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A capability approach to understanding academic and socio-emotional outcomes of students with special educational needs in Ireland

Georgiana Mihut[a], Selina McCoy[a,b] and Bertrand Maître[a,b]

[a]Social Research Division, The Economic and Social Research Institute, Dublin, Ireland; [b]Department of Sociology, Trinity College Dublin, Dublin, Ireland

ABSTRACT

Using data from Ireland's national longitudinal study of children, this paper employs a capabilities approach to disability to understand how individual characteristics as well as home and school environmental factors at age 9 relate to academic and socio-emotional outcomes of students with special educational needs (SEN) at age 17. Results suggest that young people with SEN register both lower average scores and make less academic progress between the age of 9 and their national lower secondary examination, with the exception of young people with a physical SEN. Both home and school environmental factors at 9 years have long-term associations with the academic outcomes of young people with SEN, after controlling for individual characteristics and prior academic achievement. Home and school environmental factors had less consistent associations with the socio-emotional outcomes of young people with SEN. By using rigorous nationally representative longitudinal data, this paper offers a more holistic understanding of the development of young people with SEN. The paper also provides important evidence that a more inclusive approach for supporting students with additional needs, their parents, and their schools is needed.

KEYWORDS

Special educational needs; capabilities approach; academic achievement; socio-emotional outcomes; Growing Up in Ireland

Introduction

Prior studies have shown that young people with special educational needs (SEN) have poorer academic, socio-emotional, and post-school outcomes compared to their peers without SEN (Blackorby & Wagner, 1996; McCoy et al., 2016b; Swift et al., 2020). Viewed from a capability approach perspective (Nussbaum, 2006; Mitra, 2006; Norwich, 2014), inequality in outcomes between students with SEN and students without SEN can result – in part – from students' environments, and changes in environment can lead to equalising outcomes. This paper offers a novel application of the capability approach to an empirical investigation of the relationship between home and school environmental factors at age 9 on outcomes of young people with SEN at age 17. For the purpose of this paper and

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CONTACT Selina McCoy selina.mccoy@esri.ie Social Research Division, The Economic and Social Research Institute, Whitaker Square, Sir John Rogerson's Quay, Dublin, Ireland

Supplemental data for this article can be accessed here

consistent with a capability approach (Mitra, 2006), socio-emotional and academic outcomes are viewed as capabilities that would enable students with special educational needs to make autonomous choices about the functioning they want to achieve.

Like many countries, policy in Ireland has been seeking to shift provision for students with SEN from segregated to mainstream settings. Ireland is considered to have a 'multi-track' approach to the provision for students with SEN (Arduin, 2015; Kenny et al., 2020; McCoy et al., 2014a). The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) was signed by Ireland in 2007 and ratified in 2018. It remains unclear whether current systems for resourcing and supporting inclusion in Irish schools adequately meet the principles of the Convention (Kenny et al., 2020; Mac Domhnaill et al., 2020) and enable the capabilities of students with a variety of needs.

Both school and home environmental factors have been linked to gaps in outcomes between students with SEN and those without SEN in Ireland. At the school level, evidence suggests that inclusive policies and programmes have not yet led to full inclusion. These gaps widen between primary and secondary education (McCoy et al., 2019). At the home level, parents of students with additional needs are typically highly engaged in their children's education by attending school meetings or events and supporting homework completion. However, parents were also found to hold lower academic expectations of their children; and these expectations are important in shaping academic skills at age 13 and changes in academic skills between 9 and 13 years (McCoy et al., 2016b). Using Ordinary Least Squares (OLS) regression models, the paper extends previous research on the lives of young people with SEN by exploring the environmental factors shaping their academic and socio-emotional outcomes as they move into young adulthood and addresses the following questions:

(1) How do young people with different types of SEN fare in their educational and socio-emotional outcomes?
(2) What risk and protective factors relating to the home and school environment affect the educational and socio-emotional outcomes of young people with SEN?

Most commonly, empirical research on the outcomes of students with SEN narrowly focuses on academic indicators, thus failing to reflect the evolving conceptualisation of inclusion as supporting fulfiling lives. By using rigorous, nationally representative longitudinal data, a broader and triangulated measure of SEN, and by including both academic and socio-emotional outcomes, this paper offers a more holistic approach to understanding the lived experiences of young people with SEN and the childhood risk and protective factors associated with their outcomes.

Theoretical framework

The capability approach, pioneered by Amartya Sen and further developed by Martha Nussbaum, has been extensively used to understand inequality and has been previously applied to the field of special education (Mitra, 2006; Norwich, 2014; Nussbaum, 2009; Terzi, 2005). The capability approach places agency at its core and considers 'vulnerability as a multidimensional and dynamic phenomenon' (Trani et al., 2011, p. 144). Two concepts rest at the core of this approach: capability and functioning. Capability is understood as possibilities and freedoms that enable functionings, practical opportunities, or potential functionings (Terzi, 2005). Functionings represent the 'being and doing', or the actual manifestations of capabilities as a result of the opportunity to make choices and exercise agency (Mitra, 2006). Capabilities and functionings are the result of the interaction between personal and environmental characteristics. Seen from a capability perspective, institutions – including States and schools – have a responsibility to take action, or 'affirmative tasks' in ensuring that an appropriate threshold is met for people with special educational needs and disabilities (Nussbaum, 2006) and their households (Trani et al., 2011).

The capability approach is an open framework that can be re-appropriated to understand how inequality can be addressed in a theoretically grounded way (Nussbaum, 2006). Young people's Junior Certificate scores, life satisfaction, and coping strategies are treated as outcome variables for the purposes of data analysis, but also as capabilities that can enable autonomous choices for all students about the functionings they want to achieve. Home and school environmental factors represent 'affirmative tasks' that can ensure more equal outcomes among young people, regardless of individual characteristics.

Limitations persist in treating academic and socio-emotional outcomes as capabilities. Despite their wide use, academic outcomes and their prioritisation in policy discourse (Arduin, 2015) are moderated by environmental and socio-economic factors (Sirin, 2005). Academic outcomes often represent restricted measures that do not account for the breadth of human capability and reflect on institutional 'inflexibilities' to account for individual difficulty (Norwich, 2018). However, academic outcomes offer further opportunities to individuals with and without SEN, and as such can be viewed as both facilitating choice and allowing for identifying areas of inequality. Life satisfaction and coping strategies can be viewed as emotional capabilities that enable control over one's environment (Nussbaum, 2007).

Data and methodology

Data source

This study draws on data collected during the first and third waves of the Growing Up in Ireland (GUI) child cohort study. The first wave gathered data on 8,570 nine-year-olds in Ireland in 2007/08, including approximately one-in-seven children in the country in this age group (Williams et al., 2009). Data collected at 9 years is used to identify (1) students with different types of SEN, using self-reported data from the *primary caregiver main questionnaire* and the *teacher on pupil questionnaire*,[1] (2) key individual characteristics such as academic achievement and self-concept, (3) home environmental factors, including socio-economic and relationship characteristics, and (4) school environmental factors, including the provision of additional supports.

Outcome variables used in this paper are drawn from self-reported answers provided on the *young person main questionnaire* as part of the third wave of data collected from the same cohort in 2015/16, when these young people reached the ages of 17 (four fifths) or 18 (one fifth; hereinafter 17-year-olds). This wave collected data from 73% (n = 6,216) of the Wave 1 participants (McNamara et al., 2020). Respondents who participated in both

Wave 1 and Wave 3 are included in this analysis. Data were weighted using the weighting factor for the full sample at 17 years for the participants in Wave 1 and Wave 3 only (Murphy et al., 2018), so the sample is representative of the national population. Attrition between Wave 1 and Wave 3 was slightly higher among students with SEN than students without SEN, with students with a general learning SEN having the highest level of attrition at Wave 3. The application of the weighting factor addresses the under-representation of students with SEN in the data.

Outcome variables

Our first outcome variable relates to young people's academic development, as measured using self-reported data from young respondents on their Junior Certificate performance, a national examination taken around the age of 15 or 16 by students who complete lower secondary education in Ireland. Academic achievement is defined as the average Junior Certificate score across all subjects. The variable was derived by allocating a numeric score to each Junior Certificate grade, with one unit increase in average score representing one grade higher.

Second, we focus on young people's life satisfaction. Life satisfaction is important as an indicator of wellbeing and has been linked to other outcomes. Among young adults, previous studies have found a relationship between life satisfaction and exercising and healthy eating (Grant et al., 2009). The academic literature on how life satisfaction varies by SEN status among young adults is sparse (Proctor et al., 2009). For GUI, 17-year-olds were asked 'How satisfied are you with your own life in general?' This Likert-scale variable ranges from 0 (extremely unsatisfied) to 10 (extremely satisfied). Young women were previously found to be less satisfied with their lives at age 17 (McNamara et al., 2020).

Our third main outcome is young people's coping strategies. Life satisfaction and coping strategies measure different aspects of socio-emotional wellbeing. Whereas life satisfaction aims to capture an overall judgment of the lives of respondents (Diener et al., 1985), coping strategies measure how individuals resolve problems (Amirkhan, 1990). Mahmoud et al. (2012) tested the effect of life satisfaction and coping skills on depression, anxiety, and stress among young adults. Maladaptive coping skills – and not life satisfaction – were positively related to these outcomes. Previous studies have also investigated the relationship between the use of different coping strategies and life satisfaction (Salas et al., 2017) showing a mixed relationship between the two constructs. The adapted coping strategy indicator includes three subscales: problem solving and seeking support (as a positive method of coping) and avoidance (as a negative method of coping), adapted from Amirkhan (1990). Problem-solving coping strategies have been associated with resilience (Dumont & Provost, 1999). Coping strategies capture specific responses to stress, speaking to emotional capabilities broadly.

In operationalising coping strategies, GUI employs the adapted subscales employed by My World Survey 1 and 2 of the National Study of Mental Health in Ireland (Dooley et al., 2019). Among 17-year-olds, the problem-solving subscale ranged between 5–30, support-seeking ranged from 4–24, and avoidance ranged from 6–36 (McNamara et al., 2020). Ranges differ as each subscale has a different number of items (Dooley et al., 2019). The higher the score, the more likely young people were to employ the respective coping strategy. Further descriptive information on the outcome variables is included in Appendix Tables A2, A3 and A4.

Identification of students with special education needs and additional individual-level controls

This paper identifies students with a SEN at age 9 using data from teachers, parents, and the strengths and difficulties questionnaire (SDQ) completed by teachers, as originally developed by (McCoy et al. 2016a, 2016b). Appendix Table A1 includes an overview of the disability and SEN related multiple-choice closed questions primary caregivers and teachers were asked about the study child at age 9.

Students with multiple SEN were assigned according to the type of SEN most likely to impact on their learning experience (e.g. if students had a learning SEN and a physical SEN, they were assigned to the learning SEN type). This approach is further supported by the fact that students with a learning SEN were most likely to receive additional help in school, as discussed later in this paper. While this approach has been extensively used in the literature (McCoy et al., 2016a, 2016b), reliability studies have not yet been conducted on this approach and further research should address this gap. Students with a *general learning or intellectual SEN* were identified by teachers as having a 'learning disability', excluding those students that were identified by the primary caregiver as having 'dyslexia' or 'dyspraxia'. These students represent 6.4% of 17-year-olds. Students who were identified by their teachers as having a 'learning disability' and were identified by their primary caregiver as having either 'dyslexia' or 'dyspraxia' were categorised as having a *specific learning SEN*. Overall, 3% of 17-year-olds were identified with a specific learning SEN. Students with an *emotional or behavioural SEN* were either identified by teachers as having an 'emotional or behavioural problem', were in the top 10% on teacher reported SDQ, or were identified by their primary caregivers as having 'ADHD'. Altogether, 6.5% of 17-year-olds have been identified as having an emotional or behavioural SEN at age 9. Students with a *physical SEN* were identified by teachers as having a 'physical disability or visual or hearing impairment' or 'speech impairment' or were identified by primary caregivers as having a 'speech and language difficulty'. Due to small numbers, students with a speech impairment without a learning or emotional SEN were grouped with students that had another physical disability. These students account for 6.5% of 17-year-olds. Students who were identified by their primary caregiver as having 'slow progress' or 'other' difficulty and were not included in one of the previous types of SEN (2%) were coded as *other SEN*. Overall, 25% of 17-year-olds have been identified with some form of SEN at age 9. This approach allows for a more inclusive identification of SEN. However, as a result, each type of SEN includes students with varied type and complexity of need.

Findings from other longitudinal studies estimate SEN prevalence to be between 12% in Australia (Dempsey & Davies, 2013) and 10% in the US (Wagner et al., 2005). In the UK, SEN prevalence has increased over time and was estimated at 15.4% in 2019/20 (Department of Education, 2020). In one study, 20% of children and young adults were found to meet the criteria for mental health disorders in the US (Wagner et al., 2005). In some of these instances, the lower prevalence rate is a result of linking the estimate of SEN prevalence to receiving specialist supports. As noted in the limitations, a measure of receiving specialist support or a measure of SEN complexity or severity cannot be employed to identify students with SEN.

The following additional individual-level controls were included in the analysis: academic achievement, sex, and self-concept at age 9. The standardised Drumcondra primary reading test logit score is used as a measure of academic achievement at age 9. The child self-completed Piers-Harris Self-Concept Scale (Piers et al., 2002) is used to measure how children feel about themselves. Consistent with the capability approach, this paper recognises the importance of the student voice as it relies on several self-reported predictor and outcome measures collected from young people at 9 and 17 years.

Variables capturing the home environment

Home environmental factors include socio-economic indicators and measures of the relationship between primary caregivers and children. At 9 years, 98% of primary caregivers were the biological mothers of the children. By only including variables from primary caregivers, the analysis includes one-parent households.

Economic vulnerability is a composite measure based on latent class analysis that includes income poverty, household joblessness, and financial strain (Whelan et al., 2015). Prior research has shown that the quality of the relationship between parents and children has significant impacts on both socio-emotional (Branje et al., 2010) and academic outcomes (McCoy et al., 2016b; Pianta, Nimetz, & Bennett, 1997). The Pianta Child–Parent Relationship closeness and conflict subscales are used as a measure of the relationship between primary caregivers and children (Driscoll & Pianta, 2011; Pianta, 1992). Some previous studies have shown that students function well in families where the mother has a chronic illness. Among children whose mothers have a chronic illness, household income was found to be the largest predictor of academic performance (Chen & Fish, 2013). This paper includes a measure of chronic illness among primary caregivers, based on self-identification as a response to the question ‘do you have any chronic physical or mental health problem, illness or disability’.

Mother’s depression status has been previously linked to persistent psychological difficulties in children (O’Connor et al., 2018). Persistent maternal depression has also been found to predict academic achievements and school absences (Claessens et al., 2015). The depression status of primary caregivers included in this analysis is based on self-identification.

A growing body of studies has started examining the impact that parental educational expectations have on the outcomes of students with SEN. These studies suggest that lower parental educational expectations account, in part, for the widely documented poorer academic and post-school achievements among students with SEN (Doren et al., 2012; McCoy et al., 2016b; Shandra & Hogan, 2009). Parental expectations may be impacted by the complexity and severity of SEN (Cawthon et al., 2014; Thomas et al., 2018). As part of GUI, primary caregivers were asked ‘taking everything into account, how far do you expect (child’s name) will go in his/her education or training’. Parental educational expectations were regrouped into two distinct categories: (1) ‘Higher education’ (comprising the options ‘Degree’ and ‘Postgraduate/higher degree’) and (2) ‘Less than higher education’ (including all other levels).

Variables capturing the school environment

The analysis includes two dimensions of the school environment at age 9: (1) socio-economic profile of the primary school attended, as measured by Delivering Equality of Opportunity in Schools (DEIS) status and (2) provision of additional help to students. The DEIS programme was launched in 2005 in Ireland and allocates additional resources to schools that have high levels of disadvantage (Department of Education, 2017). Higher proportions of students with general learning SEN (27%) and emotional SEN (29%) were identified at DEIS schools, with lower proportions of students without SEN (16%). Earlier research has shown a greater complexity of need at DEIS schools in Ireland (McCoy et al., 2016a). Evidence suggests school context shapes students' engagement, expectations, and post-school pathways in Ireland, with students attending socio-economically disadvantaged contexts faring less well (McCoy et al., 2014b).

Information on whether students received additional help (yes/no) was gathered from teachers for students with additional needs only, through the teacher-on-pupil questionnaire. The measure does not capture the type and frequency of additional support received or the effectiveness of this support. While this measure can be viewed as a proxy for SEN complexity and severity, it is meant to capture the equalising policies that schools can engage in to enhance the capability of all students. At age 9, students with a general learning SEN (94%) and students with a specific learning SEN (87%) were most likely to receive additional help in school. Twenty-one percent of students with an emotional SEN and of students with a physical SEN received additional support.

Limitations

Two limitations can be noted in terms of the data available. The paper combines students with a speech, language, or physical impairment into one SEN category, and thus cannot distinguish between the associated factors and divergent outcomes of students with language difficulties and students with speech difficulties (Biddle et al., 2002). This limitation is further accentuated by not distinguishing between students with a language or speech impairment and those with a physical SEN. Second, due to the design of GUI, a measure of receiving specialist support or a measure of SEN complexity or severity cannot be employed to identify students with SEN. This may lead to an overestimation of SEN prevalence in this paper. Better measures of SEN complexity and severity would facilitate a closer comparison between the findings of this paper and those from other national contexts.

Results

Junior certificate outcomes

Junior Certificate average grades across all subjects ranged from 7.19 for students that were not identified as having any SEN at age 9 to 5.44 for students with a general learning SEN. Figure 1 illustrates the difference in mean Junior Certificate average score across all subjects by SEN type, in reference to the mean score for students without SEN (marked as

0 in Figure 1). A one unit decrease in average score represents one grade lower. Students with all types of SEN had lower Junior Certificate average scores compared with students that did not have a SEN at age 9.

The average Junior Certificate score across all subjects served as the outcome variable for four OLS models that explored the association between type of SEN and academic outcomes at 17 (see Table 1). Model 1 tests the association between academic achievement at 17 and SEN type at 9 years. This model underlines that differences in Junior

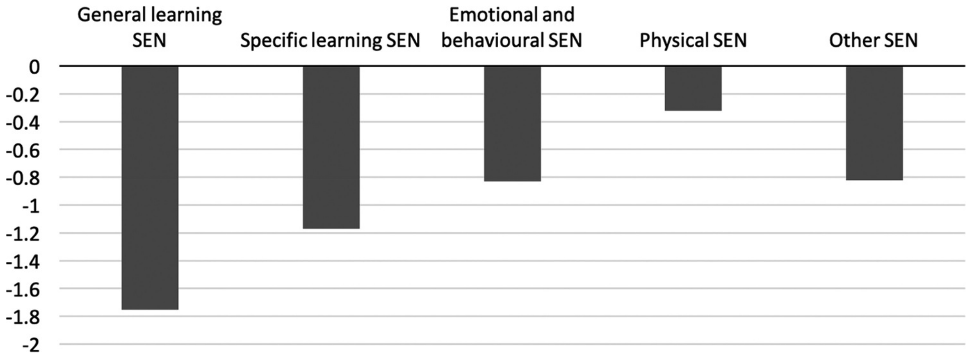

Figure 1. Junior certificate average scores by SEN type (reference mean junior certificate (7.19) for students with no SEN). Data from GUI, Child Cohort, Wave 1 and Wave 3 (at 9 and 17 years)

Table 1. Regression models for junior certificate average scores (OLS).

	Model 1 Exp(B)	Model 2 Exp(B)	Model 3 Exp(B)	Model 4 Exp(B)
Constant	7.231	7.088	7.125	7.096
General learning SEN at 9 (ref. no SEN)	−1.636***	−0.98***	−0.803***	−0.732***
Specific learning SEN at 9 (ref. no SEN)	−1.019***	−0.411***	−0.345**	−0.329**
Emotional SEN at 9 (ref. no SEN)	−0.838***	−0.536***	−0.45***	−0.368***
Physical SEN at 9 (ref. no SEN)	−0.238**	−0.079	0.029	0.036
Other SEN at 9 (ref. no SEN)	−0.884***	−0.416***	−0.316**	−0.371**
Female (ref. male)		−1.458***	−1.219***	−1.112***
First quintile reading score at 9 (ref. 5th quintile)		−0.932***	−0.777***	−0.738***
Second quintile reading score at 9 (ref. 5th quintile)		−0.564***	−0.469***	−0.447***
Third quintile reading score at 9 (ref. 5th quintile)		−0.186**	−0.153**	−0.143**
Fourth quintile reading score at 9 (ref. 5th quintile)		0.124***	0.1**	0.094***
Self-concept at 9		0.014***	0.01***	0.01***
Economic vulnerability (ref. no economic vulnerability)			−0.358***	−0.337***
Conflict with primary caregiver at 9			−0.008***	−0.008***
Closeness with primary caregiver at 9			−0.005	−0.002
Primary caregiver has chronic illness/disability (ref. does not have chronic illness/disability)			−0.098*	−0.099*
Depression status of primary caregiver (ref. not depressed)			−0.291***	−0.279***
Primary caregiver expects child to complete higher education (ref. less)			0.633***	0.586***
DEIS school (ref. no DEIS)				−0.642***
Student receives extra help in school (ref. no additional help received)				−0.12
Observations	5131	5131	5131	5131
R-squared	0.109	0.254	0.306	0.335
Adjusted R-squared	0.108	0.306	0.304	0.332

Note: ***p < .001; **p < .01; *p < .05
Data from GUI, Child Cohort, Wave 1 and Wave 3 (at 9 and 17 years)

Certificate average scores between students with all types of SEN and students with no SEN (as presented in Figure 1) are statistically significant. Model 2 investigates the academic progress that students make between 9 years and their Junior Certificate examination and includes two additional individual-level controls: sex and self-concept. Model 2 reveals that, in addition to registering lower Junior Certificate scores, students with general and specific learning SEN, emotional SEN, and other SEN make less academic progress between 9 years and their Junior Certificate examination than students without SEN. After accounting for academic achievement at age 9, the difference in Junior Certificate results between students with a physical SEN and those with no SEN is no longer statistically significant, indicating that students with physical SEN and students with no SEN make comparable academic progress between 9 and their Junior Certificate examination. Models 1 and 2 suggest both early and ongoing academic interventions are important to support the academic achievement of students with SEN.

In Model 3, the inclusion of home environmental factors does not remove the association between SEN type and Junior Certificate average scores. However, this model reveals that home factors matter for academic achievement and progress. Economic vulnerability, depression among primary caregivers, and levels of conflict between the primary caregiver and the young person are associated with lower Junior Certificate average scores. While the association between having a primary caregiver with a chronic illness or disability was also statistically significant, this association was less consistent across robustness checks. Levels of closeness between primary caregivers and the young person was not associated with academic achievement. After accounting for SEN type and prior academic achievement, parental educational expectations at 9 had a strong effect on Junior Certificate average scores, consistent with findings from prior studies on the role of parental educational expectations for students with SEN (McCoy et al., 2016b).

Model 4 includes two variables that capture school environmental factors. Students from DEIS schools had statistically significant lower Junior Certificate average scores than students from non-DEIS schools, reiterating that school context matters for academic achievement. Students who received additional help in school had similar Junior Certificate average scores as students who did not receive additional support. While receiving additional support at age 9 did not remove the association between SEN type on Junior Certificate outcomes, it lowered the strength of the association, particularly for students with specific learning SEN. Model 4 explains 33% of the variability in the outcome variable (Adjusted R-squared = 0.332).

Life satisfaction

While young people without SEN had higher mean levels of satisfaction with their lives (Mean = 7.3) than young people with SEN (ranging from 7 for young people with a general learning SEN to 6.6 for young people with an emotional SEN), the gap in life satisfaction was smaller than the gap in academic performance. Before controlling for additional factors, young people with a general learning SEN, an emotional SEN, and other SEN had statistically significant lower levels of life satisfaction than students with no SEN. The differences in life satisfaction averages between students with a specific learning SEN and a physical SEN were not statistically significant (see Table A5). This finding offers positive insights into the life satisfaction of young people with a specific learning SEN and physical SEN.

After including additional individual, home, and school controls, differences in life satisfaction between students with SEN and students without SEN did not persist, with one exception: young people with an emotional SEN had statistically significant lower levels of life satisfaction. After controlling for SEN type, young women had significantly lower levels of life satisfaction than young men, consistent with prior findings (McNamara et al., 2020). Self-concept and depression status of primary caregiver were also predictive of life satisfaction. Academic achievement at 9 years, economic vulnerability, parental educational expectations, and chronic illness/disability status of the primary caregiver were not associated with life satisfaction. While the OLS model showed that students who attended a DEIS school and students who received additional support at age 9 had lower levels of life satisfaction at 17, this result was not replicated by additional robustness checks (see Table 2).

Table 2. Regression models for life satisfaction and coping style outcomes at age 17 (OLS).

	Life satisfaction at 17[2] Exp(B)	Problem solving coping skills at 17 Exp(B)	Seeking support coping skills at 17 Exp(B)	Avoidance coping skills at 17 Exp(B)
Constant	6.002	12.603	7.78	17.325
General learning SEN at 9 (ref. no SEN)	0.179	−0.462	1.128**	0.211
Specific learning SEN at 9 (ref. no SEN)	0.061	−0.811	0.738	0.956
Emotional SEN at 9 (ref. no SEN)	−0.396**	−0.764*	−0.254	0.450
Physical SEN at 9 (ref. no SEN)	−0.077	0.088	−0.094	−0.067
Other SEN at 9 (ref. no SEN)	−0.345	0.000	−0.370	0.601
First quintile reading score at 9 (ref. 5th quintile)	0.023	−0.293	−0.436*	−1.339***
Second quintile reading score at 9 (ref. 5th quintile)	0.048	0.081	−0.040	−0.475
Third quintile reading score at 9 (ref. 5th quintile)	−0.029	0.122	−0.265	−0.116
Fourth quintile reading score at 9 (ref. 5th quintile)	0.042	0.094	0.051	−0.001
Female (ref. male)	−0.304***	−0.030	2.493***	1.865***
Self-concept at 9	0.025***	0.062***	0.044***	−0.054***
Economic vulnerability (ref. no economic vulnerability)	−0.162	−0.606**	−0.883***	0.154
Conflict with primary caregiver at 9	−0.011**	−0.023*	−0.012	0.034***
Closeness with primary caregiver at 9	0.012	0.029	0.073***	−0.069**
Primary caregiver has chronic illness/disability (ref. does not have chronic illness/disability)	−0.121	0.009	0.060	−0.232
Depression status of primary caregiver (ref. not depressed)	−0.337**	0.492	0.352	1.192***
Primary caregiver expects child to complete higher education (ref. less)	0.104	0.476**	0.166	0.795***
DEIS school (ref. no DEIS)	−0.2**	−0.046	0.327	0.020
Student receives extra help in school (ref. no additional help received)	−0.321*	−0.261	−1.569***	0.411
Observations	5129	5073	5093	5085
R-squared	0.039	0.031	0.102	0.058
Adjusted R-squared	0.036	0.027	0.099	0.055

Note: ***p < .001; **p < .01; *p < .05
Data from GUI, Child Cohort, Wave 1 and Wave 3 (at 9 and 17 years)

Coping styles

Several differences can be noted in the coping styles employed by young people with and without SEN. Figure 2 illustrates the difference in the mean coping style score by SEN type, in reference to the mean score of students that had no SEN at age 9 (marked as 0 in Figure 2).

Young people with a general and specific learning SEN and an emotional SEN were less likely to employ problem-solving coping styles than young people without SEN. Young people with all SEN types were less likely to seek support. However, no significant differences were detected between the avoidance coping styles of young people with and without SEN (see Table A5).

After including individual, home, and school controls, results suggest that, while students with an emotional SEN were less likely to employ problem solving than students without SEN, they were as likely as students without SEN to seek support and employ avoidance. Students with a general learning SEN were more likely to seek support than students without SEN. No significant associations were noted between students with a general learning SEN and those without SEN on the problem-solving and avoidance coping style outcomes. The effect of self-concept was persistent across all coping style outcomes. While young women and young men were as likely to employ problem-solving coping styles, young men were less likely to seek support and less likely to employ avoidance coping styles than young women. Home environmental factors had mixed associations with coping styles. Young people from households with economic vulnerability were less likely to employ positive coping styles, yet no association was noted on the avoidance outcome. Young people who experienced conflicts with their primary caregivers were less likely to employ problem solving and more likely to employ avoidance. Higher levels of closeness with primary caregiver was associated with higher likelihood of seeking support and lower likelihood of employing avoidance. Young people whose primary caregiver expected them to complete higher education registered both higher levels of employing problem solving as well as avoidance. In contrast to the strong effect that attending a DEIS school had on Junior Certificate average score, few differences were noted between students who attended

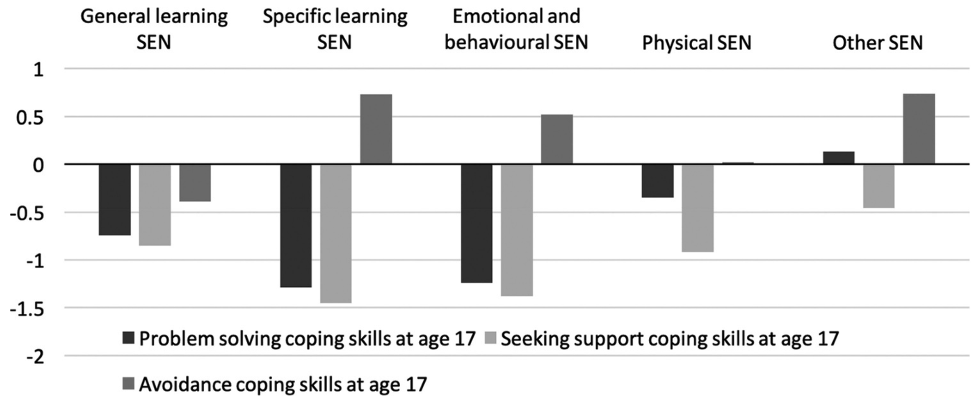

Figure 2. Coping styles at 17 by SEN type (reference no SEN). Data from GUI, Child Cohort, Wave 1 and Wave 3 (at 9 and 17/18 years)

a DEIS and non-DEIS school at 9 in relation to the coping styles they employed at 17 years. No differences were noted between students who received extra support and those who did not receive extra support on the problem-solving and avoidance coping style outcomes. However, students who received additional help were less likely to employ seeking support as a coping strategy. Between 3 and 10% of the variability of the socio-emotional outcome variables included in this paper is explained by the predictor variables included in the respective models (Adjusted R-squared between 0.027 and 0.099), indicating that additional factors shape the life satisfaction and coping styles of 17-year-olds with and without SEN (see Table 2).

Discussion and conclusion

Viewed from a capability approach, the outcomes of young people with and without SEN should reflect a wide range of capabilities that in turn enable further choices and support agency. By using rigorous, nationally representative longitudinal data, a broader and triangulated measure of SEN, and by including both academic and socio-emotional outcomes, this paper offers a more holistic understanding of the lived experiences of young people with SEN and the childhood risk and protective factors associated with their outcomes. By considering Junior Certificate results, life satisfaction, and coping strategies at 17 as capabilities, this paper argues that it is the agency of young people – regardless of SEN status – that should count in discerning to what extent these outcomes matter and for what functionings, through the choices subsequently made by young people themselves.

At the same time, the capability approach avoids the 'dilemma of difference' (Terzi, 2005) and allows for observing inequality and discussing how environmental factors may alleviate inequality (Norwich, 1993), while acknowledging the role of agency. Academic and socio-emotional outcomes – viewed as capabilities – may enable or hinder young people from pursuing potential functionings. The gaps by SEN status and across SEN types documented in this paper impact on the agency of people with various types of SEN and the functionings they may choose to pursue. The agency and functionings of people with SEN are further impacted by the prioritisation of academic outcomes in public and policy discourse (Arduin, 2015) as well as institutional 'inflexibilities' in accounting for individual difficulty (Norwich, 2018). To address this, insofar as academic and socio-emotional outcomes are shaped by home and school environments (Sirin, 2005), it is important to understand how these factors can be leveraged to decrease inequalities between young people with and without SEN and enable agency.

This paper found that students with all types of SEN achieve lower Junior Certificate average scores than students without SEN and that all students with SEN – with the notable exception of young people with a physical SEN – make less academic progress between 9 years and their Junior Certificate examination. Inequality in socio-emotional outcomes among young people with and without SEN was less pronounced. While life satisfaction was lower among students with a general learning SEN, emotional SEN, and other SEN than students with no SEN, the life satisfaction of students with a specific learning SEN and physical SEN was no different than for young people with no SEN. No statistically significant differences were found by SEN type on the avoidance coping style indicator. Students with all SEN types were less likely to seek support than students without SEN, before accounting for additional home and school factors.

The socio-economic home context, features of the relationship with primary caregivers, and school context had a strong association with academic achievement and a weaker association with socio-emotional outcomes. Despite their strength, the home and school environmental factors included in the analysis did not fully explain the association between SEN status and academic outcomes. At the same time, the analysis revealed several protective factors that may decrease inequality in academic and socio-emotional outcomes between students with and without SEN. Higher parental educational expectations were linked to higher academic achievement after accounting for both SEN status and prior academic achievement and had mixed associations with socio-emotional outcomes. Prior international studies suggest that cultural and environmental factors shape parental expectations, as does social class (Leung et al., 2011; Sheng, 2012), indicating that interventions may be designed to change and increase parental educational expectations by increasing a parent's sense of efficacy (Arellano et al., 2019). Receiving additional supports at age 9 lowered the association between SEN type – particularly specific learning SEN – and Junior Certificate average scores, indicating that receiving additional support may be an effective mechanism to increase academic achievement.

The paper has also shown that together with economic vulnerability, the level of conflict between the primary caregiver and young people and the depression status of primary caregiver were linked with academic and some socio-emotional outcomes. Previous international studies show that being exposed to cumulative risk factors may lead to reduced psychological adjustment and academic achievement (Forehand et al., 1998). Studies from other national contexts investigated the effect that having a child with SEN has on parents, often concluding that additional supports are needed (Dikow et al., 2019; Thomas et al., 2018). Data from the Longitudinal Study of Australian Children has shown that mothers of children with chronic illness (Quach & Barnett, 2015) and special needs (Quach et al., 2015) have poorer mental health outcomes. This study adds further evidence to suggest that additional home supports are needed for parents of children with SEN.

The evidence also highlights the role of school context in shaping outcomes for young people in Ireland (McCoy et al., 2014b), with students attending DEIS schools faring less well particularly in terms of their academic progress. Earlier research has found this stems from levels of teacher experience and turnover, the concentration of additional learning needs, absenteeism levels and students' engagement (McCoy et al., 2014). The evidence also points to the importance of creating greater equalisation in the profile of student intake and student need across schools, as students with SEN were more likely to attend DEIS schools. A new Education Admission to School Act aimed at curbing discrimination in school admission policies will enter into effect in Ireland from September 2021 onwards (Mihut & McCoy, 2020). It is unclear whether this legislation will have sufficient impact on admission practices, and additional policy measures may be necessary. As a compounding factor, recent evidence has shown that both SEN students and students at DEIS schools have been disproportionately affected by school closures as a result of COVID-19 (Mohan et al., 2020).

Viewed from a capability approach, schools and States have the 'affirmative tasks' of ensuring all students meet and perhaps exceed minimum thresholds that would enable them to exercise agency (Nussbaum, 2009). In common with other recent work (Rose & Shevlin, 2021), this paper has highlighted the importance of taking a holistic view of young people's development. This paper suggests that fewer gaps persist between students with SEN and students without SEN in relation to their socio-emotional outcomes compared to their academic outcomes, but that further childhood and ongoing supports are needed in school and home settings to facilitate the academic achievement and progress of students with SEN in order to empower young people to pursue the functionings they choose for themselves.

Notes

1. An overview of questionnaires used by GUI at different waves is available at https://www.growingup.ie/questionnaires/#Wave-1-Child-Q
2. To account for skewness the distribution of the Life Satisfaction outcome variable, an additional general Poisson model was run. The association between emotional SEN, sex, self-concept, and depression status of primary caregiver remained statistically significant. This robustness check did not find a statistically significant association between level of conflict, DEIS status and receiving additional support, and the life satisfaction outcome measure.

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Notes on contributors

Georgiana Mihut was a Postdoctoral Research Fellow at the Economic and Social Research Institute in Ireland. She recently received her Ph.D. in Higher Education from Boston College. Her work includes publications in education and comparative higher education.

Selina McCoy is Associate Research Professor in Social Research and joint education research coordinator at the Economic and Social Research Institute in Ireland, and Adjunct Professor at Trinity College Dublin. She has over 25 years of experience with responsibility for research and evaluation projects in the fields of European education, inequality, academic achievement and student development.

Bertrand Maître is a Senior Research Officer at the Economic and Social Research Institute. He is a Graduate of Economics in the University of La Sorbonne Paris I. His current research focuses on poverty and inequality, social exclusion and income distribution.

ORCID

Selina McCoy http://orcid.org/0000-0001-8774-4018

Data availability statement:

The data that support the findings of this study are available from Ireland's Central Statistics Office (CSO). Restrictions apply to the availability of these data, which were used under license for this study. Data may be obtained by registered research organisations with the permission of the Central Statistics Office. Growing Up in Ireland (GUI) is funded by the Department of Children, Equality, Disability, Integration and Youth (DCEDIY). It is managed by DCEDIY in association with the CSO. Results in this paper are based on analyses of data from Research Microdata Files provided by the CSO. Neither the CSO nor DCEDIY take any responsibility for the views expressed or the outputs generated from these analyses.

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