEET than young married and migrant men (Rahmani and Groot, 2023). Teenage pregnancy and caring responsibilities were also found to have a significant negative effect on teenage girls and young unemployed mothers, making them more likely to become and stay NEET than young men in similar circumstances (Paabort et al., 2023; Petrescu et al., 2024; Rahmani and Groot, 2023; Isherwood, 2023).

Migrant background also had a strong association with the risk of becoming NEET. Young people with migrant backgrounds, as well as unaccompanied asylum-seeking

[14] By migrant background, we refer to first- and second-generation migrants, as well as asylum seekers and refugees.

children or young refugees, were at a higher risk of becoming NEET, regardless of their gender (Paabort et al., 2023; Petrescu et al., 2024; Rahmani et al., 2024).

Conversely, the reviewed sources found **a more complex relationship between ethnic minority background and NEET status**, which requires careful interpretation. Isherwood (2023) and Petrescu et al., (2024), which both scored low quality appraisal scores (1 and 3 out of 11, respectively) identified **ethnic minority background** as a factor associated with the risk of becoming NEET, especially for young Black, Pakistani, and Bangladeshi men. However, the other reviewed sources, which received higher quality appraisal scores,[15] emphasised that the effect of **ethnic minority background** on NEET status was highly context-dependant and did not automatically predict a higher risk of becoming NEET (Rahmani et al., 2024; Rahmani and Groot, 2023).

Finally, only two reviewed sources discussed the relationship between **age** and NEET status (Isherwood, 2023; Rahmani and Groot, 2023). Given the limited discussion on this demographic characteristic, these findings should be **interpreted with caution**. Rahmani and Groot (2023) suggested that the **likelihood of becoming and staying NEET increases significantly with age**, particularly between the ages of 20 and 24,[16] after young people have completed upper secondary education or post-secondary education. This is **because the cost of learning while not working rises with age**, as the opportunity cost increases alongside constraints to education access (Rahmani and Groot, 2023). Caution is advised when considering this information, as Rahmani and Groot (2023) noted that different countries use varying age classifications[17] when discussing NEET rates among young people. Consequently, it becomes challenging to accurately identify and generalise the transition period between professional training and entering the workforce, which is also influence by the differing number of years of compulsory education or training in different countries.

Causal pathway(s)

The included sources did not provide details about the causal pathway(s) for gender, migrant background, and age.

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[15] Rahmani et al. (2024) and Rahmani and Groot (2023) scored 6 (fair) and 8 (good) in their quality appraisals.
[16] Due to the limited number of reviewed sources focusing on age, it is unclear at what age this correlation stops being relevant.
[17] For reference, in countries like Italy, Spain, Mexico, the age limits for NEET rates are ages 15 to 29, whereas Japan and South Korea's focus on people aged 15-34. In the UK, Northern Ireland, the US, and Australia, NEET rates focus on the 16-24 age group (Rahmani and Groot, 2023). This diversity of classifications means that it is harder to make statistically significant generalisations on the association between age, as a risk factor, and NEET.

As mentioned above, **ethnic minority background** can influence NEET status. Its effects are highly context-dependent and can take place through factors such as **discrimination, cultural expectations, and access to resources**. Language barriers and lower socio-economic status, typically linked to ethnic minority background, can negatively impact education and employment opportunities for some groups, such as Black and South Asian young people (Rahmani and Groot, 2023).

4.4. Factor 4: Location and level of area deprivation

Definition and measurement

Five included sources looked at the relationship between location and/or the level of area deprivation, and the risk of becoming NEET (Isherwood, 2023; Paabort et al., 2023; Petrescu et al., 2024; Rahmani and Groot, 2023; Flisi et al., 2015). **Location** referred to the type of area where young people reside, such as rural or urban. **Level of area deprivation** was defined by a combination of social, economic, and environmental factors that indicate the extent of disadvantage or lack of resources in a specific geographic area. However, the sources did not discuss how location and level of area deprivation were measured.

Strength of association between the factor and risk of becoming NEET

The reviewed sources identified **an unclear link between NEET status and young people living in rural, remote, or highly deprived areas** (Isherwood, 2023; Paabort et al., 2023; Petrescu et al., 2024; Rahmani and Groot, 2023). Of the reviewed sources, only Paabort et al. (2023) found a significant association between location and NEET status. Their scoping review study found that young people from rural and remote areas were less likely to find employment compared to those in urban areas, **due to limited access to support, interventions and opportunities, and to overall poor local labour market conditions** (Paabort et al., 2023). Rahmani and Groot (2023) identified that the likelihood of being NEET increases for young people living in rural areas who faced additional disadvantages such as **having disabilities or migrant backgrounds**.

While the quality appraisal scores for the scoping review studies by Paabort et. (2023) and Rahmani and Groot (2023) were 6 (fair) and 8 (good), respectively, we advise to **interpret these findings with caution**. This is because the other reviewed sources scored poorly and did not present or elaborate on similar findings**.**

Causal pathway(s)

The scoping review study by Paabort et al. (2023), focusing on European countries, found that **living in deprived or disadvantaged neighbourhoods**, including in large cities with high school dropout rates, crime, and poor labour market conditions, **can deter young people from pursuing educational and employment opportunities**, **thereby increasing NEET risk**. The source also indicated that living in rural or remote locations offered limited opportunities and support for young people, leading them to feel **frustrated** and give up on employment. However, such feelings of frustration with local labour market conditions and limited services are exacerbated by other confounding factors, including low socio-economic status.

As above, we advise to interpret this causal pathway with caution, due to the limited number of reviewed sources supporting it, and the overall low quality appraisal scores (three out of five sources scored poorly).

4.5. Factor 5: Educational attainment

Definition and measurement

Educational attainment was discussed by five sources in the international literature. Given the broad geographical scope of these review studies, there was no standardised definition of educational attainment. Instead, it was defined in terms of education level, academic performance and qualifications. Measurements were not explicitly discussed. As discussed in section 3.1, definitions and measurements of educational attainment among secondary school students vary widely, as it is dependent on factors such as data availability and upper secondary school entry requirements. Therefore, it is not surprising that no single standardised definition or measurement for this factor emerged across the international sources reviewed.

Strength of association between the factor and risk of becoming NEET

Overall, international sources **confirmed the importance of educational attainment in predicting NEET status** (Paabort et al., 2023; Isherwood, 2023; Clayborne et al., 2019; Hale et al., 2015; Rahmani and Groot, 2023).

Causal pathway(s)

In their review studies, Clayborne et al. (2019) and Hale et al. (2015) specifically emphasised the **relevance of mental and physical health in the promotion of educational attainment**, by examining how the social isolation, exclusion, and hindered cognitive and executive functioning resulting from poor health can contribute to lower educational attainment. Rahmani and Groot (2023) also focused on educational

attainment and its association with the NEET status and concluded that youth living in **poor neighbourhoods and in high-crime areas tend to achieve a lower academic performance.** Finally, Isherwood (2023) found that **local school characteristics, socio-economic status, and parental characteristics** (such as parental expectations and parenting style) can influence young people's educational attainment and their likelihood of continuing education and finding employment.

4.6. Factor 6: School absence

Definition and measurement

The review study by Hale et al. (2015) discussed school absence in relation to the risk of becoming NEET for young people in multiple countries. They did not offer standardised definitions or measurements for school absence. They also did not use the term truancy to discuss this factor, which they referred to as school absence.

Strength of association between the factor and risk of becoming NEET

Hale et al. (2015) found **a strong but indirect association between school absence and a higher risk of becoming NEET**. This international review study indicated that school absence was primarily observable through lower educational attainment, leading to a higher likelihood of young people becoming NEET.

Causal pathway(s)

According to one international review study, the causal pathway connecting school absence to NEET status remains **unclear**. Hale et al. (2015) hypothesised that **poor mental or physical health status, as well as other confounding factors such as socio-economic status, and family and parental background,** could lead to **school absences**, isolation, and exclusion, ultimately contributing to lower educational attainment and a higher risk of becoming NEET.

4.7. Factor 7: Aspirations

Definition and measurement

Two review studies examined aspirations as a NEET risk factor (Tayfur et al., 2021; Isherwood, 2023). While Isherwood (2023) did not explicitly discuss the definition and measurements used by international sources, Tayfur et al. (2021) defined aspirations in terms of educational and occupational aspirations (see section 3.2)

Strength of association between the factor and risk of becoming NEET

The two review studies from the international literature **confirmed the strength of association between aspirations** and the risk of becoming NEET, but did not provide additional insights.

Causal pathway(s)

While the two review sources did not offer insights into the causal pathways between aspirations and other NEET risk factors, based on the findings from the REA, we can hypothesise that family and parental characteristics can negatively influence young people's occupational and educational aspirations, Low, uncertain, or misaligned aspirations were linked to lower educational attainment and ultimately, to a higher risk of NEET status (see chapter 3.2. Aspirations).

4.8. Factor 8: Self-esteem and self-efficacy

Definition and measurement

One reviewed international source examined **self-esteem and self-efficacy** and the risk of becoming NEET (Tayfur et al., 2021). However, these studies did not offer standardised definitions for these risk factors. However, they indicated that they were measured using an unspecified questionnaire item or scale.

Strength of association between the factor and risk of becoming NEET

According to the review study by Tayfur et al. (2021), low self-esteem and low self-efficacy negatively affect education and employment outcomes. In chapter 3.6, we also found that **low self-esteem was significantly associated with an increased likelihood of being NEET**. However, **the evidence from the REA regarding self-efficacy indicates a more complex relationship** than suggested by Tayfur et al. (2021).

Causal pathway(s)

The reviewed international source **did not explain the causal pathways** connecting self-esteem and self-efficacy to a higher risk of becoming NEET among young people.

Drawing from the discussion in section 3.6, young people with high academic self-efficacy may be more likely to pursue higher education but were not more likely to have a rapid entry into meaningful employment. Additionally, the sources in the REA also showed that there was no significant difference in self-efficacy between those in higher education and those who are long-term NEET. This was possibly because of young

people in higher education overestimating their abilities and competence beliefs (Schoon and Amos, 2017). The presence of higher socio-economic risks also had a tendency to minimise the positive effects of high self-efficacy (see Schoon and Amos, 2017; Descary et al., 2023).

4.9. Factor 9: Peer problems and bullying

Definition and measurement

Two review studies addressed the topics of **peer problems and bullying**, which were defined in terms of **involvement, either as victim or perpetrator, in repeated aggressive behaviour where an individual or group intentionally harms or intimidates someone perceived as vulnerable** (Tayfur et al., 2021; Hale et al., 2015).

Tayfur et al. (2021) reported the following as being used to measure bullying involvement: Strengths and Difficulties questionnaire (peer problems subscale); Questionnaire items Victims of peer aggression/Perpetrators of peer aggression/Victim-perpetrators of peer aggression; Self-report of Aggression and Social Behaviour Questionnaire.

Strength of association between the factor and risk of becoming NEET

Tayfur et al. (2021) and Hale et al. (2015) found **a significant association** between bullying and the likelihood of becoming NEET in young adulthood. However, Tayfur et al. (2021) indicated that the **effects of this association diminished and were highly heterogeneous when considering other confounding factors**, such as educational engagement, school completion, and educational attainment.

Causal pathway(s)

Hale et al. (2015) explained that **bullying** involvement, often accompanied by mental health problems, **can lead to school absence and expulsion, and to a lower likelihood of completing secondary school which can contribute to a higher risk of becoming NEET** (see also Tayfur et al., 2021).

4.10. Factor 10: Risky behaviours

Definition and measurement

Five reviewed sources explored the relationship between **NEET status** and various **risky behaviours**, such as **early sexual initiation, unplanned pregnancies, and criminal or anti-**

social activities. Tayfur et al. (2021) did not discuss definitions and measurements for early sexual initiation, unplanned pregnancies, and criminal or anti-social activities.

Strength of association between the factor and risk of becoming NEET

The strength of association between **risky behaviours and NEET status greatly depends on the behaviour and other specific factors and circumstances**.

Unplanned early pregnancies were significantly associated with NEET status and negative outcomes later in life according to Paabort et al. (2023), Isherwood (2023), Rahmani and Groot (2023), and Petrescu et al. (2024). The consequences of early pregnancy disproportionately impact young women and their education and employment prospects (see discussion on gender in the section on demographic characteristics).

There was **no evidence of a strong or directly observable association between NEET status and other risky behaviours** such as **early sexual initiation** and **violent crime**. For example, early sexual initiation was not linked to NEET status among young people from privileged backgrounds (Paabort et al., 2023). Additionally, Isherwood (2023) noted that the connection between NEET status and violent crime, as a perpetrator and a victim, was not well established in the literature or in available data, making it difficult to consider violent crime as a definitive risk factor of NEET status.

Causal pathway(s)

The reviewed sources did not provide additional information about the causal pathways for the other risky behaviours included in this section.

4.11. Factor 11: Health status and substance use

Definition and measurement

A total of ten sources discussed health status and its relationship with NEET status. The literature generally distinguishes between **mental and physical health**. Of these sources, four also discussed substance use (Rahmani et al., 2024; Rahmani and Groot, 2023; Paabort et al., 2023; Tayfur et al., 2021).

Physical health was often defined in terms of the presence of disabilities or chronic conditions, such as sensory impairment, epilepsy and spinal muscular atrophy[18], spina bifida[19], cerebral palsy[20], and juvenile idiopathic arthritis[21] (Petrescu et al., 2024; Hale et al., 2015; Rahmani et al., 2024; Rahmani and Groot, 2023). No measurement for physical health was discussed by the reviewed studies[22], except for Tayfur et al. (2021), which reviewed studies about the relationship between physical activity and the risk of becoming NEET. Whilst Tayfur et al. (2021) did not provide a definition of physical activity but measured it using an unspecified questionnaire item.

Most studies defined mental health in terms of both diagnosed and undiagnosed conditions, encompassing a range of mental health problems and psychiatric disorders (Rahmani et al., 2024; Rahmani and Groot, 2023; Petrescu et al., 2024; Hale et al., 2015; Clayborne et al., 2019; Lindhardt et al., 2022; Lindblad et al., 2024). These included common conditions such as anxiety or depression, which can vary in severity from mild to severe, potentially leading to self-harm or suicide risk. The studies also considered neurodevelopmental disorders like attention deficit hyperactivity disorder (ADHD) and more complex conditions such as anorexia nervosa[23] or conduct disorders. Only Lindhardt et al. (2022) explained how the reviewed literature measured mental health, specifically through the use of a brief structured instrument (i.e., the Structured Clinical Interview for DSM-IV[24] or SCID for short).

Substance misuse was defined as cannabis use, alcohol use, and/or smoking. Measurement methods included self-reports, the AUDIT 10-item screening tool for alcohol use, a combined substance use questionnaire item, and/or a 7-day diary (Tayfur et al., 2021).

Strength of association between the factor and risk of becoming NEET

The reviewed literature indicated that **mental and physical health status is weakly linked with the risk of becoming NEET** (Tayfur et al., 2021; Petrescu et al., 2024; Rahmani et al.,

[18] Spinal Muscular Atrophy (SMA) is a genetic disorder affecting the control of muscle movement.
[19] A birth defect whereby the spine and spinal cord do not form properly.
[20] Cerebral palsy is a group of disorders that affect a person's ability to move and maintain balance and posture.
[21] A type of arthritis that occurs in children and causes joint inflammation, pain, and stiffness.
[22] While the reviewed sources did not discuss measurements for physical health, there are standardised tools available for this purpose. Most notable examples include the Health Status Questionnaire-12 (HSQ-12), the Short Form-36 Health Survey, the Self-Perceived Health Scale, the Expanded Disability Status Scale (EDSS), and finally, the Functional Systems Score (FSS).
[23] An eating disorder characterised by an intense fear of gaining weight, a distorted body image, and severe restriction of food intake, leading to significant weight loss and malnutrition.
[24] DSM-IV stands for Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition.

2024; Rahmani and Groot, 2023; Hale et al., 2015). This is because the sources examined a great diversity of health conditions with considerable different degrees of severity, with **only certain conditions having a strong association with risk of becoming NEET**. Additionally, while the reviewed sources found that **mental health issues, whether mild or severe[25], had a strong association with NEET status, there were other confounding factors**, such as socio-economic status, family and parental characteristics, school absence, and demographic characteristics[26], **that interact with these health conditions** (Hale et al., 2015; Rahmani and Groot, 2023; Lindblad et al., 2024; Lindhardt et al., 2022). **Poor physical health**, lower levels of physical activity during adolescence, as well as the presence of chronic conditions including sensory impairments, disability, musculoskeletal issues, to name just a few, were common health issues **affecting NEET youth more than non-NEET youth** (Rahmani and Groot, 2023; Rahmani et al. 2024; Petrescu et al., 2024; Tayfur et al, 2021). In short, the association between health status and the risk of becoming NEET depends on the specific health condition, as well as on confounding factors, making the overall association for this factor, weak.

The association between substance misuse and NEET status is highly complex and varied depending on socio-demographic factors, as well as the type and dosage of substances used (Paabort et al., 2023; Tayfur et al., 2021; Rahmani et al., 2024). Some studies found a relationship between substance misuse and NEET status, particularly among individuals with lower socio-economic status (Paabort et al., 2023). However, this relationship did not hold for young people with higher socio-economic status.

In terms of **type of substance**, there was **weak or lack of conclusive** evidence that **drinking alcohol or smoking** were associated with adverse education and employment status in young adulthood (Tayfur et al., 2021; Rahmani and Groot, 2023). Some studies found associations between adolescent smoking and NEET status, but these disappeared when controlling for confounders. In some studies, a NEET status materialised only when smoking was combined with alcohol misuse (Tayfur et al., 2021). There was also **inconsistent evidence on the association between cannabis misuse and NEET status** with some studies finding no significant association and others reporting a significant link between cannabis misuse and NEET status (Tayfur et al., 2021; Rahmani and Groot, 2023). There were also **contradictory findings between other types of substances and NEET status**. Some studies found little evidence supporting the

[25] Severe mental illnesses like schizophrenia and borderline personality disorder put young people at increased risk of becoming NEET. Autism, ADHD, depression, and anxiety were also associated with risk of becoming NEET, but their effects were less strong than those of the severe mental illnesses (Lindblad et al., 2024).
[26] Demographic characteristics like gender, migrant background, and ethnic minority background (Rahmani and Groot, 2023).

association between substance misuse and NEET status (Paabort et al., 2023), while others identified substance dependence as a significant variable correlating with NEET status (Rahmani and Groot, 2023). In their review, Rahmani and Groot (2023) suggested that NEET is associated with engaging in unhealthy behaviours such as substance and alcohol misuse.

Causal pathway(s)

Hale et al. (2015) found that adolescents with **chronic mental health conditions** were significantly less likely to finish secondary school and pursue or complete post-secondary education. That is because youth with **common mental health needs**, such as depression, or anxiety, often experienced functional and social impairments, psychological distress, and social isolation and exclusion, which negatively impacted their school attendance, **resulting in higher rates of school absence and lower educational attainment** (Hale and Viner, 2018; Clayborne et al., 2019; Rahmani et al., 2024; Rahmani and Groot, 2023; Lindblad et al., 2024; Isherwood, 2023). Young adults dealing with poor mental health were also **more likely to face unemployment and rely on welfare**, and their adult earnings were notably lower than those of their healthy peers.27 Young people with a **severe mental illness**, like schizophrenia or personality disorders, faced an even higher risk of becoming NEET (Lindblad et al., 2024; Lindhardt et al., 2022).

5. Extent to which factors identified in England and the UK are also recognised in international literature

In this chapter, we conduct a comparative analysis of the factors identified exclusively in England and UK-focused sources, those found only in international literature, and those present in both. Our goal – as outlined in Research Question 3 – is to assess the global relevance of the educational engagement and psychosocial factors identified in the England and UK-focused studies.

[27] In the broader literature on health and work, the direction of the causality between health status and employment is not well established. For example, Karsten and Moser (2009) indicated that unemployment is not only correlated to mental health conditions like distress, depression, and anxiety, but also causes them.

Among the six educational engagement and psychosocial factors highlighted in the REA – namely educational attainment, aspirations, attitudes to school and learning, peer influence and bullying, school absence, and sense of self – **five were also identified in the international literature covered in the RoR** (all but attitudes to school and learning).

Notably, **educational attainment** and **aspirations** were consistently found to have the strongest association with the risk of becoming NEET according to both the REA and RoR. While bullying was also discussed in the international literature, its association with the risk of becoming NEET was weaker when confounding factors were taken into account. Both bodies of literature identified a strong but complex association between school absence and NEET status, which could be observed through school absence's direct effects on other factors, like educational attainment. The international literature also explored self-esteem and self-efficacy. However, their association with the risk of becoming NEET remains unclear due to the limited number of studies reviewed on the topic.

Attitudes to school and learning was the only educational engagement and psychosocial factors that was not addressed in the international review studies included in the RoR.[28]

[28] Unfortunately, we cannot provide an explanation for this exclusion.

Table *4* below provides a detailed summary of the risk factors identified in the REA, RoR, or both. It also includes a list of the reviewed studies that examined each factor, offering a comprehensive overview of the sources and their findings.

Table 4: Risk factors identified in the REA, RoR, or both

FACTORS	ENGLAND/UK (REA ONLY)	INTERNATIONAL (RoR ONLY)	BOTH REA & RoR	SOURCES
Educational attainment			X	**REA**: Crowley et al. (2023); Gorard et al. (2012); Spielhofer et al. (2009); Duckworth and Schoon (2012); Gladwell et al., (2022); Bradley and Crouchley (2020); Hale and Viner (2018); Lőrinc et al. (2020); Crawford et al. (2011); Pemberton (2008); Schoon and Amos (2017); Tayfur et al. (2022). **RoR**: Isherwood (2023); Paabort et al. (2023); Clayborne et al. (2019); Hale et al. (2015); Rahmani and Groot (2023).
Aspirations			X	**REA**: Yates et al. (2011); Schoon (2014); Duckworth and Schoon (2012); Descary et al. (2023); Hale and Viner (2018); Pemberton (2008); Schoon and Amos (2017); Tayfur et al. (2022). **RoR**: Isherwood (2023); Tayfur et al. (2021).
Attitudes to school and learning	X			Gorard et al. (2012); Spielhofer et al. (2009); Duckworth and Schoon (2012); Descary et al. (2023); Hale and Viner (2018); Crawford et al. (2011); Schoon and Amos (2017); Tayfur et al. (2022).
Peer influence and bullying			X	**REA:** Lőrinc et al. (2020); Pemberton (2008); Tayfur et al. (2022). **RoR**: Tayfur et al. (2021); Hale et al. (2015).

FACTORS	ENGLAND/UK (REA ONLY)	INTERNATIONAL (RoR ONLY)	BOTH REA & RoR	SOURCES
School absence			X	**REA:** MacDonald and Marsh (2004); Bradley and Crouchley (2020); Hale and Viner (2018); Pemberton (2008); Spielhofer et al. (2009). **RoR**: Hale et al. (2015).
Self-esteem ('sense of self')			X	**REA:** Tayfur et al. (2022); Gorard et al. (2012). **RoR**: Tayfur et al. (2021).
Self-efficacy ('sense of self')			X	**REA:** Descary et al. (2023); Gorard et al. (2012); Schoon and Amos (2017). **RoR**: Tayfur et al. (2021).
Locus of control ('sense of self')	X			Tayfur et al. (2022); Ng-Knight and Schoon (2017); Gorard et al. (2012).
Forethought ('sense of self')	X			Schoon and Amos (2017)
Subjective family social status (SFSS) ('sense of self')	X			Rivenbark et al. (2020)

FACTORS	ENGLAND/UK (REA ONLY)	INTERNATIONAL (RoR ONLY)	BOTH REA & RoR	SOURCES
Health status and substance misuse		X		Rahmani et al. (2024); Rahmani and Groot (2023); Paabort et al. (2023); Tayfur et al. (2021); Clayborne et al. (2019); Hale et al. (2015); Lindhardt et al. (2022); Lindblad et al. (2024); Petrescu et al. (2024); Isherwood (2023).
Risky behaviours		X		Isherwood (2023); Paabort et al. (2023); Rahmani et al. (2024); Rahmani and Groot (2023); Tayfur et al. (2021).
Socio-economic status		X		Maguire (2015); Isherwood (2023: Paabort et al. (2023); Petrescu et al. (2024); Rahmani et al. (2024); Rahmani and Groot (2023).
Family and parental characteristics		X		Rahmani and Groot (2023); Rahmani et al. (2024); Petrescu et al. (2024); Paabort et al. (2023); Isherwood (2023); Gorard et al. (2012).
Location and level of area deprivation		X		Flisi et al. (2015); Isherwood (2023); Paabort et al. (2023); Petrescu et al. (2024); Rahmani and Groot (2023).
Demographic characteristics		X		Rahmani and Groot (2023); Rahmani et al. (2024); Petrescu et al. (2024); Paabort et al. (2023); Isherwood (2023).

Source: Authors' elaboration.

6. Conclusions

This study identified key educational engagement and psychosocial factors associated with the risk of becoming NEET among young people aged 11 to 16 in England. We conducted a REA to review evidence on educational engagement and psychosocial factors from England and the UK (Chapter 3) and explored the full range of NEET risk factors discussed in the international literature included in the RoR (Chapter 4). This was followed by a synthesis of findings from both reviews (Chapter 5).

In this concluding chapter, we summarise the key findings, highlighting which factors are well documented in both English and international literature and have the strongest association with the risk of becoming NEET (6.1). We then present the factors with stronger and weaker associations with NEET status and explain the reasons behind these variations (6.2). Additionally, we discuss the causal pathways we identified, how they were established, and whether they stem from multiple interconnected factors (6.3). At the end of the chapter, we briefly elaborate on the quality of the reviewed sources (6.4) and present implications of the study (6.5).

6.1. Key factors associated with the risk of becoming NEET

As for Research Question 1.1, this study found that **the educational engagement and psychosocial factors identified in the REA were the most well documented ones**. Clear definitions were provided for educational attainment, educational and occupational aspirations, attitudes to school and learning, peer influence and bullying, the 'sense of self' factors, and school absence.

Conversely, in response to Research Question 2.1, we found that **the international literature often could not provide standardised definitions for most of the broader NEET risk factors we identified**. More generic definitions were offered for factors such as socio-economic status, family and parental characteristics, location and level of area deprivation, peer problems and bullying, and health status and substance misuse, and risky behaviours. **The reviewed international sources also did not include standardised definitions for educational attainment, aspirations, and school absence**. This lack of information in the international sources is likely due to their geographic scope: countries may use different classification systems and terminologies to define 'educational attainment' and 'school absence', depending on their specific education systems and guidelines, and may also have different ways to understand and measure elements such as socio-economic status or 'ethnic minority background'.

The **educational engagement and psychosocial factors** identified through the REA could be **measured by verified metrics**, like GCSE scores for educational attainment, and **through interviews, questionnaire items, and other datasets** for factors such as aspirations, attitudes to school and learning, peer influence and bullying, the 'sense of self' factors, and school absence. However, with the exception of sources examining educational attainment and NEET status, studies used different methodological tools, rather than standardised metrics. This variability of measurements is worth noting, as it might have policy and practice implications (see section 6.5). **The reviewed international sources did not discuss measurements neither for the broader factors nor the educational engagement and psychosocial ones**. The only exception was health status and substance abuse, which the literature explained were generally measured through unspecified questionnaire items or scales.

6.2. Strength of association between identified factors and NEET status

This section specifically addresses Research Questions 1.2 and 2.2. The factors with the **strongest association** with the risk of becoming NEET were:

- Educational attainment
- Aspirations
- Attitudes to school and learning
- School absence (strong but mostly observable through its effects on educational attainment)
- Unplanned pregnancies
- Socio-economic status
- Family and parental characteristics
- Gender
- Migrant background
- Ethnic minority background (strong but highly context dependent).

Most of these factors were **consistently and uniformly defined and measured** across both English/UK-based and international sources. The use of clear standardised definitions

verified metrics (such as GCSE scores), and robust longitudinal cohort datasets **likely contributed to the transparent and consistent identification of the association between these factors and the risk of becoming NEET**. Additionally, we observed that the factors with the strongest association are often interconnected (see section 6.3 on causal pathways).

The factors with the **weakest association** with the risk of becoming NEET were:

- Peer influence and bullying
- Health status and substance use
- Early sexual initiation
- Criminal or anti-social behaviour
- Age.

Overall, these factors showed a **weak statistical link** to the risk of NEET status. While health status and substance use, and peer influence and bullying, were associated with NEET status, their effect was significantly influenced by other **confounding factors**, such as those with stronger associations above.

The factors with an unclear association with the risk of becoming NEET were:

- Self-esteem
- Self-efficacy
- Locus of control
- Forethought
- Subjective family social status
- Location and level of area deprivation.

The evidence regarding the strength of association between these factors and the risk of becoming NEET remains **ultimately inconclusive** due to **insufficient evidence or contradictory findings**. Although 'location and level of area deprivation' was found to have a strong association with the risk of becoming NEET, the quality of the reviewed sources was generally poor (i.e., three 'poor' sources, one 'fair, and one 'good'). Therefore, these findings should be interpreted with caution.

6.3. Interconnected factors and causal pathways

Our findings for Research Questions 1.3 and 2.3 show that factors associated with the risk of becoming NEET **interact with each other in complex ways**. This is most clearly illustrated by the relationships between the broader factors identified in the RoR, and engagement and psychosocial factors like **educational attainment** and **aspirations**. Both the REA and RoR found that these two engagement and psychosocial factors had the strongest association with NEET status. Therefore, we view **educational attainment** and **aspirations as key factors** associated with the risk of becoming NEET for young people in secondary education.

- Health status can have a direct negative impact on **educational attainment**. Mild or severe mental health issues can hinder the cognitive and executing functioning of young people, resulting in poor educational attainment, as well as social isolation and exclusion. Depending on its severity, **school absence** whether due to health issues, poor labour market conditions, socio-economic status, or involvement in bullying, can significantly affect academic achievement. Consequently, low educational attainment, as a result of complex and interconnected broader factors, can leave young people feeling **unprepared to deal with life after compulsory education** and **lacking the minimum academic qualifications** (e.g., GCSE score above 4). Addressing the interconnected broader factors that contribute to low educational attainment is just as crucial as tackling the low attainment itself, as together these factors can heighten the risk of NEET status.

- Educational and occupational **aspirations** can also significantly influence a young person's likelihood of becoming NEET. We found that factors such as location and level of area deprivation, family and parental characteristics, and socio-economic status, can shape young people's aspirations. **Poor labour market conditions**, particularly **in rural areas and deprived urban areas**, may lead young people to **develop negative perceptions of available job opportunities and their quality and consequently, lower occupational aspirations**. Low, uncertain, or misaligned aspirations can also stem from **family and parental characteristics**. Living with parents who were less involved in their children's education, had overbearing or abusive parenting styles, was generally found to negatively impact young people's aspirations, thereby increasing their risk of NEET status. There were also gender-based differences: young women with unclear or low aspirations were three times more likely to become NEET than their young men with unclear aspirations. Similarly, poverty and deprivation associated with **low socio-economic status** were generally

found to limit young people's aspirations, potentially increasing their likelihood of becoming NEET.

Some broader and educational engagement and psychosocial factors **did not have much information or data available about their causal pathways**. For example, while sources in the RoR indicated that **demographic characteristics** such as gender, migrant background, and ethnic minority background have a strong association with NEET status, **they did not discuss their causal pathways extensively**. However, based on the reviewed literature, it is important to highlight that migrant background and ethnic minority background are often linked to issues such as **discrimination and social exclusion**. These outcomes can increase the risk of NEET status, especially when they interact with other factors such as health, socio-economic status, location and level of area deprivation. The evidence about the causal pathways for forethought and subjective family social status (SFSS) was **unclear or missing**. As far as risky behaviours are concerned, the reviewed sources did not examine the causal pathways of substance use, early sexual initiation, and unplanned pregnancies, and their association with NEET status.

6.4. Quality of the evidence

In response to Research Questions 1.4 and 2.4, we found that the quality of the evidence reviewed in both the REA and RoR was generally good (see Appendix 3 for a full list of quality appraisal scores for each reviewed source).

The REA reviewed **a total of 19 sources** which specifically addressed the educational engagement and psychosocial factors amongst young people aged 11 to 16 in England and the UK. Two main considerations regarding the quality of this evidence need to be made. The evidence available on the subject was **limited in quantity** (13 quantitative, four qualitative, and two review studies). Despite refining the search protocols and applying a snowballing strategy to find more relevant sources, the number of sources included in the REA was still limited to 19 sources. Second, the overall quality of the sources was good, according to the CASP and NOS checklists (see Appendix 3). The RoR reviewed a total of 13 studies, including systematic reviews, scoping reviews, a literature review, and an evidence review. These studies varied in geographical scope. Some focused narrowly on England, while others had a broader coverage, encompassing multiple countries.

6.5. Global relevance of educational engagement and psychosocial factors identified in the England and UK-focused studies

As for Research Question 3, of the six educational engagement and psychosocial factors identified in the REA, we found that five were also reflected in the international literature reviewed in the RoR – all except attitudes to school and learning. More specifically, **educational attainment and aspirations consistently showed the strongest association with NEET risk across both reviews**, while factors like bullying and school absence showed weaker or more complex links, often influenced by confounding variables. The international literature also examined self-esteem and self-efficacy, though evidence on their relationship with NEET status remains limited and inconclusive.

6.6. Implications for research, policy, and practice

The findings of this study carry important implications for future research, informing policy and practice decisions, and guiding interventions.

Implications for research

- **Enhance causal understanding**: Additional studies using RCTs are needed to establish more robust causal pathways between educational engagement, psychosocial factors, and young people's risk of becoming NEET in England.
- **Understand the development of aspirations**: To better support the development of educational and occupational aspirations in young people, we need a deeper understanding of how these aspirations are formed.
- **Develop theory-based studies**: Investing in theory-based research to test and refine theories of change related to NEET risk factors would support the development of more targeted and effective interventions.
- **Expand longitudinal research**: Encouraging the use of existing longitudinal data, such as the Longitudinal Education Outcomes (LEO that brings together many different data sources and tracks students' education and employment outcomes) or the Longitudinal Study of Young People in England (LSYPE), will enhance our

understanding of the long-term impacts of various factors on NEET status and provide valuable insights into the effects of early interventions.

Implications for policy

- **Focus on early intervention**: Policies supporting early interventions for young people aged 11 to 16 can help address the strongest NEET risk factors early, reducing the likelihood of young people becoming NEET. The quality of early intervention is as crucial as its timing, ensuring that those most at risk receive appropriate and effective support.

- **Promote educational attainment**: Given that educational attainment is one of the strongest factors associated with the risk of becoming NEET, policies should prioritise enhancing it while also addressing the broader risk factors[29] that negatively affect it.

- **Address the aspiration gap**: Occupational and educational aspirations are also very closely linked to NEET risk. Policies should focus on bridging the aspiration gap by addressing the negative impacts of low-socio-economic status, location and level of area deprivation (including poor labour market conditions), gender, and family and parental characteristics.

Implications for practice

- **Strengthening educational engagement**: Educational engagement should be a central focus of both policy and practice, as it plays a critical role in improving educational attainment, shaping aspirations, and reducing the risk of young people becoming NEET.

- **Tailored interventions**: Designing interventions that consider the unique combination of NEET risk factors affecting each individual young person, through personalised, tailored support, will maximise their effectiveness while minimising the risk of blind spots.

- **Comprehensive support systems**: Implementing holistic support systems that integrate educational engagement and psychosocial, as well as broader risk factors, is vital. This should include mentoring programmes, career counselling, and mental health services to address the diverse and compounded needs of at-risk youth.

[29] These were low socio-economic status (poverty and parental worklessness), disadvantaged location and level of area deprivation (including poor labour market conditions), school absence, bullying involvement, and poor mental health (see section 6.3).

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Annexes

Appendix 1: Methodology

We carried out the REA and RoR using the following five steps: development of search protocols; identification of relevant literature; screening; data extraction; and quality appraisal.

Step 1. Development of search protocols

We focused the search on two key databases: Scopus and Google Scholar (first 30 results). Search terms were organised according to the modified Population, Intervention, Comparison, Outcome and Study design (PICOS) framework (Table 5**Error! Reference source not found.Error! Reference source not found.**) (Methley et al., 2014).

Table 5: Search terms for the REA and RoR

EDUCATIONAL ENGAGEMENT AND PSYCHOSOCIAL FACTORS	FULL RANGE OF FACTORS
• **Population:** Not in employment, education, or training (or NEET) youth, young people, youth, marginalised youth, youth facing barriers to employment/education, adolescents, school students. • **Intervention:** (Risk factors, predictors, determinants) AND (educational engagement, attitudes, aspirations, agency, school belonging, psychosocial dimensions). • **Comparison:** England. • **Outcome:** NEET rates, youth employment rates, educational attainment and engagement. • **Study design:** Primacy sources including quantitative, qualitative and mixed methods studies;	• **Population**: Not in employment, education, or training (or NEET) youth, , young people, youth, marginalised youth, youth facing barriers to employment/education, adolescents, school students • **Intervention**: Risk factors, predictors, determinants. • **Comparison**: N/A. • **Outcome**: NEET rates, youth employment rates, educational attainment and engagement. • **Study design**: Systematic reviews, REAs, reviews of reviews (RoR). • **Years**: 2004-2024.

systematic reviews, REAs, reviews of reviews (RoR).

- **Years:** 2004-2024.

Proposed search strings using PICOS:

Scopus: (TITLE-ABS-KEY ("young people" OR youth OR "young adult" OR adolescent* OR teen* OR pupil OR student) AND TITLE-ABS-KEY (neet OR "youth unemployment" OR unemployed OR "not in employment, education or training" OR "school-to-work" OR "school dropout" OR "school engagement" OR "education engagement") AND TITLE-ABS-KEY (aspirations OR truancy OR wellbeing OR distress OR "social exclusion" OR attainment OR psychological OR "mental health" OR psychosocial OR stress OR "locus of control" OR "psychological pattern" OR "self efficiency" OR "self esteem" OR expectation OR "Substance use" OR "social interaction" OR "daily living skills" OR "interpersonal relationship" OR delinquency OR attitudes OR "extracurricular activit" OR truancy OR bully OR discrimination OR "social isolation" OR "social support") AND TITLE-ABS-KEY ("risk factor" OR predictor OR determinant OR "protective factor" OR preventative) AND TITLE-ABS-KEY (uk OR "united kingdom" OR england OR english OR british OR britain)) AND PUBYEAR > 2003 AND PUBYEAR < 2025 AND (EXCLUDE (SUBJAREA , "MEDI"))[30]

Modified search string agreed with Youth Futures:

Scopus: ("young people" OR "vulnerable youth*" OR "marginalised youth*" OR youth OR "young adult*" OR adolescent* OR teen*) AND (unemployed OR inactive OR "not in employment, education or training" OR NEET*) AND (work OR job* OR placement* OR "work experience" OR skill* OR degree* OR attainment OR apprenticeship*) AND ("employment support" OR "employment program*" OR "employment polic*" OR "market polic*" OR "market programme*" OR education OR school* OR training OR "risk factor*")

Google search: ("young people" OR "vulnerable youth*" OR "marginalised youth*" OR youth OR "young adult*" OR adolescent* OR teen*) AND (unemployed OR inactive OR "not in employment, education or training" OR NEET*) AND ("employment support" OR "employment program*" OR "employment polic*" OR "labour market polic*" OR "labour market programme*" OR education OR school OR training OR "Risk factor*" OR effective* OR practice* OR intervention* OR program* OR polic*) AND ("work" OR "job" OR "placement*" OR "experience" OR skill* OR degree* OR attainment OR "apprenticeship*") AND

[30] Scopus allows users to filter search results by subject area. We have excluded research in the field of medicine (40 results) to improve relevance.

Google search: (young OR youth OR 'young adult' OR adolescent* OR teen* OR pupil OR student) AND (NEET OR unemploy OR "school-to-work" OR "school dropout" OR "school engagement" OR "education engagement") AND (aspiration OR truancy OR wellbeing OR distress OR "social exclusion" OR "educational attainment" OR psychological OR "mental health" OR psychosocial OR stress OR "locus of control" OR "self efficiency" OR "self esteem" OR spirituality OR religiosity OR expectation OR "Substance use" OR "social interaction" OR "daily living skill" "leisure time" OR "interpersonal relationship" OR delinquency OR attitudes OR "extracurricular activit" OR bully OR discrimination OR "social isolation" OR "social support") AND (uk OR "united kingdom" OR england OR English OR british OR britain) AND ("risk factor" OR predictor OR determinant OR "protective factor" OR preventative)	("evaluat*" OR "review*" OR "Review of Review*" OR "stud*" OR "analys*" OR "Rapid Evidence Assessment" OR "REA")

Source: Authors' elaboration.

Step 2. Identification of relevant literature

For the REA, we conducted a structured search (using the above search terms) to identify relevant studies in the research databases and search engines selected following the testing. A total of 114 sources were identified from the REA for title abstract (TIAB) screening:

- 29 sources from Scopus
- 30 sources from Google Scholar
- 12 sources from snowballing
- 43 sources from NEET1 project

The search for the RoR followed the same process but used different search terms and inclusion/exclusion criteria, extending the geographical scope to international evidence. All search processes were clearly documented and recorded, and any relevant sources identified during initial scoping were integrated with the results.

Step 3. Screening

We removed duplicates that resulted from searches in multiple databases. After removing the duplicates, 114 sources remained for screening. These were screened against inclusion/exclusion criteria to confirm whether each source was selected for full text review (Table 6). Nine sources were identified for inclusion in the RoR during the screening process, and a further four sources were identified through snowballing. This gave a total of 13 international sources that were included for the data extraction.

Each source was screened by one researcher, with a sample of articles (10) screened also by a further two researchers to ensure that the criteria were applied consistently.

Table 6: Inclusion and exclusion criteria for the REA and RoR

EDUCATIONAL ENGAGEMENT AND PSYCHOSOCIAL FACTORS		FULL RANGE OF FACTORS	
Inclusion	**Exclusion**	**Inclusion**	**Exclusion**
• Alignment with PICOS framework • Academic and grey literature • Research concerning the English secondary education and its alternatives	• Blogs, opinion pieces, editorials, etc. • Studies published more than 20 years ago • Research not concerning the English secondary education and its alternatives	• Alignment with PICOS framework • Academic and grey literature	• Blogs, opinion pieces, editorials, etc. • Studies published more than 20 years ago • Primary sources

Source: Authors' elaboration.

Step 4. Data extraction

We reviewed sources in full and assessed these against the inclusion/exclusion criteria. We then extracted information from the screened sources we deemed relevant to the

focus. A total of 22 sources entered the full text review stage from the TIAB screening for the REA. Three sources were excluded during data extraction because they looked at a country outside our interest, having an inappropriate methodology, or being unable to access the source. This left 19 studies which were included in the full text review for the REA. This included 2 secondary reviews, 16 sources that used primary evidence, and one source using mixed methods. For the RoR, we extracted data from 13 sources.

We reviewed these included sources in full and used a data extraction tool to record information. This tool captured the details of the source, the research design, data needed to respond to Research Question 1 and Research Question 2, and any additional sources for snowballing (Table 7**Error! Reference source not found.**). Each source was extracted by one researcher.

Table 7: categories included in the data extraction template

DATA EXTRACTION CATEGORIES
Information about the source
Short reference (first author + year)
Full reference
Abstract
Research design (evidence, type of primary/secondary research)
Methodology & sample
Geographical scope
Quality appraisal (Newcastle-Ottawa Scale) - for quant sources; CASP checklist score - for qual sources; Joanna Briggs Institute critical appraisal checklist score - for reviews)
RESEARCH QUESTION 1
Educational engagement and psychosocial factors

Definition
Measurement
Strength of association between this factor and the risk of becoming NEET
Causal pathways
RESEARCH QUESTION 2
Key risk factors of becoming NEET
Definition
Measurement
Strength of association between this factor and the risk of becoming NEET
Relationship with factors identified in RQ1
Additional sources for snowballing

Source: Authors' elaboration.

We identified six key factors that emerged from the data extracted. The data extraction template and analysis of findings were structured by the research sub-questions; key information included the definition and measurements of the risk factors, the strength of their association with the risk of becoming NEET, and their causal pathways associated with the risk of becoming NEET. The tool was developed in collaboration with Youth Futures to ensure content accessibility and relevance. We piloted the tool first with a small number of studies and refined accordingly.

Step 5. Quality appraisal

We conducted a quality assessment of the included sources. We used the Newcastle-Ottawa Scale for cohort studies (Tayfur et al., 2021), the Critical Appraisal Skills Programme (CASP) Checklist for qualitative sources, and the Joanna Briggs Institute (JBI) critical appraisal checklist for systematic reviews and research syntheses.

Limitations

While we used a systematic approach in the REA and the RoR to ensure the robustness of our findings, they are nevertheless subject to some limitations:

- One potential limitation of the search protocol is that relevant search terms such as "attendance" and "absence" may have been inadvertently omitted from the search string. However, this oversight is unlikely to have significantly affected the overall search and screening processes. The key studies relevant to the topic of school attendance were still captured thanks to the inclusion of search terms like "truancy".
- The use of inclusion and exclusion criteria meant that some studies (e.g., those published prior to 2004 or only available in another language) were not included, reducing the comprehensiveness of the results.
- Study inclusion decisions and data extraction were implemented by one researcher which added a risk of discrepancy in the adopted approach. However, to mitigate this the researchers piloted the approach on a small sample of articles together, to discuss and reconcile any initial differences.
- The study did not include the collection of primary data from young people, their families, or professionals working directly with them. This is because such data collection was outside the scope of the study. However, we acknowledge that the absence of first-hand perspectives partially limits the depth of empirical insight and the opportunity to corroborate findings with lived experience.

Synthesis of findings

Where applicable, we compared and commented on the relationship between the risk factors related to education engagement and psychosocial factors identified in WS1 and the full range of risk factors identified in WS2. This comparison was based on differences and similarities in how the factors are defined, measured, and identified; in the strength of their association with the risk of becoming NEET; in the causal pathways linking these risks to NEET outcomes and in the strength of evidence they represent.

During the synthesis, we also highlighted factors and causal mechanisms associated with the risk of becoming NEET identified in the literature as these may be relevant to the development of one-to-one support programmes for secondary school students by Building Futures partners, particularly in terms of establishing the eligibility criteria and intermediate outcomes.

Appendix 2: Datasets used in extracted sources

Table 8: Datasets used in extracted sources

DATASET	KEY INFORMATION ABOUT DATASET	NUMBER OF SOURCES USING THE DATASET
Longitudinal Study of Young People in England (LSYPE; now known as 'Next Steps')	This dataset follows the lives of young people in England, tracking their education, employment, and social outcomes from adolescence into adulthood, to understand the factors influencing their life trajectories.	10
British Cohort Study (BCS)	The BCS tracks the lives of individuals born in a single week in 1970, collecting data on their health, education, and socio-economic status, to investigate the long-term impact of early life experiences.	2
Youth Cohort Study (YCS)	This dataset followed a cohort of young people in England and Wales, focusing on their transitions from school to work and examining factors that influence youth employment, education, and social outcomes.	2
Environmental Risk Longitudinal Twin Study	This study focuses on twins in the UK to explore the genetic and environmental influences on mental health, behaviour, and cognitive development, providing insights into the	1

	interaction between nature and nurture	
Labour Force Survey (LFS)	The LFS is a household survey providing key data on the UK labour market, including employment, unemployment, and economic inactivity, and is used to analyse trends in labour force participation.	1
British Household Panel Survey (BHPS)	The BHPS collects data on a range of socio-economic topics from households across the UK, including income, education, and employment, to examine the dynamics of family life, income inequality, and social mobility over time.	1

Source: Authors' elaboration.

Appendix 3: Detailed overview of the sources

The Newcastle-Ottawa Scale (NOS) for cohort studies evaluates studies based on three main criteria: the selection of participants (scored between 0 and 4), the comparability of cohorts (0-2), and the assessment of outcomes (0-3). As such, the scale aims at determining the risk of bias and the reliability of the findings of cohort studies. A final score (highest score is a 9) is given based on how well the study meets each of these criteria.

The CASP Checklist for qualitative studies (CASP) consists of 10 questions evaluating the key components of qualitative research, including clarity of the study's aim, the relevance of the topic, the appropriateness of the methodology, the research design and participant selection strategy, ethical considerations, the transparency of the analysis and interpretation, and the convincingness of the findings and conclusions. The responses to the questions can be 'Yes' (Y), 'No' (N), or 'Can't Tell' (CT) in case the study does not address a particular aspect included in one of the questions. A score is generated by counting the numbers of Ys (10 is the highest score).

We used the modified Joanna Briggs Institute (JBI) critical appraisal checklist for systematic reviews and research syntheses to quality appraise sources of review study design. Similarly to the CASP Checklist, the modified JBI Checklist consists of 11 questions evaluating the key components of systematic review studies. This was used for all studies extracted as part of the RoR, and for two studies also included as part of the REA (Gorard et al. (2012) and Isherwood (2023).

Table 9: Detailed overview of the sources included in the REA and RoR

SHORT REFERENCE	REGION	MAIN METHOD(S)	QA SCORE
MacDonald and Marsh (2004)	Northeast England	Qualitative study: Biographically focused interviews	CASP: 7 (good)
Crowley et al. (2023)	England	Longitudinal cohort study: cluster analysis and binary logistic regression	NOS: 8 (good)

Yates et al. (2011)	UK	Cohort study: Logistic regression	NOS: 6 (good)
Schoon (2014)	England	Longitudinal study: Stepwise OLS regression models	NOS: 6 (good)
Spielhofer et al. (2009)	UK	Qualitative study: Literature review; Statistical segmentation analysis; Interviews	CASP: 5 (fair)
Duckworth and Schoon (2012)	UK	Longitudinal/cohort study: Logistic regression	NOS: 7 (good)
Gladwell et al. (2022)	UK	Causal analysis with longitudinal data: Dynamic latent factor model	NOS: 6 (good)
Bradley and Crouchley (2020)	England and Wales	Causal analysis with cohort data: Simultaneous equations models	NOS: 9 (good)
Ng-Knight and Schoon (2017)	England	Longitudinal study: Path analysis	NOS: 7 (good)
Rivenbark et al. (2020)	England and Wales	Longitudinal cohort study: multiple regression analysis	NOS: 7 (good)

Descary et al. (2023)	England	Longitudinal study: Multinomial regression models	NOS: 5 (fair)
Hale and Viner (2018)	England	Longitudinal study: Logistic regression	NOS: 6 (good)
Lőrinc et al. (2020)	London	Qualitative case study: semi-structured interviews/interviews, focus groups	CASP: 6 (fair)
Crawford et al. (2011)	England and UK	Longitudinal study: Multivariate regression models	NOS: 7 (good)
Pemberton (2008)	Greater Merseyside, UK	Qualitative study: Interviews, focus group	CASP: 5 (fair)
Schoon and Amos (2017)	England	Longitudinal study: Multinomial logistic regression	NOS: 8 (good)
Tayfur et al. (2022)	England	Cohort study: Correlation analysis	NOS: 7 (good)
Clayborne et al. (2019)	N/A	Systematic review	JBI: 7 (good)
Flisi et al. (2015)	EU Member States	Scoping review	JBI: 1 (poor)

Gorard et al. (2012)	UK and US	Qualitative study: Evidence review	JIB: 7 (good)
Hale et al. (2015)	Multiple countries	Systematic review	JBI: 4 (fair)
Isherwood (2023)	UK	Literature review	JBI: 1 (poor)
Lindhardt et al. (2022)	Multiple countries	Systematic review	JBI: 6 (fair)
Lindblad et al. (2024)	Europe	Systematic review	JBI: 8 (good)
Maguire (2015)	England	Systematic review	JBI: 3 (poor)
Paabort et al. (2023)	Europe	Scoping review	JBI: 6 (fair)
Petrescu et al. (2024)	Europe	Systematic review	JBI: 3 (poor)
Rahmani et al. (2024)	Multiple countries	Systematic review	JBI: 6 (fair)

Rahmani and Groot (2023)	N/A	Scoping review	JBI: 8 (good)
Tayfur et al. (2021)	Multiple countries	Systematic review	JBI: 11 (good)

Source: Authors' elaboration.

Appendix 4: Overview of strength of association between identified factors and NEET status

FACTORS	NUMBER OF STUDIES	QUALITY OF STUDIES	RESULTS	SCORE	LIST OF REVIEWED STUDIES
Educational attainment	17	Good/fair: 16	Strong association	**Strong**	**REA**: Crowley et al. (2023); Gorard et al. (2012); Spielhofer et al. (2009); Duckworth and Schoon (2012); Gladwell et al., (2022); Bradley and Crouchley (2020); Hale and Viner (2018); Lőrinc et al. (2020); Crawford et al. (2011); Pemberton (2008); Schoon and Amos (2017); Tayfur et al. (2022). **RoR**: Isherwood (2023); Paabort et al. (2023); Clayborne et al. (2019); Hale et al. (2015); Rahmani and Groot (2023).
Aspirations	10	Good/fair: 9	Strong association	**Strong**	**REA**: Yates et al. (2011); Schoon (2014); Duckworth and Schoon (2012); Descary et al. (2023); Hale and Viner (2018); Pemberton (2008); Schoon and Amos (2017); Tayfur et al. (2022). **RoR**: Isherwood (2023); Tayfur et al. (2021).

Attitudes to school and learning	8	Good/fair: 8	Strong association	**Strong**	Gorard et al. (2012); Spielhofer et al. (2009); Duckworth and Schoon (2012); Descary et al. (2023); Hale and Viner (2018); Crawford et al. (2011); Schoon and Amos (2017); Tayfur et al. (2022).
Peer influence and bullying	5	Good/fair: 5	Association is weak when confounding factors are accounted. Small sample sizes in some studies call for cautious interpretation of their findings.	**Weak**	**REA:** Lőrinc et al. (2020); Pemberton (2008); Tayfur et al. (2022). **RoR**: Tayfur et al. (2021); Hale et al. (2015).
School absence	6	Good/fair: 6	Strong association but complex (effects are mostly indirect and observable through other factors).	**Strong**	**REA:** MacDonald and Marsh (2004); Bradley and Crouchley (2020); Hale and Viner (2018); Pemberton (2008); Spielhofer et al. (2009). **RoR**: Hale et al. (2015).
Self-esteem ('sense of self')	3	Good/fair: 3	Strong association: sources are of good quality, but too few (less than 5).	**Unclear**	**REA:** Tayfur et al. (2022); Gorard et al. (2012); **RoR**: Tayfur et al. (2021).
Self-efficacy ('sense of self')	4	Good/fair: 4	Complex association. Sources are of good quality, but too few (less than 5).	**Unclear**	**REA:** Descary et al. (2023); Gorard et al. (2012); Schoon and Amos (2017). **RoR**: Tayfur et al. (2021).

Locus of control ('sense of self')	3	Good/fair: 3	Sources are of good quality, but too few (less than 5).	**Unclear**	Tayfur et al. (2022); Ng-Knight and Schoon (2017); Gorard et al. (2012).
Forethought ('sense of self')	1	Good/fair: 1	Source is of good quality, but too few (less than 5).	**Unclear**	Schoon and Amos (2017)
Subjective family social status (SFSS) ('sense of self')	1	Good/fair: 1	Source is of good quality, but too few (less than 5).	**Unclear**	Rivenbark et al. (2020)
Health status and substance misuse	10	Good/fair: 8	Weak association due to confounding factors, and variability of health conditions. Substance use also has complex association.	**Weak**	Rahmani et al. (2024); Rahmani and Groot (2023); Paabort et al. (2023); Tayfur et al. (2021); Clayborne et al. (2019); Hale et al. (2015); Lindhardt et al. (2022); Lindblad et al. (2024); Petrescu et al. (2024); Isherwood (2023).
Early sexual initiation ('risky behaviours')	5	Good/fair: 4	Weak association	**Weak**	Isherwood (2023); Paabort et al. (2023); Rahmani et al. (2024); Rahmani and Groot (2023); Tayfur et al. (2021).
Unplanned pregnancies ('risky behaviours')	5	Good/fair: 4	Strong association	**Strong**	Isherwood (2023); Paabort et al. (2023); Rahmani et al. (2024); Rahmani and Groot (2023); Tayfur et al. (2021).
Criminal or anti-social behaviour ('risky behaviours')	5	Good/fair: 4	Weak association	**Weak**	Isherwood (2023); Paabort et al. (2023); Rahmani et al. (2024); Rahmani and Groot (2023); Tayfur et al. (2021).

Socio-economic status	6	Good/fair: 4	Strong association	**Strong**	Maguire (2015); Paabort et al. (2023); Petrescu et al. (2024); Rahmani et al. (2024); Rahmani and Groot (2023).
Family and parental characteristics	6	Good/fair: 4	Strong association	**Strong**	Rahmani and Groot (2023); Rahmani et al. (2024); Petrescu et al. (2024); Paabort et al. (2023); Isherwood (2023); Gorard et al. (2012).
Location and level of area deprivation	5	Good/fair: 2	Sources indicated a strong association, but score is 'unclear' due to the poor quality of most sources (poor: 3; fair: 1; good: 1).	**Unclear**	Flisi et al. (2015); Isherwood (2023); Paabort et al. (2023); Petrescu et al. (2024); Rahmani and Groot (2023).
Gender ('demographic characteristics')	5	Good/fair: 3	Strong association	**Strong**	Rahmani and Groot (2023); Rahmani et al. (2024); Petrescu et al. (2024); Paabort et al. (2023); Isherwood (2023).
Migrant background ('demographic characteristics')	5	Good/fair: 3	Strong association	**Strong**	Rahmani and Groot (2023); Rahmani et al. (2024); Petrescu et al. (2024); Paabort et al. (2023); Isherwood (2023).
Ethnic minority background ('demographic characteristics')	5	Good/fair: 3	Strong association but complex due to factor's effect being highly context dependant.	**Strong**	Rahmani and Groot (2023); Rahmani et al. (2024); Petrescu et al. (2024); Paabort et al. (2023); Isherwood (2023).

Age ('demographic characteristics')	5	Good/fair: 3	Weak association	**Weak**	Rahmani and Groot (2023); Rahmani et al. (2024); Petrescu et al. (2024); Paabort et al. (2023); Isherwood (2023).

Source: Authors' elaboration.