

# YOUTH IN CARE WITH EMOTIONAL AND BEHAVIOURAL CHALLENGES: ALTERNATIVE PATHWAYS TO TERTIARY EDUCATION

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## INTRODUCTION

This article aims to start a discussion on whether an alternative pathway to tertiary education can be found for New Zealand youth who are in care and who are experiencing mental health and/or behavioural difficulties and, more specifically, conduct problems. Our purpose is to challenge the conventional approaches to education and to propose a method that could support the development of more tailored and effective educational pathways. These proposed, potentially more effective, pathways would see youth in care – who would not ordinarily achieve New Zealand's National Certificate of Education Achievement (NCEA) levels 1 and 2 (due to externalising behaviours which impact progress to tertiary education) – gain success in these qualifications.

## EDUCATION IN AOTEAROA NEW ZEALAND: THE CURRENT SITUATION

At a national level, the New Zealand Qualifications Framework (NZQF) recognises that educational achievement contributes directly to Aotearoa New Zealand's economic, social and cultural success (New Zealand Qualifications Framework, 2016). On an individual level, education is an important part of a young person's life, and success within education correlates strongly with positive life outcomes (e.g., Fergusson et al., 2002; Kawachi et al., 2010). From a financial perspective, young people leaving school with higher qualifications are likely to earn significantly more than their peers leaving school with only NCEA level 1, or with no qualifications at all (Ministry of Education, 2020).

Scott (2018) has analysed the employment and further education outcomes of all students in Aotearoa New Zealand from 2009 to 2015. He reports that lower achievement at school correlates with young people being less likely to be in work and, if they are working, they are more likely to be earning less than their better qualified peers. More specifically, he found that more than 40 percent of youth leaving school without qualifications never engage in employment or further education and training; and that seven years after leaving school, nearly 60 percent of this group are not in employment and are earning on average 51 percent less than their peers who left school with NCEA level 2.

But low levels of school achievement are associated with more than financial disadvantage. Fergusson et al. (2004) describe how longitudinal studies conducted by both the Dunedin Multidisciplinary Health and Development Study (DMHDS) and the Christchurch Health and Development Study (CHDS) found that lower levels of academic achievement were "associated with poorer mental health, mainly in terms of high rates of externalising problems, specifically conduct disorder" (p. 121). The DMHDS study included a birth cohort of 1037 children who were born in Dunedin, New Zealand, between April 1972 and March 1973, while the CHDS included a birth cohort of 1265 children who were born in Christchurch, New Zealand, in 1977. Their findings are problematic, as the effects of conduct disorder are experienced not just by the individuals facing those difficulties, but also by their

families, communities and the wider society. Studies such as the CHDS have suggested that conduct problems that are apparent in childhood and adolescence are “a strong and consistent predictor of adult crime” (Horwood et al., 2015, p. 2). If conduct problems continue into adulthood, the cost to society is high due to the inevitable increased use of criminal justice, health and social welfare services (Rivenbark et al., 2018). More positively, Jakobsen et al. (2012) report that data from the CDHS indicate that increases in educational attainment can mitigate the longer-term risks of antisocial behaviour in youth.

The Education and Training Act 2020 recognises the rights of all children and young people to attend school, including those with disabilities or learning needs, which include mental health and behavioural challenges (New Zealand Legislation, 2020). In its Learning Support Action Plan 2019–2025, the Ministry of Education (2019) has clearly stated that “All children and young people, no matter their risk factors, have the right to the same opportunities to meet their potential as their peers” (p. 37). Despite this, in the statistics it provides on young people who are Not in Employment, Education or Training (NEET), the Education Counts website provides robust evidence that the current education system is not providing for many children and youth (aged 15–24 years). The proportion of youth that fall into this category is high across Aotearoa New Zealand, standing at 12.9 percent (Figure NZ Trust, 2021). Some areas contribute more to this statistic, including the Bay of Plenty (16.3 percent), Northland (14.8 percent) and the Waikato Region (14.6 percent). These figures offer a strong indication that the education system is not working for all.

Furthermore, the Ministry of Education has developed a *Statement of National Education Learning Priorities (NELP) & Tertiary Education Strategy (TES)* that has been issued under the Education and Training Act 2020 (New Zealand Legislation, 2020; Ministry of Education, n.d.-a). This document includes a summary of the actions that the government is taking to provide Barrier Free Access (Objective 2) to education, including for those learners with learning support needs. To achieve this objective, several actions are suggested including supporting coherent secondary/tertiary learning pathways, achievement and transition to employment; reviewing alternative education; and reviewing existing supports for children and young people with high levels of need (Ministry of Education, n.d.-a, p. 5).

At the same time, the tertiary education sector in Aotearoa New Zealand is undergoing transformation driven by the Review of Vocational Education (RoVE). In 2020, Te Pūkenga – New Zealand Institute of Skills and Technology was established. In an “Updated letter of expectations to Te Pūkenga subsidiaries” (8 June 2021), the chair and chief executive clearly state that within “Council Priority 2.2. Delivering customised learning approaches that meet the needs of learners and trainees wherever they are,” they expect that each Te Pūkenga subsidiary will prioritise certain groups, including rangatahi (youth) who are NEET.

There is a growing body of literature on the notion of widening participation (WP) in higher education (Burke, 2021; Leach, 2015) that is pertinent to the research projected in this article. Burke (2012, p. 53) asserts that “As widening participation is about redressing historical exclusions and inequalities, it must grapple with the politics of social relations, including the intersections of difference, inequality and identity across age, class, dis/ability, ethnicity, gender, nationality, race, religion and sexuality.” This study aligns with the underpinning driving force of WP and hopes to redress pathways for youth with different challenges. Leach (2015) has explored WP in the Aotearoa New Zealand context by analysing available tertiary education documents published between 2000 and 2014, finding that one of the major drivers for WP was strengthening the economy through ensuring enhanced higher education accessibility, thus creating improved employment opportunities. However, up until now, data on the Education Counts website has continued to provide evidence that effective systems to ensure suitable education pathways for youth with behavioural and mental health challenges are yet to be established.

Over the past several years, initiatives targeting youth who are NEET and providing them with the opportunity to experience educational success in an alternative format have been provided through trades academies, services academies, gateway funding and Youth Guarantee courses (Ministry of Education, n.d.-b). One difficulty, however,

is that these options often come too late. Previous research has confirmed there is a pathway from externalising or conduct problems in earlier childhood to academic problems later on (e.g., Esch et al., 2014; Van der Ende et al., 2016), and so addressing the problem at the end of compulsory education is too late. Mental health and/or behavioural challenges have often impacted on young people's attendance and engagement in school much earlier than this. This issue is outlined by McGirr (2019), who has identified the need for a move away from the current focus on youth transitions to "fewer, longer and deeper interventions" (p. 3). More interventions during the primary and secondary schooling years are suggested, including preventative approaches such as additional support for non-cognitive skills (soft skills), which can be influenced during this period.

In this exploratory position article, transdisciplinary research (TDR) principles (see further below), such as taking all stakeholders' voices on board prior to establishing potential solutions to a problematical situation, are also explored. Thus, this article is not designed to provide alternative pathway options prior to the gathering of data, as potential pathways will be explored once data has been gathered incorporating all key stakeholders' voices. While there are established interventions in place now (including the NEET programmes listed above and Learning Support options such as the Resource Teacher Learning and Behaviour Service), a further problem faced by youth in state care, who often get moved around, is that their education programmes (and associated educational supports) are interrupted when they move because these programmes and learning supports are attached to the region, city or town where they have been living. In these situations, the focus is on establishing a continuing, alternative education pathway that will ensure that youth with mental and behavioural difficulties have health, social and fiscal outcomes similar to those of youth whose learning is in a Western-based or mainstream education system.

## TRANSDISCIPLINARY RESEARCH AS AN APPROACH TO THE PROBLEM

Previous research has demonstrated that as children move into adolescence and early adulthood, the success of interventions reduces and the task of reversing a negative trajectory becomes more complex and expensive (Church, 2003). It is recognised that the various factors affecting the lives of youth become more complex as they grow older and the influences on them widen, particularly as peers and social media take a more prominent role in the decisions they make day to day. A robust approach is required to account for this complexity when addressing problems in this age group.

TDR is one approach that can cope with such "wicked problems." Wicked problems have been described as "typically heterogeneous, changeable, contextually localized, value-laden, sometimes caused by those charged with addressing them, and difficult to understand and solve" (Neuhauser, 2018, pp. 31-32). They are often characterised by uncertainty around how to formulate the problem or the solution (Head & Xiang, 2016). In Aotearoa New Zealand, identifying alternative educational pathways can be categorised as a "wicked problem" insofar as it proposes addressing an issue that has persisted over an extensive period of time, despite funding and support being provided through the Learning Support branch of the Ministry of Education and Youth Guarantee initiatives. Providing educational services to young people in care with mental health and/or behavioural challenges is complex, as there are many factors at play that impact on both the young person involved as well as the social and ecological systems around them.

In addition, many stakeholders are a part of this particular wicked problem. First, there are the young people in care and their whānau, who have their own language and history, and then there are stakeholders spread throughout the social and ecological system surrounding these young people. All those involved view the wicked problem from different perspectives, depending on their own knowledge, experience and position in the sociological context. A TDR theoretical approach is certainly complex, and the seminal work by Nicolescu attests to this complexity (Nicolescu, 2010). However, one of the underlying key TDR principles is solving real-world issues by concentrating on human-centred solutions. This translates to a primary focus on stakeholder engagement as

a methodology that can pull various perspectives together from scientists from different disciplines (objective worldviews) and non-scientists (subjective worldviews), and in so doing bridge the gap between them by weaving the joint new knowledge together. This process allows the unification of these various realities while still preserving their differences. The work of Jahn et al. (2012) further supports this weaving together of new knowledge. For the purposes of this article, the conceptual module of transdisciplinarity proposed by Jahn et al. (2012) will be used in the form of a simplified representation (See Figure 1).

In the Jahn et al. (2021) model, the TDR process has three phases. In phase 1, a common research object is formed by taking a societal problem and linking it to scientific problem(s), while ensuring that all key stakeholder views and goals are considered. In phase 2, new knowledge is acquired through integrating knowledge drawn from researchers ('science') and non-scientific stakeholders (actors who represent 'society'). The final phase is transdisciplinary integration, where new knowledge is created and phase 2 is evaluated. From here, further modification or even a reframing of the initial problem is likely to occur, with a return to phases 1 or 2. Coupled with this process is a particular strength of TDR, the flexibility to be iterative in its approach and to address a wicked problem in any context. Using models drawn from TDR contributes to the continuous solving of new problems and challenges, as well as identifying the new opportunities that arise when one element is changed, causing other factors to change in different contexts. New problems could then be created, leading to a continuation of the iterative process. Thus, change is inevitable in the proposed TDR conceptual model (Jahn et al., 2012).

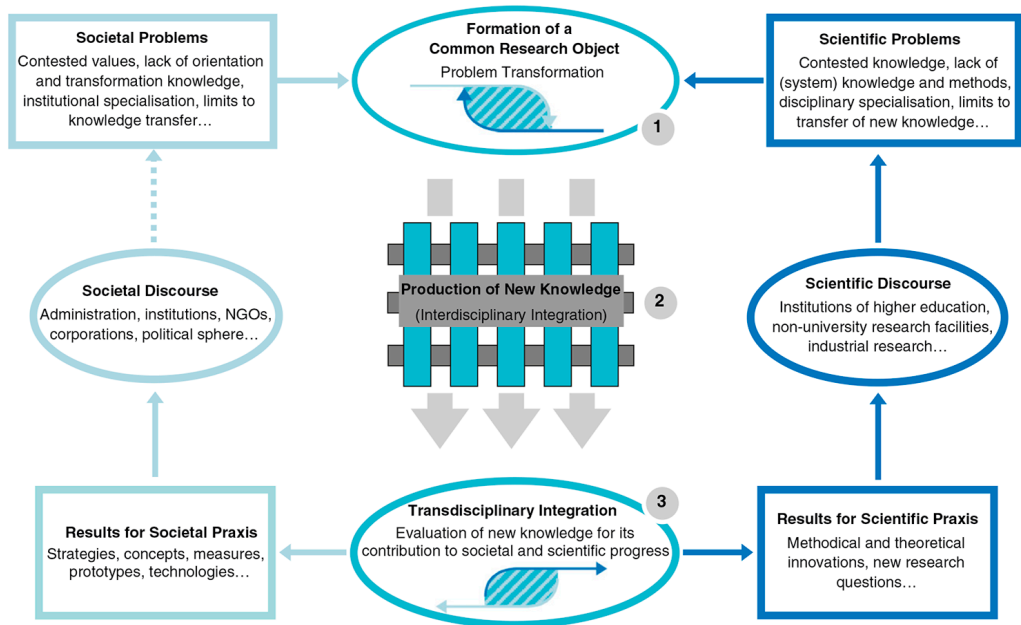


Figure 1. A conceptual model of transdisciplinarity. Source: Jahn et al., 2012, p. 5. Copyright 2012 Elsevier B.V. All rights reserved.

## THE WICKED PROBLEM: ELABORATION

Generally, principals of state schools may stand down or suspend a student who demonstrates gross misconduct or continual disobedience (New Zealand Legislation, 2020). The school board can then exclude the student or impose further conditions on their attendance. If the student is excluded from one state school, the Education and Training Act provides for the secretary of education to direct another school board to enrol the student. However, without this specific direction, any state school board can refuse to enrol an excluded student; there are a significant number of students who are not attending school at any one time due to being stood down, suspended or excluded.

There is evidence that regardless of other factors such as demographics or school achievement, out-of-school suspension and exclusion/expulsion is associated with negative developmental outcomes, including involvement in the justice system (Novak, 2019; Skiba et al., 2014). For example, in an American study that compared 480 youths, all of whom had been suspended, with a matched group of 1,193 youths from a nationally representative sample, who had not been suspended, Rosenbaum (2020) found that 12 years after suspension, the suspended youth were more likely to have been involved in the criminal system and less likely to have attained educational qualifications.

Internationally, youth who are not engaged in the education system are correlated with higher rates of delinquency and with poor life outcomes, including poverty, poor health and imprisonment (Mathur et al., 2018; Rocque et al., 2017). This pattern is described by Skiba et al. (2014) as the “school to prison pipeline,” a construct used to describe policies and practices, especially with respect to school discipline, in the public schools and juvenile justice system that decrease the probability of school success for at-risk children and youth. It also increases the probability of negative life outcomes, particularly through involvement in the juvenile justice system (p. 546).

In the Aotearoa New Zealand context, Sutherland (2011) and Wertz et al. (2018) have suggested that education can provide positive opportunities to those who may be on a pathway to youth offending. While genetic risk for low educational achievement, as determined through a genome-wide polygenic score, has been linked to antisocial behaviour across the lifespan that may include criminal activity, it has also been suggested that improving school experiences can mitigate this (Wertz et al., 2018). Therefore, research is needed into how young people with underlying mental health and behavioural challenges can be engaged in successful educational and training pathways.

In Aotearoa New Zealand, the NZQF recognises that learning can be obtained in a range of ways including on the job, online, by distance and in institutions (New Zealand Qualifications Framework, 2016). It is also possible to gain learning through a mix of these modalities. This learning can happen at different points in a person's life, can be obtained in a range of places and can be achieved through part-time study. This is an important principle in addressing the problem of youth who experience difficulties that limit their ability to attend mainstream (and even existing alternative) education programmes. However, despite this, funding is generally only available for qualifications that are quality assured and recognised by the NZQF. While these safeguards are necessary to ensure high-quality programmes, an unintended outcome is that institutions place further restrictions on how learning can occur, as they are required to show that students are attending courses and achieving results within given timeframes in order to receive funding to deliver those programmes. In practice, this means that students with emotional and behavioural challenges, who frequently have breaks in their attendance in educational institutions, miss opportunities to complete units of learning and gain NZQA credits and higher (tertiary) levels of education.

## THE MONETARY IMPACT OF THE WICKED PROBLEM

Pacheco and Dye (2014) have previously estimated both the short-term costs to the economy and the long-term impacts on society of youth who are NEETs in Aotearoa New Zealand. By considering projected loss to productivity (foregone wages) and the cost to public finances, they concluded that NEET youth would accumulate an expected

per capita cost of approximately \$26,847 over the following 1-3 years. It is likely that this figure would increase over time and that there would be further cost involved beyond the three years for those youth who never engage in employment or education (see above, Scott, 2018).

Other significant costs to society if conduct problems continue into adulthood include increased use of criminal justice, health and social welfare services (Rivenbark et al., 2018). Rivenbark et al. (2018) analysed service utilisation by adults up to 38 years of age in the DMHDS (see above) across multiple sectors including health, social services and justice. Although participants identified as having conduct problems in childhood accounted for 9.0 percent of the population group studied, they made up 53.3 percent of all convictions, 20.5 percent of all prescription fills and 24.7 percent of welfare benefit months. Thus, if an alternative educational pathway succeeds in retaining youth in education for longer, there is also likely to be a cost benefit as they transition to adulthood.

So why focus on the monetary impact of the wicked problem? Funding for programmes is limited and significant funding is already provided to Learning Support and other agencies to support the education of at-risk youth. However, the statistics presented above suggest these significant financial costs provide a convincing argument that better educational alternatives for youth with conduct problems should be sought than have been offered to date.

## CONCLUSION

In many societies, the search for educational pathways for at-risk youth presents an ongoing dilemma. A proactive approach is needed to ensure successful intervention, especially for those in care facing mental health and behavioural challenges. The solution to providing positive outcomes for some youth may not be found in traditional or current approaches. A better approach might be to reflect on the advantages gained by learners who succeed in the current education system that allow them to enter tertiary education, and then consider how youth in care experiencing mental health and/or behavioural challenges might obtain these same benefits or skills in a different way. In other words: we should start with the end goal in mind – engagement in tertiary education – and then work back to determine what critical factors must be present to enable this outcome.

There are compelling reasons for seeking alternative educational pathways to tertiary education for youth in care with specific challenges. From a government policy perspective, this group should be able to access high-quality, culturally responsive and inclusive education. If they do not, this group of learners will more likely become part of the “school to prison pipeline” and experience negative, long-term life outcomes in terms of health, unemployment and poverty. This is not a new problem, as the research explored above shows. The problem of how to keep this group in education and support them through to tertiary education is indeed a “wicked problem,” and one that could benefit from a transdisciplinary research approach.

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## REFERENCES

- Leach, L. (2015). Widening participation in Aotearoa New Zealand since 2000. In A. Bennett, E. Southgate, & M. Sha (Eds.), *Widening higher education participation*. Chandos Publishing.
- Burke, P. J. (2012). *The right to higher education: Beyond widening education*. Routledge.
- Church R. J. (2003). *The definition, diagnosis and treatment of children and youth with severe behaviour difficulties: A review of research*. Report prepared for the Ministry of Education. University of Canterbury, Education Department.
- Earle, D. (2010). *Benefits of tertiary certificates and diplomas: Exploring social and economic outcomes*. Ministry of Education. [https://www.educationcounts.govt.nz/\\_data/assets/pdf\\_file/0003/76494/Benefits-of-certs-and-dips-17052010.pdf](https://www.educationcounts.govt.nz/_data/assets/pdf_file/0003/76494/Benefits-of-certs-and-dips-17052010.pdf)
- Esch, P., Bocquet, V., Pull, C., Couffignal, S., Lehnert, T., Graas, M., Fond-Harmant, L., & Anseau, M. (2014). The downward spiral of mental disorders and educational attainment: A systematic review on early school leaving. *BMC Psychiatry*, 14(1), 1–13. <https://bmcp psychiatry.biomedcentral.com/articles/10.1186/s12888-014-0237-4>
- Fergusson, D. M., New Zealand. Ministry of Education & Dunedin Multidisciplinary Health and Development Research Unit, New Zealand Treasury, New Zealand Ministry of Social Development, & Christchurch Child Development Study. (2004). *Comorbidity and coincidence in the Christchurch and Dunedin longitudinal studies: A report for the New Zealand Ministry of Social Development, Ministry of Education and the Treasury*. Ministry of Social Development.
- Fergusson, D. M., Swain-Campbell, N., & Horwood, L. J. (2002). Outcomes of leaving school without formal educational qualifications. *New Zealand Journal of Educational Studies*, 37(1), 39–56.
- Figure NZ Trust. (2021). *Youth who are not in employment, education, or training in New Zealand*. Figure.nz. Retrieved 12 May, 2021, from <https://figure.nz/chart/1KZdfhKN6jloYTFm>
- Head, B. W., & Xiang, W. N. (2016). Why is an APT approach to wicked problems important? *Landscape and Urban Planning*, 154, 4–7.
- Horwood, L. J., Boden, J. M., & Fergusson, D. M. (2015). From evidence to policy: Findings from the Christchurch Health and Development Study. *Australian & New Zealand Journal of Criminology*, 48(3), 386–408.
- Jahn, T., Bergmann, M., & Keil, F. (2012). Transdisciplinarity: Between mainstreaming and marginalization. *Ecological Economics*, 79, 1–10.
- Jakobsen, I. S., Fergusson, D., & Horwood, J. L. (2012). Early conduct problems, school achievement and later crime: Findings from a 30-year longitudinal study. *New Zealand Journal of Educational Studies*, 47(1), 123–135.
- Kawachi, I., Adler, N. E., & Dow, W. H. (2010). Money, schooling, and health: Mechanisms and causal evidence. *Annals of the New York Academy of Sciences*, 1186(1), 56–68. <https://doi.org/10.1111/j.1749-6632.2009.05340.x>
- Mathur, S. R., Griller Clark, H., LaCroix, L., & Short, J. (2018). Research-based practices for reintegrating students with emotional and behavioral disorders from the juvenile justice system. *Beyond Behavior*, 27(1), 28–36.
- McGirr, M. (2019). *Not just about NEETs: A rapid review of evidence on what works for youth at risk of limited employment*. Ministry of Education. [https://www.educationcounts.govt.nz/\\_data/assets/pdf\\_file/0005/194513/Not-just-about-NEETs.pdf](https://www.educationcounts.govt.nz/_data/assets/pdf_file/0005/194513/Not-just-about-NEETs.pdf)
- Ministry of Education (2019). *Learning support action plan 2019-2025*. Kōrero Mātauranga. <https://conversation.education.govt.nz/assets/DLSAP/Learning-Support-Action-Plan-2019-to-2025-English-V2.pdf>
- Ministry of Education (2020). *School leavers with NCEA Level 2 or above: Indicator report*. Education Counts. [https://www.educationcounts.govt.nz/\\_data/assets/pdf\\_file/0019/6409/Indicator-NCEA-Level-2-or-Above-2019.pdf](https://www.educationcounts.govt.nz/_data/assets/pdf_file/0019/6409/Indicator-NCEA-Level-2-or-Above-2019.pdf)
- Ministry of Education (n.d.-a). *The statement of National Education Learning Priorities (NELP) and Tertiary Education Strategy (TES): Education in New Zealand*. New Zealand Government. <https://www.education.govt.nz/our-work/overall-strategies-and-policies/the-statement-of-national-education-and-learning-priorities-nelp-and-the-tertiary-education-strategy-tes/>
- Ministry of Education (n.d.-b). *Youth guarantee*. New Zealand Government. <https://youthguarantee.education.govt.nz/>
- Neuhauser, L. (2018). Practical and scientific foundations of transdisciplinary research and action. In D. Fam, L. Neuhauser, & P. T. Gibbs, *Transdisciplinary Theory, Practice and Education: The Art of Collaborative Research and Collective Learning* (pp. 25–38). Springer.
- New Zealand Legislation (2020). *Education and Training Act*. Ministry of Education. Retrieved 11 May, 2021, from <https://www.legislation.govt.nz/act/public/2020/0038/latest/LMS170676.html>
- New Zealand Qualifications Framework. (2016). *The New Zealand Qualifications Framework*. New Zealand Government. <https://www.nzqa.govt.nz/assets/Studying-in-NZ/New-Zealand-Qualification-Framework/requirements-nzqf.pdf>
- Novak, A. (2019). The school-to-prison pipeline: An examination of the association between suspension and justice system involvement. *Criminal Justice and Behavior*, 46(8), 1165–1180.

- Nicolescu, B. (2010). Methodology of transdisciplinarity: Levels of reality, logic of the included middle and complexity. *Transdisciplinary Journal of Engineering & Science*, 1, 17–32.
- Pacheco, G., & Dye, J. (2014). Estimating the cost of youth disengagement in New Zealand. *New Zealand Journal of Employment Relations*, 38(2), 47.
- Rivenbark, J. G., Odgers, C. L., Caspi, A., Harrington, H., Hogan, S., Houts, R. M., Poulton, R., & Moffitt, T. E. (2018). The high societal costs of childhood conduct problems: Evidence from administrative records up to age 38 in a longitudinal birth cohort. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 59(6), 703–710. <https://doi.org/10.1111/jcpp.12850>
- Rocque, M., Jennings, W. G., Piquero, A. R., Ozkan, T., & Farrington, D. P. (2017). The importance of school attendance: Findings from the Cambridge study in delinquent development on the life-course effects of truancy. *Crime & Delinquency*, 63(5), 592–612.
- Rosenbaum, J. (2020). Educational and criminal justice outcomes 12 years after school suspension. *Youth & Society*, 52(4), 515–547.
- Scott, D. (2018). *Post-school labour-market outcomes of school-based NCEA*. Ministry of Education. <https://www.educationcounts.govt.nz/publications/80898/post-school-labour-market-outcomes-of-school-based-ncea>
- Skiba, R. J., Arredondo, M. I., & Williams, N. T. (2014). More than a metaphor: The contribution of exclusionary discipline to a school-to-prison pipeline. *Equity & Excellence in Education*, 47(4), 546–564. <https://doi.org/10.1080/10665684.2014.958965>
- Sutherland, A. (2011). The relationship between school and youth offending. *Social Policy Journal of New Zealand*, 37, 51–69
- Te Pūkenga (Institutional communication, June 8, 2021). Updated letter of expectations to Te Pūkenga subsidiaries.
- Van der Ende, J., Verhulst, F. C., & Tiemeier, H. (2016). The bidirectional pathways between internalizing and externalizing problems and academic performance from 6 to 18 years. *Development and Psychopathology*, 28(3), 855–867.
- Wertz, J., Caspi, A., Belsky, D. W., Beckley, A. L., Arseneault, L., Barnes, J. C., Corcoran, D. L., Hogan, S., Houts, R. M., Morgan, N., Odgers, C. L., Prinz, J. A., Sugden, K., Williams, B. S., Poulton, R., & Moffitt, T. E. (2018). Genetics and crime: Integrating new genomic discoveries into psychological research about antisocial behavior. *Psychological Science*, 29(5), 791–803. <https://doi.org/10.1177/0956797617744542>