CATHOLIC EDUCATION
WESTERN AUSTRALIA

Submission to Senate Education and Employment References Committee

INQUIRY INTO THE NATIONAL TREND OF SCHOOL REFUSAL AND RELATED MATTERS

Response by Catholic Education Western Australia Limited (CEWA).

Background

Catholic Education Western Australia Limited (CEWA) consists of 163 schools across Western Australia. These includes several school structures, sizes, gender, geolocation, boarding, specific Aboriginal College; 13 schools are located in the Kimberley region including six sole provider schools. Most Kimberley schools have very high Aboriginal cohorts.

CEWA has provided generalised comments to the following 'Questions on Notice'. The definition, and categories of, school refusal vary greatly in publications on the topic. It is noted that the Committee does not provide a useful working definition. This has created difficulty in responding to some questions. Research would suggest there are at least five categories of school refusal. Further, the various causes, categories and duration of school absence and refusal are disparate, and often concentrated in particular community types. The ongoing effect of COVID-19 is a further confounding factor which sometimes affects certain communities more than others. Other confounding contexts involving family circumstances also have an impact.

While CEWA understands the need to restrict submissions to a certain focus, there may have been an opportunity to canvass the effects of school absenteeism, not just on achievement, but also on student wellbeing. Further, ongoing inquiries may benefit from a deeper analysis regarding specific cohorts / communities rather than an overall system approach and generalised data. It is very clear that certain communities are likely to be more affected than others in relation to this topic.

CEWA has comprehensive policies and procedures to assist schools in the area of absenteeism and school refusal. CEWA has a dedicated student wellbeing team which has prepared resources and delivered professional learning to educators and leadership teams. There are integrated approaches between the wellbeing team, school psychology team and teaching and learning Directorate – which includes the Aboriginal Education Team - to address this issue.

CEWA commends the following publications / presentations to the Committee. They collectively provide important information on the topic as well as assisting in forming up existing CEWA support to schools and communities in this area. The following are attached to our submission;

- CEWA Student Attendance Guidelines

- Propsych Presentation – Prof. Michael Gordon 2018; *'Understanding, treating and managing school refusal'*.

- Workshop notes / slides – School Refusal Workshop – shorter version of Professor Gordon's workshop above and delivered to CEWA educators.

- Maynard, B et al, 2015, *'Treatment of school refusal amongst children and adolescents; a systematic review and meta analysis'*.

- Gubblels, J et al, 2019, *'Risk factors for school absenteeism and dropout; a meta analytic review'*.

- Marlow, S et al, 2021, *'The relationship between family practices and school absenteeism and dropout; a meta analysis'*.

Questions on notice

CEWA provides general information to the following questions on notice, noting the caveats outlined in the background comments.

Please provide attendance data by year level. Do you collect data on reasons for absenteeism? If so, please provide the categories you collect data against

Please provide the absenteeism data by year level and by category you collect this data under.

CEWA does not centrally collect data for individual year levels. These data are collected by schools as part of their regulatory obligations. Bulked up or generalised data as requested, may not provide the Committee with useful policy information. CEWA would see value in the investigation of specific school cohort types where absenteeism and school refusal are more common.

All CEWA schools collect overall attendance data and report on this to CEWA - and to individual families. The percentage attendance is based on the number of days / half days of attendance out of the possible maximum school attendance. Individual schools report general data, which is reflected in MySchool information.

What is your attendance target level for students? Is this consistent across all year groups? If this varies by year level, please provide the target for each year level.

All CEWA schools aspire to achieving the highest possible attendance rate. Consistent with national research, an annual attendance rate of at least 90% is seen as the ideal for satisfactory achievement, academically and emotionally. The hierarchy of attendance categories are consistent with other jurisdictions.

Attendance below 90% can be further divided into the categories of:

Indicated	80 – 89%
Moderate	60 – 79%
Severe	60%

CEWA is concerned across all year levels when any of these benchmarks are reached, particularly 'moderate', or below. Currently, no CEWA schools have an average attendance rate below 'moderate'. CEWA places great importance on early years' learning, also noting that attendance in Years 10–12 affects post-school options. Kimberley schools are maintaining average attendance rates above 75% which is considered high compared to some other schools.

CEWA has a number of strategies to assist students in regard to the lower attendance categories. Staff work closely with families to maximise attendance. This may be achieved through school staff – including social workers and equivalent. In all remote area and schools and those with higher proportions of Aboriginal families, there are many other support staff. These include Aboriginal Teacher Assistants (ATAs); Liaison Officers (Transforming Lives Engagement Officers); social workers and equivalent; and members of the newly created boarding Transition Services Unit which follows up with families and students in terms of maximising participation in schools. The central School Wellbeing Team and School Psychology Team also assist where appropriate.

Much of the above support occurs in Kimberley schools which have very high Aboriginal cohorts. There is evidence that school refusal and lower attendance rates exist in these areas, not only from Years K to 10, but with older students who often find education opportunities are limited unless they board where senior secondary opportunities exist. This is an issue which the Committee may wish to investigate further. CEWA has only one K–12 school in the Kimberley where attendance rates are good in all years. Recent media coverage would suggest, without prejudice, that difficulties exist in secondary education in other town centres.

Have you done any analysis work on the linkage between student attendance and student academic performance?

All credible research shows that there is a strong correlation between school attendance / engagement and learning outcomes, including socio-emotional. The cited research articles attached accord with CEWA's experience. Once students' attendance is recorded in the lower moderate range and below – see above – educational achievement is impacted at all year levels. The literacy and numeracy levels can be affected most, especially in early years learning. CEWA has a number of strategies in place to support students, including the Reading Recovery Program. Recent concerns relate to student wellbeing when they do not attend school regularly.

While school attendance is strongly correlated with academic performance, there are many other confounding factors, especially for lower Index of Community Socio-Educational Advantage (ICSEA) communities and families. These include, but are not limited to; difficult home environments; poverty; unsuitable home study facilities often with no internet connection; food insecurity etc. Any analysis therefore, is complex.

How many children are enrolled in a form of education, other than mainstream school, including to

- Home School
- Virtual School
- Distance Education
- Other (please define category)

Please provide student data against each category.

CEWA is unable to provide data regarding home schooling nor virtual schooling; this is not included in CEWA's remit.

CEWA offers an ongoing online option for schools in Years 11 and 12 – the Virtual Schools Network (ViSN). This is typically provided to schools where a specific subject is not offered for whatever reason – or for a student or small number of students who wish to pursue a subject not on offer. ViSN is typically not provided for students seeking education out of the school structure. Over 400 students are enrolled in at least one ViSN course; this is however not their full model of schooling.

Some students enrol in the Department of Education's School of Isolated and Distance Education which is available across all years of schooling. Notwithstanding, CEWA students pay for enrolment and this option is normally accessed for subject clashes or school unavailability in terms of subject offerings. Access for students from CEWA schools is limited and expensive. This alternative is mainly used in senior secondary courses if ViSN is unsuitable; it is not an alternate form of education.

Some schools engage in blended learning – a mixture of face-to-face schooling and courses delivered by the school in certain subjects. This has been one positive outcome of COVID-19 where total online delivery occurred during lockdown periods. All CEWA schools across all year levels, are well paced to deliver online learning, if required.

CEWA also delivers education to disengaged students through Curriculum and Reengagement in Education (CARE) schools. CEWA has five CARE schools which typically have small cohorts up to 50 students with individualised learning programs and therapeutic wrap around services. Attending students have typically found mainstream education difficult; many may have experienced bullying, mental health issues, substance abuse and difficult family situations. CEWA accepts referrals / enrolments from non CEWA schools. School attendance varies; wellbeing outcomes are a focus as the pre-requisite for learning and holistic education.

CEWA is aware that the Association of Independent Schools Western Australia is also very active in this space and suggests that the Committee may find it useful to examine the possibilities of this schooling model for disengaged young people.

Is data collected on the reason a student is not attending mainstream school and why an exemption has been provided? Please provide data by category of exemption for how many students are enrolled in alternative methods of schooling.

Most schools are standardised on the attendance codes as per the Department of Education WA site . There are variances in the implementation of those codes across school databases. For example in some school's databases, a category is marked as absent while the same category is marked as present / late in a different school. CEWA collects daily marks (performance) and standardised assessments centrally.

CEWA notes, from international and Australian research, that a number of categories apply to school refusal; this makes it difficult to comment with confidence.

The categories are;

- Medical

- Parent sanctioned -such as holidays, religious events, transitory nature

- Exclusion – often the lack of resources by the school to properly cater for a child's needs

- Truancy – a complex issue applying to 5–27% of students and often related to various disorders such as oppositional defiance disorder; ADHD and conduct disorder;. The mean age nationally is about 15 years, although COVID-19 may have impacted

- Classic school refusal – associated with internalising disorders, often severe emotional upset even with parents' best efforts

CEWA schools are aware of the potential reasons for each; there is often overlap. It is not possible to create uniform records on these categories without some form of common understanding of 'school refusal', - which is probably not possible given the overlap and complexities involved. The duration and variable non-attendance are further confounding issues.

Is data collected on student academic performance for students enrolled in alternative forms of schooling (as above).

CEWA CARE schools are able to provide individual data regarding school achievement. There is no confidence this can be nationally benchmarked given the very small year cohorts and the often complex backgrounds these students come from. Primarily, student wellbeing and safety is the key consideration.

CEWA collects data from students involved in a ViSN subject. This not considered to be an alternate form of education delivery; rather it tends to be an additional breadth opportunity for senior secondary students. In saying that, the results achieved in ViSN courses is at least comparable to students' results in their other courses, and in many courses above state average.

How much of a gap are we seeing between the academic outcomes of children engaged in school refusal, and other students?

As mentioned above, there are may categories of school refusal, and in the absence of definitional guidelines, it is not possible to quantify this.

Notwithstanding, CEWA reiterates that any absenteeism rates approaching the two lowest categories, poses significant challenges to school achievement, across all levels of schooling, but in particular, early years learning. CEWA has in place numerous processes and support teams and believes that the effects of absenteeism / school refusal are being addressed effectively.

Do schools with higher rates of school refusal also have poorer academic performance among the rest of the student body?

CEWA assumes this question relates to the concept of contagion that might occur as a result of absenteeism / school refusal. There is no evidence in most schools that this occurs. Notwithstanding, in some Kimberley schools, it is possible that there is a level of 'contagion'. Attendance rates remain around / above 75% but this remains an area of focus.

A particular issue is the capacity for remote communities to cater for students from Year 10 and above. CEWA sole provider schools typically cater for Years K to 7, with a limited secondary top to about Year 9. Older students seeking senior secondary education in remote schools can only do so by boarding in Broome, Darwin or other CEWA boarding schools in Geraldton, Bindoon or Perth. For some parents, these can be difficult options. Some older students therefore remain disengaged in their community. This may have the effect of also discouraging younger students to attend school.

What is the academic performance like of schools that are specifically geared towards reaching students who engage in school refusal? (e.g. Virtual Schools Victoria is one such school the committee is aware of).

CEWA does not offer a virtual school model. The role of ViSN and CARE schools has been discussed previously. CEWA notes appropriate outcomes in both these models. As highlighted in introductory comments in this submission, student wellbeing outcomes are important Typically these are achieved by some form

of face-to-face connection – and are a precondition to learning and success.

Where wrap around services are provided to the more vulnerable communities and individuals, academic performance increases, often through re-engagement with the schools. These supports include, but are not limited to; youth workers; Aboriginal liaison workers and equivalent; psychologists; wellbeing team; and community liaison workers.

What academic outcomes do we see among students who have previously engaged in school refusal, but have since returned to school?

Given the five categories of school refusal outlined earlier, it is not possible to respond definitively. Clearly, any student that re-engages with their school will increase their wellbeing and therefore the possibility of higher achievement. The answer to this question relies on which category/s of school refusal apply, the regularity, background of the family, including sometimes their ICSEA, and the duration of their absence.

Put simply, any return to the school environment is likely to benefit the student in terms of achievement and wellbeing. Any student with low attendance rates will be challenged achievement wise.

What data is there on the effect of school refusal on students' employment opportunities later in life?

The key consideration here is when the school refusal occurs. For those students in Years 10–12, school refusal is a significant issue in terms of affecting their capacity to access post school options – tertiary, vocational training and / or employment. For schools in the Kimberley and other remote regions, this is a significant issue, possibly only shared by the Northern Territory context. The lack of secondary schooling - other than in towns - means, in the case of WA, that boarding in Perth or elsewhere is the best option. The prime boarding facility in the Kimberley region is at Broome, with some communities reluctant to send their children there.

'Closing the Gap' aspirations to increase the completion of Year 12 for Aboriginal students remains an ongoing issue; low attendance rates are an ongoing issue in many jurisdictions, but in particular WA, due to geographic factors.

Final comments

CEWA appreciates the opportunity to provide a submission. While school refusal is a relatively small proportion overall, the Inquiry may find benefit by examining care studies of those regions / communities where school refusal is more prevalent. There will be many models of best practice across jurisdictions.

CEWA notes mention of virtual schooling models. Notwithstanding the efficacy of these in some circumstances, achievement is unlikely to occur if not accompanied by wellbeing supports and processes; school attendance will always decline if the student does not feel safe and happy at their school. CEWA notes that the recently released discussion paper on the new National School Reform Agreement places a strong emphasis on student wellbeing.

CEWA would also propose, that in the case of Aboriginal communities, early years engagement is important. CEWA provides the Aboriginal Families as First Educators program to a number of schools. Engaging parents early is most important in developing school engagement and reducing school refusal rates.

Contacts and further information

For further information, please contact Wayne Bull, Deputy Executive Director, Catholic Education Western Australia,

Student Attendance

GUIDELINES FOR YOUR SCHOOL

" Catholic Education Western Australia is a Christ-centred and child-focused community of engaged learning environments, inspiring all to actively live the Gospel. "

CECWA Strategic Directions 2019-2023

Attendance, Strategic Directions and Guiding Principles

Catholic Education Western Australia (CEWA) schools are committed to educating students in a community of faith. The educational endeavour is to foster children's development as an expression of God's grace. Every child is held in God's infinite tenderness and He is present in each of their lives.

The Bishops' Mandate states: *The Catholic schools' concept of education should be the development of (students) from within, freeing them from that conditioning which would prevent them from becoming fully integrated human beings. The school must begin from the principle that its educational program is intentionally directed to the growth of the whole person.*

In this document, attendance is conceptualised within the context of *CECWA's Strategic Directions 2019 – 2023* and, specifically, the Guiding Principles which provide a framework for attendance policy and interventions:

1. **Our Catholic school communities are central to the Church's mission of bringing the Good News of Jesus Christ to all.** Attendance not only affects academic achievement but also each student's moral and spiritual development.

2. **At the heart of all our decisions and actions is the dignity of each child.** The Catholic world-view perceives each human being as a unique person created in the image of God (Genesis 1:27), having a dignity that is always to be respected. Students need to be given every opportunity to be affirmed in their dignity and worth, confirmed in their person hood and assisted to grow to their full potential.

3. **Central to our identity as a Christ-centred community are our partnerships with families, parishes and schools.** Attendance is supported through strong relationships and effective communication with these partners.

4. **We respect the uniqueness of each person and community, ensuring that quality Catholic education is focused on engaged learning.** As each person is unique, each approach to attendance should also be unique to ensure it matches the student's needs.

5. **We commit to the principles of subsidiarity, co-responsibility and participation in enhancing Catholic education across WA.** While schools have policy and strategy, parents remain an important part of all attendance interventions.

6. **We seek to provide access to Catholic education, especially for the marginalised and disadvantaged.** Attendance issues are over-represented in disadvantaged and marginalised groups. Consequently, targeted effort and attention are required to address attendance for these groups to ensure they have equitable participation.

Most importantly, in terms of attendance, the most important factor is that schools should be places where young people want to be.

PART 1:
LEGISLATION AND POLICY

Education is recognised as a fundamental human right and an important building block in the development of children and society (United Nations, 1948). Those who do well in the early and elementary stages of education tend to do better in subsequent stages and develop the critical skills and abilities needed to become productive and responsible adults *(Keating & Hertzman, 1999; Zubrick et al., 2006)*. Attendance is not only a fundamental human right; it is also mandated by law.

Key documents that guide attendance are:

- *Bishops' Mandate for Catholic Education*

- *School Education Act, 1999*

- *School Education Regulations, 2000*

- *Guide to Registration Standards and other Requirements for Non-Government Schools (2018)*

This legislation applies to the operation of public (government), private (non-government) schools and to families choosing to register as their child's home educator.

Requirements for School Attendance in Western Australia

The Western Australian school system, of which Catholic Education WA is a part, encompasses Kindergarten (two years prior to Year One) to Secondary schooling. School is compulsory from Pre-Primary (one year prior to Year One) until the end of secondary schooling. *The School Education Act (1999)* requires compulsory aged students to participate in the educational program of a school.

Under Section 23 of *The School Education Act 1999*;

A student must on the days on which the school is open for instruction:

(a) either —

    I. attend the school at which he or she is enrolled;

or

    II. otherwise participate in an educational program of the school whether at the school or elsewhere, as required by the principal; or

(b) comply with an arrangement under section 24 (Arrangements Alternative to Attendance).

Attendance is measured as the number of actual full-time equivalent student days attended by full-time students in Years One to Ten as a percentage of the total number of possible student days. Educational Risk is defined as falling below 90%. Attendance below 90% can be further divided into the categories of:

- Indicated (80 – 89%)

- Moderate (60 – 79%)

- Severe (< 60%)

Stakeholder Requirements

School Responsibility

Each school is required to keep accurate attendance records for all its students. This includes taking attendance. Attendance must be recorded by **teaching staff** at least:

- twice per day for primary and specialist schools

- in every class for secondary schools

Although all school staff are vital in supporting regular student attendance, the **Principal** is responsible for:

- Keeping accurate attendance records for every child enrolled in the school; this can be stored electronically but must be able to be reproduced in written form

- Maintaining records for the appropriate period of time under the *School Education Regulations 2000*

- Managing alternate attendance arrangements

- Implementing plans and strategies to encourage regular attendance

Records must include:

- If the student was physically present or not

- If the student was attending a different approved activity (the teacher running that activity must also record attendance)

- Any reasons given for an absence

- If the reason for the absence is reasonable (see examples)

- A flag for unexplained absences (removed if a reason is given later)

- Information about any unsatisfactory attendance at school or classes

- A mark for half-day attendance if the student is present for at least two hours of instruction

Authorised absence (EXPLAINED) – A Principal can record an absence as 'Authorised' if there has been a reasonable explanation for a student's absence. A reasonable excuse for the purposes of explaining a school absence can include

- Medical or dental appointments

- Bereavement or attending a funeral (including Sorry Business)

- Illnesses and accidents

- Unforeseen and unexplained circumstances

- If the absence was a result of complying with another law

- The child is receiving distance education through a registered school

- The child is undertaking approved education, training and/or employment

- The child has been suspended

- The child is attending or observing a religious event, cultural observance or obligation

Unauthorised absence (UNEXPLAINED) – A Principal can record an absence as 'Unauthorised' when there has been no reasonable explanation provided for the absence. If a reason is given to the Principal and it is not approved, then the school will notify the parent/carer in writing.

In general, it is expected that these absences would not be excused:

- The parent did not seek approval beforehand, or in accordance with school policy

- The student was absent due to leisure or social activities without approval

- The conditions of an authorised absence was not met e.g. a student absence learning plan during a family holiday was not completed

- The parent has provided no explanation for the absences

Principals should make sure attendance data is regularly monitored and analysed to look for attendance patterns. Patterns of absences can be across the school, a class or at the individual student level. Having accurate data, including the reasons for absences, is important for:

- Developing improvement strategies for students

- Reporting for funding requirements

- Using as evidence when there are attendance concerns

Parents/Guardians Responsibility

Parents/guardians must enrol a child of compulsory school age at a registered school and ensure the child attends school at all times when the school is open for instruction. Parents/guardians must provide an explanation for any absence their child has and work in partnership with the school to support attendance.

The Parent/guardian of the student is required to:

- Ensure the child attends school at all times when the school is open for instruction, unless complying with an arrangement under section 24

- Provide an explanation for any absence their child has within three days

PART 2: RESEARCH

The impact of attendance

School attendance:

- is strongly related to increased academic development

- provides students with opportunities to develop social competence and relationships, be in a language-rich environment, work with others, and learn skills like problem-solving and persistence *(Kearney & Graczyk, 2014)*

School non-attendance:

- negatively impacts students' academic achievement in the current year but can also impact subsequent years

- is linked to increased social isolation for the student

- has a greater negative impact on young people's outcomes when it is an unauthorised absence *(Hancock, Shepherd, Lawrence, & Zubrick, 2013)*

- is correlated with leaving school with fewer qualifications which in turn can lead to unemployment, mental health issues, drug and alcohol problems and poor life outcomes

Causes of non-attendance

Causes of non-attendance are complex as they are often due to multiple causes, and these causes can overlap *(Wilkins, 2008).* **Causes of non-attendance are also unique to each student and need to be understood in context.** *Reid (2013)* suggests that students tend to have one clear reason why they start to miss school, but these reasons multiply over time. The factors that cause non-attendance at the **individual, family, school,** and **community** level are expanded below.

Individual Factors

In its document *Attendance Matters,* the Australian Institute for Teaching and School Leadership (AITSL) states that individual factors that influence student absenteeism relate to a student's attitudes and motivations. The individual factors identified by *Reid (2013)* and *Wilkin (2008)* that are most likely to predict a student's non-attendance include:

- Poor physical health

- Mental health

- Academic self-concept

- Diagnosed disability

- Poor social skills

- Low sense of belonging

- Low self-esteem

- Low sense of safety at school

- Low motivation

- Interest in activities outside of school

Family Factors

Factors within the home environment provide a setting for attendance and non-attendance. If parents do not value education and are not involved in their child's schooling, children may adopt similar attitudes, which could impact decisions about whether to attend or not. The family factors that are most likely to predict a student's non-attendance include:

- Family conflict and instability

- Poor housing

- Low parent interest in education

- Negative parent attitudes towards education

- Low family involvement in school

- Low socioeconomic status

- Family holidays during term

- Family death, illness, disabilities

- Cultural barriers

School Factors

The school factors that are most likely to predict a student's non-attendance include:

- Unsuitable curriculum
- Poor teacher quality
- Poor behaviour management
- Low sense of safety/bullying
- Low school community engagement
- Low socio-economic school context
- School climate
- Institutional factors
- Lack of adjunct support in school

Community

Community factors also influence attendance. In general, the community becomes a risk when it does not provide the necessary support for students to be motivated to attend school. These factors can include:

- Socio-economic disadvantage
- High levels of family mobility
- Violence
- Low community value of education
- Mistreatment of children
- Crime
- Drug abuse
- Hopelessness in the community.

Aboriginal students

Aboriginal students experience the same causes noted above and within each, as well as additional cultural factors. Specifically, Aboriginal student absence can be explained by:

- Cultural maintenance (such as funerals)
- Face-saving
- Family dysfunction
- *Sorry Business* commitments
- Changes in family circumstances and
- Illness and/or illness-related factors
- Child health

Drivers of non-attendance

In addition, to understand the causes of non-attendance, it is also necessary to understand the drivers of behaviour:

- escape – escape from aversive social and/or evaluative situations
- avoidance – avoid school related stimuli that provoke negative feelings
- reinforcement – to get attention from significant others, and to obtain tangible rewards outside of school

These drivers act as push and pull factors that impact attendance (Reid, 2009). Students are pulled towards school because they know it is important but pushed away due to bullying, ineffective or powerless teachers, boring lessons, or not enough practical vocational learning.

Remember the person not just the category

The categories above provide a useful framework to identify causes of non-attendance. It is important to remember these factors are only a guide and do not necessarily explain each student's situation. Accurately identifying needs ensures that interventions are well suited to the issues that cause attendance problems.

PART 3: RECOMMENDATIONS

Causes of non-attendance are complex so require a complex response *(Reid, 2013)*. The following principles are recommended to address non-attendance effectively:

A systems approach

- At the school level, develop processes, procedures and standards to manage attendance within your school

- Include strategies to address local challenges with attendance

- Use data to analyse attendance and absence patterns and to inform decision-making

- Have simple and clear communication to families about the importance of attendance

- Have clearly mapped processes and systems that are understood and implemented by all

- Ensure parents/carers, schools and community understand their roles and responsibility to support attendance

- Develop partnership with communities, parent groups and other parties/agencies to address attendance challenges

Monitor attendance

- Nominate a staff member who is responsible for monitoring attendance.

- Monitoring attendance frequently and follow up non-attendance.

- An Attendance Officer may be of some benefit to schools. The role of the School Attendance Officer would be to assist school communities with processes that ensure non-attending students participate, are engaged in educational programs, and collaborate with school staff, parents, regional office and the community to identify student absenteeism and truancy.

- Examine school attendance data for a representative period and analyse the attendance patterns for girls, boys, Aboriginal students, different ethnic groups, different year levels, and Mondays and Fridays.

Identify the causes of non-attendance

- Treat each case as unique

- Have a clear and well-structured system to identify student needs and causes of non-attendance/attendance. This could include:

  - Survey

  - Interview

  - Focus groups

- Identify the fundamental drivers from the data

- Consider causes from multiple levels rather than just the student

Focus on prevention

- Have active prevention programs so that students feel safe in, and connected to, their school and therefore want to attend school. This should include addressing school climate, having a sense of belonging and community, and ensuring engaging instruction.

- Include student, parents, and staff at all levels. Understanding the drivers of attendance from varying perspectives will provide a more holistic understanding.

Interventions

- See Part Four Strategies for Prevention and Intervention below.

- Provide interventions at level 1, level 2, and level 3.

- All level 2 and level 3 interventions need to match student needs.

Collect and analyse data

- Examine bottom 10 per cent. What is the impact of poor attendance on student achievement and school achievement?

- Review level 2 and level 3 interventions for efficacy.

- Compare school attendance analysis with the nationwide picture and other like schools.

- Examine the correlations between attendance patterns and student achievement for specific groups.

- Gather and analyse data to ensure school processes for monitoring and supporting attendance are effective.

- Examine the characteristics of students who have excellent attendance. Does this understanding help raise the levels of the attendance of others?

- Ask students about attendance. What is 'poor attendance'? What helps students attend school? Is there a need for a change of perspective?

- Survey parents to determine their understanding of the importance of school attendance

Case Management

- A solution-focused case management approach for students with chronic or persistent low attendance that involves key stakeholders (i.e. school, family, and where appropriate, outside agencies) to support school re-engagement

Communicate

- Provide staff and board with regular snapshots of absence issues.

- Communicate to parents about the importance of attendance and when there are issues with their child's attendance.

- Communicate to students about the importance of attendance and how the school can help with barriers to attendance.

PART 4: STRATEGIES FOR PREVENTION AND INTERVENTION

Attendance occurs along a continuum, which ranges from "full engagement to school dropout, with absenteeism located somewhere along that continuum" *(Tanner-Smith & Wilson, 2013, p. 469).* Consequently, responses to attendance need to occur across all parts of this continuum, with a multi-tiered focus on prevention, early intervention, and individualised support. A multi-tiered approach provides a more holistic and comprehensive process to attendance and non-attendance is identified early *(Kearney & Graczyk, 2014).*

The three-tier multifaceted model includes:

UNIVERSAL SUPPORT (TIER 1) – **universal strategies** to encourage good attendance for **all students** (promotion and prevention) including students whose good attendance could be maintained and cultivated as long as universal, prevention-oriented supports are in place.

- School climate strategies
- Safety-oriented strategies
- Building relationships
- Health-based strategies
- Mental health and social-emotional learning
- Parental involvement
- Attendance Monitoring (twice a month)

The following resources are available to assist with a universal approach to promote attendance:

- Resource 1: Tier 1 Promoting Attendance in Schools Strategies
- Resource 2: Audit Tool for Schools
- Resource 3: Newsletter Message Template to Promote Attendance (Kindergarten/Pre-Primary)

EARLY INTERVENTION SUPPORT (TIER 2) – provides **early intervention** for **students who need more support** to avoid chronic absence (specific groups). Students who have a history of moderate chronic absence (missing 10% or more of school) or present with a risk factor (e.g. a chronic illness like asthma) which makes attendance more tenuous may need a higher level of more individualised support in addition to benefiting from the universal supports.

- Adjunctive support to reduce distress (psychologist/counsellor)
- Identify and remove obstacles for non-attendance
- Establish regular parent contact
- Utilise mentoring (tutoring, advocacy)
- School/class restructuring
- Work on student engagement (liking school, interest in school work
- Monitoring (daily or weekly)

The following resources are available to assist with early intervention support regarding student attendance:

- Resource 4: Tier 2 – Supporting Students with Poor School Attendance
- Resource 5: The Importance of Engaging Parents/ Carers in Attendance
- Resource 6: Parent Attendance Nudge Letter 1 Template
- Resource 7: Parent Attendance Nudge Letter 2 Template
- Resource 8: Student Meeting Prompts
- Resource 9: Analysing Student Non-Attendance Push and Pull Factors
- Resource 10: Discussing Attendance with Parents/ Carers
- Resource 11: Parent/ Carer Meeting Planner
- Resource 12: Causes of Non-Attendance Checklist

INDIVIDUALISED SUPPORT (TIER 3) – offers **intensive support** for **individual students** facing the greatest challenges in getting to school. Students with severe levels of chronic absence (missing 20% or more of school in the past year or during the first month of school) and/or facing a risk factor (such as involvement in the child welfare or juvenile justice system, homelessness or having a parent who has been incarcerated).

Similar to *Kearney and Graczyk (2014), NSSE (2007)* stated principles of effective intervention for non-attendance, rather than strategies. These principles include:

1. Specialised and/or intensive case management

2. Family involvement

3. Sanctions for truancy and rewards for good attendance

The following resources are available to assist with individualised support regarding student attendance:

- Resource 13: Tier 3 – Supporting Students with High Levels of Non-Attendance

- Resource 14: Checklist for Managing Tier 3 Non-Attendance

- Resource 15: Primary Student Attendance Improvement Plan

- Resource 16: Primary Student Attendance Rewards Chart – Sample

- Resource 17: Tier 3 Case Conference

- Resource 18: Tier 3 Processes

- Resource 19: Tier 3 Support Services and agencies

Combined, these principles underscore that it is not the strategy for intervention that matters most, it is whether it is matched to student needs with evidence collected to assess efficacy. Each student's reasons for non-attendance is different. Therefore, each solution needs to be modified to accurately cater to each student's diverse needs.

- Include tier one and tier two responses

- Continue adjunct support

- Parent support

- Expand youth skills

- Extra educational support

- Alternative education programs

- Case management

- Frequent monitoring

Alternative school settings

An alternative school may be considered when the current setting is not well matched to the student's needs *(Tanner-Smith & Wilson, 2013)*. *Wilkins (2008)* defined alternative 'schools that work' as those with:

- a positive school climate

- flexible, interested, caring, and approachable teachers

- a calm academic environment

- students who support each other

- fair and non-punitive discipline

- smaller school size

Key attributes of successful alternative education programs include *(Wilson, Stemp, & McGinty, 2011)*:

- choice – voluntary participation by teachers, students and families;

- autonomy and control – horizontal rather than vertical hierarchy of authority and decision-making;

- curriculum and skills – curriculum relevant to students' needs and life experiences; and

- a spirit of common enterprise – purposeful emphasis on school as community.

Aboriginal students

Dreise, Milgate, Perrett, and Meston (2016) suggest the following additional strategies for Aboriginal students:

- Set expectations early and establish patterns in early childhood education.

- Build bridges between homes and schools in Aboriginal communities.

- Foster high-performing culturally responsive and externally engaged school leadership.

- Support joint school–community collaborative initiatives.

- Emphasise fostering and stimulating community demand for high-quality and culturally responsive lifelong learning.

- Think creatively and laterally about community-based solutions and then seed and fertilise innovation by investing in community-based human and financial resources.

- Embrace whole-child and place-based models.

- Integrate children's academic development with their health, wellbeing and safety by supporting schools and the Aboriginal non-government community sector simultaneously.

- Improve data systems by making them transparent and regularly reported.

- Refine and sharpen the data relating to why children and young people are missing school.

- Innovate and open up choices for teenagers to retain their engagement in school education through vocational education and training programs and also through project-based programs, creativity learning, work studies and entrepreneurial education.

- Create reward and recognition systems for regular school attendees.

Propsych Presents:

Understanding, Treating and Managing School Refusal.

Presenter: A/Professor Michael Gordon

22nd February 2018 Melbourne

propsych

professional support services for school psychology

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Acknowledgement

- I want to acknowledge Dr. Glenn Melvin in assisting me with this talk.
- Symbols:

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School absenteeism and school refusal behavior in youth: A contemporary review

Christopher A. Kearney *

Department of Psychology, University of Nevada, Las Vegas, 4505 Maryland Parkway, Las Vegas, NV 89154-5030, United States

Received 6 April 2007; received in revised form 13 July 2007; accepted 26 July 2007

Abstract

Absenteeism from school is a serious public health issue for mental health professionals, physicians, and educators. The prevalence of unexcused absences from school exceeds that of major childhood behavior disorders and is a key risk factor for violence, injury, substance use, psychiatric disorders, and economic deprivation. This article involves a contemporary research review on absenteeism prevalence, comorbid physical and psychiatric conditions, classification, contextual risk factors, cross-cultural variables, assessment, intervention, and outcome. Contextual risk factors include homelessness and poverty, teenage pregnancy, school violence and victimization, school climate and connectedness, parental involvement, and family variables, among others. A description of intervention includes medical, clinical, and systemic interventions. Medical professionals, community- and school-based mental health professionals, and educators are encouraged to fully understand the parameters of school absenteeism to develop better, consensual policies regarding definition, classification, assessment, and intervention of youths with problematic school absenteeism.

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Dialectical Behavior Therapy for School Refusal: Treatment Development and Incorporation of Web-Based Coaching.

Cognitive and Behavioral Practice

http://dx.doi.org/10.1016/j.cbpra.2014.08.002

15.

CrossMark

ORIGINAL ARTICLE

Augmenting Cognitive Behavior Therapy for School Refusal with Fluoxetine: A Randomized Controlled Trial

Glenn A. Melvin[1] · Amanda L. Dudley[1] · Michael S. Gordon[1,2] · Ester Klimkeit[1] · Eleonora Gullone[1] · John Taffe[1] · Bruce J. Tonge[1]

Abstract This study investigates whether the augmentation of cognitive behavior therapy (CBT) with fluoxetine improves outcomes in anxious school refusing adolescents (11–16.5 years). Sixty-two participants were randomly allocated to CBT alone, CBT + fluoxetine or CBT + placebo. All treatments were well tolerated; with one suicide-attempt in the CBT + placebo group. All groups improved significantly on primary (school attendance) and secondary outcome measures (anxiety, depression, self-efficacy and clinician-rated global functioning); with gains largely maintained at 6-months and 1-year. Few participants were anxiety disorder free after acute treatment. During the follow-up period anxiety and depressive disorders continued to decline whilst school attendance remained stable, at around 54 %. The only significant between-group difference was greater adolescent-reported treatment satisfaction in the CBT + fluoxetine group than the CBT alone group. These results indicate the chronicity of school refusal, and the need for future research into how to best improve school attendance rates.

Introduction

Attendance at school to gain an education is a key developmental task of childhood and adolescence achieved by most but not all students. Refusal to attend school disrupts emotional, social, and educational development and is predictive of further problems in later adolescence and adulthood [1, 2]. Berg [3] defines school refusal as severe emotional upset that precipitates persistent difficulty attending school. Students remain at home with parental knowledge, while resisting their attempts to enforce school attendance. While adolescents may be oppositional and even aggressive towards those who try to enforce school attendance they typically lack antisocial behavior problems. School refusal is equally common in boys and girls [4] and has been reported in all countries in which there is mandatory education [1]. While school refusal is not a

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And if you want books:

For clinicians, Stephanie Rowlings and David Heyne's treatment manual
http://www.bookdepository.com/School-Refusal-David-Heyne-Stephanie-Rollings/9781854333568?ref=grid-view

For parents, Kearney's book is helpful
http://www.bookdepository.com/Getting-Your-Child-Say-Yes-School-Christopher-Kearney/9780195306309?ref=grid-view

You and Your anxious child by Albano is a good general anxiety book
http://www.bookdepository.com/You-and-Your-Anxious-Child-Assistant-Professor-of-Psychiatry-Anne-Marie-Albano-Leslie-Pepper/9781583334959?ref=grid-view

For kids, School Wobblies is a good one but looks like may be unavailable
http://www.bookdepository.com/The-School-Wobblies-Chris-Wever-Neil-Phillips/9780646220642?ref=grid-view

For school staff interested in prevention and intervention for SR as well as truancy, Kearney's brand new book that uses his response to intervention model
http://www.bookdepository.com/Managing-School-Absenteeism-at-Multiple-Tiers-Christopher--Kearney/9780199985296?ref=grid-view

Objectives today are:

1. To understand the prevalence and extent of school refusal.

2. To understand and articulate the five (?six) causes of absenteeism.

3. To understand the psychological conditions associated with school refusal and separately truancy.

4. To understand the roles separately of the young person, the parent, the school and the professional in the management of school refusal.

5. To assist with the development of policies and procedures for the treatment of school refusal.

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School refusal and anxiety disorders – an overview

1. Essential things for managing school refusal
2. Formulation
3. Management plans
4. Metaphors
5. Background - Reasons for not being at school (x6)
6. School refusal
7. Roles of school, professional, young person, parents
8. Anxiety and anxiety disorders
9. Depression and depressive disorders
10. Scales for depression, anxiety and school refusal

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School refusal and anxiety disorders – an overview

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6. School refusal
7. Roles of school, professional, young person, parents
8. School refusal case discussion?

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Reasons for not being at school

1. Medical illness (diabetes, asthma,…)
2. Truancy
3. School withdrawal (parent condones or encourages the child to stay at home)
4. School exclusion
5. School refusal

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Pulse check…

Pulse check

1. If today's talk was very helpful to you, what do you hope you will be able to take away with you?

Pulse check

2. In order of significance, who are the most important people to effect change in school refusal i.e. the people that you have to get on-board for something to happen? (young person, parent, teacher, counsellor, head of house, principal, external professional, other)?

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Pulse check

3. Who do you feel poses the biggest challenge to deal with in relation to school refusal (the student, parents, teachers, counselling staff, external professionals, school administration staff, others)?

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Pulse check

4. What are you seeking help with?
   a. Strategies for dealing with students
   b. Approaches to dealing with parents
   c. Approaches of teachers to school refusal
   d. Changing school policy and procedures
   e. Other?

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Essential things for managing school refusal

1. A formulation (shared understanding) for this child's school refusal
2. A management plan
   a. What's your plan, Phil?
   b. What are the roles (i.e. who does what)? Who is the case manager?
   c. How do we communicate?
3. Metaphors (you can never have too many metaphors…)

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A formulation for school refusal

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School Refusal - Classic

https://www.flickr.com/photos/russelljsmith/2225788732/in/photolist

Clinical vignette – Classic School Refusal

- Jane is a 15-year-old, year 10 girl who has missed most of term 3 and 4 in 2017. She is now struggling to get to school for term 1, missing every Monday and getting to school by 11 am on most other days. Her mother needs to drive her in, as she refuses to use public transport. She had missed nearly a quarter of school days, on and off, in year 9.

- The episode of school refusal in term 3 last year reportedly occurred following a falling out with her best friend. Jane believes the other girls at school have taken her now ex-friend's side and that she (Jane) feels socially excluded.

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Jane – continued…

- Jane's mother has suffered with depression and anxiety over many years but she is not currently medicated. The teachers report that Jane's mother is very sad and teary when they meet with her.

- Jane has no learning issues and is a capable student.

- Jane had suffered with separation anxiety when she was 4 to 5 years old, then struggling to get to school for 4-year-old kinder and then her first few months of prep. At the time it was reported that Jane was sleeping in her parents bed at night.

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Frequency of school refusal

Time

Kinder/prep   years 5-7 $\geq$ year 9

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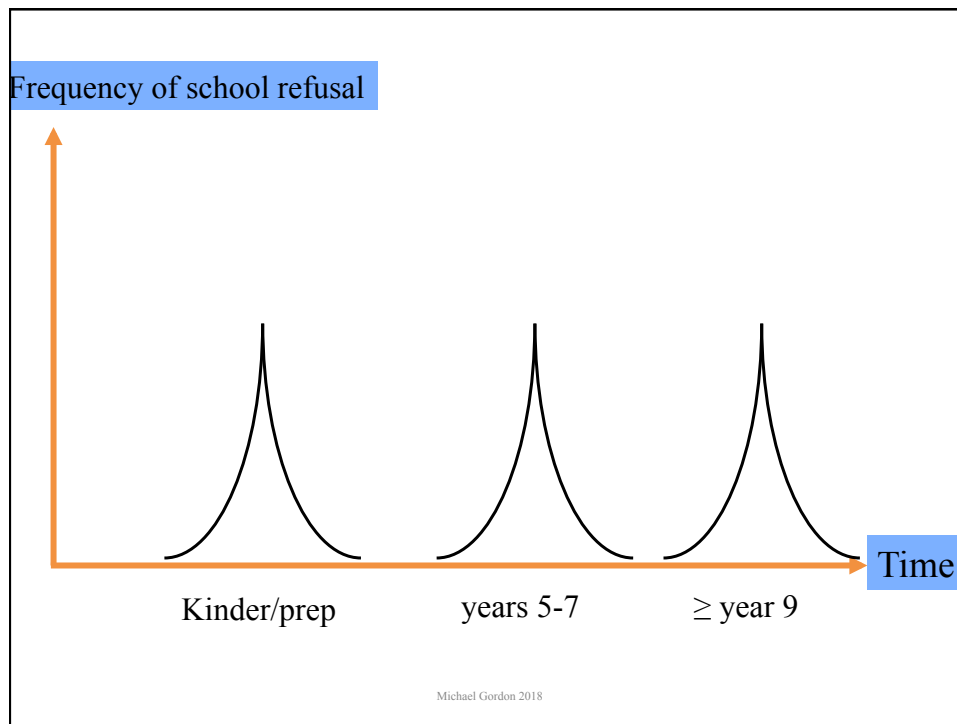
4P formulation

- Predisposing
- Precipitating
- Perpetuating
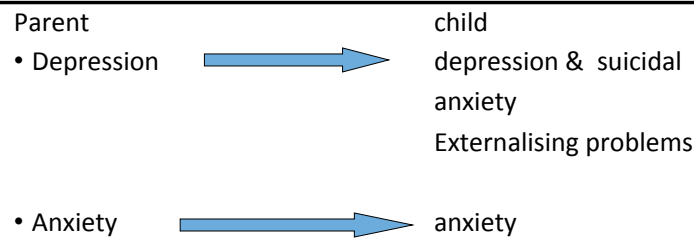- Protective factors

4P & bio-psycho-social formulation

Factors	Biological	Psychological	Social
Predisposing			
Precipitating			
Perpetuating			
Protecting			

Parents need to manage their own anxiety

https://farm5.staticflickr.com/4044/4257136773_704c0b0dd5_o_d.jpg

Simple associations

Parent	child
• Depression	depression & suicidal
	anxiety
	Externalising problems
• Anxiety	anxiety

Remissions in Maternal Depression and Child Psychopathology**   (Weissman et al 2006 JAMA) (Pilowsky et al 2008 AJP)

- Children (7-17 years) whose mothers were treated within STAR*D depression trial were evaluated at baseline and 3 and again at 12 months after treatment commenced.
- N=151 mother-child pairs.
- 11% decrease in rates of diagnosis in children of mothers whose depression remitted.
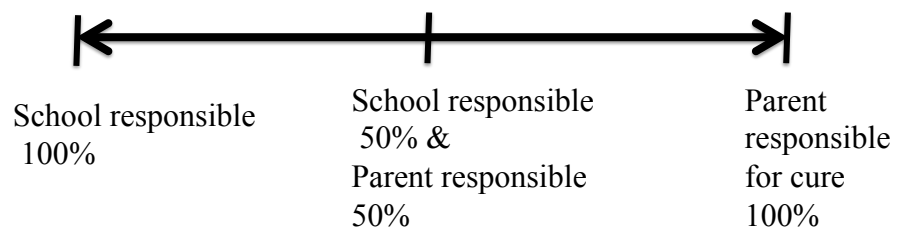- 8% increase in rates of diagnosis in children of mothers who did not.

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Goldilocks parenting

https://www.storyjumper.com/book/index/15466502/
Goldilocks-and-the-three-bears

Locus of control – where does the solution lie?

School responsible
100%

School responsible
50% &
Parent responsible
50%

Parent
responsible
for cure
100%

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Parent Statements
What thoughts do you have about....

- Why is your child not attending school?

- How important is it for you to be involved in dealing with your child's school attendance problems ?

- What things you as a parent can do to help your child with school attendance problems?

- Who ought to be most responsible for the child's attendance at school?

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Parent's reaction to school refusal (1)

- It's the school's responsibility. They should be monitoring it. I am wasting a lot of money for my child not to go to school!
- I'm a bad parent. I feel guilty. The school are blaming me.
- It is my child's responsibility. I am busy at work.
- I don't want to upset my child
- It is just too hard.

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Parent's reaction to school refusal (2)

- We don't know how far to go, how far to push.

- As a parent, I can only encourage her so far. Something has to click in her mind. It's past me now.

- It's up to the school. The teachers have more knowledge about that.

- He's got to want to go…and then I can support him.

- It's a part of his personality.

- I try not to get too involved. If I do, I get embroiled.

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Parent's reaction to school refusal (3)

- You can't send someone to school if they have this big fear.

- It will only get him upset; there's enough conflict in our house already.

- I'm worried that he might have a serious mental problem, like schizophrenia.

- I don't want to upset her. She'll just hate me.

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Common reasons for parents not getting involved in school refusal

- Not interpreting behaviour as anxiety driven ("just being naughty").
- Vague messages about going back to school.
- Automatically accepting child's (sometimes irrational) view of the world.
- Fear of damaging parent-child relationship.
- Fear of more serious psychiatric disturbance in young person.

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Essential things for managing school refusal

1. A formulation for this child's school refusal
2. **A management plan**
   a. What's your plan, Phil?
   b. What are the roles (i.e. who does what)? Who is the case manager?
   c. How do we communicate?
3. Metaphors (you can never have too many metaphors…)

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What's the plan, Phil?

https://www.flickr.com/photos/zoonabar/15590250295/in/photolist

Where do you want to go?

https://www.flickr.com/photos/zoonabar/15590250295/in/photolist

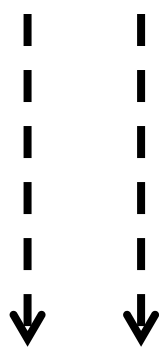## Where are you now?

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Where are you now?

Where do you want to go?

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Where are you now?

What are the
steps to get there?

Where do you want to go?

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Different roles

- Young person
- Parents
- Teachers
- Counsellor
- External professional(s)
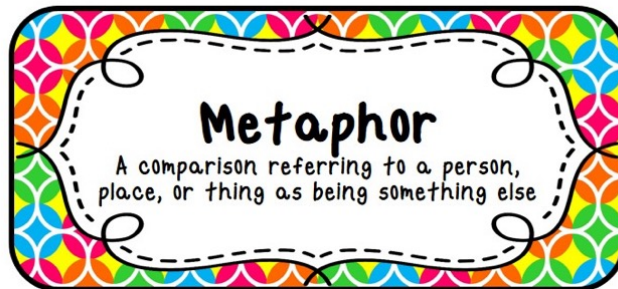- Administrative staff, school leadership

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Essential things for managing school refusal

1. A formulation for this child's school refusal
2. A management plan
   a. What's your plan, Phil?
   b. What are the roles (i.e. who does what)?
   c. How do we communicate?
3. **Metaphors** (you can never have too many metaphors…)

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Metaphor

A comparison referring to a person, place, or thing as being something else

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Sea-saw

https://www.flickr.com/photos/51730448@N06/5084723921/in/photolist-

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School refusal sea-saw

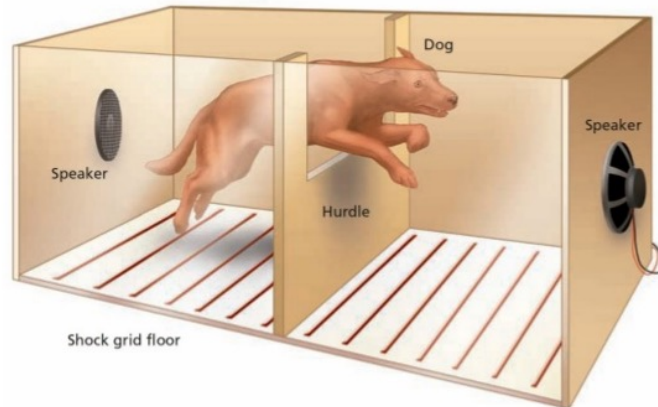**Reasons for NOT going to school:**
- Bullying
- Mother is depressed or sick
- Learning problems
- Low connection with the school
- Anxiety

Reasons for going to school:
- I will fail the year and have to repeat
- I miss my friends
- Disappoint my parents
- Miss out on an education

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Learnt helplessness – Martin Seligman

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Self-efficacy – Albert Bandura

▸ A person's belief in their capacity to successfully perform a particular task.

▸ Along with goal-setting, self-efficacy is one of the most powerful motivational predictors of how well a person will perform at almost any endeavor.

▸ Determines effort, persistence, and strategy in the accomplishment of tasks.

https://www.slideshare.net/gerdnaydock/how-bandura-would-increase-self-efficacy
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Carlo C. DiClemente and J. O. Prochaska, introduced a five-stage model of change for alcohol abuse :

- Pre-contemplation
- Contemplation
- Determination
- Action
- Maintenance

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https://www.flickr.com/photos/29638108

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Rush hour

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Roles and boundaries

https://www.flickr.com/photos/gawler_history/7178738515/in/photolist-

Explain that anxiety is a false alarm

Michael Gordon © 2017

School refusal - ambivalence

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The Inner Critic

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Menu

- Massage from mum
- Tell mum
- Exercise
- Bath
- Shower
- Read a book
- Tantrum (not a good idea)
- …

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Stretch zone

Comfort zone

Danger zone

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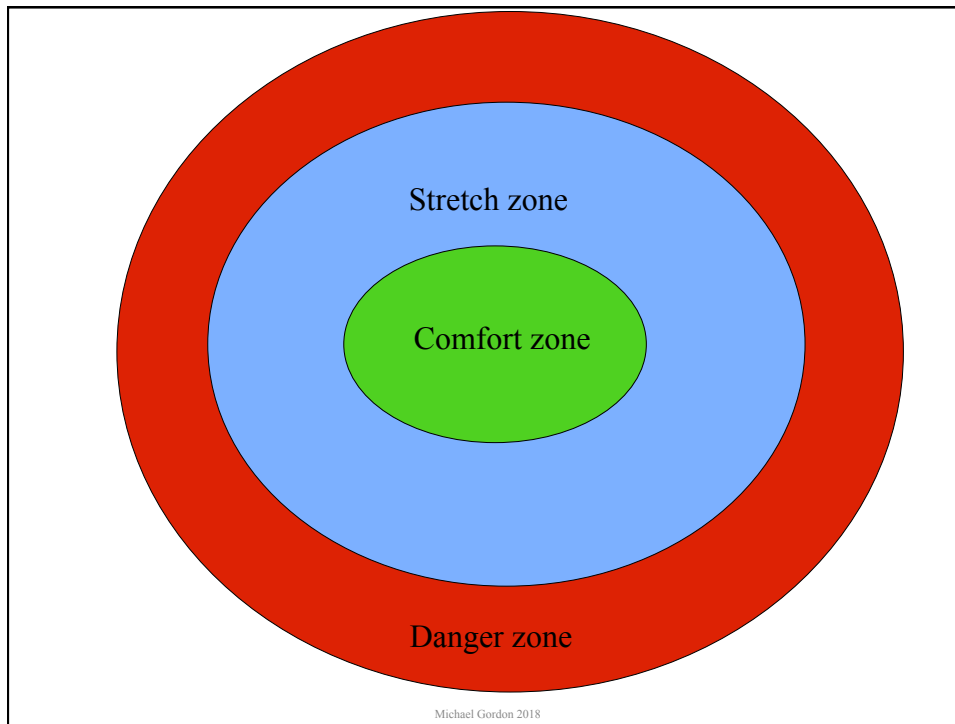
Comfort zone

Stretch zone

Danger zone

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In any therapeutic setting there are two formulations in the room.

A metaphor is the bridge between the family's formulation and the therapist's formulation

Maslow's hierarchy of needs

Child's
School
attendance

Own mental health

Maintain marriage

Keep job

Food on the table, pay bills
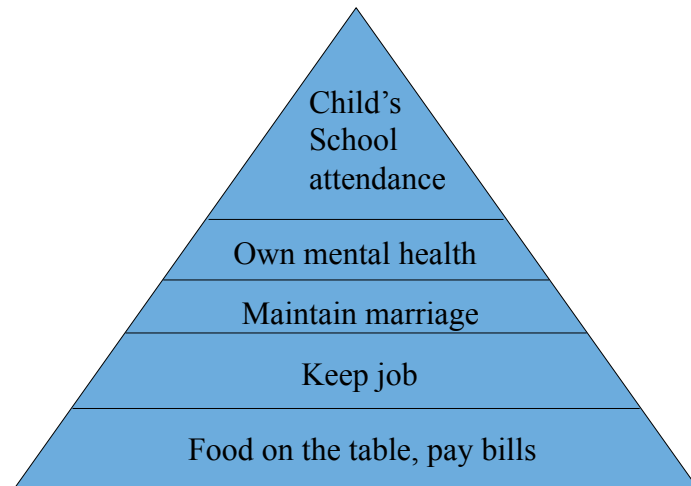
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Rescue fantasies

https://www.flickr.com/photos/coastguardnews/2280807658/in/photolist

Parents need to work together

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No blame, no guilt

https://www.flickr.com/photos/puddy73/3434945691/in/photolist

https://www.flickr.com/photos/mikecogh/14708698362/in/photolist

Desert island metaphor

https://www.flickr.com/photos/ronsaunders47/177205267/in/photolist

Train metaphor

https://www.flickr.com/photos/jefzila/6692688169/in/photolist

Non-attendance; the implications

- Poor success academically
- Poorer employment prospects
- Affects social network
- Higher risk for mental health problems
- Higher risks for involvement in the forensic system
- Affects problem solving and coping skills
- Effect on physical health

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Some further thoughts…

1. Everyone is struggling with school refusers.
2. The research is patchy for many reasons.
3. If you are getting half the kids back to school (in the latter years) you are doing VERY well.
4. The treatment of school refusal is (exposure to) school.
5. School refusal is a blame free zone.
6. The problem is systemic, so the solution is a systems solution.
7. You do better if you can involve the father.
8. Trust is very important between the parents and the school.
9. The school need to take a "one-up position".

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Background

How common is the problem?

- School absenteeism is the term used to describe the absence without permission from school ~ 5%

- School refusal 1–2% of all school-aged children & ~ 5% of all clinic referred children. McShane, Walter & Rey 2001.

- 1% of all children across primary and secondary school levels. Heyne, King, Tonge & Cooper 2001

- Data from the Great Smoky Mountain longitudinal, community based study of 4500 children found 1.6% were anxious school refusers compared with 5.8% truant school refusers, and 0.5% mixed.

Figure 1: Queensland state school students (%) by attendance rate range[3]

- Approximately 70% of students attend school at least 90% of the time
- Approximately 41% of students have attendance rates of 95% or above
- Approximately 30% of students had attendance rates below 90% which means they missed more than 20 days of school in the year

http://education.qld.gov.au/everydaycounts/docs/performance-insights-report.pdf

How much missed school is too much?

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Figure 1: Queensland state school students (%) by attendance rate range[3]

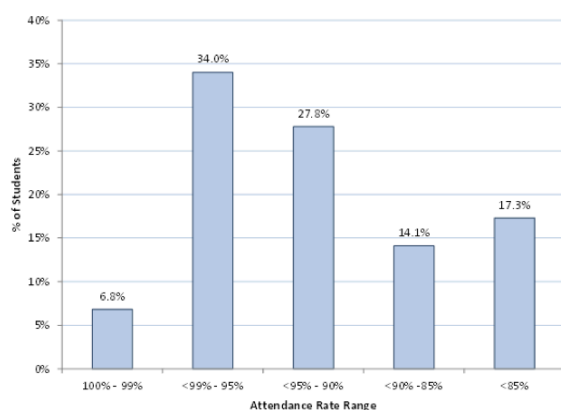
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- Approximately 30% of students had attendance rates below 90% which means they missed more than 20 days of school in the year

http://education.qld.gov.au/everydaycounts/docs/performance-insights-report.pdf

Figure 3: Absences by reason by day[5]
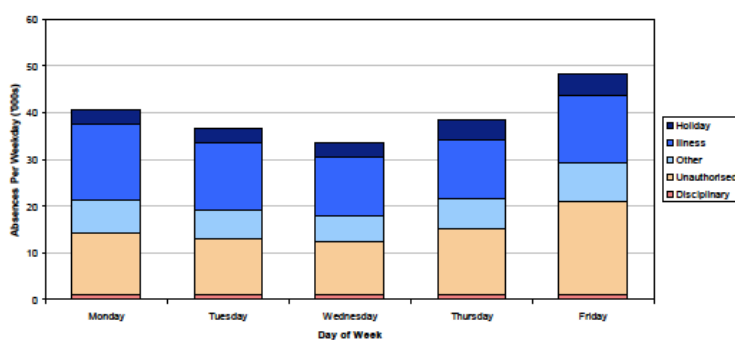
- The two most common reasons for student absences were 'illness' and 'unauthorised'
- Mondays and Fridays show higher numbers of absences

http://education.qld.gov.au/everydaycounts/docs/performance-insights-report.pdf

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Rates of absenteeism – in USA

- Difficult to qualify
- Lack of consensus about definition or classification
- Tardiness of data collection (32%)
- Partial versus full-day absences
- Inconsistent definition, tracking and reporting

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School refusal

- It is a spectrum disorder
- Where school days are being consistently missed, then it is a semi-emergency.
- The longer it goes on for, the less likely it is to remit. It is important to identify it early.
- Many schools are not aware of the problem until it has gone on for some time.
- In some studies, only 30 to 50% of people who are treated for school refusal return to school.

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Mean age of onset and gender

- Mean age of onset of anxious school refusers = 12.3 years
- Mean age of onset of truant school refusers = 14.7 years
- School refusers boys = girls
- In truant school refusers, boys are twice as common as girls.

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School refusal – spectrum disorder

| Missing school camps but full day attendance | Arriving late on Monday mornings | Missing morning classes | Sporadic attendance in the week | No attendance at all |
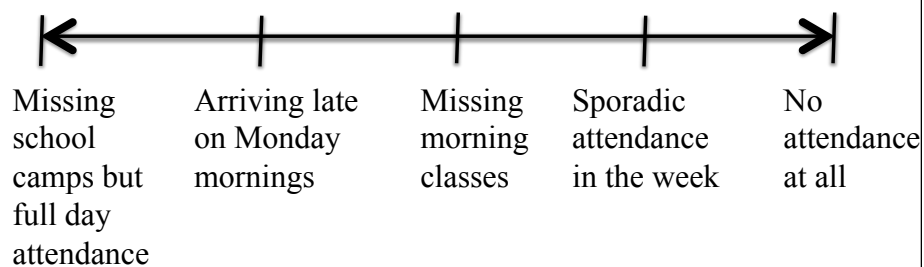
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Cross-cultural school refusal

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Hikikomori

- Complete social withdrawal of Japanese adolescents and youth (males and females) into their rooms or home for up to years.
- Life centered on the family home.
- Refusal of school.
- Withdrawal from peer group.
- Distortion of sleep-wake cycle
- Conflict with parents
- Deep love of pets.
- Massive use of the internet

Michael Gordon 2018

Hikikomori

- Reasons
    - Young people unable to fulfill their expected social roles. Difficult job market. Familial shame.
    - Parents not recognizing or acting on their child's slide into isolation.
    - Soft parenting, emotionally enmeshed mother-child relationship.
    - Often they are the last son/daughter in the family
    - Harassment and/or bullying of young people by their peers.

Michael Gordon 2018

Reasons for not being at school

Michael Gordon 2018

Reasons for not being at school

1. Medical illness (diabetes, asthma,…)
2. Truancy
3. School withdrawal (parent condones or encourages the child to stay at home)
4. School exclusion
5. Classic School refusal
6. Complicated School refusal

Michael Gordon 2018

Why look at the different reasons for not attending school?

- Different reasons for not attending school *require different management approaches* as they are different underlying problems.

- There is a need to "distinguish between cases of school refusal and truancy, as the latter often necessitates an alternative approach to intervention"
  - Heyne, King, Tonge & Cooper 2001

Michael Gordon 2018

Reasons for not being at school

1. **Medical illness** (diabetes, asthma,…)
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1. Medical illnesses

- Asthma & respiratory illness (commonest reason)
- Risk-taking behavior (binge drinking, adolescent illicit drug use, sexual behaviour)
- Suicide attempt
- Poor nutrition
- Fibromyalgia
- Chronic fatigue syndrome

Michael Gordon 2018

Reasons for not being at school

1. Medical illness (diabetes, asthma,…)
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4. School exclusion
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6. Complicated School refusal

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2. Truancy - definitions

- Those children/adolescents who were "absent from school on official schooling days without verbal or written reasons from parents, guardians or a doctor.
- The action of staying away from school without good reason; absenteeism.
- Any intentional unauthorised absence from compulsory schooling.
- A willing self removal from the school.

Michael Gordon 2018

Difference between school refusal and truancy

School refusal

- Internalising disorders (anxiety and depression)

Truancy

- Behavioral problems (oppositional defiant disorder, ADHD & conduct disorder)

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https://www.flickr.com/photos/oddsock/100761143/in/photolist
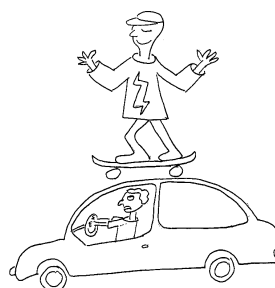
Not being at school

Truancy

School refusal

Suspended/ Expelled

School withdrawal

School exclusion

Michael Gordon 2018

Not being at school

Overlap between
school refusal
and truancy 5 – 10%

Truancy

School refusal

School
withdrawal

School exclusion

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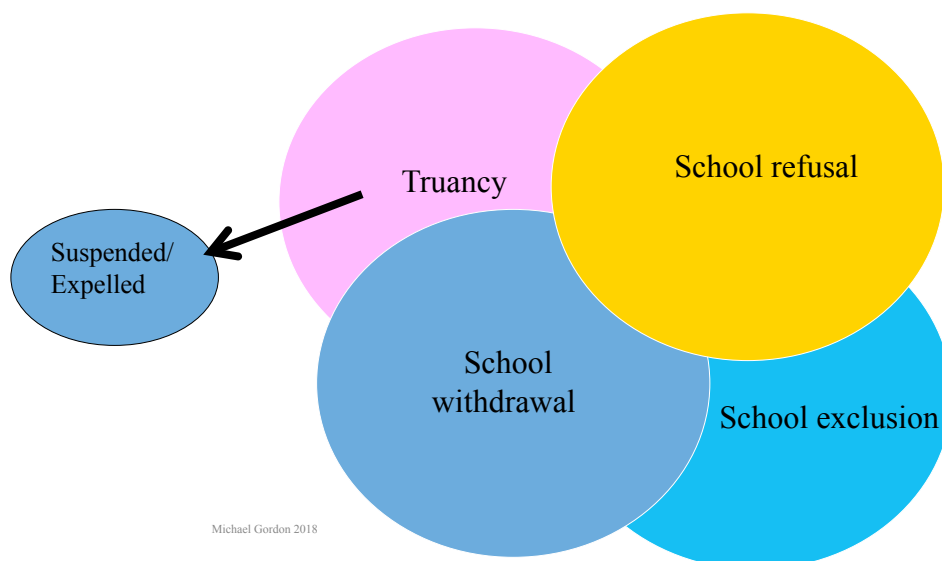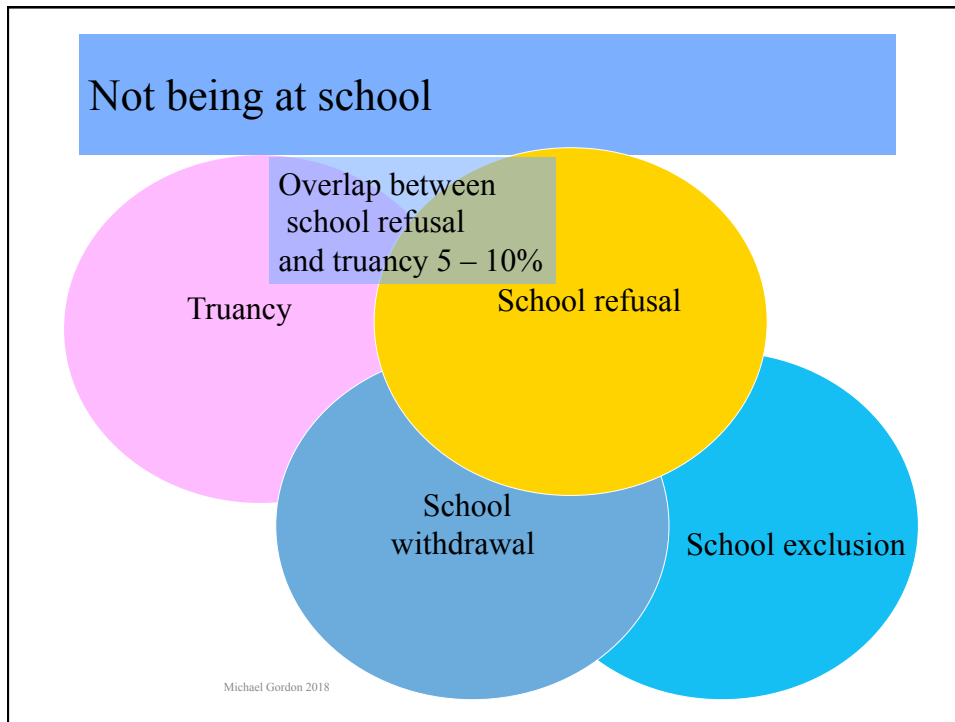
Truancy

- A behaviour (like school refusal and suicide), not a diagnosis.
- Spectrum behaviour (generally classified into mild, moderate and severe)
- Complex and heterogeneous problem.
- Influenced by several factors (school, family, individual, peer group).
- Associated with other externalising behaviours such as conduct disorder

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Truancy rates

- Depends how you define truancy and who you ask (child, parent or teacher)
- Best informant is the school or teacher.
- Rates of truancy varies from school to school, and is very dependent on how truancy is defined; varies from 5% to 27% of adolescents.
- Large USA study (Vaughan et al, 2013) reported the rates of truancy at 11%

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Truancy - severity

Severity of truancy;
- Nil
- Moderate 1 – 3 days in the last month
- High ≥ 4 days in the last month

Vaughan et al (2013) reported the rates of truancy was 9% for moderate truancy and 2% for high truancy.

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At school truancy is associated with…

- Poor academic performance
- Less engaged at school
- School dropout
- Suspension and expulsion

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Outside the school truancy is associated with…

- No father in the house
- Engaged in risky behaviours
- Increase in arrest (especially if suspended or expelled)
- Past history of being the victim of sexual assault
- Substance use (alcohol, cannabis & other substance use)
- Delinquency (aggression, stealing, drug dealing, carrying a weapon, serious fights at school)
- Less likely to be employed after the end of their compulsory schooling
- Negative earning potential
- Can be associated with other mental illness (anxiety disorders, depression)

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Truancy and crime

- When the school expels or suspends the child, this increases *school-to-prison pipeline.*
- Unsupervised and unstructured activities increase the likelihood of problem behavior and police contact – *idle hands* hypothesis.

Michael Gordon 2018

Risk factors for truancy

1. Individual
2. School
3. Family
4. Peers

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Individual risk factors for truancy

- Lack of school engagement. Youth who are less committed or attached to the school are more likely to be truant.
- Learning problems
  - Attention Deficit Hyperactivity Disorder, language problems, intellectual disability
- Behaviour Problems
  - Avoid bullying
  - Avoid teachers
  - Defiance
- Emotional Problems
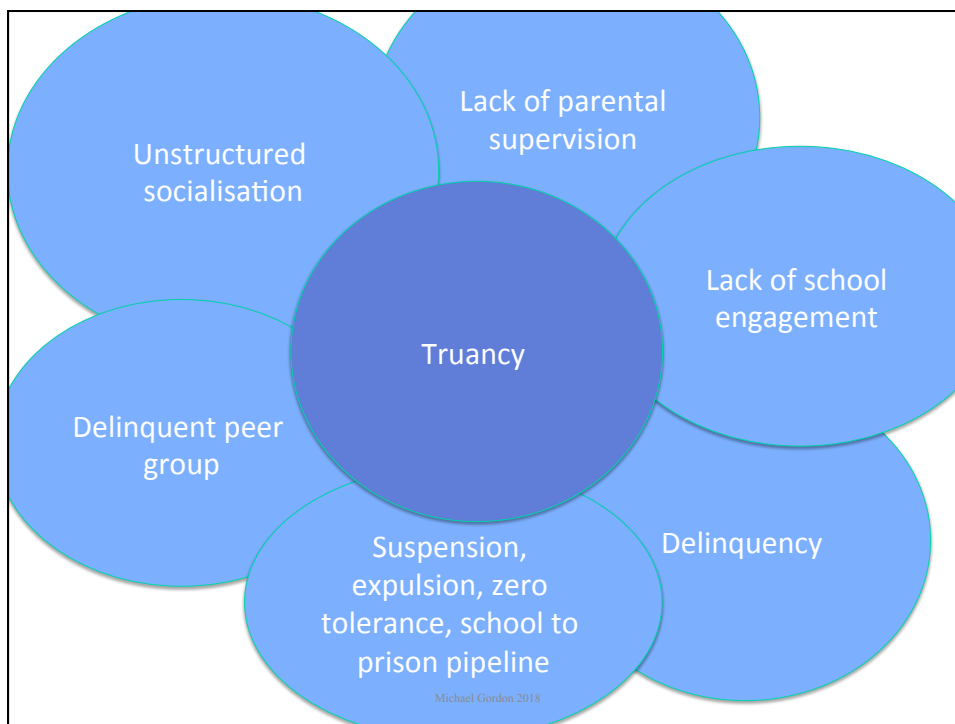
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Research has focused on the association of truancy with

1. Poor school engagement. Decreased commitment to the school is associated with truancy
2. Delinquency, spectrum of antisocial behaviours correlated with delinquency

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Lack of school engagement

Child reported that they
• Didn't enjoy going to school
• School work was not meaningful
• Things I learnt at school was not important
• Courses at school were not important
• Engagement in limited (or nil) extracurricular and school based activities
• Teachers didn't tell me I was doing a good job
• Poor grades

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Student views on reasons for their non-attendance

Given that poor attendance, particularly unauthorised absences, may indicate a trend in disengagement from school, students' views on attendance can potentially give unique insights into ways to improve school attendance. Students with low attendance rates report a range of reasons for this, including:

- poor relationships with teachers, including teaching that doesn't match their expectations (White 2009)

- student perception of the classroom or teacher as disorganised or uncaring (Duckworth & DeJong, 1989; Roderick et al, 1997)

- a general dislike of the atmosphere of the school or a dislike of schoolwork (Reid, 2010)

- school programs seen by students as irrelevant, too difficult or too easy (Clement, Gwynne, and Younkin, 2001)

- preferring to be truant and deal with the consequences rather than attending school (Reid, 2010)

- suspensions (Clement, Gwynne, and Younkin, 2001)

- feeling unsafe (Clement, Gwynne, and Younkin, 2001)

- issues such as anxiety.

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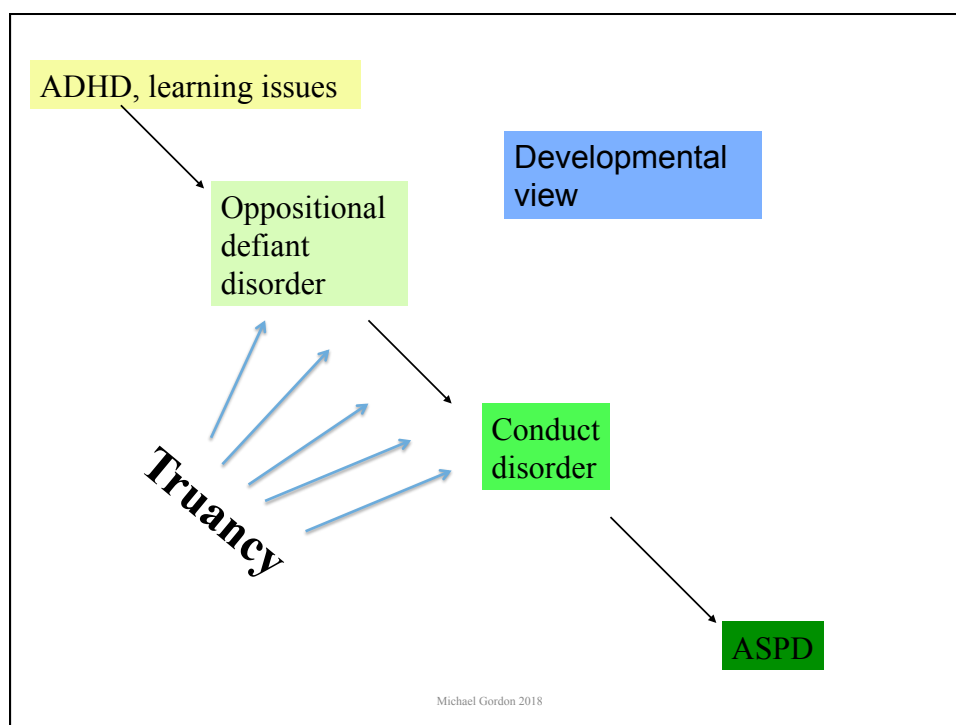
Michael Gordon 2018

Reasons for not being at school

1. Medical illness (diabetes, asthma,…)
2. Truancy
3. **School withdrawal (parent condones or encourages the child to stay at home)**
4. School exclusion
5. Classic School refusal
6. Complicated School refusal

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3. School withdrawal

Parent-condoned reasons for not being at school
- Holidays
- Religious events
- Poor parenting, poor limit setting
- …

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Limited data on school withdrawal

Reasons for not being at school

1. Medical illness (diabetes, asthma,…)
2. Truancy
3. School withdrawal (parent condones or encourages the child to stay at home)
4. **School exclusion**
5. Classic School refusal
6. Complicated School refusal

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4. School exclusion

- Inability to attend due to a lack of resources to manage the child in the school setting
- Primarily due to lack of aide support or other support structures within the school
- May result in part-time attendance
- Experienced by (~10%) students with disabilities (intellectual or severe behaviour/emotional) (Auditor General Report 2012)

Michael Gordon 2018

Reasons for not being at school

1. Medical illness (diabetes, asthma,…)
2. Truancy
3. School withdrawal (parent condones or encourages the child to stay at home)
4. School exclusion
5. **Classic School refusal**
6. Complicated School refusal

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School Refusal - Classic

https://www.flickr.com/photos/russelljsmith/2225788732/in/photolist

School Refusal - Classic

- The term school phobia (or schooliophobia) was first used in 1941 to identify children who fail to attend school because attendance causes emotional distress and anxiety.
- Since the early 2000s in the United States and Great Britain, school refusal is preferred term, this as the underlying cause is not a true phobia and is associated with other anxiety disorders such as separation anxiety and social anxiety.

- http://www.healthofchildren.com/S/School-Phobia-School-Refusal.html#ixzz57RIATkPF

Michael Gordon 2018

School refusal – definition

- Severe difficulty attending school
- Severe emotional upset
- At home with parents' knowledge
- Absence of antisocial characteristics
- Reasonable efforts by parents to enforce attendance (Berg, 1997)

School refusal – definition continued

- Often results in prolonged school absence
- Symptoms include excessive fearfulness, temper tantrums, misery or somatic complains without obvious organic cause when faced with the prospect of going to school.
- Causes much distress to parents and school personnel.
- Poses serious problems for the child's future development.

School refusal

- Separation anxiety
- Generalised Anxiety
- Social phobia
- Specific phobia
- Panic attack +/- agoraphobia
- Depression

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Factors associated with school refusal *onset* (McShane et al. 2001)

Factor	Percentage
Family Conflict	43%
Conflict with peers	34%
Family separation	21%
Changing school or moving home	25%
Physical Illness	20%

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Precipitants for school refusal (Heyne et al. N=*164)*

bullying/teasing	35%
socially excluded	26%
change Primary to Secondary School	21%
fear/difficulties with teacher	21%
illness in self	19%
academic problems	17%
separation problems	16%

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Factors in school refusal

- Individual
  - Anxiety, fear of failure, low self-efficacy, physical illness
- Family
  - Separation, divorce, parental mental illness, overprotective (enmeshed) parents, dysfunctional family
- School
  - Bullying, transitions, structure of the school day
- Community factors
  - Inconsistent professional advice, inadequate school support, increase pressure to achieve

From Maynard, B. R. Heyne, D. Brendel, K. E, *et al.* 2015

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Challenges with school refusal

- High degree of somatic symptoms (e.g. nausea, panic attacks, muscle tension, stomach aches, sleep disturbance, migraines & headaches)
- Behavior dysregulation (e.g. clinging, freezing, reassurance seeking, escape, oppositional behaviours and defiance).
- Catastrophic thinking (e.g. "I can't handle it", "I can't make it through the day", "school's too hard").

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Any child or adolescent with school refusal behaviour needs be assessed for anxiety and depression.

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QUESTIONS RELATED TO THE FUNCTION OF SCHOOL REFUSAL BEHAVIOR

Have recent or traumatic home or school events occurred to influence a child's school refusal behavior?

Are symptoms of school refusal behavior evident on weekends and holidays?

Are there any non-school situations where anxiety or attention-seeking behavior occurs?

What specific social and/or evaluative situations at school are avoided?

Is the child willing to attend school if a parent accompanied him or her?

What specific tangible rewards does the child pursue outside of school that causes him or her to miss school?

Is the child willing to attend school if incentives were provided for attendance?

Christopher Kearney 2006

Michael Gordon 2018

Reasons for not being at school

1. Medical illness (diabetes, asthma,…)
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5. Classic School refusal
6. **Complicated School refusal**

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Complicated School refusal

Michael Gordon 2018

Medical illnesses

- Chronic fatigue syndrome
  - A physical condition of unknown cause, the primary symptoms of which are prolonged tiredness and depression. May occur after a viral infection. All medical investigations are normal.
- Fibromyalgia
  - A rheumatic condition characterised by muscular or musculoskeletal pain with stiffness and localised tenderness at specific points on the body.

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Psychological/psychiatric treatment for school refusal

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Essential things for managing school refusal

1. A formulation for this child's school refusal
2. A management plan
   a. What's your plan, Phil?
   b. What are the roles (i.e. who does what)?
   c. How do we communicate?
3. Metaphors (you can never have too many metaphors…)

Michael Gordon 2018

What is your experience of children and adolescents with school refusal?

- History of missed schooling?
- Life events of the child?
- Temperament of the child?
- Coping style of the child?
- Family functioning?
- Parenting practices?
- Family history of physical and mental illness?
- Past illnesses in the child?

Michael Gordon 2018
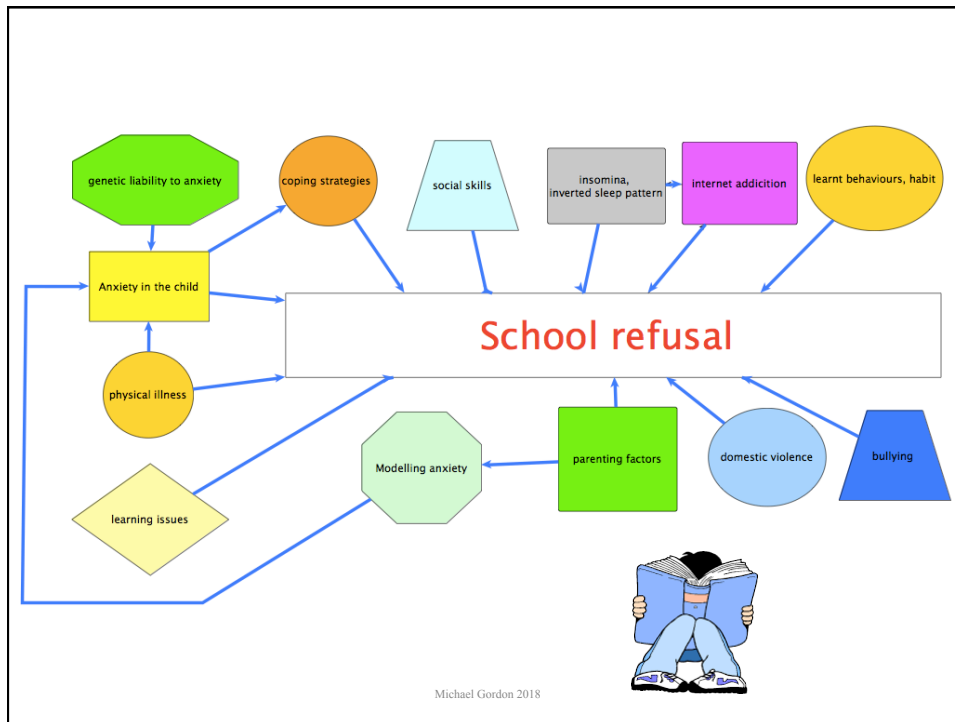
School refusal

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Essential things for managing school refusal

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   a. What's your plan, Phil?
   b. What are the roles (i.e. who does what)?
   c. How do we communicate?
3. Metaphors (you can never have too many metaphors…)

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What's the plan, Phil?

The team approach
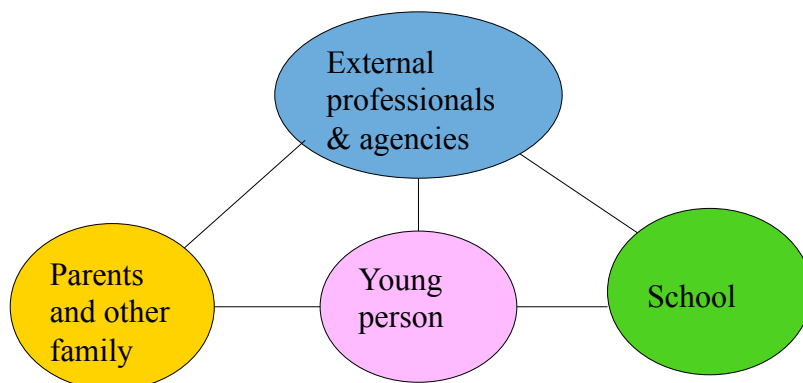
External professionals & agencies

Parents and other family

Young person

School

Michael Gordon 2018

Essential things for managing school refusal

1. A formulation for this child's school refusal
2. A management plan
   a. What's your plan, Phil?
   b. **What are the roles** (i.e. who does what)?
   c. How do we communicate?
3. Metaphors (you can never have too many metaphors…)

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Different roles

- Young person
- Parents
- Teachers
- Counsellor
- External professional(s)
- Administrative staff, school leadership

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Role of school

It takes a village to help a child with school refusal
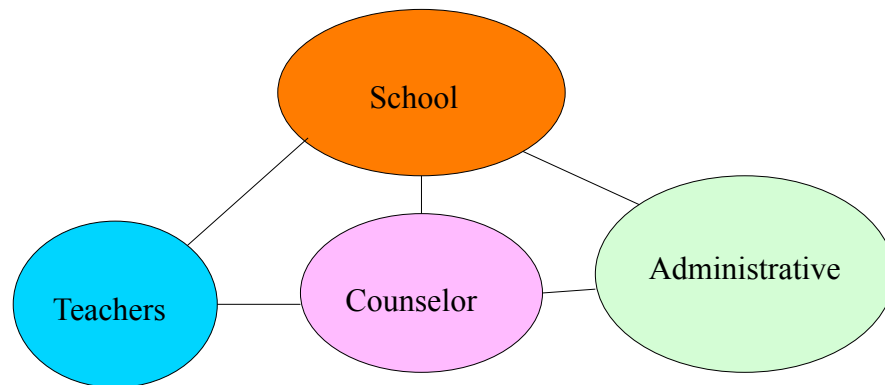
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The school approach

School

Teachers

Counselor

Administrative

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Roles and boundaries

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Staff response to school refusal

- Understand that it is a complex problem
- Understand it is usually an anxiety disorder rather than behavioural problem
- Notice absences immediately and act
- Clarify contact person
- Maintain contact with the family
  - phone calls
  - email
  - meet at school

Michael Gordon 2018

Managing your own reactions

- These children are able to put strong feelings into those around them, including parents and teachers
- The child attempts to control the situation,
- Need for the parent to avoid (as much as humanly possible) becoming upset or angry

Michael Gordon 2018

Attendance plans

- Plans aim to provide structure to student's return to school
- Written down, detailed
    - arrival time, who, where, what to expect
- Child chooses starting point, but needs to move forward
- Use of back-up plans, reset 'goalposts'
- Distribute to all involved with the student
- Often graded for a staged return to school

Michael Gordon 2018

In the classroom

- Smile, welcoming and no reference to absences
- Ensuring young person has someone to sit and work with
- Provide structure and certainty
- Reduce chance of "bad things" happening
- Opportunities to experience success
- Praise (adolescents - quiet & understated generally best) – recognise even small steps

Michael Gordon 2018

Print off timetable and highlight subjects the student is agreeing to attend…

	Mon	Tue	Wed	Thu	Fri
0900 - 0945	Maths	Literature	Philosophy, Religion and Ethics	Arts	Foreign Language
0945 - 1030	Arts	Maths	Foreign Language	Geography	Arts
1100 - 1145	Foreign Language	Arts	Maths	Foreign Language	History
1145 - 1230	Literature	Foreign Language	Arts	Maths	Maths
1315 - 1400	Chemistry	Biology	SPORTS	Physics	EXTRA CURRICULAR
1400 - 1445	Chemistry	Biology		Physics	
1445 - 1530	History	Geography		Philosophy, Religion & Ethics	
1530 - 1600	EXTRA CURRICULAR	EXTRA CURRICULAR		EXTRA CURRICULAR	

http://imilody.com/secondary-school-timetable-uk/

Michael Gordon 2018

School attendance plans

	Monday	Tuesday	Wednesday	Thursday	Friday
Goal	Arrive on time. Stay in staffroom until 11am. Do worksheets	Arrive on time. 15 mins in class, and until 11am staffroom. Doing worksheets	Arrive on time. 30 mins in class, and until 11am staffroom. Doing worksheets	Arrive on time. 40 mins in class, and stay for recess.	Arrive on time. 60 mins in class, and stay for recess.
Min.	Stay in staffroom until 11am	Stay in staffroom until 11am	10 mins in class, and until 11am staffroom	20 mins in class, and stay for recess.	30 mins in class, and stay for recess.

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(Possible) roles of the school counselor

- Clinical and risk assessment
- Mental state
- Referral externally
- Cognitive assessment
- Short term therapy
- Long term therapy
- Liaison with internal and external stakeholders
- Case conference
- Escalation to the principal

Michael Gordon 2018

(possible) roles of the school counselor

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Referral to an external therapist…

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Return to school meeting

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St. Ignatius Grammar School   *Aedificare fiduciam amet*

Dear Ms, Mr, Dr, <insert name of professional>

St. Ignatius Grammar School has a duty of care to all children and teenagers whilst they are on school grounds. In every instance the school to offers the best possible tailored care regardless of the child's condition (e.g. epilepsy, asthma, diabetes, depression, anxiety, eating disorder). St. Ignatius Grammar School does not discriminate in any way but we require specific medical and psychological information in order to care for each and every student. In keeping with this, all students with medical and psychological needs require information to be provided.

We require all the following information to manage <insert name of child> whilst they are in our care. This return to school plan is strictly confidential. We are seeking from you:
- Diagnosis for <insert name of student>
- Formulation
- Medications
- A copy of the safety plan
- The preferred method of contact if <insert name of student> is very unwell (circle one):
  - Telephone
  - Email

- My preference for a case conference is by (circle one)
  - in person,
  - telephone
  - Skype

This return to school plan is to only be discussed with the following people at school:

Please return this document to <insert name of school counselor>.

Signed Dr. John Smith
Principal
St. Ignatius Grammar School

Michael Gordon 2018

Professional's roles

School refusal - the research evidence

- Limited evidence base to guide treatment choice
- Cognitive Behavioural Therapy that targets school refusal is currently the most evidence based treatment (King et al; 1998; Heyne et al. 2002; 2011; Melvin et al 2012)
- Distance Education/Home schooling is generally not recommended (if aim is school return)
- Medication has little evidence base

Michael Gordon 2018

Maynard, B. R. Heyne, D. Brendel, K. E, *et al.* (2015)
Treatment for School Refusal Among Children and Adolescents: A systematic Review and Meta-Analysis.

Study Name	Hedges' g	Lower Limit	Upper Limit	Comparison Condition
Richardson (1992)	-0.85	-1.71	0.01	AT
Heyne (2002)	-0.01	-0.60	0.60	AT
Last (1998)	0.01	-0.75	0.76	AT
King (1998)	0.97	0.29	1.64	WLC
Grand Mean effect	0.06	-0.63	0.75	

-2.0 -1.5 -1.0 -0.5 0.0 0.5 1.0 1.5 2.0

Favors Comparison Group   Favors Treatment Group

AT: Alternative Treatment
WLC: Wait List Control
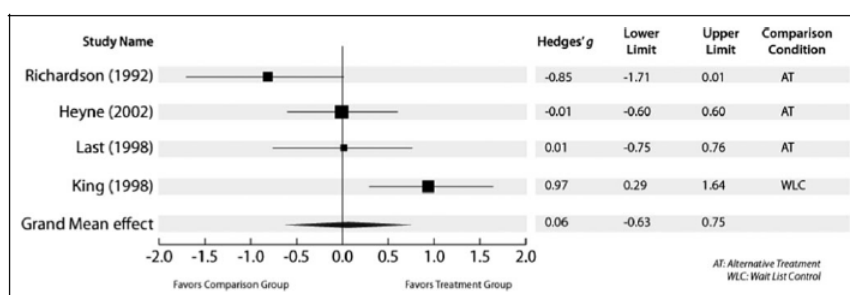
Figure 3. Effects of psychosocial treatments on anxiety.

Michael Gordon 2018

Maynard, B. R. Heyne, D. Brendel, K. E, *et al.* (2015)
Treatment for School Refusal Among Children and Adolescents: A systematic Review and Meta-Analysis.

Study Name	Hedges' *g*	Lower Limit	Upper Limit	Comparison Condition
Richardson (1992)	0.10	-0.76	0.96	AT
Last (1998)	0.28	-0.39	0.96	AT
Sahel (1989)	0.51	0.40	0.61	NS
Heyne (2002)	0.58	-0.03	1.19	AT
King (1998)	0.63	-0.09	1.34	WLC
Blagg (1984)	2.73	1.13	4.33	AT
Grand Mean effect	0.54	0.22	0.86	

Favors Comparison Group   Favors Treatment Group

AT: Alternative Treatment
NS: Not Specified
WLC: Wait List Control

Figure 4. Effects of psychosocial treatments on attendance.

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https://www.flickr.com/photos/mrbill/2166766553/in/photolist
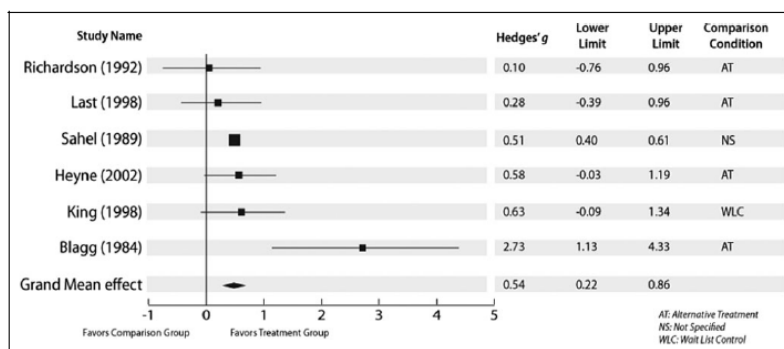
Michael Gordon 2018

Approaches other than Behaviour therapy or CBT

- Dialectic Behavior Therapy for School Refusal (DBT-SR)
- Motivational interviewing

Michael Gordon 2018

Therapy is a minestrone soup

https://www.flickr.com/photos/diekatrin/4309005328/in/photolist

Management of School Refusal Important Principles

- Identify and intervene early

- Team Approach

- Develop anxiety/stress/depression management skills

- Exposure to school is key

- Set plans to provide structure

- Optimism and persistence

Michael Gordon 2018

Exposure is the key

Michael Go

Exposure is the key

External professionals management of school refusal – the hierarchy

1. Assess the child
2. Psycho-education
3. Explain the problem to the child and their parents
4. Involve the school
5. Develop a management plan for return to school
6. Counselling of the child
7. Medication for the child
8. Counselling and medication for the parents
9. Family therapy
10. Day program
11. Admission to hospital
12. Protective notification

Plan, treatment approach

- Team approach
- Who is the case manager?
- Communication
- Roles
- Boundaries
- Respect

Michael Gordon 2018

Anxiety disorders

- Behavioural therapy and Cognitive Behavioural Therapy; over 40 studies.
- Supportive psychotherapy
- Medication
- Working with parents
- Family therapy

Michael Gordon 2018

Anxiety disorders - CBT

- Development of a hierarchy
- Exposure therapy (going to school) and reduction of avoidance
- Modelling/ role play
- Self-monitoring
- Relaxation training
- Social skills training
- Cognitive restructuring
- Behavioural rehearsals

Michael Gordon 2018

11th July 2015

Dr. John Smith
Principal
St. Ignatius Grammar School

Dear Dr. Smith

Re: David Green
        1 Template Drive
        Generic Parks 3168
        D.O.B.: 01.01.2000

Thank you for inviting me to your school to discuss David a 15-year-old, year 10 adolescent boy. I have spoken to David and his parents and have written permission to provide and receive information on David - see attached document. As discussed at the return to school meeting, David has suffered with social anxiety and depression which has become clinically impairing over the last six months resulting in him struggling to get to school. From the school records, David has only attended 50% of the time over term 1 and 2 this year.

David and his parents are very keen for him to return to school, ultimately fulltime by the end of term 3. Together with his parents and your school we have fashioned a graded return to school plan in which David has agreed to attend the first three periods of the day; if he is able to remain, then he is allowed to stay for addition periods at his discretion by letting his Head of House, Mr. Mentor know. We expect David to attend every day for a minimum three periods. If he is unwell, David needs to spend the three periods in sickbay or he can go to class.

We have negotiated for a modification of his year 10 curriculum. Mr. Mentor has emailed his teachers about a reduction in his classwork and homework.

I have commenced David on sertraline an antidepressant. I remain the case manager, review his medication and continue meet with David and his parents fortnightly for family therapy. David is seeing a psychologist from headspace who is engaging David in Cognitive Behavioural Therapy. We will review David's progress by case conference on Monday 31st August 2015 at 10 am (I will be available on the telephone).

Yours sincerely,

Michael Gordon   Michael Gordon 2018
Child Psychiatrist

Young person

Maladaptive coping mechanisms of adolescent

- fight,
- flight,
- freeze,
- control,
- cutting (deliberate self-harm),
- use of illicit substances, tobacco or alcohol.

The young person

Michael Gordon 2018

Adolescent thinking

- I'm at the center of the universe.
- I'm the most important person in the room.
- It's all about me, me, me. Did I mention it is about me?

- I am not important.
- Everyone else is doing well, and I am not.
- I am the least important person.
- *Even* my father is more successful than me.
- I will not achieve anything in this life.

Michael Gordon March 2017

Michael Gordon March 2017

http://www.thethingswesay.com/i-feel-so-insignificant/
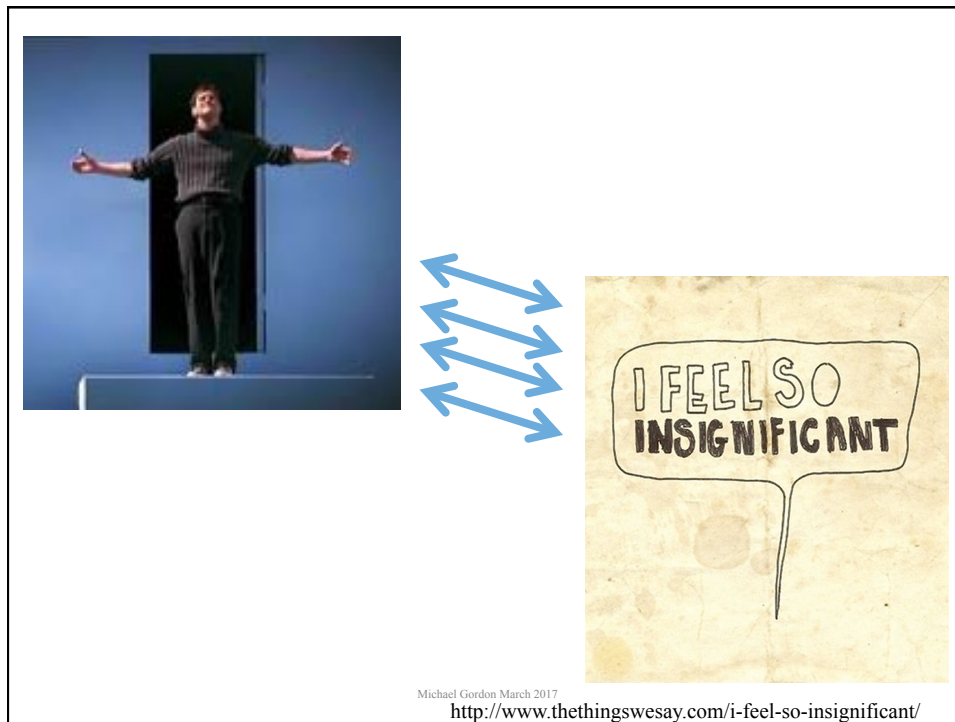
Adolescent psychosocial tasks

- Identity formation,
- Autonomy from the family unit,
- Enhanced social competency in relationships,
- Development of self-regulatory processes
- Integrate emotions and behaviours
- Negotiate rights vs responsibilities

Michael Gordon 2018
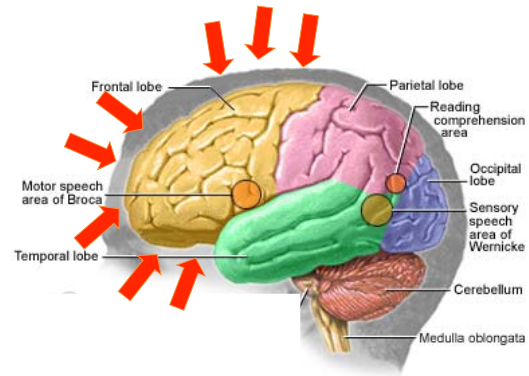
Frontal lobe

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A word on ambivalence

Michael Gordon 2018

Suicidal Ambivalence

live die
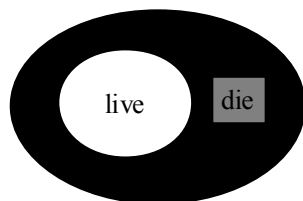
Michael Gordon 2018

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live

- I don't want to hurt my family
- I am very scared of dying
- I want to believe things will get better
- I hope people still love me
- Regression to an earlier time of support and coping
- I want someone, anyone to save me

die

- Solve all my problems
- Life is too stressful
- I am an evil/bad person
- I am the cause of all the problems in the world
- I deserve to die a gruesome death
- There is no hope
- Everybody hates me (incomprehensible)
- I don't want to talk about it
- I just want to be dead
- Incomprehensibility of plans for clinician

Michael Gordon 2018

Ambivalence relates to…..

- Suicidal behaviour
- Getting better
- Attending therapy
- Parenting
- And many other things….

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Role of the parents

Goldilocks parenting

https://www.storyjumper.com/book/index/15466502/
Goldilocks-and-the-three-bears

Strategies for parenting

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The 'nine' golden rules of parenting

1. Red apple – green apple.
2. Parents have to talk away from the child, agree on an approach, and then together meet with the child.
3. Parents need to be more calm than the child. The first pulse you take is your own.
4. Consequences vs punishment. Find the balance between love and discipline. Don't make any rule you can't follow through with
5. Pick your battles.
6. Tag team parenting.
7. Be present for your child.
8. Imagine the situation from your child's perspective
9. No screens after 10 pm

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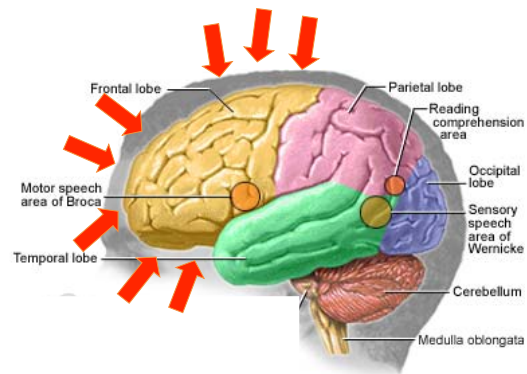
Frontal lobe

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Healthy parents = scaffolding around the frontal lobe
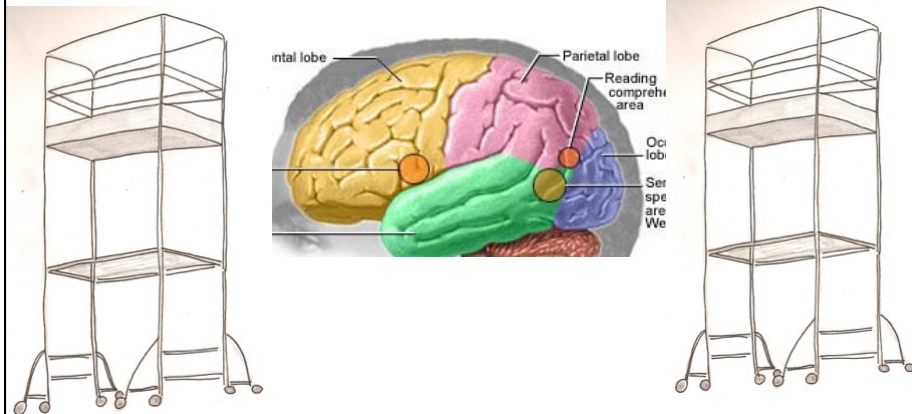
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Maladaptive responses of parents to their child

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Problem for the family

- Learnt helplessness
- Therapist, the honorary member of the family.
- Collude with the family narrative?
- Ambivalence of family
- One down position for therapist – loss of control for the therapist, teacher, school
- Family are stuck – now you go an fix it.
- Making it work with the parent's parameters is not possible – change involves changing the rules/ parameters demanded by the family

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Parents maladaptive response to the young person

- Neglectful,
- Overinvolved
- Controlling
- Uncaring
- Indifferent

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Reward, Punish, Magnify, Neglect and Override.

- A rewarding response is one that provides validation, comfort and empathy. For consistency with existing emotion socialization literature, this response is subsequently referred to as a supportive response.
- Punitive responses refer to punishment or disapproval of emotional expression.
- Magnifying responses are those that match or magnify the intensity of emotional expression.
- Neglectful responses are those that ignore the child's emotional expression.
- Override responses refer to those that dismiss or distract the child from the emotion.

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Parents maladaptive response to the young person

- Dysfunction across key aspects of parental functioning including inconsistent and harsh discipline, low nurturance, and affection, have been shown to predict psychological dysfunction in adolescents.

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3 possible case managers:

1. Parent as case manager = good outcome.
2. Therapist (school) as the case manager.
3. Parent as case manager = not good outcome – child is stuck.

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Parent as case manager = not good outcome – child is stuck

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Parent as case manager - reasons for the parents wanting to be in charge

- Guilt
- Shame
- Parental anxiety
- Micromanage problem/delegate
- Control
- Protect family secrets

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The McMaster Family Assessment Device (FAD)

General Family Functioning	Planning family activities is difficult because we misunderstand each other.
Communication	You can't tell how a person is feeling from what they are saying.
Affective Responsiveness	We are reluctant to show our affection for one another.
Problem Solving	We usually act on our decisions regarding problems.
Behaviour Control	We have rules about hitting people.
Affective Involvement	We show interest in each other when we can get something out of it.
Roles	When you ask someone to do something, you have to check that they did it.

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Parents; what to do?

Parent-based strategies for school refusal

- Establishing morning and evening rituals
- Modifying parent commands for brevity (short messages), consistency (same message that is not changing), solidarity (2 parents working together).
- Consequences for non-attendance (loss of screen time, earlier to bed,…)
- Reduce child reassurance seeking behavior.
- Change the person who takes the child to school
- Behavior contract.

Working with parents

- Provide clear messages about the need for school attendance
- Model confidence in the child's capacity to cope and the school's ability to respond
- "Hope for the best, prepare for the worst"
- Two parent approach
- To overcome anxiety, child needs to experience anxiety
- Consider the role of secondary gain, and where the parent might need support.

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Parent Self-Statements
What thoughts do you have about.....

- Why is your child not attending school?
- How important it is you to be involved in dealing with your child's school attendance problems ?
- What things you as a parent can do to help your child with school attendance problems?
- Who ought to be most responsible for the child's attendance at school?

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Understand the child

- Empathy (rather than seeing the child as wilful and provocative)
- Mindful that the child is functioning at a much younger emotional age (different needs of a younger child, increased supervision and vigilance)

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Separation anxiety treatment principles – to explain to parents

- Consistency, predictability
- Adults are less anxious than the children
- Adult communication
- Adults in control
- School as a safe place
- Reduce parents fighting
- Parental mental health addressed

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Other services roles

- Child protection
- Child First
- headspace

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What is anxiety?

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Words for anxiety

worry, concern, apprehension, apprehensiveness, consternation, uneasiness, unease, fearfulness, fear, disquiet, disquietude, perturbation, fretfulness, agitation, angst, nervousness, nerves, edginess, tension, tenseness, stress, misgiving, trepidation, foreboding, suspense,…

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What is normal?

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Anxiety is a good thing but..

https://www.flickr.com/photos/narcah/7014822727/in/photolist

Anxiety is a good thing

https://www.flickr.com/photos/narcah/7014822727/in/photolist

You can dial up anxiety

https://www.flickr.com/photos/quinet/14231113707/in/photolist

Anxiety is on a continuum

https://www.flickr.com/photos/wwworks/3880400014/in/photolist

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Clinical anxiety

Clinical anxiety is a false alarm

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You see a belt, and think it is a snake
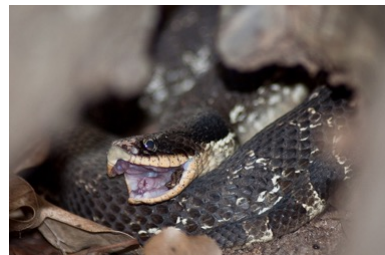
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Which is the most contagious condition?
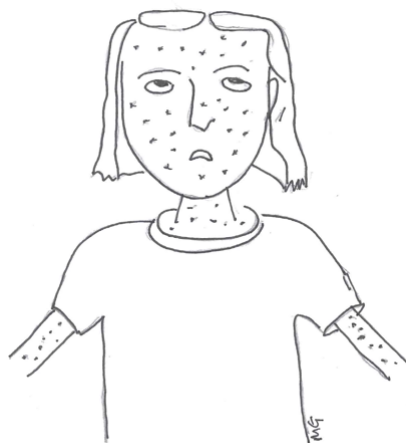
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Anxiety is more contagious than viruses
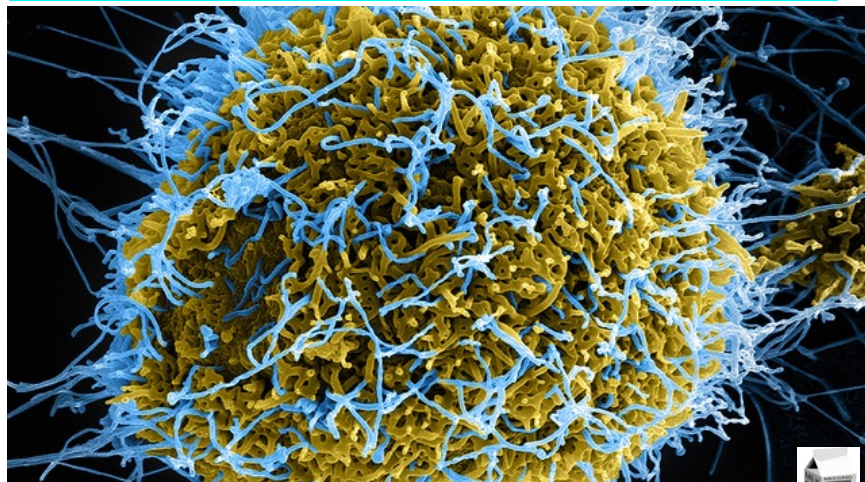
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Performance

Anxiety

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Performance

Anxiety

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Strong

Performance

Weak

Low   Arousal   High

Optimal arousal
Optimal performance

Impaired performance
because of strong anxiety

Increasing attention
and interest

The Yerkes–Dodson law

https://www.google.com.au/imgres?imgurl
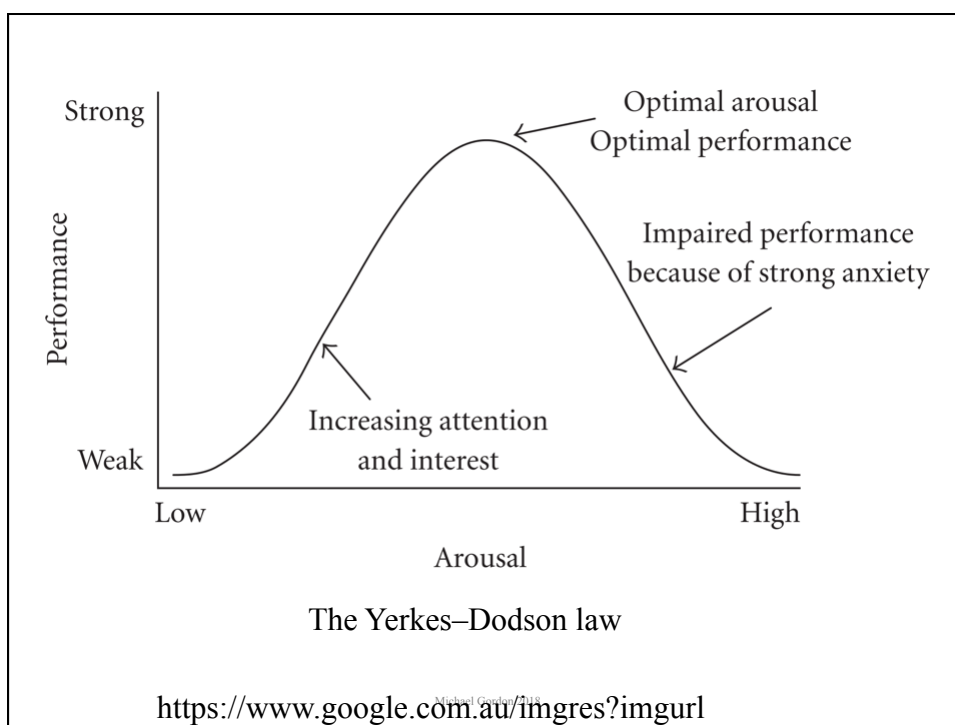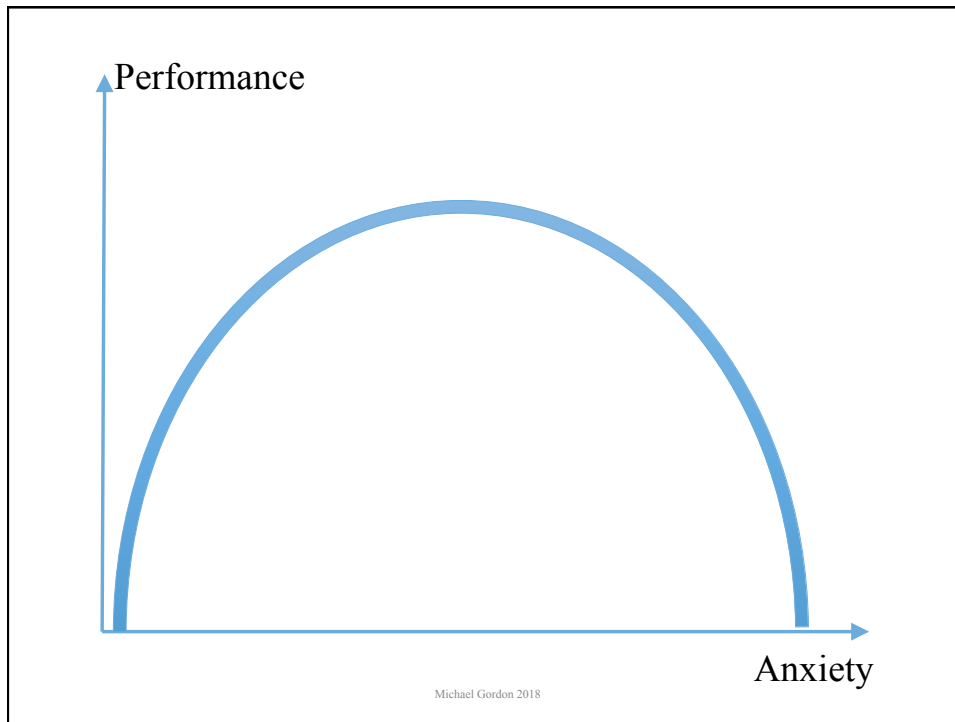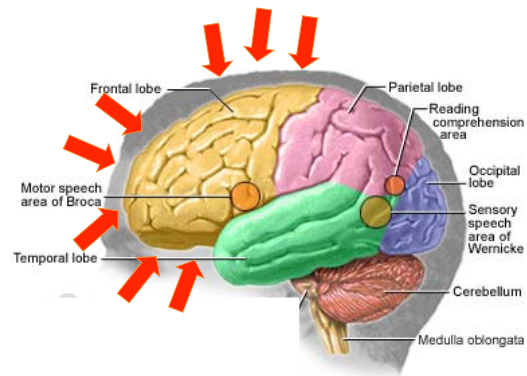
Frontal lobe

Role of the frontal lobe

- Planning
- Judgement
- Personality
- Problem solving
- Concentration
- Impairment in frontal lobe = Attention Deficit Hyperactivity Disorder
- Excessive frontal lobe functioning = obsessive compulsive disorder

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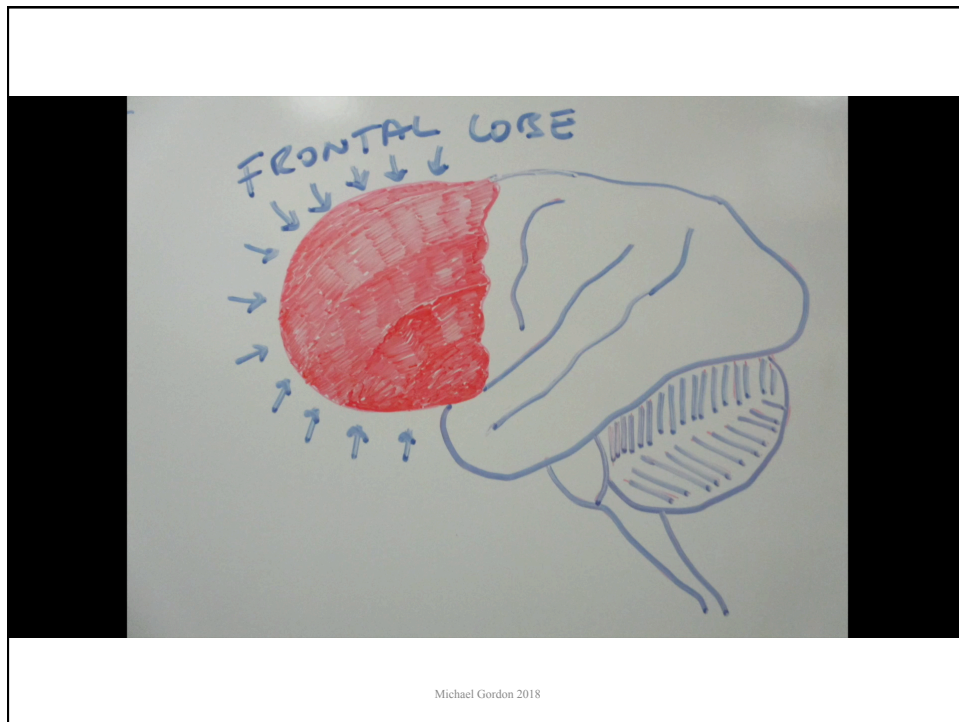
Problem anxiety is a logic free zone

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Robber in the rain – it's irrational
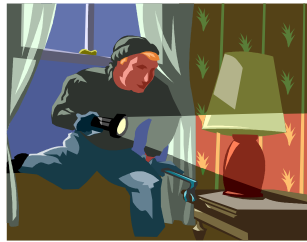
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Types of anxiety

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Types of anxiety symptoms

1. **feeling** stress symptoms (e.g. anxiety, irritability, moodiness i.e. feeling anxiety)
2. **thinking** anxiety (I'm going to fail that exam, my girlfriend is going to drop me, I'm SUCH a loser)
3. **physical** symptoms (e.g. headache, stomach pains, tiredness, chest tightness)
4. **compulsive** behaviours (e.g. checking, touching)
5. **dissociative** anxiety (derealisation, depersonalisation, voices)

Fight Or Flight Response

When faced with a life-threatening danger it often makes sense to run away or, if that is not possible, to fight. The *fight or flight response* is an *automatic* survival mechanism which prepares the body to take these actions. All of the body sensations produced are happening for good reasons – to prepare your body to run away or fight – but may be experienced as uncomfortable when you do not know why they are happening.

Thoughts racing
Quicker thinking helps us to evaluate danger and make rapid decisions. It can be very difficult to concentrate on anything apart from the danger (or escape routes) when the fight or flight response is active

Changes to vision
Vision can become acute so that more attention can be paid to danger. You might notice 'tunnel vision', or vision becoming 'sharper'

Dry mouth
The mouth is part of the digestive system. Digestion shuts down during dangerous situations as energy is diverted towards the muscles

Heart beats faster
A faster heart beat feeds more blood to the muscles and enhances your ability to run away or fight

Nausea and 'butterflies' in the stomach
Blood is diverted away from the digestive system which can lead to feelings of nausea or 'butterflies'

Hands get cold
Blood vessels in the skin contract to force blood towards major muscle groups

Muscles tense
Muscles all over the body tense in order to get you ready to run away or fight. Muscles may also shake or tremble, particularly if you stay still, as a way of staying 'ready for action'

If we don't exercise (e.g. run away or fight) to use up the extra oxygen then we can quickly start to feel dizzy or lightheaded
Dizzy or lightheaded

Breathing becomes quicker and shallower
Quicker breathing takes in more oxygen to power the muscles. This makes the body more able to fight or run away

Adrenal glands release adrenaline
The adrenaline quickly signals other parts of the body to get ready to respond to danger

Bladder urgency
Muscles in the bladder sometimes relax in response to extreme stress

Palms become sweaty
When in danger the body sweats to keep cool. A cool machine is an efficient machine, so sweating makes the body more likely to survive a dangerous event

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Common (maladaptive) responses to anxiety

1. Runaway

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2. Anger

3. Freeze

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4. Control

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5. Other

- Cutting
- Drug use

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Anxiety disorders

- specific phobias
- social anxiety disorder
- separation anxiety disorder
- generalised anxiety disorder
- post-traumatic stress disorders
- obsessive compulsive disorder
- dissociative disorders
- panic disorders with/without agoraphobia
- agoraphobia
- anxiety disorder due to a medical condition (asthma, hyperthyroidism)
- substance-induced anxiety disorder
- anxiety disorder NOS
- selective mutism

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Separation anxiety = avoidance of separation +/- somatic symptoms

Phobia = anxiety + avoidance

PTSD = anxiety + intrusive thoughts + avoidance behaviour +/- dissociative symptoms

Social anxiety disorder = anxiety + avoidance behaviour (of people) + cognitive symptoms

Agoraphobia = anxiety + avoidance (marketplace)

Panic disorder = severe anxiety + somatic symptoms

OCD = obsessional anxiety +/- compulsions

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Menu

- Massage from mum
- Tell mum
- Exercise
- Bath
- Shower
- Read a book
- Tantrum (not a good idea
- …

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Stretch zone

Comfort zone

Danger zone

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Comfort zone

Stretch zone

Danger zone

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Anxiety spectrum

Major anxiety

Minor anxiety

Clinical anxiety

No anxiety

Clinical depression

Substance use
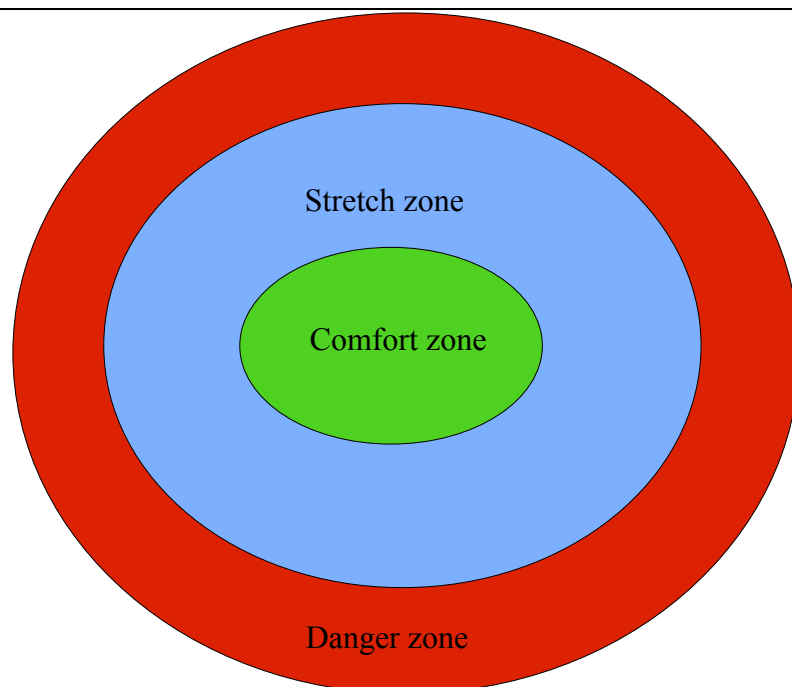
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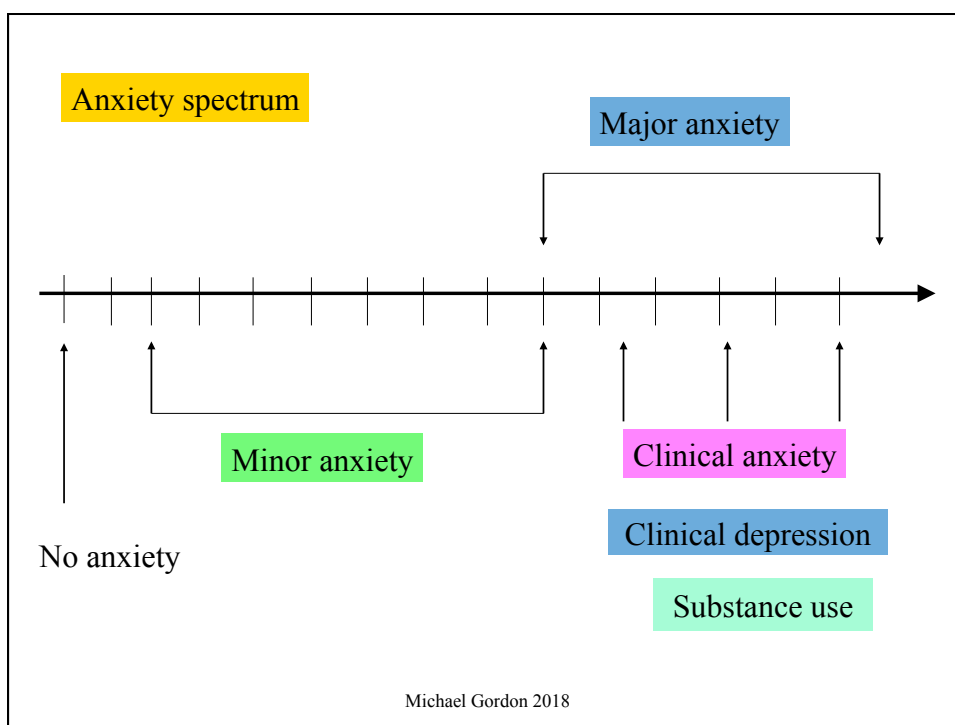
Symptoms that flag anxiety…

- Frequent school absences,
- Not attending school, frequently physically sick/ unwell, in sick bay
- Drop off in school performance,
- Won't present in front of the class,
- Capable but avoids presenting work,
- Excessively worried, excessive need for reassurance, unrealistic worries,
- Lots of physical symptoms (headache, tummy aches),
- Checking, washing, counting, touching.

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Anxiety disorders

- 5 to 10% prevalence in children and adolescents.
- 2.5 to 5% prevalence at any given time.
- Lifetime prevalence for anxiety disorders is 28.8%.
- Median age of onset is 11 years old (age of onset 5 – 20 years).
- Females twice the risk of males.

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Anxiety disorders

- Strong family aggregation.
- Heritability for anxiety disorders ranges from 20% to 65%.
- Early onset anxiety suggests a higher genetic basis.
- Heritability for depressive disorders is 40%.

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Anxiety disorders

- Runs a chronic, fluctuating course over many years.
- Anxiety disorders predict later anxiety, depression, externalising problems and substance use disorders.

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separation anxiety

Primary school
- Separation anxiety
- Specific phobias
- Generalised anxiety
- Post-traumatic stress disorder
- Obsessive compulsive disorder

High school
- Social phobia
- Separation anxiety
- Panic attacks
- Agoraphobia
- Post-traumatic stress disorder
- Obsessive compulsive disorder

Separation anxiety disorder

Inappropriate, excessive anxiety to do with separation from home, or mum and/or dad

- Recurrent excessive *distress when separated* mum or dad
- persistent excessive worry about *losing* or harm to mum or dad excessive worry untoward event will lead to *separation* from mum or dad
- *school refusal*
- *reluctance to be alone* without mum or dad
- refusal to go to sleep without mum or dad *repeated nightmares* involving themes of separation
- *somatic complaints* (headaches, stomach-aches, nausea, vomiting)

> 4 weeks duration, onset before 18 years old

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Separation anxiety treatment issues

- fear of abandonment
- anxiety about change
- attempt to control of environment by child
- the world is a dangerous, changing place

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Social Anxiety Disorder

- Marked fear in social situations
- Anxiety occurs in peer settings (not just interactions with adults).
- Anxiety in social situations
  - Having a conversation with unfamiliar people
  - Giving a speech
  - Presenting in front of the class
- In children may see crying, tantrums, freezing, shrinking, failure to speak in social situations.

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Social Anxiety Disorder

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Social anxiety

- anticipatory anxiety of the feared situation.
- Social situations avoided or endured with intense fear or anxiety.
- Fear out of proportion to the actual threat posed by the social situation.
- Anxiety lasts 6 months or more.

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Panic disorder

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Panic disorder

- Lifetime prevalence 2.3%.
- Onset very uncommon in pre-pubertal children, but increases sharply in adolescence and adult life.
- Associated with marked impairment in functioning.
- Heritability ~ 40%.
- Dysfunction in brain network associated with fear response (amygdala, brainstem, hypothalamus, hippocampus).

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Panic disorder

- Sudden onset severe anxiety
- Intense fear of dying, going crazy
- With physical symptoms; e.g. racing heart, flushing, headache, jelly legs, numbness, over-breathing

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Anxiety disorders bring their friends

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Anxiety and its co-morbidity …

- Other anxiety disorders (40 to 60%)
- Affective disorder (50% to 60%)
- Disruptive behaviour disorders e.g. Attention Deficit Hyperactivity Disorder, Oppositional Defiant Disorder (25 to 33%).
- Substance use?
- Somatoform disorders
- Eating disorders

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Anxiety ←———— 45% ————→ Depression

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What is depression?

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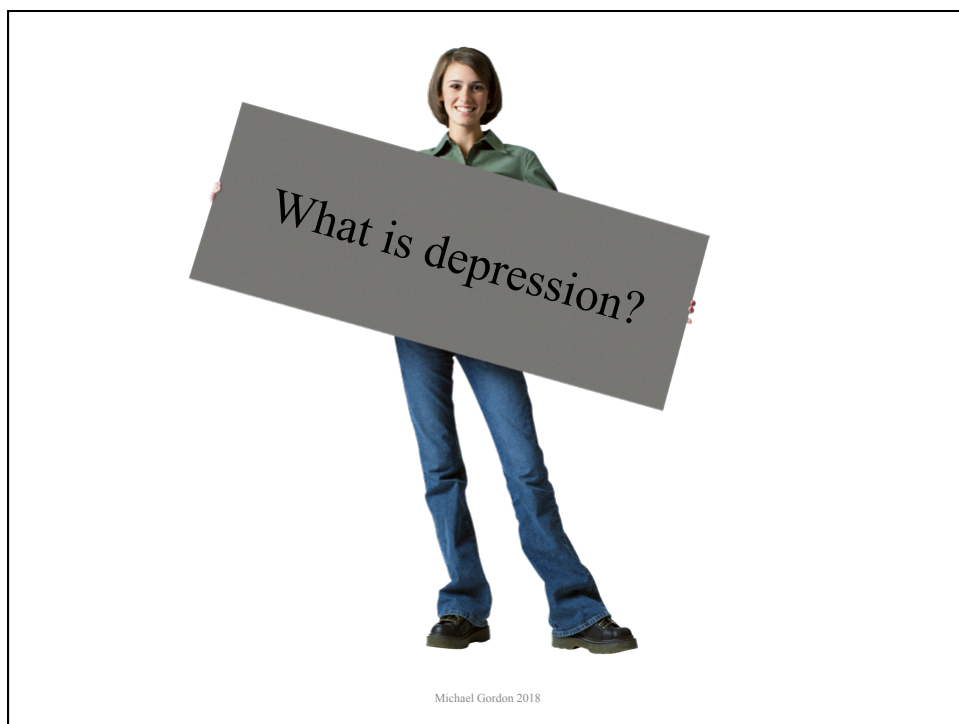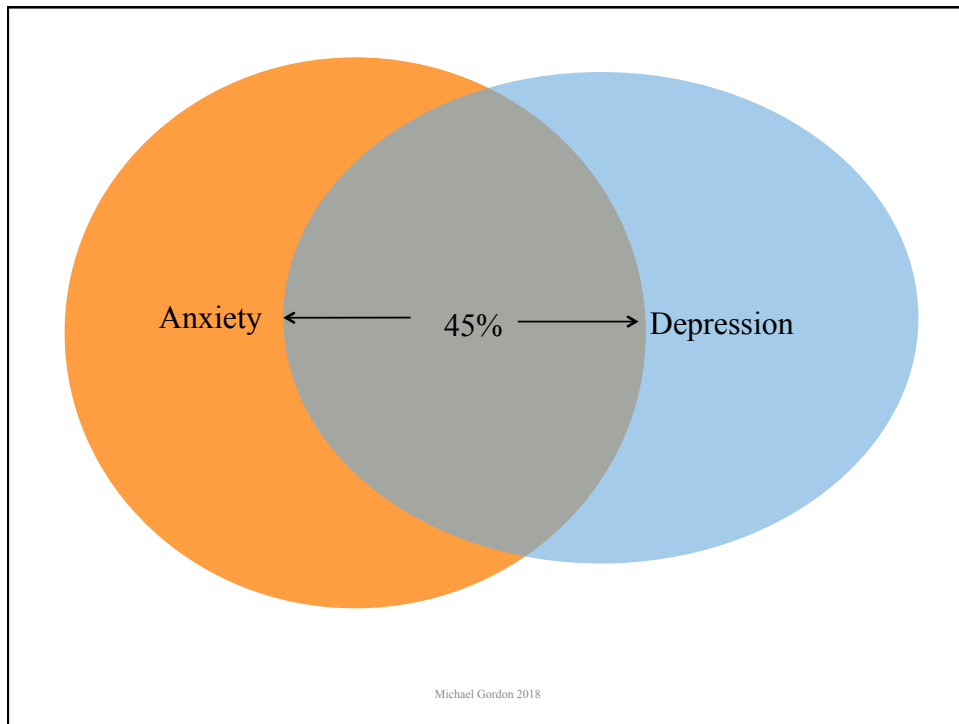
Symptoms that might flag depression…

- Withdrawn into their room, withdrawal from friends
- Prolonged sadness, cranky, moody, increase in anger
- Loss of appetite, loss of weight, increase in appetite (comfort eating)
- Hard to concentrate,
- Drop off in school marks
- Poor self-esteem
- Guilty thoughts
- Suicidal thoughts, self-harm
- Can't see things getting better in the future

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Mood Symptoms

Irritability, lowered mood, loss of pleasure, withdrawal

Biological Symptoms

Sleep disturbance, weight change, appetite change,

Psychological Symptoms

Worthlessness, guilt, lethargy suicidal ideas, plans, attempts

Depressive Symptoms

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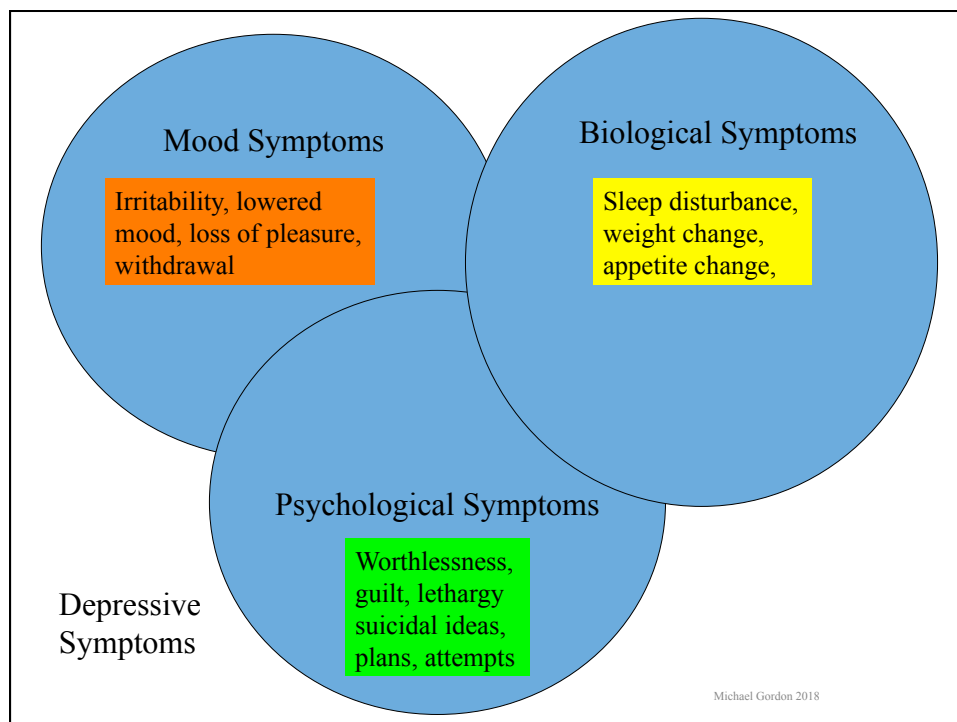
Depression - epidemiology

Major depression is
- < 1% pre-schoolers
- 2% school aged children (Male/Female =1:1)
- 5 to 9% adolescents (M/F=1:2)
- 10 to 20% adults (M/F=1:2)

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Depressive disorders

- Runs an episodic course, often arising in adolescence.
- Lasts 8 months clinically and 1 to 2 months non-clinical adolescents.
- Major depression remits (i.e. it goes away) in 80 to 90%, BUT in half it comes back later in adolescence or adult life.

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Heritability

• Heritability for depressive disorders is 40%.

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Genetics - Heritability

• **Major Depressive Disorder 40%**
• Panic Disorder 40 - 50%
• Alcohol Dependence 50 – 60%
• Anorexia Nervosa 55%
• Bulimia Nervosa 60%
• Obsessive Compulsive Disorder 60 – 70%
• Bipolar Affective Disorder 60-85%
• Schizophrenia 70-85%
• Autism 90%

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Depression also exists on a continuum

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Depressive Spectrum

Major depression

Minor depression

Suicidal ideas

No depression

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131

Fig. 1 Course of adolescent major depression. *No depressive symptoms for over 2 months.

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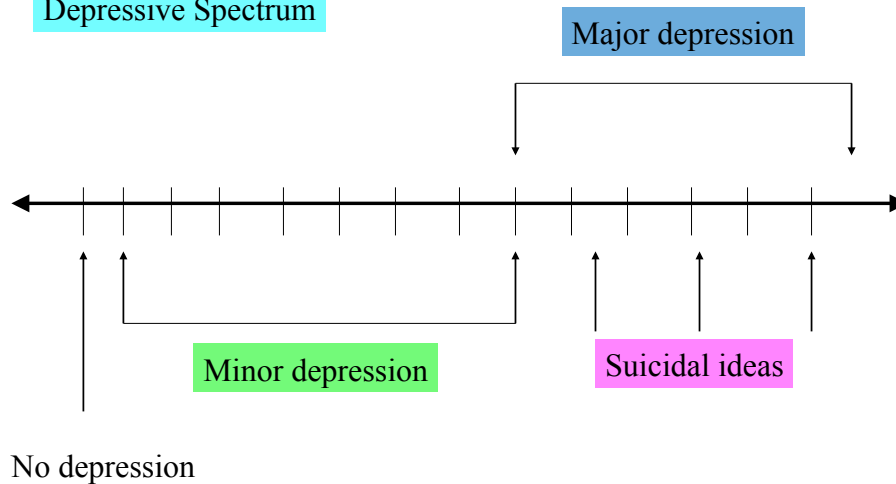
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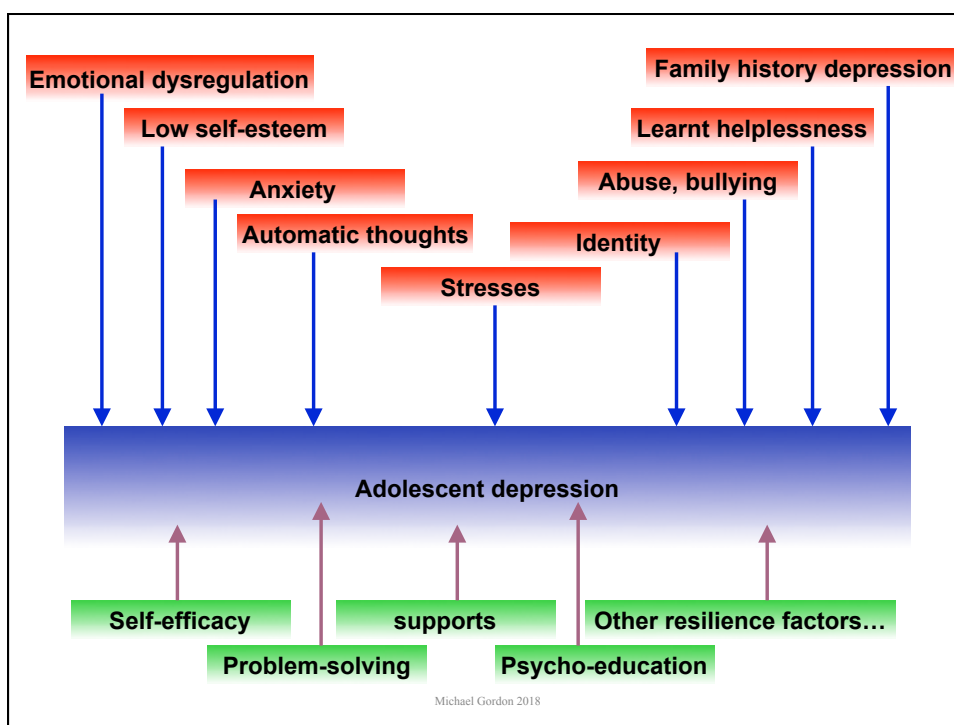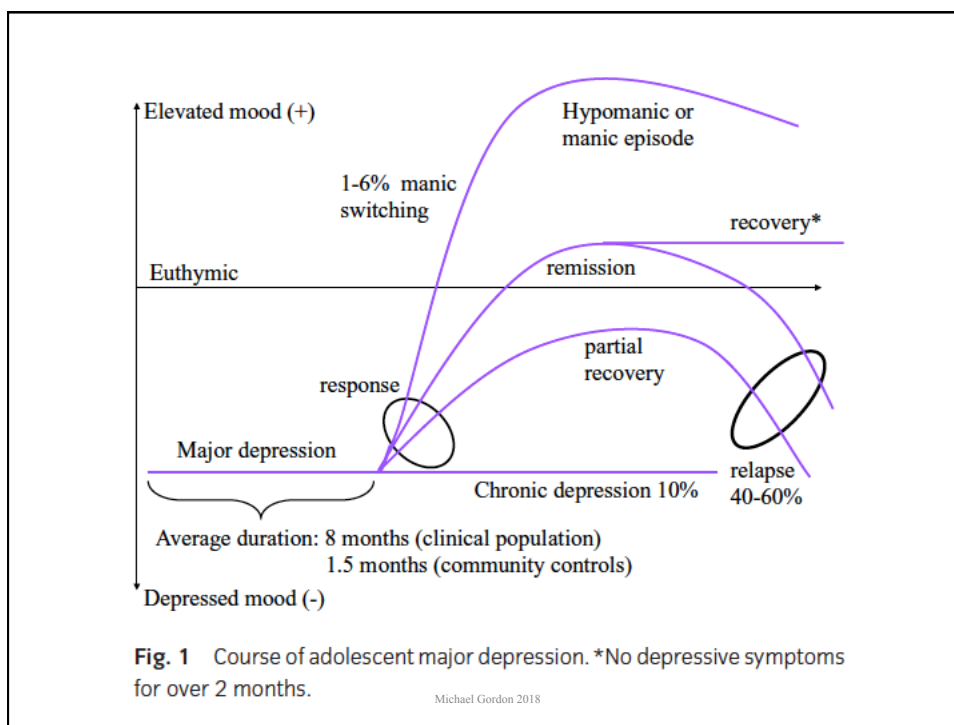
Thoughts
on management
of
psychological
problems
in school

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Failure of school attendance

School factors

- policies and procedures about attendance, including inconsistent attendance policies and lack of meaningful consequences for students of inappropriate absence

- student behaviour management; school's expectations of students (for example, workload, testing, performance); levels of school support for students and relationship with teachers; attitudes of teachers, students, and administrators

- ability to engage the diverse cultures and learning styles of students

- teaching quality (DEEWR, 2006)

- the response by schools to monitoring attendance and intervening when issues arise for a student is critical to ensuring attendance rates remain high

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School policy

- Developing a policy so that it will be used
- Implementation & review
- School wide
  - Every day counts
  - Recording & <u>monitoring</u> attendance
  - Setting attendance goals, letting school community know

- School refusal specific
  - When will letters be sent and meeting scheduled?
  - Role of home visits?
  - Supporting students in the morning/re-entering class
  - Contact person for the family
  - Maintaining contact and how that contact will take place
  - What are your referral pathways?

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School policy

- Limited good data…but some ideas
- Early detection
- Education of parents about
  - authorised vs non-authorised absences and the difference between them
  - attendance every day is expected
- Screening for non-attendance at entry to school/service
- "Connectedness" and engagement of students

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Table 6: Overview of the evidence for attendance strategies

Some evidence	Inconclusive results	No Evidence	Not tested
• Relationship-building • Contacting parents regarding absenteeism • Incentives for parental responsibility • Including parents in truancy prevention activities • Strong and clear attendance policies • Family counselling • Intensive school interventions • Ongoing truancy prevention programs • School staff trained, committed, and supported	• Rewards and/or incentives for attendance • Peer group counselling • Probation officers devoted to truancy cases • Financial sanctions against families	• Wearing school uniforms decreases absenteeism	• Publicising good attendance • Make-up work for absentees • Involving truants in extracurricular activities • Creating a pleasant classroom environment, classroom attendance reward system, and individualising student work • Letters from the principal to the parents • Alternative scheduling • Attendance contracts • Individual, group and family counselling • Testing for learning problems • Home visits by school or community staff • Police sweeps of frequent neighbourhood hangouts • Media campaigns

(Gerrard et al, 2003)

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Lack of school engagement

Child reported that they
- Didn't enjoy going to school
- School work was not meaningful
- Things I learnt at school was not important
- Courses at school were not important
- Engagement in limited (or nil) extracurricular and school based activities
- Teachers didn't tell me I was doing a good job
- Poor grades

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Prevention and school-wide process

- Behaviour management e.g., bullying
- "If you don't set a target, you'll never get there" – QLD Principal
- Mentorship programs
- Well-being focus to curriculum
- Engagement of local business (e.g., restrict access to shops during school day; engage businesses/agencies in supporting school – engagement and consistent message about importance of attendance).

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Scales for school refusal

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Assessment

Assessment

- Interview, collateral history
  - Stresses
  - Temperament (what was your child like at 6 months & at 4 years old?)
  - Family history (depression and anxiety)
- Questionnaires

Anxiety questionnaires

- Screen for Child Anxiety Related Disorders (SCARED)
- Screen for Child Anxiety Related Disorders-Revised (SCARED-R)
- Liebowitz Social Anxiety Scale
- Yale-Brown Obessive Compulsive Scale – child version (CY-YBOCS)
- School Refusal Assessment Scale (Kearney & Silverman, 1993)
  Revised (Kearney, 2002)
- Self-Efficacy Questionnaire for School Situations (SEQ-SS) (Heyne et al, 1998)
- Fear Thermometer

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Screen for Child Anxiety Related Disorders (SCARED)
Child Version—Pg. 1 of 2 (To be filled out by the CHILD)

Name: _____

Date: _____

Directions:
Below is a list of sentences that describe how people feel. Read each phrase and decide if it is "Not True or Hardly Ever True" or "Somewhat True or Sometimes True" or "Very True or Often True" for you. Then for each sentence, fill in one circle that corresponds to the response that seems to describe you for the last 3 months.

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True
1. When I feel frightened, it is hard to breathe.	O	O	O
2. I get headaches when I am at school.	O	O	O
3. I don't like to be with people I don't know well.	O	O	O
4. I get scared if I sleep away from home.	O	O	O
5. I worry about other people liking me.	O	O	O
6. When I get frightened, I feel like passing out.	O	O	O
7. I am nervous.	O	O	O
8. I follow my mother or father wherever they go.	O	O	O
9. People tell me that I look nervous.	O	O	O
10. I feel nervous with people I don't know well.	O	O	O
11. I get stomachaches at school.	O	O	O
12. When I get frightened, I feel like I am going crazy.	O	O	O
13. I worry about sleeping alone.	O	O	O
14. I worry about being as good as other kids.	O	O	O
15. When I get frightened, I feel like things are not real.	O	O	O
16. I have nightmares about something bad happening to my parents.	O	O	O
17. I worry about going to school.	O	O	O
18. When I get frightened, my heart beats fast.	O	O	O
19. I get shaky.	O	O	O
20. I have nightmares about something bad happening to me.	O	O	O

Screen for Child Anxiety Related Disorders (SCARED)
Parent Version—Pg. 1 of 2 (To be filled out by the PARENT)

Name: _____

Date: _____

Directions:
Below is a list of statements that describe how people feel. Read each statement carefully and decide if it is "Not True or Hardly Ever True" or "Somewhat True or Sometimes True" or "Very True or Often True" for your child. Then for each statement, fill in one circle that corresponds to the response that seems to describe your child for the last 3 months. Please respond to all statements as well as you can, even if some do not seem to concern your child.

	0 Not True or Hardly Ever True	1 Somewhat True or Sometimes True	2 Very True or Often True
1. When my child feels frightened, it is hard for him/her to breathe.	O	O	O
2. My child gets headaches when he/she is at school.	O	O	O
3. My child doesn't like to be with people he/she doesn't know well.	O	O	O
4. My child gets scared if he/she sleeps away from home.	O	O	O
5. My child worries about other people liking him/her.	O	O	O
6. When my child gets frightened, he/she feels like passing out.	O	O	O
7. My child is nervous.	O	O	O
8. My child follows me wherever I go.	O	O	O
9. People tell me that my child looks nervous.	O	O	O
10. My child feels nervous with people he/she doesn't know well.	O	O	O
11. My child gets stomachaches at school.	O	O	O
12. When my child gets frightened, he/she feels like he/she is going crazy.	O	O	O
13. My child worries about sleeping alone.	O	O	O
14. My child worries about being as good as other kids.	O	O	O
15. When he/she gets frightened, he/she feels like things are not real.	O	O	O
16. My child has nightmares about something bad happening to his/her parents.	O	O	O
17. My child worries about going to school.	O	O	O
18. When my child gets frightened, his/her heart beats fast.	O	O	O
19. He/she gets shaky.	O	O	O
20. My child has nightmares about something bad happening to him/her.	O	O	O

Screen for Child Anxiety Related Emotional Disorders-Revised (SCARED-R) – Child Version

Instruction
Below, you will find a number of statements, which refer to children's fears and anxiety. Please read each statement carefully and indicate how frequently you have experienced that symptom during the last 3 months: never or almost never, sometimes, or often.

		0 Never or almost never	1 Sometimes	2 Often
1.	When I feel frightened, it is hard to breathe	O	O	O
2.	I am afraid of heights	O	O	O
3.	I get headaches or bellyaches when I am at school	O	O	O
4.	I don't like to be with unknown people	O	O	O
5.	When I see blood, I get dizzy	O	O	O
6.	I want things to be in a fixed order	O	O	O
7.	I get scared when I sleep away from home	O	O	O
8.	I worry about others not liking me	O	O	O
9.	When I get frightened, I feel like passing out	O	O	O
10.	I think that I will be contaminated with a serious disease	O	O	O
11.	I am nervous	O	O	O
12.	I have strange thoughts that frighten me	O	O	O
13.	I follow my mother or father wherever they go	O	O	O
14.	People tell me that I look nervous	O	O	O
15.	I feel nervous with people I don't know well	O	O	O
16.	I am afraid to visit the doctor	O	O	O
17.	I don't like going to school	O	O	O
18.	When I get frightened, I feel like I am going crazy	O	O	O
19.	I worry about sleeping alone	O	O	O
20.	I am afraid to visit the dentist	O	O	O
21.	I worry about being as good as other kids	O	O	O
22.	I am afraid of an animal that is not really dangerous	O	O	O
23.	I get scared when there is thunder in the air	O	O	O
24.	I do things more than twice in order to check whether I did it right	O	O	O
25.	I have frightening dreams about a very aversive event I once experienced	O	O	O
26.	I want things to be clean and tidy	O	O	O
27.	When I get frightened, it feels like things are not real	O	O	O
28.	I would feel scared if I had to fly in an aeroplane	O	True	O
29.	I have nightmares about something bad happening to my parents	O	O	O
30.	I worry about going to school	O	O	O
31.	I perform rituals that help me to get less scared of my thoughts	O	O	O
32.	When I feel frightened, my heart beats fast	O	O	O
33.	I am scared when I get an injection	O	O	O
34.	I am afraid of getting a serious disease	O	O	O
35.	I feel weak and shaky	O	O	O
36.	I have nightmares about something bad happening to me	O	O	O

(SCARED-R Child Version – continued)

		0 Never or almost never	1 Sometimes	2 Often
37.	I am so scared of a harmless animal that I do not dare to touch it	O	O	O
38.	I worry about things working out for me	O	O	O
39.	I doubt whether I really did something	O	O	O
40.	When I get frightened, I sweat a lot	O	O	O
41.	I am a worrier	O	O	O
42.	I feel scared when I watch a medical operation on TV	O	O	O
43.	I try not to think about a very aversive event I once experienced	O	O	O
44.	Suddenly I get really frightened for no reason at all	O	O	O
45.	I am afraid to be alone in the house	O	O	O
46.	I get scared when I think back of a very aversive event I once experienced	O	O	O
47.	It is hard for me to talk with unfamiliar people	O	O	O
48.	When I get frightened, I feel like I am chocking	O	O	O
49.	People tell me that I worry too much	O	O	O
50.	I don't like to be away from my family	O	O	O
51.	I am afraid of having anxiety (or panic) attacks	O	O	O
52.	I worry that something bad might happen to my parents	O	O	O
53.	I feel shy with people I don't know well	O	O	O
54.	I have unwanted thoughts about hurting other people	O	O	O
55.	I worry about what is going to happen in the future	O	O	O
56.	When I get frightened, I feel like throwing up	O	O	O
57.	I worry about how well I do things	O	O	O
58.	I am scared to go to school	O	O	O
59.	I worry about things that happened in the past	O	O	O
60.	When I feel frightened, I get dizzy	O	O	O
61.	I get scared in small, closed places	O	O	O
62.	I have strange, scary thoughts that I prefer not to have	O	O	O
63.	I am afraid of the dark	O	O	O
64.	I have unbidden thoughts about a very aversive event I once experienced	O	O	O
65.	I am afraid of an animal that most children do not fear	O	O	O
66.	I don't like being in a hospital	O	O	O
67.	I feel nervous when I am with other children or adults and I have to do something while they watch me (for example: read aloud, speak, play a game, play a sport)	O	O	O
68.	I feel nervous when I am going to parties, dances, or any place where there will people that I don't know well	O	O	O
69.	I am shy	O	O	O

Scoring

A total anxiety symptoms score can be obtained by summing the ratings across all items.
Items 1, 9, 14, 18, 27, 32, 35, 40, 44, 48, 51, 56, and 60 = Panic disorder
Items 2, 23, 28, 61, and 63 = Specific phobia, situational/environmental type
Items 3, 17, 30, and 58 = School phobia
Items 4, 15, 47, 53, 67, 68, and 69 = Social phobia
Items 5, 16, 20, 33, 34, 42, and 66 = Specific phobia, blood-injection-injury type
Items 6, 10, 12, 24, 26, 31, 39, 54, and 62 = Obsessive-compulsive disorder
Items 7, 13, 19, 29, 36, 45, 50, and 52 = Separation anxiety disorder
Items 8, 11, 21, 38, 41, 49, 55, 57, and 59 = Generalised anxiety disorder
Items 22, 37, and 65 = Specific phobia, animal type

Liebowitz Social Anxiety Scale Liebowitz MR. Social Phobia. Mod Probl Pharmacopsychiatry 1987;22:141-173

Fear or Anxiety:
0 = None
1 = Mild
2 = Moderate
3 = Severe

Avoidance:
0 = Never (0%)
1 = Occasionally (1—33%)
2 = Often (33—67%)
3 = Usually (67—100%)

	Fear or Anxiety	Avoidance	
1. Telephoning in public. (P)			1.
2. Participating in small groups. (P)			2.
3. Eating in public places. (P)			3.
4. Drinking with others in public places. (P)			4.
5. Talking to people in authority. (S)			5.
6. Acting, performing or giving a talk in front of an audience. (P)			6.
7. Going to a party. (S)			7.
8. Working while being observed. (P)			8.
9. Writing while being observed. (P)			9.
10. Calling someone you don't know very well. (S)			10.
11. Talking with people you don't know very well. (S)			11.
12. Meeting strangers. (S)			12.
13. Urinating in a public bathroom. (P)			13.
14. Entering a room when others are already seated. (P)			14.
15. Being the center of attention. (S)			15.
16. Speaking up at a meeting. (P)			16.
17. Taking a test. (P)			17.
18. Expressing a disagreement or disapproval to people you don't know very well. (S)			18.
19. Looking at people you don't know very well in the eyes. (S)			19.
20. Giving a report to a group. (P)			20.
21. Trying to pick up someone. (P)			21.
22. Returning goods to a store. (S)			22.
23. Giving a party. (S)			23.
24. Resisting a high pressure salesperson. (S)			24.

CY-BOCS Symptom Checklist

Children's Yale-Brown Obsessive Compulsive Scale

Administering the CY-BOCS Symptom Checklist and CY-BOCS Severity Ratings

1. Establish the diagnosis of obsessive compulsive disorder.
2. Using the CY-BOCS Symptom Checklist (below), ascertain current and past symptoms.
3. Next, administer the 10-item severity ratings (other form) to assess the severity of the OCD during the last week.
4. Readminister the CY-BOCS Severity Rating Scale to monitor progress.

Patient_____ Date_____

CY-BOCS Obsessions Checklist
Check all symptoms that apply (Items marked "*" may or may not be OCD Phenomena)

Contamination Obsessions
- Concern with dirt, germs, certain illnesses (e.g., AIDS)
- Concerns or disgust with bodily waste or secretions (e.g., urine, feces, saliva)
- Excessive concern with environmental contaminants (e.g., asbestos, radiation, toxic waste)
- Excessive concern with household items (e.g., cleaners, solvents)
- Excessive concerns about animals/insects
- Excessively bothered by sticky substances or residues
- Concerned will get ill because of contaminant
- Concerned will get others ill by spreading contaminant (aggressive)
- No concern with consequences of contamination other than how it might feel*
- Other (describe)_____

Aggressive Obsessions
- Fear might harm self
- Fear might harm others
- Fear harm will come to self
- Fear harm will come to others (maybe because of something child did or did not do)
- Violent or horrific images
- Fear of blurting out obscenities or insults
- Fear of doing something else embarrassing*
- Fear will act on unwanted impulses (e.g. to stab a family member)
- Fear will steal things
- Fear will be responsible for something else terrible happening (e.g., fire, burglary, flood)
- Other (describe)_____

Sexual Obsessions
- Forbidden or perverse sexual thoughts, images, impulses
- Content involves homosexuality*
- Sexual behavior towards others (aggressive)
- Other (describe)_____

Hoarding/Saving Obsessions
- Fear of losing things
- Other (describe)_____

Magical Thoughts / Superstitious Obsessions
- Lucky/unlucky numbers, colors, words
- Other (describe)_____

Somatic Obsessions
- Excessive concern with illness or disease*
- Excessive concern with body part or aspect of appearance (e.g., dysmorphophobia) *
- Other (describe)_____

Religious Obsessions (Scrupulosity)
- Excessive concern or fear of offending religious objects
- Excessive concern with right/wrong, morality
- Other (describe)_____

Miscellaneous Obsessions
- The need to know or remember
- Fear of saying certain things
- Fear of not saying just the right thing
- Intrusive (non-violent) images
- Intrusive sounds, words, music or numbers
- Other (describe)_____

Screening Question for Obsessions:
"Do you have unwanted ideas, images or impulses that seem silly, nasty or horrible?"

More Detailed Questions To Elicit Specific Obsessions:

1. "Do you worry excessively about dirt, germs or chemicals?"

2. "Are you constantly concerned that harm will occur because you have left something important undone - like locking the door or windows or turning off appliances?"

3. "Do you fear you will act or speak aggressively when you really don't want to?"

4. "Are you always afraid you will lose something of importance?"

If some *obsessions* are evident, determine the severity by using the rating scale below and similarly rate *compulsions* on the reverse side of this page.

OBSESSION RATING SCALE
Circle appropriate score

Item		None	Mild	Moderate	Severe	Extreme
1.	Time spent on Obsessions	0 hrs/day	0-1	1-3	3-8	>8
	Score	0	1	2	3	4
2.	Interference from Obsessions	None	Mild	Manageable	Severe	Incapacitating
	Score	0	1	2	3	4
3.	Distress from Obsessions	None	Mild	Moderate	Severe	Disabling
	Score	0	1	2	3	4
4.	Resistance	Always resists	Much resistance	Some resistance	Often yields	Completely yields
	Score	0	1	2	3	4
5.	Control over Obsessions	Complete control	Much control	Moderate control	Little control	No control
	Score	0	1	2	3	4

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Obsession subtotal (add items 1-5) [ ]

Child version of the School Refusal Assessment Scale–Revised

1. How often do you have bad feelings about going to school because you are afraid of something related to school (for example, tests, school bus, teacher, fire alarm)? (1)
2. How often do you stay away from school because it is hard to speak with the other kids at school? (2)
3. How often do you feel you would rather be with your parents than go to school? (3)
4. When you are not in school during the week (Monday to Friday), how often do you leave the house and do something fun? (4)
5. How often do you stay away from school because you will feel sad or depressed if you go? (1)
6. How often do you stay away from school because you feel embarrassed in front of other people at school? (2)
7. How often do you think about your parents or family when in school? (3)
8. When you are not in school during the week (Monday to Friday), how often do you talk to or see other people (other than your family)? (4)
9. How often do you feel worse at school (for example, scared, nervous, or sad) compared to how you feel at home with friends? (1)
10. How often do you stay away from school because you do not have many friends there? (2)
11. How much would you rather be with your family than go to school? (3)
12. When you are not in school during the week (Monday to Friday), how much do you enjoy doing different things (for example, being with friends, going places)? (4)
13. How often do you have bad feelings about school (for example, scared, nervous, or sad) when you think about school on Saturday and Sunday? (1)
14. How often do you stay away from certain places in school (eg, hallways, places where certain groups of people are) where you would have to talk to someone? (2)
15. How much would you rather be taught by your parents at home than by your teacher at school? (3)
16. How often do you refuse to go to school because you want to have fun outside of school? (4)
17. If you had less bad feelings (for example, scared, nervous, sad) about school, would it be easier for you to go to school? (1)
18. If it were easier for you to make new friends, would it be easier for you to go to school? (2)
19. Would it be easier for you to go to school if your parents went with you? (3)
20. Would it be easier for you to go to school if you could do more things you like to do after school hours (for example, being with friends)? (4)
21. How much more do you have bad feelings about school (for example, scared, nervous, or sad) compared to other kids your age? (1)
22. How often do you stay away from people at school compared to other kids your age? (2)
23. Would you like to be home with your parents more than other kids your age would? (3)
24. Would you rather be doing fun things outside of school more than most kids your age? (4)

SCHOOL REFUSAL ASSESSMENT SCALE-REVISED (C)

Name: _____

Age: _____

Date: _____

Please circle the answer that best fits the following questions:

1. How often do you have bad feelings about going to school because you are afraid of something related to school (for example, tests, school bus, teacher, fire alarm)?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

2. How often do you stay away from school because it is hard to speak with the other kids at school?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

3. How often do you feel you would rather be with your parents than go to school?

https://www.dupage.k12.il.us/districts/services/pdf/School%20Refusal%20Scale%20parent%20and%20child_3.pdf

3. How often do you feel you would rather be with your parents than go to school?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

4. When you are not in school during the week (Monday to Friday), how often do you leave the house and do something fun?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

5. How often do you stay away from school because you will feel sad or depressed if you go?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

6. How often do you stay away from school because you feel embarrassed in front of other people at school?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

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Parent version of the School Refusal Assessment Scale–Revised

1. How often does your child have bad feelings about going to school because he/she is afraid of something related to school (for example, tests, school bus, teacher, fire alarm)? (1)
2. How often does your child stay away from school because it is hard for him/her to speak with the other kids at school? (2)
3. How often does your child feel he/she would rather be with you or your spouse than go to school? (3)
4. When your child is not in school during the week (Monday to Friday), how often does he/she leave the house and do something fun? (4)
5. How often does your child stay away from school because he/she will feel sad or depressed if he/she goes? (1)
6. How often does your child stay away from school because he/she feels embarrassed in front of other people at school? (2)
7. How often does your child think about you or your spouse or family when in school? (3)
8. When your child is not in school during the week (Monday to Friday), how often does he/she talk to or see other people (other than his/her family)? (4)
9. How often does your child feel worse at school (for example, scared, nervous, or sad) compared to how he/she feels at home with friends? (1)
10. How often does your child stay away from school because he/she does not have many friends there? (2)
11. How much would your child rather be with his/her family than go to school? (3)
12. When your child is not in school during the week (Monday to Friday), how much does he/she enjoy doing different things (for example, being with friends, going places)? (4)
13. How often does your child have bad feelings about school (for example, scared, nervous, or sad) when he/she thinks about school on Saturday and Sunday? (1)
14. How often does your child stay away from certain places in school (eg, hallways, places where certain groups of people are) where he/she would have to talk to someone? (2)
15. How much would your child rather be taught by you or your spouse at home than by his/her teacher at school? (3)
16. How often does your child refuse to go to school because he/she wants to have fun outside of school? (4)
17. If your child had less bad feelings (for example, scared, nervous, sad) about school, would it be easier for him/her to go to school? (1)
18. If it were easier for your child to make new friends, would it be easier for him/her to go to school? (2)
19. Would it be easier for your child to go to school if you or your spouse went with him/her? (3)
20. Would it be easier for your child to go to school if he/she could do more things he/she likes to do after school hours (for example, being with friends)? (4)
21. How much more does your child have bad feelings about school (for example, scared, nervous, or sad) compared to other kids his/her age? (1)
22. How often does your child stay away from people at school compared to other kids his/her age? (2)
23. Would your child like to be home with you or your spouse more than other kids his/her age would? (3)
24. Would your child rather be doing fun things outside of school more than most kids his/her age? (4)

School refusal assessment scale - revised

Items are scored on a 0-6 scale:

0 – never

1 – seldom

2 – sometimes

3 – half the time

4 – usually

5 - almost always

6 - always

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School refusal assessment scale - revised

(1) Avoidance of school-related stimuli that provoke a sense of negative affectivity

(2) Escape aversive social and/or evaluative situations

(3) Pursuit of attention from significant others

(4) Pursuit of tangible reinforcers outside of the school

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SCHOOL REFUSAL ASSESSMENT SCALE-REVISED (P)

Name: _____

Age: _____

Date: _____

Please circle the answer that best fits the following questions:

1. How often does your child have bad feelings about going to school because he/she is afraid of something related to school (for example, tests, school bus, teacher, fire alarm)?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

2. How often does your child stay away from school because it is hard for him/her to speak with the other kids at school?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

3. How often does your child feel he/she would rather be with you or your spouse than go to school?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

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Self-Efficacy Questionnaire for School Situations (SEQ-SS) (Heyne et al, 1998)

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SCHOOL REFUSAL ASSESSMENT SCALE-REVISED (C)

Name: _____

Age: _____

Date: _____

Please circle the answer that best fits the following questions:

1. How often do you have bad feelings about going to school because you are afraid of something related to school (for example, tests, school bus, teacher, fire alarm)?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

2. How often do you stay away from school because it is hard to speak with the other kids at school?

Never	Seldom	Sometimes	Half the Time	Usually	Almost Always	Always
0	1	2	3	4	5	6

3. How often do you feel you would rather be with your parents than go to school?

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Fear thermometer
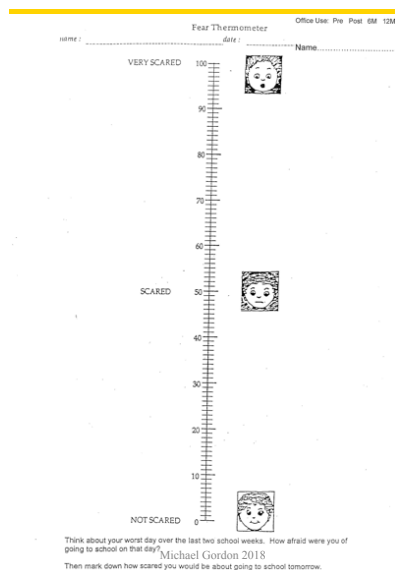
Depression questionnaires

- Children's Depression Inventory (CDI)
- Beck Depression Inventory (BDI)
- Centre for Epidemiologic Studies Depression Scale (CES-D)
- Mood and Feelings Questionnaire (MFQ)
- Mood and Feelings Questionnaire short form (SMFQ)

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Centre for Epidemiologic Studies Depression Scale (CES-D)

- 20-items
- Rated 0 to 3
- Used in adolescents
- Score of ≥ 16 equates with depression
- Free inventory
- *www.depression-help-resource.com/**cesd**-depression-test.pdf*

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Center for Epidemiologic Studies Depression Scale (CES-D)

Date: _____

Below is a list of some of the ways you may have felt or behaved. Please indicate how often you've felt this way during the **past week**. Respond to all items.

Place a check mark (✓) in the appropriate column. During the past week...	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of time (3-4 days)	All of the time (5-7 days)
1. I was bothered by things that usually don't bother me.				
2. I did not feel like eating; my appetite was poor.				
3. I felt that I could not shake off the blues even with help from my family.				
4. I felt that I was just as good as other people.				
5. I had trouble keeping my mind on what I was doing.				
6. I felt depressed.				
7. I felt that everything I did was an effort.				
8. I felt hopeful about the future.				
9. I thought my life had been a failure.				
10. I felt fearful.				

Mood and Feelings Questionnaire (MFQ)

- Self-report and parent report
- 32-item, 13-item (short form)
- 3-point scale with responses (not true, sometimes true, not true)
- Scores of ≥ 11 SMFQ equated with the top 6% of depressed kids
- free from
  http://devepi.duhs.duke.edu/mfq

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	items	cut-off score (depression is this score or higher)	
Mood and Feelings Questionnaire cut-off scores			
MFQ-C (child)			
Wood et al	32	27	
Daviss et al	33	29	discriminated MDE (major depressive episode)
Daviss et al	33	20	any mood disorder
Kent et al	33	31	discriminated major from minor depression
Kent et al	33	30	discriminated major from all other diagnoses
MFQ-P (parent)			
Wood et al	32	21	
Daviss et al	34	27	discriminated MDE
Daviss et al		21	any mood disorder
Kent et al		17	discriminated major from minor depression
Kent et al		17	discriminated major from all other diagnoses
MFQ-average (parent+child/2)			
Daviss et al		32	discriminated MDE
Daviss et al		22	any mood disorder

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150

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<u>Understanding, Treating and Managing School Refusal.</u>

Presenter: A/Professor Michael Gordon (Feb 2018)

</div>

GENERAL INFORMATION

➢ <u>**KEY MESSAGE**</u>**: Treatment for school refusal is school (exposure) attendance.**

o Not a lot of research or information on school refusal. School refusal rates: 1–2% of all school-aged children (McShane, Walter & Rey 2001).

o School refusal is a behaviour, not a diagnosis. No easy fix and often a complex set of factors involved.

o In some studies, with best practice, approximately 30-50% of students will return to school however in older students (grade >9) approximately 50% won't return to school. "If you are getting half the kids back to school (in the latter years) you are doing VERY well". If students don't return to school, then life outcomes are poor.

o 3 peaks of school refusal, usually around transition points: -
      - starting school
      - grade 5-7
      - $\geq$ grade 9.

o A spectrum disorder (e.g. from missing school camps to not attending school at all).   Where school days are being consistently missed, then it should be viewed as a semi-emergency. The longer it goes on for, the less likely it is to remit so it is important to identify early. Many schools are not aware of the problem until it has gone on for some time.

TYPES OF SCHOOL REFUSAL

➢ **Reasons for not being at school helps us to understand required treatment.**

o **Medical**: diabetes, asthma etc.

o **Parent sanctioned**: statistics are unknown. Includes parent-condoned reasons for not being at school such as family holidays, religious events, poor limit setting etc.

o **Exclusion**: due to problematic behaviour. Inability to attend due to a lack of resources to manage the child in the school setting. Experienced by ~10% students with disabilities (intellectual or severe behaviour/emotional issues).

o **Truancy**: Staying away from school without reason and often associated with externalising behaviours e.g. oppositional defiant disorder, ADHD & conduct disorder. Considered a complex & heterogeneous group. Rates range from 5-27% as an estimate. Mean age of onset for truant school refusers: 14.7 years.

o **Classic School Refusal**: Associated with internalising disorders. Defined as a severe difficulty attending school, severe emotional upset, at home with parents' knowledge, absence of antisocial characteristics, reasonable efforts by parents to enforce attendance.
    ▪ Often results in prolonged school absence. Symptoms include excessive fearfulness, temper tantrums, somatic complains without obvious organic cause when faced with the prospect of

going to school. Causes much distress to parents and school personnel. Poses serious problems for the child's future development.

- Factors in school refusal:
  - Individual [anxiety (social), fear of failure, low self-efficacy, poor coping skills, physical illness may start but does not maintain it].
  - Family [separation, divorce, parental mental illness, overprotective (enmeshed) parents, dysfunctional family].
  - School [bullying, transitions, structure of the school day].
  - Community factors [inconsistent professional advice, inadequate school support, increase pressure to achieve].

- Precipitants for school refusal (Heyne et al. N=164)
  - Bullying/teasing: 35%
  - Socially excluded: 26%
  - Transition (Primary to Secondary):   21%
  - Fear/difficulties with teacher: 21%
  - Illness in self: 19%
  - Academic problems: 17%
  - Separation problems: 16%

- Mean age of onset for anxious school refusers: ~ 12.3 years.

- Approximately 5-10% overlap between truancy and school refusal. There is a need to distinguish between cases of school refusal and truancy, as the latter often requires an alternative approach to intervention (Heyne, King, Tonge & Cooper 2001).

- Any child or adolescent with school refusal behaviour needs be assessed for anxiety and depression. See: TOOLS.

- Important to rule out health related factors or school-based problems such as bullying.

- Insomnia can be present. May not sleep proper hours, no sleep pattern or inverted sleep pattern (e.g. online gaming). Sleep behaviour needs to be addressed.

- The longer away from school the harder to get back to school. Leads to academic delay, friends move on etc. Help student come up with a simple response and give everyone the same response e.g. "*GP is investigating me for a couple of things, time to go back but still doing tests*" etc.

o **Complicated School Refusal**: overlapping with ASD, trauma, LD, Chronic Fatigue etc. More individualised and harder to manage.

TREATMENT FOR SCHOOL REFUSAL

- ➤ **A systems theory and behavioural approach is used**: The problem is systemic, so the solution is a systems solution. Work with the healthiest part of the system. If you get stuck, then widen the circle/system (more players). Engage the 'healthy' part inside of the parent (ambivalence) in discussion. You need to assess if the parent can change, if they can't then some-one else needs to be involved.
  - ▪ A big issue is that parents don't trust the school- investigate why. Student may need to attend elsewhere?
  - ▪ Ask the parents what they value most about education, what level they got to, what was school like for them can give good insight.
  - ▪ Ask parents for their idea of why their child is not going to school. It may be different from the Expert's formulation so need to bridge the two.
  - ▪ Understand where school attendance sits in the family's hierarchy. Some families may be struggling just to survive.
  - ▪ Anxiety is very infectious. Parent needs to be calmer than the child and to manage their own anxiety. Child models on their parents. Important to get fathers onboard to support mother as this results in better outcomes.
  - ▪ Presence of maternal depression? Treating mother's depression will treat the whole family. Ask "*how are you coping?*" allows parent to share if support is needed.
  - ▪ Make home less desirable.
  - ▪ Avoid rewards unless it's family time or maybe limited online time. The reward is that you will have a life, friend, career etc.
  - ▪ Consequences are not recommended for anxious presentation.

- o **Important principles for the management of school refusal:**
  - ▪ Identify and intervene early
  - ▪ Team approach
  - ▪ Develop anxiety/stress/depression management skills
  - ▪ Exposure to school is key
  - ▪ Set plans to provide structure
  - ▪ Optimism and persistence.

- ➤ **A FORMULATION FOR THIS CHILD'S SCHOOL REFUSAL**: Why is the behaviour presenting now is more important than diagnosis. Treatment plan comes out of formulation. If you assessed that you cannot help them, the that's OK but things can change- understanding that you may not be able to do anything right now.

- ➤ **GOAL**: Establish goal and build steps to achieving this. Ultimately aim to progress quickly on increasing time at school.

- ➤ **ROLES**: Everyone has a **clear role** then you can look back to see where the plan fell down and examine details that need adjusting. *If you don't clarify your role then somebody else will. School's responsibility starts at the school gate.*

- ➤ **COLLABORATION**: between School, Parent & Professional is important. Requires *clear role demarcation, respect* and *clear communication*. This is required for the working relationship to be effective.

- ➤ **NEED A PLAN**: If they could go to school they would have- if left up to their own devices they won't go.
  1. **Need to have a 'return to school' meeting.**

2. **Develop a plan and define roles.**
3. **Establish Case Manager.**
4. **Set a 'review plan' meeting.**

o **Plans aim to provide structure to student's return to school:**
  - Written down, detailed.
  - Arrival time, who, where, what to expect.
  - Child chooses starting point but needs to move forward.
  - Use of back-up plans, reset 'goal-posts'.
  - Distribute to all involved with the student.
  - Often graded for a staged return to school.

o **Processes at School:**
  ▪ School is the Case Manager (or external health professional) NOT the parent.
  ▪ School staff do not need to go to the home as a strategy, but it can be useful for assessment of the situation.
  ▪ Real time monitoring of attendance: who is monitoring and what is the 'right' number that too much time has been missed?
  ▪ Cut-Off Number: at what point are the parents asked to come in to help with attendance?
  ▪ Call parent meeting- inject urgency.
  ▪ <u>**School Policy**</u> **on attendance is important so discrimination cannot be used as an accusation. The policy needs to be broad enough to capture all.**
  ▪ Student is either in school, sick bay or emergency department.
  ▪ Consider having a template letter for allied health communication.
  ▪ Transparent steps for Parents e.g. *if this fails we go on to…..*

  <u>In the classroom</u>:
  ▪ Smile, welcoming and no reference to absences.
  ▪ Ensuring young person has someone to sit and work with.
  ▪ Provide structure and certainty.
  ▪ Reduce chance of "bad things" happening.
  ▪ Opportunities to experience success.
  ▪ Praise (adolescents - quiet & understated generally best)- recognise even small steps.

  <u>For the student</u>:
  ▪ Have student highlight 3 periods that they agree to attend daily. Build quickly to 4 then 5.
  ▪ Negotiate 2 periods if not able to get traction with 3 (but examine the "why" behind it).
  ▪ Plan details of when to increase the time.
  ▪ When at school then student can have the choice to stay on for the day.
  ▪ If the student doesn't attend, then you need to find out why and what went wrong?
  ▪ Negotiate details e.g. no need to complete school work, no homework, no questions directed to the student etc.
  ▪ PUT IT IN WRITING.
  ▪ Requires daily monitoring initially. Therefore, a lot of energy is required initially.

o **Processes for Parents:**
  ▪ Establish morning and evening routine.
  ▪ Clear messages about the need to attend school.
  ▪ Model confidence in child's capacity to cope and the school's ability to respond.
  ▪ Consequences for non-attendance e.g. loss of internet time.
  ▪ Reduce child reassurance seeking behaviour.
  ▪ Different person to drop off.

- ▪ Behaviour contract.
- o **(Possible) roles of the School Psychologist/Counsellor:**
  - ▪ Address anxiety: to overcome anxiety, child needs to experience anxiety.
  - Explaining purpose of anxiety and how it works – a false alarm.
  - Addressing self-talk (students who are anxious have a loud inner critic).
  - Self-calming strategies.
  - Hierarchy of fears.
  - Comfort Zone- Stretch Zone – Danger Zone (we all need to go into the Stretch Zone) regularly otherwise the Comfort Zone shrinks. School Refusers have confused going to school with the Danger Zone. Need to do activities in the Stretch Zone daily.

  - ▪ Clinical and risk assessment
  - ▪ Mental state
  - ▪ Referral externally
  - ▪ Cognitive assessment
  - ▪ Short term therapy
  - ▪ Liaison with internal and external stakeholders
  - ▪ Case conference
  - ▪ Escalation to the Principal.

- o **External professional's management of school refusal – the hierarchy:**
  1. Assess the child
  2. Psycho-education
  3. Explain the problem to the child and their parents
  4. Involve the school
  5. Develop a management plan for return to school
  6. Counselling of the child
  7. Medication for the child
  8. Counselling and medication for the parents
  9. Family therapy
  10. Day program
  11. Admission to hospital
  12. Protective notification.

TOOLS

ANXIETY: -
- Liebowitz Social Anxiety Scale:
  https://www.socialanxietysupport.com/disorder/liebowitz/

- Screen for Child Anxiety Related Disorders (SCARED):
  http://www.midss.org/content/screen-child-anxiety-related-disorders-scared

DEPRESSION: -
- CDI & BECK

- Centre for Epidemiologic Studies Depression Scale (CES-D)
  http://cesd-r.com/

- Mood & Feelings Questionnaire
  http://devepi.duhs.duke.edu/MFQ.html

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- Performance Insights: School Attendance. October 2013. Department of Education Training and Employment. Queensland Government.

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  https://www.mdedge.com/sites/default/files/Document/September-2017/5508JFP_Article2.pdf

Books:

- **For Clinicians:**
  School Refusal Stephanie Rowlings & David Heyne (treatment manual)
  https://www.bookdepository.com/School-Refusal-David-Heyne-Stephanie-Rollings/9781854333568?ref=grid-view

- **For Parents:**
  Getting Your Child to Say Yes to School Christopher Kearney
  https://www.bookdepository.com/Getting-Your-Child-Say-Yes-School-Christopher-Kearney/9780195306309?ref=grid-view

  You and Your Anxious Child A. Albano & L. Pepper
  https://www.bookdepository.com/You-and-Your-Anxious-Child-Assistant-Professor-of-Psychiatry-Anne-Marie-Albano-Leslie-Pepper/9781583334959

- **For Kids:**
  School Wobblies C. Wever & N. Phillips

- **For School Staff interested in prevention and intervention for SR as well as truancy:**

  Managing School Absenteeism at Multiple Tiers Christopher Kearney

https://www.bookdepository.com/Managing-School-Absenteeism-at-Multiple-Tiers-Christopher- Kearney/9780199985296?ref=grid-view

4P & Bio-Psycho-Social formulation

FACTORS	Biological	Psychological	Social

Predisposing			
Precipitating			
Perpetuating			
Protecting			

Article

Treatment for School Refusal Among Children and Adolescents: A Systematic Review and Meta-Analysis

Brandy R. Maynard[1], David Heyne[2], Kristen Esposito Brendel[3], Jeffery J. Bulanda[4], Aaron M. Thompson[5], and Terri D. Pigott[6]

Abstract

Objective: School refusal is a psychosocial problem associated with adverse short- and long-term consequences for children and adolescents. The authors conducted a systematic review and meta-analysis to examine the effects of psychosocial treatments for children and adolescents with school refusal. **Method:** A comprehensive search process was used to find eligible randomized controlled trials and quasi-experimental studies assessing the effects of psychosocial treatments on anxiety or attendance outcomes. Data were quantitatively synthesized using meta-analytic methods. **Results:** Eight studies including 435 children and adolescents with school refusal were included in this review. Significant effects were found for attendance but not for anxiety. **Conclusions:** Evidence indicates that improvements in school attendance occur for children and adolescents with school refusal who receive psychosocial treatment. The lack of evidence of short-term effects on anxiety points to the need for long-term follow-up studies to determine whether increased attendance ultimately leads to reduced anxiety.

Keywords

Introduction

School refusal is a psychosocial problem characterized by a child's or adolescent's difficulty attending school and, in many cases, substantial absence from school (Heyne & Sauter, 2013). A commonly used definition of school refusal includes (a) reluctance or refusal to attend school, often leading to prolonged absences, (b) staying at home during school hours with parents' knowledge rather than concealing the problem from parents, (c) experience of emotional distress at the prospect of attending school (e.g., somatic complaints, anxiety, and unhappiness), (d) absence of severe antisocial behavior, and (e) parental efforts to secure their child's attendance at school (Berg, 1997, 2002; Berg, Nichols, & Pritchard, 1969; Bools, Foster, Brown, & Berg, 1990). These criteria help differentiate school refusal from truancy (based on criteria [b], [c], and [d]) and school withdrawal (based on criterion [e]). The prevalence of school refusal is between 1% and 2% in the general population and between 5% and 15% in clinic-referred samples of youth (Egger, Costello, & Angold, 2003; Heyne & King, 2004).

The Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2013) does not classify school refusal as a disorder, but youth presenting with school refusal are often diagnosed with one or more internalizing disorders. Anxiety disorders are observed in approximately 50% of representative samples of clinic-referred youth exhibiting

school refusal (Baker & Wills, 1978; Bools et al., 1990; McShane, Walter, & Rey, 2001; Prabhuswamy, Srinath, Girimaji, & Seshadri, 2007; Walter et al., 2010). A broad range of anxiety disorders is observed in these young people, including separation anxiety disorder, specific phobias, social phobia, generalized anxiety disorder, and panic disorder with agoraphobia. Even when full-diagnostic criteria for a particular anxiety disorder are not met, children and adolescents with school refusal may be diagnosed with anxiety disorder not otherwise specified (Heyne et al., 2002; McShane et al., 2001) or may experience fear or anxiety related to school attendance at a level below the diagnostic threshold (Egger et al., 2003). Depression may also be observed among children and

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[1] School of Social Work, Campbell Collaboration, Saint Louis University, St. Louis, MO, USA
[2] Institute of Psychology, Leiden University, Leiden, the Netherlands
[3] School of Social Work, Aurora University, Aurora, IL, USA
[4] School of Social Work, Northeastern Illinois University, Chicago, IL, USA
[5] School of Social Work, University of Missouri, Columbia, MO, USA
[6] School of Education, Loyola University Chicago, Chicago, IL, USA

Corresponding Author:
Brandy R. Maynard, School of Social Work, Tegeler Hall, 3550 Lindell Blvd., Saint Louis, MO 63103, USA.
Email: bmaynar1@slu.edu

adolescents with school refusal, but it is not as prevalent as anxiety (Baker & Wills, 1978; Bools et al., 1990; Buitelaar, van Andel, Duyx, & van Strien, 1994; King, Ollendick, & Tonge, 1995; Walter et al., 2010; Wu et al., 2013).

School refusal is a complex problem that is multiply determined by a broad range of risk factors, which interact with each other and change over time (Thambirajah, Grandison, & De-Hayes, 2007). Several authors have summarized the risk factors identified in the school refusal literature, differentiating between individual factors (e.g., behavioral inhibition, fear of failure, low self-efficacy, and physical illness), family factors (e.g., separation and divorce, parent mental health problems, overprotective parenting style, and dysfunctional family interactions), school factors (e.g., bullying, physical education lessons, transition to secondary school, and structure of the school day), and community factors (e.g., increasing pressure to achieve academically, inconsistent professional advice, and inadequate support services; Heyne, 2006; Heyne & King, 2004; Thambirajah et al., 2007). These may operate as predisposing, precipitating, and/or perpetuating factors (Heyne, Sauter, Ollendick, Van Widenfelt, & Westenberg, 2014).

In the absence of treatment, most youth with school refusal continue to display problematic school attendance and emotional distress (King et al., 1998), leading to short- and long-term adverse consequences. Nonattendance has been shown to negatively affect learning and achievement and to place youth at risk for early school dropout (Carroll, 2010; Christle, Jolivette, & Nelson, 2007). In addition to being more at risk for education-related problems, youth with school refusal are more likely to display problems in social adjustment. For example, Berg, Butler, and Hall (1976) found that over one third of youth who were treated for school refusal 3 years earlier had no friends or very limited social contacts at follow-up. Valles and Oddy (1984) compared successfully and unsuccessfully treated youth with school refusal based on functioning at 7-year follow-up. Those who had not returned to school displayed a trend toward poorer social adjustment. Additional studies attest to the risk for ongoing mental health problems in late adolescence and adulthood (Berg & Jackson, 1985; Buitelaar et al., 1994; Flakierska-Praquin, Lindström, & Gillberg, 1997; McCune & Hynes, 2005). Family members are also affected by school refusal. Parents may experience distress, due to the crisis-like presentation of school refusal and the challenge of resolving the problem, and family conflict may arise (Heyne & Rollings, 2002; Kearney, 2001; Kearney & Bensaheb, 2006; McAnanly, 1986; Ollendick & King, 1990). School staff may incur stress displaced onto the school by family members and stress arising from their own uncertainty about management of the problem (McAnanly, 1986).

A contemporary perspective posits that treatment aims to reduce the young person's emotional distress and increase their school attendance in order to help them resume a normal developmental pathway (Heyne & Sauter, 2013). Over 30 years ago, scholars wondered whether reductions in young people's emotional distress helped increase school attendance or vice versa (Valles & Oddy, 1984). Contemporary theorizing echoes this uncertainty. Heyne, Sauter, and Maynard (2015) suggested that school attendance and internalizing problems can act as mediators or outcomes depending on proposed relationships with other variables under discussion.

The psychosocial treatment of help children with school refusal has a long history. Blagg (1987) provided a detailed review of studies describing the psychodynamic approach, family therapy, and behavioral approaches. Behavioral and cognitive therapy (CT) approaches, however, have received the most attention in the literature. Behavioral approaches were based on classical conditioning, operant conditioning, social learning theory, or a combination. Behavioral interventions include exposure-based interventions, relaxation training, and/or social skills training with the student, and contingency management procedures with the parents and school staff. Exposure-based interventions stemming from the classical conditioning paradigm (e.g., imaginal and in vivo systematic desensitization and emotive imagery) are intended to reduce the young person's anxiety associated with school attendance and thereby make it easier to attend school. Relaxation training is intended to help the young person manage the stress that occurs in situations associated with school attendance (e.g., getting ready to go to school, giving a class talk, and being around other children at school). Relaxation may also be employed as an anxiety inhibitor during systematic desensitization. Social skills training addresses social-related difficulties that may be a cause, consequence, or correlate of school refusal. Contingency management draws on operant conditioning principles. Parents are helped to manage the antecedents and consequences of their child's behavior to increase desirable behaviors (e.g., use of coping skills and school attendance) and reduce undesirable behaviors thwarting school attendance (e.g., tantrums and excessive reassurance seeking). School staff are also encouraged to employ contingency management befitting the school setting.

The commencement of cognitive-behavioral therapy (CBT) for youth with school refusal is evidenced in the case reports of Mansdorf and Lukens (1987). They used self-instruction techniques to help children with school refusal employ coping self-statements guiding positive behavior. A cognitive restructuring process was used with parents to challenge distorted beliefs about their child's problem and about the management of school refusal. Currently, psychosocial treatments for children with school refusal typically incorporate both cognitive and behavioral interventions. There are five CBT manuals for treating youth with school refusal (Heyne & Rollings, 2002; Heyne, Sauter, & Van Hout, 2008; Kearney & Albano, 2000; Last, 1993; Tolin et al., 2009). They all involve individual treatment, some level of involvement with parents (as consultants or co-clients), consultation with school staff, and between-session tasks. Graded exposure to school attendance is commonly advocated. Most manuals incorporate psychoeducation, problem-solving training with the young person, and family work on communication and problem solving. CT interventions are often used, but there is variation in the type of CT interventions employed with children and adolescents with school refusal. Two of the five manuals explicitly refer to

cognitive interventions with parents. The earliest CBT manual was standardized, with all cases receiving the same treatment (Last, 1993). The newer manuals advocate individualized treatment based on the main function(s) served by the young person's behavior and/or a broader case formulation including assessment of predisposing, precipitating, perpetuating, and protective factors (Heyne & Rollings, 2002; Heyne et al., 2008; Kearney & Albano, 2000; Tolin et al., 2009).

Educational-support therapy (ES) for youth with school refusal was developed by Last, Hansen, & Franco (1998) to control for the nonspecific effects of CBT in a randomized controlled trial (RCT). ES comprised educational presentations and supportive psychotherapy. It made use of handouts with questions for the participants to consider; a daily diary to record feared situations and associated thoughts, feelings, and responses; encouragement for the young person to talk about their fears; and instruction in identifying maladaptive thinking. There was no instruction or encouragement for the young person to confront feared situations and no instruction about how to modify maladaptive thinking. Another nondirective treatment for school refusal was reported by Sahel (1989). This treatment employed a Rogerian approach in a group therapy format, with trust games, discussion of experiences and feelings about school, and suggestions offered spontaneously by peers.

Various medications have been trialed in studies of youth with school refusal, including tricyclic antidepressants (Berney et al., 1981; Bernstein, Garfinkel, & Borchardt, 1990; Bernstein, Borchardt, et al., 2000; Gittelman-Klein & Klein, 1971), benzodiazepines (Bernstein, Garfinkel, et al., 1990), and selective serotonin reuptake inhibitors (Wu et al., 2013). In all of these trials, medications were combined with psychosocial treatments.

Numerous reviews have focused on the etiology, prevalence, assessment, and treatment of school refusal, and a number of these have focused specifically on treatment outcomes. Prior reviews that were aimed at synthesizing results of treatment outcome studies primarily employed either qualitative (narrative) or vote-counting synthesis methods, which disregard sample size, rely on statistical significance reported in reviewed studies, and do not take into account measures of the strength of the study findings, thus possibly leading to erroneous conclusions (Glass, McGaw, & Smith, 1981). Two relevant reviews were more systematic in their methods than the others: one on effects of treatment for school refusal (Pina, Zerr, Gonzales, & Ortiz, 2009) and another on effects of psychosocial treatments for anxiety disorders in youth, which included youth with school refusal (Silverman, Pina, & Viswesvaran, 2008). All prior reviews were limited to published research. Taken together, the past reviews provide some guidance for the treatment of school refusal, but they do not systematically or quantitatively address the questions of whether and which interventions are effective for decreasing anxiety and increasing school attendance. Reviews and meta-analyses limited to the effects of treatment for youth with anxiety disorders have questionable relevance for school refusal, because the presentation and treatment of school refusal are not synonymous with the presentation and treatment of anxiety disorders in general (Heyne et al., 2015).

The purpose of the current review is to inform practice by systematically and quantitatively evaluating the effectiveness of psychosocial treatments for children and adolescents with school refusal. The primary research questions guiding the current study are: (1) Do psychosocial treatments for children and adolescents with school refusal reduce anxiety? and (2) Do psychosocial treatments for children and adolescents with school refusal increase attendance?

Method

We used systematic review and meta-analytic methods to synthesize effects of treatment for children and adolescents with school refusal. The protocol and data extraction form are published elsewhere (see Maynard, Brendel, Bulanda, & Pigott, 2013).

Study Eligibility Criteria

Published or unpublished studies conducted or reported between January 1980 and November 2013 were eligible for this review if they examined the effects of psychosocial treatment for school refusal on anxiety or attendance among primary or secondary school-age youth. Studies must have used a pre–post RCT or quasi-experimental design (QED) and used statistical controls or reported baseline data on outcomes. The operationalization of school refusal varies somewhat from one study to the next, but two key criteria reflected in Berg and colleagues' definition were required: (1) absence from school and (2) emotional distress, in this case in the form of anxiety (Berg, 1997, 2002; Berg et al., 1969; Bools et al., 1990). Child anxiety must have been measured using a standardized instrument (child, parent, or clinician report). School attendance/absence could be assessed by youth, parent, or teacher report or from school records. It was anticipated that most studies would report outcomes at posttest, thus posttest outcomes were the primary focus of this review. If studies reported follow-up data, this was noted. Because we were interested in treatments that could be implemented by school or mental health professionals, we excluded pharmacological treatments and interventions delivered in inpatient or residential settings. We did, however, decide post hoc to include two studies that assessed effects of medication in combination with a psychosocial treatment and we analyzed these studies separately.

Search Strategy

Various sources were used to identify eligible published and unpublished studies between 1980 and November 2013. Sources included 15 electronic databases, research registries, conference proceedings, reference lists of prior reviews and included studies, the first author's database of studies conducted for a prior review of indicated truancy treatments, and

contact with experts (see Maynard et al., 2015 for the full search strategy including specific search terms and limiters used in each database).

Study Selection and Data Extraction

Titles and abstracts were screened for relevance by two authors, with the exception of the Australian Education Index, the British Education Index, Canadian Business & Current Affairs (CBCA) Education, and Social Policy and Practice. These four databases were searched by a specialist contracted to conduct searches in those databases and were then reviewed by one author. Documents that were not obviously ineligible or irrelevant based on the title and abstract were retrieved in full text and screened independently by two authors. Two authors then independently coded all studies that met eligibility criteria. Discrepancies between coders were discussed and resolved through consensus at all stages of the search and coding process.

Assessment of Risk of Bias

The conclusions one can draw from a review of the effects of treatments depend on the validity of results of included studies. A review based on studies with low-internal validity, or a group of studies that vary in terms of internal validity, may result in biased estimates of effects and misinterpretation of the findings. Therefore, it is critical to assess all included studies for threats to internal validity. To examine the risk of bias of included studies, two review authors independently rated each included study using the Cochrane collaboration's tool for assessing risk of bias (Higgins, Altman, & Sterne, 2011). The risk of bias tool addresses five categories of bias (i.e., selection bias, performance bias, detection bias, attrition bias, and reporting bias) assessed using a domain-based evaluation tool in which assessment of risk is made separately for each domain in each included study. Selection bias is assessed by examining the method used to generate allocation sequence and the method used to conceal allocation. Performance bias (the extent to which groups are systematically treated differently from one another apart from the intervention) and detection bias (systematic differences in the way participants are assessed) are other sources of bias that can threaten internal validity. In the risk of bias tool, we rated the extent of risk based on whether participants and personnel were blinded to group assignment. We also assessed attrition bias, missing data resulting from participants dropping out of the study or other systematic reasons for missing or excluded data, and reporting bias, when authors selectively report outcomes. All studies included in the review were rated on each domain as low, high, or unclear risk of bias. Coders reviewed these ratings, and discrepancies were discussed and resolved by consensus.

Statistical Analysis

Data related to effect size and variables needed for moderator and sensitivity analyses were entered into Comprehensive Meta-Analysis (CMA) version 2.0 (Borenstein, Hedges, Higgins, & Rothstein, 2005). We used the standardized-mean difference effect size statistic, correcting for small-sample bias using Hedges' g (Pigott, 2012). All authors of included studies reported one measure of attendance; however, some authors reported more than one measure of anxiety. When more than one measure of anxiety was reported, an effect size was calculated for each measure and a mean effect size was calculated, so each study contributed only one effect size per study for that outcome. To control for pretest differences between the treatment and comparison conditions, we used adjusted means (adjusted for pretest scores on the relevant outcome) and the unadjusted standard deviations (SDs) reported in two studies (Heyne et al., 2002; King et al., 1998). For all other studies that did not report adjusted means, we calculated both the pretest effect size and the posttest effect size separately in CMA as described earlier. We then subtracted the pretest effect size from the posttest effect size and then input the difference between the mean effects in CMA as the effect size for the relevant study. Because the authors did not report the pre–post correlations, we elected to use the variance of the posttest effect size calculated in CMA.

Two meta-analyses were performed to synthesize studies assessing effects of psychosocial treatments—one for anxiety outcomes and one for attendance outcomes. Another set of meta-analyses was performed for the studies assessing the effects of medication in combination with psychotherapy—one for anxiety outcomes and another for attendance outcomes. A weighted mean effect was calculated by weighting each study by the inverse of its variance using random effects statistical models. We assessed statistical heterogeneity using the Q-test, I^2 statistic, and τ^2.

Sensitivity and moderator analyses were planned. Due to the lack of heterogeneity across most sets of studies and the small number of studies meeting inclusion criteria, we limited additional analyses performed to two sensitivity analyses and two moderator analyses. The first sensitivity analysis examined whether and how the selection of Richardson's "reframing with positive connotation" as the treatment group (as opposed to "systematic desensitization") impacted the mean effect (Richardson, 1992). The second examined how the inclusion of the Blagg and Yule (1984) study affected the grand mean effect size, given that this study had much larger effects on attendance than the other psychosocial treatment studies. We ran the meta-analysis with the Blagg and Yule study omitted and compared the mean effects with and without that study. For the first moderator analysis, we examined study design (RCT vs. QED) as moderator variable with the psychosocial treatment studies. The second moderator analysis addressed publication status. To minimize publication bias, we made every attempt to include both published and unpublished reports. Ultimately, two unpublished dissertations were included in the review. Because there were fewer than 10 studies in this review, the use of funnel plots and other statistical techniques to assess publication bias was not warranted (Card, 2011); therefore, we examined publication status as a potential moderator.

Results

Eight studies met eligibility criteria for this review (see Table 1). Six studies examined effects of psychosocial treatments and two studies examined the relative effects of a psychosocial treatment with and without medication. Figure 1 presents the flow chart of the study selection process. A list of excluded studies and reasons for exclusion is available in Maynard et al. (2015).

Characteristics of Included Studies

Table 2 summarizes the characteristics across included studies. Six studies used a randomized design and two studies used a QED. In all, 435 school-refusing youth from Australia, the United States, Canada, England, Kuwait, and China were participants in the eight studies. Of these, 204 received the treatment condition and 195 received the comparison condition included in the meta-analysis, and 36 youth were in additional comparison conditions not included in the meta-analysis. The average age of participants was 11.9 years ($SD = 1.70$). Participants in the psychosocial only treatment studies were younger in age ($M = 11.3$, $SD = 1.54$) than participants in the CBT with medication studies ($M = 13.7$, $SD = 0.35$), and one of the psychosocial only studies had excluded adolescents and one of the medication studies had excluded children (Bernstein, Borchardt, et al., 2000; Sahel, 1989).

With the exception of Sahel (1989), the studies included in this review assessed the effects of a variant of CBT. CBT treatments were conducted with the child alone, with minimal involvement of the parents, or with significant involvement of parents and teachers (parent–teacher training). Treatments were relatively brief, ranging from 4–12 sessions. For those studies that assessed effects of medication, the same CBT treatment was applied across treatment and control groups within each study; however, the authors tested different medications. More specifically, fluoxetine was tested against no medication (Wu et al., 2013), and imipramine was tested against a placebo (Bernstein, Borchardt, et al., 2000).

Posttest measurement in the vast majority of the studies was conducted at the end of treatment or within 2–3 weeks following treatment. Few studies measured treatment effects at a follow-up time point. King et al. (1998) conducted follow-up assessment at approximately 12 weeks posttreatment with the treatment group only because the wait-list control group was offered treatment following posttest. Heyne et al. (2002) measured attendance and anxiety outcomes for the treatment and comparison groups at approximately 4.5 months posttreatment.

Risk of Bias

Several risks of bias were present in most studies (see Figure 2). Performance and detection biases (resulting from inadequate blinding of participants and assessors to conditions) were likely present in most studies and could upwardly bias the mean effects. In addition, available information about random sequence generation and allocation concealment was insufficient to assess the risk of selection bias in most studies. Two studies reported nonrandom allocation to condition. While most studies in this review reportedly used random assignment procedures, it was not possible to assess risks of selection bias, as the authors did not report randomization procedures.

Effects of Treatments

Anxiety. Four of the included psychosocial studies and both of the CBT with medication studies assessed effects on anxiety. Results indicated that the overall mean effect of the psychosocial studies at posttest was not significantly different from zero ($g = 0.06$, 95% confidence interval [CI] = [−0.63, 0.75], $p = .86$). The precision of the point estimate should be interpreted with caution, as there was significant heterogeneity between the studies ($Q = 11.13$, $p = .01$; $I^2 = 73.05$; $\tau^2 = .36$). The mean effect size and CIs for the four psychosocial treatment studies are shown in the forest plot in Figure 3. For the two studies examining effects of CBT with medication versus CBT with placebo or CBT only, the overall mean effect was not significantly different from zero ($g = −0.05$, 95% CI = [−0.40, 0.31], $p = .80$). Results of the Q-test were not significant ($Q = .30$, $p = .58$) and values for I^2 and τ^2 were .00.

Attendance. All six psychosocial treatment studies and both medication studies assessed effects on attendance. The mean effect size at posttest of the six psychosocial studies was $g = 0.54$ (95% CI = [0.22, 0.86], $p = .00$), demonstrating a positive and significant effect. Results of the Q-test were not significant ($Q = 8.82$, $p = .12$), and values for I^2 (43.32) and τ^2 (.06) indicate a small amount of heterogeneity. The mean effect sizes and CIs for the six psychosocial treatment studies are shown in the forest plot in Figure 4. For the two studies examining effects of CBT with medication versus CBT with placebo or CBT only, the overall mean effect was $g = 0.61$ (95% CI = [0.01, 1.21], $p = .046$), favoring the medication + CBT condition. Results of the Q-test were not significant ($Q = 1.93$, $p = .17$) and values for I^2 (48.23%) and τ^2 (.09) indicate a small amount of heterogeneity.

Sensitivity and Moderator Analyses

For the two sensitivity analyses performed—examining the choice of the group used as the treatment group for the Richardson (1992) study and removing the Blagg and Yule (1984) study from the analysis—the magnitude of the effect size was substantially unchanged (Maynard et al., 2015). For the moderator analyses, no differences between RCT and QED designs or between published and unpublished studies on mean effects of psychosocial treatments on attendance outcomes were observed. With regard to the anxiety outcome, there was only one unpublished study with data on anxiety, and this was also the only QED. Thus, publication status and study design were confounded. The mean effect on anxiety was significantly

Table 1. Summary of Included Studies.

Author (Year)	Intervention	Comparison Condition	N	Study Design	Outcomes Measured
Bernstein et al. (2000)	Imipramine + 8, 45- to 50-minute CBT sessions primarily with the adolescent and a parent joined each session for 10–15 minutes	Placebo + 8, 45- to 50-minute CBT primarily with the adolescent and a parent joined each session for 10–15 minutes	63	RCT	Attendance and anxiety
Blagg & Yule (1984)	Behavioral treatment approach (BTA) involving (1) a detailed clarification of the child's problems; (2) realistic discussion of child, parental, and teacher worries; (3) contingency plans to ensure maintenance, 4) in vivo flooding; (5) follow-up. Actively involves parents, child, and school personnel. Mean total treatment time = 2.53 weeks	Home tuition and psychotherapy (HT)—children remained home and received home tuition/home tutoring and also psychotherapy every 2 weeks at a child guidance clinic. Mean treatment time = 72.1 weeks	50	QED	Attendance
Heyne et al. (2002)	8, 50-Minute individual youth CBT sessions + 8, 50-minute parent/teacher training sessions over an approximate 4-week-period	8, 50-Minute individual child CBT sessions over an approximate 4-week-period	41	RCT	Attendance and anxiety
King et al. (1998)	6, 50-Minute individual youth CBT and 5, 50-minute parent/teacher training sessions over 4 weeks	Waiting list control group	34	RCT	Attendance and anxiety
Last et al. (1998)	Individual CBT—60-minute sessions once weekly for 12 weeks—comprised of two main components: graduated in vivo exposure and coping self-statement training. Unspecified amount of contact with parents	Educational-support therapy—60-minute weekly sessions for 12 weeks—combination of educational presentations and supportive psychotherapy	41	RCT	Attendance and anxiety
Richardson (1992)	Reframing with positive connotation (4 sessions + telephone contact) and at least one parent took part in the counseling session	Systematic desensitization (4 sessions + telephone contact) and at least one parent took part in the counseling session	19	QED	Attendance and anxiety
Sahel (1989)	Group counseling using nondirective Rogerian model—45 minutes twice weekly sessions for 7 weeks (total 14 sessions). Parents not involved in treatment	"Control group"—the authors did not report that the control group received an alternative intervention	76	RCT	Attendance
Wu et al. (2013)	Fluoxetine + 12, 45- to 50-minute CBT sessions and parent involvement (amount not specified)	Placebo + 12, 45- to 50-minute CBT and parent involvement (amount not specified)	75	RCT	Attendance and anxiety

Note. CBT = cognitive-behavioral therapy; RCT = randomized controlled trial; QED = quasi-experimental design.

larger in the RCT studies compared to the one unpublished QED study (Maynard et al., 2015).

Discussion and Application to Practice

This review evaluated the effects of six psychosocial treatments and two medication plus psychosocial treatments for school refusal. All but one of the psychosocial treatments was a CBT intervention. The results of this review thus provide tentative support for CBT for the treatment of children and adolescents with school refusal, at least for the improvement of school attendance. School attendance is certainly not the only outcome of interest in studies of treatment for school refusal, but researchers customarily regard it as a primary outcome measure. Working toward an early increase in the young

person's attendance is a recurring theme in behavioral, CBT, psychodynamic, and family-focused treatment approaches (Heyne & Sauter, 2013). An early increase in attendance prevents anxiety being reinforced through avoidance (Hersen, 1971), reduces access to enjoyable experiences outside of school, which could maintain refusal to attend school (King & Ollendick, 1989), and wards off impairment in academic and social functioning (Want, 1983).

The mean effect found for school attendance can be regarded as a robust finding. Prior narrative reviews have described positive effects of cognitive and/or behavioral treatments for school refusal (Elliott, 1999; King & Bernstein, 2001; King, Tonge, Heyne, & Ollendick, 2000), but the current review represents a rigorous extension of existing work. A more systematic and comprehensive search process
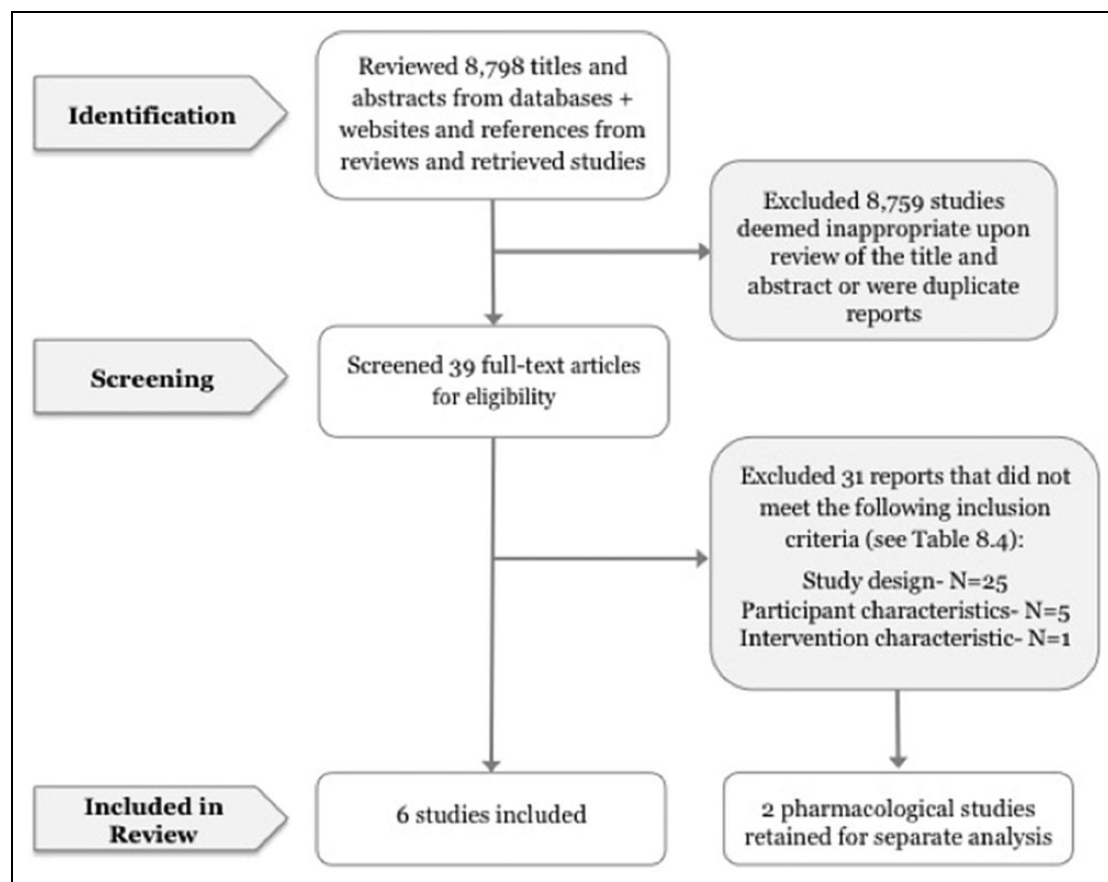
Figure 1. Study selection flow chart.

Table 2. Characteristics of Included Studies.

Characteristic	N (%)	Characteristic	N (%)
Publication year (M = 1997, SD = 8.86)		Country	
1980–1989	2 (25)	Australia	2 (25)
1990–1999	3 (38)	Canada	1 (13)
2000–2009	2 (25)	China	1 (13)
2010–2014	1 (13)	England	1 (13)
Study design		Kuwait	1 (13)
RCT	6 (75)	United States	2 (25)
QED	2 (25)	Treatment (psychosocial treatments only)	
Publication type		CBT with parent training	2 (33)
Journal	6 (75)	Individual CBT	2 (33)
dissertation or thesis	2 (25)	Behavioral with child/parent/ teacher	1 (17)
Sample size		Rogerian group therapy	1 (17)
1–29	1 (13)	Comparison conditions (psychosocial treatments only)	
30–59	2 (25)	Alternate treatment	4 (67)
60–80	5 (62)	Wait-list/not specified	2 (33)
Setting		Participant characteristics	
Clinic	5 (63)	Mean age = 11.9 (SD = 1.7)	
School/home	2 (25)	Sex (≥50% male)	5 (63)
Unknown	1 (13)	Grade level—elementary	1 (12)
		Grade level—mixed grades	7 (88)

Note. CBT = cognitive-behavioral therapy; RCT = randomized controlled trial; QED = quasi-experimental design.

was undertaken than in prior reviews, and more rigorous inclusion criteria were used to improve the credibility of the review for causal inference. Only one of the prior reviews dedicated to treatment for school refusal used systematic search procedures (Pina et al., 2009), and no prior reviews have included unpublished studies. Moreover, none of the prior reviews dedicated to treatment for school refusal employed meta-analytic techniques to quantitatively synthesize the results of included studies. The use of meta-analytic methods offers a significant advantage over narrative or vote-counting synthesis methods. By pooling effect size estimates across studies, the results of underpowered studies can be combined, thus producing a synthesized effect estimate with considerably more statistical power to discover meaningful effects that may otherwise be missed in low-powered individual studies (Card, 2011). This is pertinent to the field of school refusal because there are a relatively small number of studies and they employ small sample sizes. It is also noteworthy that four of the six psychosocial only treatment studies included in our review compared the effects of two treatments, and the authors of three of these studies reported improvement across both groups on either one outcome of interest to this review or on both outcomes of interest (Heyne et al., 2002; Last et al., 1998; Richardson, 1992). Furthermore, the comparison group in two of the six
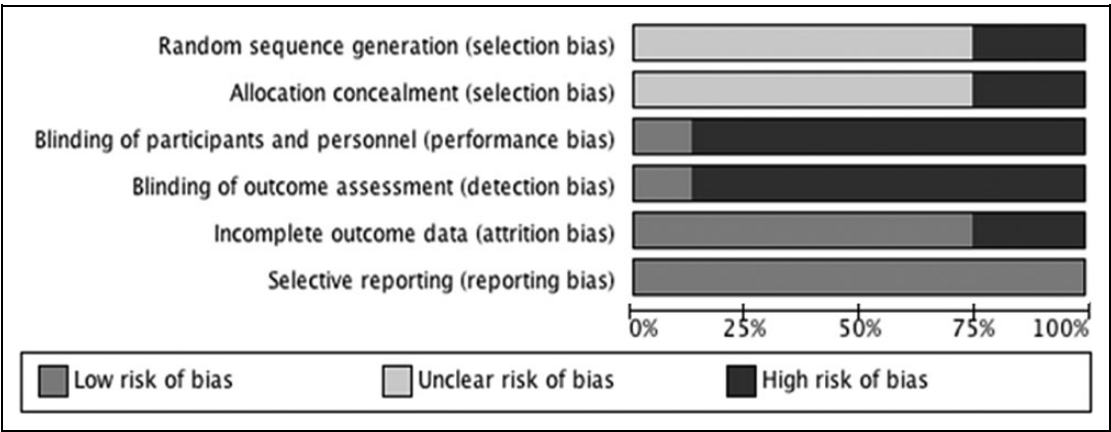
Figure 2. Risk of bias across included studies.
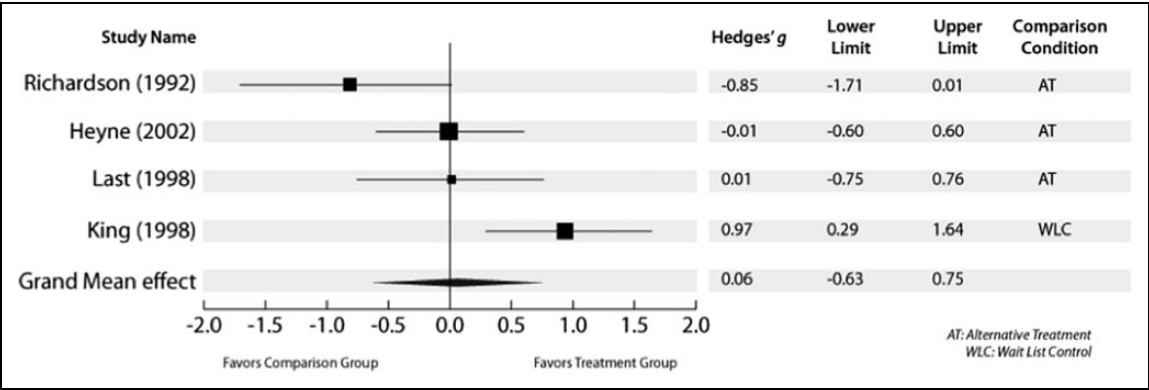
Figure 3. Effects of psychosocial treatments on anxiety.
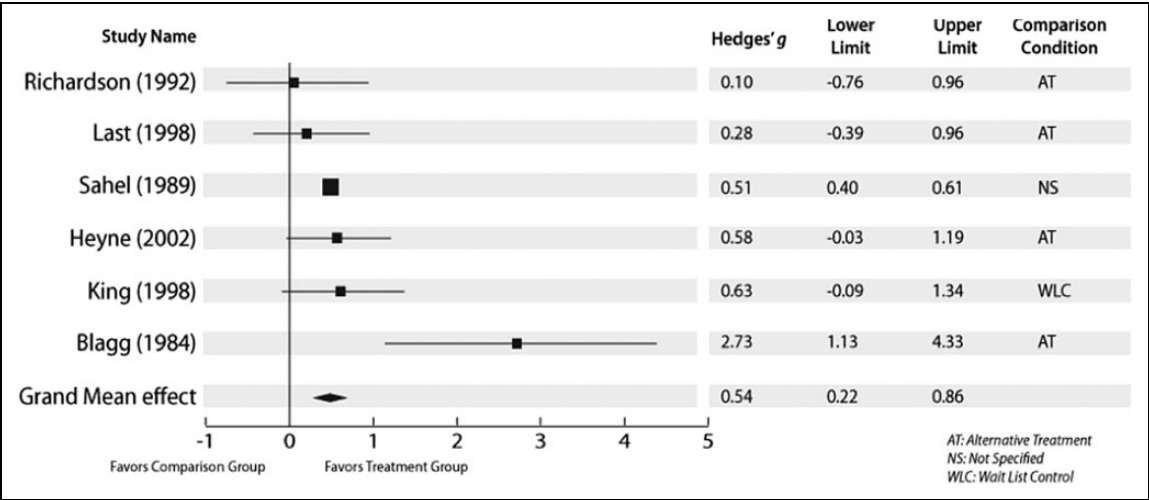
Figure 4. Effects of psychosocial treatments on attendance.

psychosocial only treatment studies provided a variant of a CBT treatment (Heyne et al., 2002; Richardson, 1992), which could lead to a downward bias in the overall mean effect.

While psychosocial treatment in the form of CBT may have some evidentiary support for attendance outcomes, it is premature to classify any specific form of CBT as empirically supported at this time for two main reasons. First, there was variability in the CBT treatments examined in this review. For example, the number of sessions with the young person varied between 4 and 12 sessions, and the amount of

contact with parents varied from no contact at all to as much contact with parents as with the young person. A central research question in the field of CBT for youth with anxiety is the optimal involvement of parents in treatment (Manassis et al., 2014), and this question is perhaps equally or more pertinent when providing treatment for school refusal in adolescence (Heyne & Sauter, 2013). Second, no study included in the current review was a replication study assessing the same manualized treatment by independent researchers. Replication studies are an often-cited requirement for classifying specific treatments as empirically supported (Chambless & Hollon, 1998; Flay et al., 2005). The Heyne et al. (2002), King et al. (1998), and Wu et al. (2013) studies all assessed the effects of CBT based on Heyne and Rollings' (2002) manual, but there was variation in the number of sessions and the duration of treatment, and the same research group conducted two of those studies.

The other main outcome of interest in the current study was anxiety. No mean effect on anxiety was observed, which might seem counterintuitive at first glance. One might expect that improvements in school attendance would occur because of a decrease in anxiety. In fact, treatments often include behavioral interventions (e.g., relaxation training) and cognitive interventions (e.g., developing and using anxiety-reducing thoughts) in order to help youth with school refusal manage their anxiety and thus be better placed to increase their school attendance. One explanation for the lack of effects on anxiety might be found in the timing of the assessment of outcome measures. Although increased exposure to school (a key component in most treatments in this review) is associated with immediate improvement in attendance, it could result in an increase in anxiety in the short-term (posttreatment). In the discussion of Last's treatment outcome study, it was also argued that the emphasis in CBT on increasing school attendance may have heightened anxiety levels (Last et al., 1998). A longer term decrease in anxiety may follow from a young person's continued attendance at school. We were not able to examine longer term effects of school refusal treatments on both attendance and anxiety because only one study examined these outcomes at follow-up for both the treatment and comparison groups (Heyne et al., 2002). Results reported in that study indicate that youth maintained improvements in school attendance at 4.5-month follow-up and they experienced significant decreases (between posttreatment and follow-up) in self-reported fear and anxiety. Based on this study alone, it would appear that anxiety could continue to decrease after school attendance has increased; however, more robust research on long-term effects of treatment for children and adolescents with school refusal is needed.

Even though the grand mean effect on anxiety was nonsignificant, it is possible that some youth in the reviewed studies were able to attend school more of the time because of a decrease in anxiety by the end of treatment. Future studies that incorporate mediation analyses on posttreatment and follow-up data can help determine which youth are able to increase school attendance *because* of a reduction in anxiety and which youth

are able to increase school attendance because of other factors or despite the presence of anxiety. Recent studies point to other factors that are potentially important in school refusal and its treatment. Ingul and Nordhal (2013) reported that among highly anxious youth, social factors such as having few close friends differentiated youth who were and were not attending school. Maric, Heyne, MacKinnon, van Widenfelt, and Westenberg (2013) reported that self-efficacy for coping with situations associated with school attendance mediated posttreatment increases in school attendance and decreases in fear about attending school. In a review of moderators and mediators of the outcome of treatment for school refusal, Heyne and colleagues (2015) noted a range of factors warranting research attention, including the young person's problem-solving skills, family functioning, and the quality of the student–teacher relationship. To understand the temporal precedence of changes in anxiety or other factors on the one hand, and changes in school attendance on the other hand, these variables should be measured at various points during treatment.

A strength of the current study lies in its systematic review and meta-analytic methods, which helps limit bias and error and increases transparency, yielding more reliable results and allowing for replication or later expansion by other researchers (Cooper, 1998). This strength notwithstanding, study results must be interpreted in the light of several limitations. Despite rigorous efforts to include unpublished studies in our review, only two unpublished studies met eligibility criteria. Thus, results of our review may be upwardly biased, due to publication and reporting biases. Performance and detection bias, stemming from inadequate blinding of participants and assessors to condition, can also upwardly bias mean effects. However, the positive and significant mean effect found in this study was for school attendance, which is a relatively objective measure of outcome (e.g., relative to self-reports of anxiety) and thus less susceptible to bias. This review and meta-analysis is also limited by the small number of studies included, and thus there were limits to the analytic techniques that could be employed (e.g., moderator analyses of level of parent involvement). Furthermore, only one study reported follow-up outcomes for both the treatment and comparison groups, thus there is insufficient evidence to indicate whether or not treatment effects sustain and whether anxiety was indeed reduced with continued exposure to school.

It is evident that there have been few rigorous trials of treatment for children and adolescents with school refusal. Study design and analytic methods have progressed over the past decade, with more rigorous designs being expected and intent-to-treat analysis becoming more common since the time that most studies in this review were conducted. Future research in this area will benefit from research designs that reduce bias and employ more sophisticated analytic techniques, independent replications of the manualized treatments examined in this review, and longer term evaluations of effects of treatments. Assessing long-term effects could provide additional insights as to the mixed findings of the effects of treatments on attendance and

anxiety. Future research will also benefit from larger samples sizes. Because school refusal is a complex phenomenon, larger samples will permit more sophisticated analyses to examine potential moderators and mediators of treatment outcomes, such as type of anxiety, age of youth, or other characteristics of the youth, family, school or treatment (Heyne et al., 2015). It is also evident from the current review that there are few studies examining the effects of treatments other than variants of CBT. Future studies should consider other types of treatments for rigorous evaluation, in comparison with currently available CBTs.

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Risk Factors for School Absenteeism and Dropout: A Meta-Analytic Review

Jeanne Gubbels [1] · **Claudia E. van der Put**[1] · **Mark Assink**[1]

Abstract

School absenteeism and dropout are associated with many different life-course problems. To reduce the risk for these problems it is important to gain insight into risk factors for both school absenteeism and permanent school dropout. Until now, no quantitative overview of these risk factors and their effects was available. Therefore, this study was aimed at synthesizing the available evidence on risk factors for school absenteeism and dropout. In total, 75 studies were included that reported on 781 potential risk factors for school absenteeism and 635 potential risk factors for dropout. The risk factors were classified into 44 risk domains for school absenteeism and 42 risk domains for dropout. The results of a series of three-level meta-analyses yielded a significant mean effect for 28 school absenteeism risk domains and 23 dropout risk domains. For school absenteeism, 12 risk domains were found with large effects, including having a negative attitude towards school, substance abuse, externalizing and internalizing problems of the juvenile, and a low parent-school involvement. For dropout, the risk domains having a history of grade retention, having a low IQ or experiencing learning difficulties, and a low academic achievement showed large effects. The findings of the current study contribute to the fundamental knowledge of the etiology of school absenteeism and dropout which in turn contributes to a better understanding of the problematic development of adolescents. Further, more insight into the strength of effects of risk factors on school absenteeism and dropout is important for the development and improvement of both assessment, prevention and intervention strategies.

Keywords Meta-analysis · School absenteeism · Dropout · Risk factor · Risk domain

Introduction

Problematic school absenteeism is associated with many different life-course problems, such as risky sexual behavior, teenage pregnancy, psychiatric disorders, externalizing behavior, delinquency, and the abuse of alcohol, tobacco, marijuana, and other substances (see, for example, Chou et al. 2006; Egger et al. 2003; Jaafar et al. 2013). In addition, youth showing excessive absenteeism are at high risk for permanent dropout from school (Kearney 2008a), which may lead to economic deprivation and different mental, social, occupational, and marital problems in adulthood (Kogan et al. 2005; Tramontina et al. 2001). To reduce the

risk for these problems, it is important to gain insight into risk factors for both problematic school absenteeism (i.e., temporary periods of unexcused school absence) and permanent school dropout. School absenteeism in youth refers to excused or unexcused absences from elementary or secondary (middle/high) school (Kearney 2008a). Whereas excused absenteeism (e.g., absences related to medical illness or injury) could be viewed as non-problematic, unexcused and excessive absenteeism is a problem of serious concern that affects many school systems around the world. Absenteeism rates differ depending on the definition and measurement period. According to the National Center for Education Statistics (2018), 13% of the 8th graders, 14% of the 10th graders, and 15% of the 12th graders were absent at least three days a month, and 6, 5, and 6% were absent at least five days a month, respectively. Until now, many studies on risk factors for school absenteeism and dropout have been performed, but no clear overview of risk factors and their effects was available. The aim of the present study was to provide such an overview by statistically

✉ Jeanne Gubbels
J.Gubbels@UvA.nl

1 Research Institute of Child Development and Education, University of Amsterdam, P.O. Box 15780 Nieuwe Achtergracht 127, 1018 WS Amsterdam, The Netherlands

summarizing effects of risk factors by conducting a series of meta-analyses.

Problematic school absenteeism (from now on referred to as school absenteeism) does not refer to a single concept, but to various concepts, including school refusal (absenteeism due to the child's emotional distress, especially anxiety and depression; King and Bernstein 2001), school phobia (fear-based absenteeism; Tyrrell 2005), truancy (unexcused, illegal, non-anxiety-based absenteeism, which is often linked to a lack of parental monitoring, delinquency, academic problems, or social conditions such as homelessness or poverty; Fremont 2003) and absence from specific lessons. In their interdisciplinary model of school absenteeism, Kearney (2008a) argue that these concepts of school absenteeism are influenced by multiple child, parent, family, peer, school, and community factors. They argue that school absenteeism cases are caused by multiple factors and that the key influential factors are interrelated (e.g., child and parent psychopathology). They also argue that school absenteeism can deteriorate over time from acute, but relatively harmless and occasional absenteeism into regular, and even permanent absenteeism in the form of dropping out of school. This view on how school absenteeism and dropout evolve is in line with the ecological perspective on child development of Bronfenbrenner (1979, 1986). In his influential ecological model, Bronfenbrenner noted that the child interacts with different social ecological systems surrounding the child, such as the family, peers, and the school environment (microsystem), the extended family (exosystem), and the culture, laws, and social-political conditions (macrosystem). In each of these systems, risk factors can be present that increase the risk of negative child behavior, of which school absenteeism is an example. Bronfenbrenner assumed that risk factors in more proximal social systems exert more influence on the child's development and behavior than risk factors in more distal social systems. Therefore, primary studies aimed at determining risk factors for school absenteeism and school dropout are mainly focused on child-related factors and factors present in the microsystems directly surrounding the child, such as family-, peer-, and school-related factors.

In theoretical models for explaining school absenteeism and dropout such as described above, risk factors play a critical role. Therefore, a large body of research has been directed on identifying risk factors for school absenteeism and school dropout. Some of these risk factors are related to characteristics of the child (e,g., the child's age [the risk for school absenteeism increases as children become older], internalizing problems, externalizing problems, and a poor physical health), characteristics of the parent (e.g., parental psychiatric problems and parental unemployment), characteristics of the family (e.g. a low socio-economic status and family break-up), characteristics of the school (e.g.

large classes, high retention rates, and a poor quality of teachers) or characteristics of the peer group (e.g. antisocial, truant, or delinquent peers). Primary studies examining risk factors for school absenteeism and dropout often show a wide variation in effect size magnitude. Previous reviews of these studies have provided an overview of risk factors or potential causes for school absenteeism (and related concepts) and dropout. Kearney (2008b), for example, reviewed contemporary research on, among other things, the contextual risk factors for school absenteeism and school refusal behavior. Furthermore, Berends and Van Diest (2014) summarized the protective and risk factors for school absenteeism, and King and Bernstein (2001) reviewed studies on problematic family functioning as an important factor contributing to school refusal. However, these reviews were merely qualitative in nature, and until today, the literature on risk factors for school absenteeism and dropout has never been meta-analytically or quantitatively synthesized. In a meta-analysis, the divergent findings of studies on (effects of) risk factors can be summarized to increase insight into whether or not a factor should be designated as a risk factor, and what the true effect of a particular risk factor is. Accordingly, more insight can be gained into all risk factors that play a role in school absenteeism and dropout, leading to a better understanding of the etiology of these problems.

An overview of the variables that are true risk factors for school absenteeism and dropout is also relevant for clinical practice, as this may contribute to the development or improvement of instruments for risk and needs assessment. Risk assessment instruments assess which static (unchangeable in treatment) and dynamic (changeable in treatment) risk factors are present in the environment of a child, and are needed in determining which children should be offered an (preventive) intervention, and with what intensity these children should treated. Needs assessment instruments assess only dynamic risk factors (i.e. the care needs), and are needed in order determining what factors should be targeted in an intervention, so that the risk for school absenteeism or dropout is reduced. Both type of instruments originate from the risk and need principle of the Risk Need Responsivity (RNR) model (Andrews and Bonta 2010; Andrews et al. 1990). This model is used in judicial care as a guidance for offering effective offender assessment and treatment services, and its effectiveness has been proved in several review studies (see, for instance, Andrews et al. 1990; Andrews and Dowden 1999). It can be assumed that this model also applies to problematic and chronic school absenteeism, since criminal recidivism, school absenteeism, and school dropout can all be explained by an accumulation of risk factors in different domains. In addition, there is an overlap between risk factors for school absenteeism and delinquency (Van der Woude et al. 2017).

The present study, then, is important for several reasons. First, examining the effects of different risk factors for school absenteeism and dropout increases the fundamental knowledge of the etiology of these behavioral problems. Second, more insight into the effects of risk factors contributes to the development or improvement of risk and needs assessment instruments. Currently, there are hardly any risk and needs assessment instruments available that assess all relevant risk factors for school absenteeism and dropout, even though such instruments are required for properly referring at-risk juveniles to the most appropriate interventions for reducing risks. Third, the results of this study can support the development and improvement of interventions aimed at preventing (new occurrences of) school absenteeism or dropout. Information on the magnitude of dynamic risk factor effects is essential for determining which risk factors can best be addressed in these interventions.

The Current Study

This study aimed to synthesize the available evidence on risk factors for school absenteeism and dropout. Specifically, this study was guided by the research questions (1) "What factors can be designated as risk factors for school absenteeism and what is their impact?" and (2) "What factors can be designated as risk factors for school dropout and what is their impact?". In answering these questions, each (potential) risk factor that was examined in a primary studies was classified into a risk domain, which is as a (broad) group of risk factors that are similar in nature. Next, an overall mean effect was estimated for each of these risk domains in a separate meta-analysis. Finally, as previous literature showed large gender differences in motives for school absenteeism and school dropout (e.g., De Baat and Foolen 2012; Teasley 2004), it was assumed that (effects of) risk factors do not need to be equal for boys and girls. Therefore, this study aimed to answer the following additional research question: (3) "How are risk factor effects influenced by gender?". To address this final question, the percentage of boys in primary study samples was tested as moderator of the overall effect of each risk domain.

Method

Inclusion and Exclusion Criteria

To select relevant studies, several inclusion and exclusion criteria were formulated. First, studies had to examine the effect of at least one (potential) risk factor for school absenteeism and/or dropout. In the current meta-analysis,

school absenteeism refers to problematic school absenteeism, which was defined as unexcused absences from school (Kearney 2008a). As described in the Introduction, problematic school absenteeism refers to various concepts, including missing or skipping classes, school non-attendance, and school refusal. Therefore, primary studies reporting on problematic school absenteeism and/or on one or more of these individual concepts were all included. Studies reporting on permitted or excused school absence were not included. School dropout was defined as leaving school prior to earning a high school credential (Kearney 2008b).

Second, only studies examining school absenteeism and/or dropout in primary schools (kindergarten and elementary schools) and secondary schools (middle schools, junior high schools, and high schools) were included. Studies examining absence from college or other forms of post-secondary education were excluded.

Third, as risk factors must precede an outcome (Kraemer et al. 1997), only effect sizes of (potential) risk factors that were present prior to the school absenteeism or school dropout were included. Specifically, primary studies had to report on at least one association between school absenteeism or school dropout and a factor preceding these events, or a factor of which reasonably could be assumed to precede the absenteeism or school dropout based on information described in the primary study. Studies with a longitudinal research design (in which subjects were followed over time) as well as cross-sectional studies (in which subjects were examined at a single point in time) were included. However, factors reported in cross-sectional studies were only included if the factors were already present prior to any (potential) school absenteeism or dropout. This third criterion was to ensure that antecedents of school absenteeism were examined instead of consequences.

Fourth, studies had to report on (1) a measure of bivariate association between a factor and school absenteeism or dropout (e.g., a correlation coefficient) or (2) sufficient information for calculating such an association.

Fifth, given that risk factors for school absenteeism and dropout may be very different in prevalence and nature across cultural settings, only studies that were performed in Western countries were included (i.e., European countries, Australia, New Zealand, Canada, and the US). All primary studies had to be written in Dutch and English to be included.

Sixth, only studies published in peer-reviewed scientific journals or dissertations accessible to the authors of this review were included. Published studies have survived some form of a refereeing and editing process (Dunkin 1996), and although dissertations are not peer-reviewed, they have been evaluated by supervising committees and therefore controlled for quality at least to some extent. As

Fig. 1 Flow chart of search results

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┌─────────────────────────────────────────────┐
│ Search results: (k = 4,618)                  │
│                                              │
│ Digital Databases                            │
│ Google Scholar: 581                          │
│ ScienceDirect: 897                           │
│ PsycINFO: 2,234                              │
│ Web of Science: 1,445                        │
│ Sociological Abstract: 373                   │
│ Google: 131                                  │
│                                              │
│ Additional studies obtained from other       │
│ sources: 435                                 │
└─────────────────────────────────────────────┘
              │
              │          ┌──────────────────────────────────────────────────┐
              ├─────────▶│ Excluded based on title, abstract, and duplicate │
              │          │ citations: 4,398                                 │
              ▼          └──────────────────────────────────────────────────┘
┌─────────────────────────────────────────────┐
│ Full studies retrieved for detailed         │
│ evaluation (k = 220)                         │
└─────────────────────────────────────────────┘
              │
              │          ┌──────────────────────────────────────────────────────────────────┐
              │          │ Excluded: 145                                                    │
              │          │                                                                  │
              ├─────────▶│ No measure of school absenteeism or dropout: 32                  │
              │          │ No comparison group or association measure: 21                   │
              │          │ Absenteeism from college or other non-school absenteeism: 10     │
              │          │ Reports on consequences of school absenteeism or dropout: 2      │
              │          │ Reports on the effect of school absenteeism interventions: 1     │
              │          │ No empirical study (e.g., review study): 2                       │
              │          │ Calculation of effect sizes not possible/no bivariate results: 59│
              │          │ Study was conducted in a non-Western country: 18                 │
              ▼          └──────────────────────────────────────────────────────────────────┘
┌─────────────────────────────────────────────┐
│ Included in meta-analysis (k = 75)           │
└─────────────────────────────────────────────┘
        │                       │
        ▼                       ▼
┌──────────────────┐   ┌──────────────────┐
│ Reported on risk │   │ Reported on risk │
│ factors for      │   │ factors for      │
│ school           │   │ school dropout   │
│ absenteeism      │   │ (k = 33)         │
│ (k = 43)         │   │                  │
└──────────────────┘   └──────────────────┘
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this is not the case for unpublished studies, and as unpublished studies are far more difficult to locate, only published studies and dissertations were searched for and included.

Finally, the aim was not to perform a meta-analysis of the effects of treatment or preventive strategies for reducing school absenteeism and dropout, and because treatment effects may influence risk factor effects, no effects of potential risk factors that are reported in studies examining treatment effects were extracted.

Search Strategy

Until May 2019, multiple electronic databases were searched to identify relevant studies: Google, Google Scholar, ScienceDirect, PsycINFO, Web of Science, and Sociological Abstracts. The following keywords were used: "truan*", "dropout", "drop-out", "school attendan*", "school non-attendan*", "school disengage*", "class-cutting", "school refus*", "school absent*", "risk factor*", and "correlate*" (the asterisk represents one or more wildcard characters). Keywords related to "risk factors" were combined with keywords related to "school absenteeism" or

"dropout". Further, the reference list of several relevant reviews and reports were screened (e.g., Berends and Van Diest 2014; De Baat and Foolen 2012; Hammond et al. 2007; Kearney 2008b; Teasley 2004) for relevant studies. Finally, the reference sections of the included primary studies were screened.

These search methods resulted in 4618 studies. After deduplication and the exclusion of studies based on their title or abstract, 220 studies remained of which the full text was evaluated. Finally, 75 studies met all inclusion criteria and were included in the current study. These studies reported on 71 independent samples. Figure 1 presents a flow chart of the search of studies and Table 1 presents the characteristics of the included studies.

Study Coding

Following the guidelines proposed by Lipsey and Wilson (2001), a coding form was developed to code all included primary studies. The primary interest was to synthesize all effects of risk factors that were similar in nature. Across all effect sizes that could be extracted from all included studies,

Table 1 Characteristics of included studies

Author(s) Pub. year	Focus	N [a]	n (absent) [b]	n (non-absent) [c]	% Boys [d]	#Risk factors	#Child factors	#Family factors	#School factors	#Peer factors
Alexander et al. 1997	Absenteeism	493–621	194–248	297–373	45.58	31	3	14	14	0
Aloise-Young et al. 2002	Dropout	2203	1213	990	54.23	3	3	0	0	0
Archambault et al. 2009	Absenteeism	11827	–	–	44.60	32	4	0	28	0
Attwood and Croll 2006	Absenteeism	337–344	32–33	304–311	52.51	5	0	2	3	0
Bask and Salmela-Aro 2013	Dropout	878	116	762	–	3	3	0	0	0
Battin-Pearson et al. 2002	Dropout	770	88	682	50.99	34	12	6	12	6
Birkett et al. 2014	Absenteeism	27820–29169	1725–1838	26095–27331	0/100	14	14	0	0	0
Blondal and Adalbjarnardottir 2014	Dropout	835	241	594	46.00	28	2	17	9	0
Blodgett and Lanigan 2018	Absenteeism	2101	270	1831	50.00	1	1	0	0	0
Bobakova et al. 2015	Absenteeism	1380	117	1263	49.70	3	1	0	1	1
Borgna and Struffolino 2017	Dropout	1508–5233	612–759	896–4474	50.50/55.90	3	1	2	0	0
Bosker and Hofman 1994	Dropout	2523	166	2357	–	21	5	5	7	4
Breuner et al. 2004	Absenteeism	233–270	106–123	127–147	38.64	18	17	0	1	0
Bryk and Thum 1989	Absenteeism/Dropout	160–4450	–	–	–	52	10	2	40	0
Burton et al. 2014	Absenteeism	108	29	79	29.00	3	3	0	0	0
Christle et al. 2007	Dropout	196	–	–	50.90	7	2	1	4	0
Claes et al. 2009	Absenteeism	810–3470	513	297–2957	48.40	26	0	14	12	0
(2) Torney-Purta et al 2001										
Corville-Smith et al. 1998	Absenteeism	54	27	27	29.63	11	3	5	2	1
Cratty 2012	Dropout	68401	13188	55213	48.94	18	8	4	6	0
Duncan et al. 2017	Absenteeism	3112	338	2775	50.50	9	6	3	0	0
Dupéré et al. 2017	Dropout	362	183	179	52.29	30	6	8	16	0
Eaton et al. 2008	Absenteeism	2741	1015	1726	43.40	59	57	1	1	0
Echeverria et al. 2014	Absenteeism	93320	5546	87774	50.70	2	2	0	0	0
Egger et al. 2003	Absenteeism	1422	–	–	55.60	11	11	0	0	0
Ensminger et al. 1996	Dropout	1296	291	1005	49.03	9	2	6	1	0
(2) Ensminger and Slusarcick 1992										
Epstein and Sheldon 2002	Absenteeism	12	–	–	–	15	3	6	6	0
Fall and Roberts 2012	Dropout	14781	786	13995	49.40	7	0	1	6	0
Fernandez-Suarez et al. 2016	Dropout	252–264	121–128	131–136	80.74	7	5	2	0	0
Flisher and Chalton 1995	Dropout	400	68	332	50.12	32	30	2	0	0

Table 1 (continued)

Author(s) Pub. year	Focus	N [a]	n (absent) [b]	n (non-absent) [c]	% Boys [d]	#Risk factors	#Child factors	#Family factors	#School factors	#Peer factors
Fortin et al. 2010	Dropout	102–154	16–50	86–104	0/100	54	10	14	22	8
Gastic 2008	Absenteeism	1578	199–290	1288–1379	53.20	2	0	0	2	0
Gleason and Dynarski 2002	Dropout	2568–2615	154–382	2233–2414	53.00	35	10	10	15	0
(2) Gleason and Dynarski 1994										
Hancock et al. 2018	Absenteeism	5231	544	4687	61.00	23	6	13	0	0
Hagborg et al. 2018	Absenteeism	1147–1240	39–132	1108	49.32	42	10	20	12	0
Henry 2007	Absenteeism	5429–5684	597–890	4539–5087	47.30/48.50	50	16	20	14	0
Hickman et al. 2008	Dropout	119	59	60	50.80	28	3	0	25	0
Hughes et al. 2018	Dropout	735	–	–	52.70	1	0	0	1	0
Hunt and Hopko 2009	Absenteeism	367	255	112	42.00	30	15	13	1	1
Hysing et al. 2015	Absenteeism	8347	–	–	46.50	11	11	0	0	0
Ingul and Nordahl 2013	Absenteeism	94–716	21–80	73–636	47.70	27	19	3	2	3
Ingul et al. 2012	Absenteeism	308–610	101–103	207–507	47.70	46	29	10	6	2
Janosz et al. 1997	Dropout	791	172–335	456–619	46.40/55.37	92	44	24	12	12
Jenkins 1995	Absenteeism	754	–	–	50.00	13	4	7	2	0
Jimerson et al. 2000	Dropout	143	43	100	55.24	17	3	6	5	3
Keppens and Spruyt 2015	Absenteeism	3884	198	3686	–	3	2	0	1	0
Lloyd 1978	Dropout	774–788	143–196	592–631	0/100	36	2	10	24	0
Lounsbury et al. 2004	Absenteeism	248–321	–	–	46.00/48.00/53.00	27	27	0	0	0
Mounteney et al. 2010	Absenteeism	3809	107	3702	51.06	28	23	5	0	0
Morrow and Villodas 2017	Dropout	728	–	–	44.00	6	4	0	0	2
Mullvain 2017	Absenteeism	49	–	–	–	4	1	1	2	0
Peguero et al 2016	Dropout	2550–5950	306–714	2244–5236	48.00/50.00	12	12	0	0	0
Quiroga et al. 2012	Dropout	453	308	145	52.50	11	4	1	5	1
Ramberg et al. 2019	Absenteeism	4956	1160	3296	47.10	3	0	0	3	0
Ramirez et al. 2012	Absenteeism	27110	10163	16947	48.38	10	8	1	1	0
Reid 1984	Absenteeism	154	77	77	–	36	10	6	20	0
(2) Reid 1981										
Rousseau-Salvador et al. 2014	Absenteeism	37–167	12–61	25–106	45.58	8	8	0	0	0
Rumberger 1995	Dropout	17242	–	–	50.00	34	12	10	10	2
Rumberger et al. 1990	Dropout	96–114	48–66	48	48.20	20	10	4	6	0
Sälzer et al. 2012	Absenteeism	3491	–	–	50.00	9	2	1	6	0
Sapharas et al. 2016	Dropout	1689–1761	158–288	1473–1531	0/100	4	0	4	0	0

Table 1 (continued)

Author(s) Pub. year	Focus	N[a]	n (absent)[b]	n (non-absent)[c]	% Boys[d]	#Risk factors	#Child factors	#Family factors	#School factors	#Peer factors
Schwartz et al. 2009	Absenteeism	40	–	–	37.50	21	17	1	3	0
Sommer 1985	Absenteeism	18–50	9–25	9–25	0/64.00/100	16	2	7	7	0
Steinhausen et al. 2008	Absenteeism	89–244	41–154	48–90	–	54	30	12	8	4
Sznitman et al. 2017	Dropout	3604–13262	901–3846	2703–9416	49.68/51.39	12	8	4	0	0
Taylor 2009	Absenteeism	131	–	–	–	2	0	0	2	0
Teuscher and Makarova 2018	Absenteeism	220	–	–	52.10	7	3	1	2	1
Trampush et al. 2009	Dropout	44–49	24–32	17–20	91.40	10	2	4	4	0
Vaughn et al. 2013	Absenteeism	17125–18443	376–1694	16749	51.00	66	40	14	12	0
Veenstra et al. 2010	Absenteeism	1675	109	1566	–	9	3	4	1	1
Vitaro et al. 2001	Dropout	751	134	617	100	7	1	3	1	2
Zhang et al. 2007	Absenteeism	4745–12464	588–1725	4157–10739	64.75	5	3	1	1	0

Pub. year publication year, *Focus* the focus of the study (school absenteeism or dropout), *N* total sample size, *n (absent)* number of school absentees or dropouts in the sample, *n (non-absent)* number of non-absentees or non-dropouts in the sample, *% Boys* percentage of boys in the sample, *#Risk factors* total number of risk factors that were retrieved from the study, *#Child factors* number of child factors that were retrieved from the study, *#Family factors* number of family factors that were retrieved from the study, *#School factors* number of school factors that were retrieved from the study, *#Peer factors* number of peer factors that were retrieved from the study, (2) A primary study using the same sample as the study mentioned directly above, *Absenteeism/Dropout* both school absenteeism and dropout were assessed in study

[a] If more than one sample size was reported in a study (varied by effect size), the range was displayed

[b] If more than one number of truants or dropouts was reported in a study (varied by effect size), the range was displayed

[c] If more than one number of non-truants or non-dropouts was reported in a study (varied by effect size), the range was displayed

[d] If more than one percentage of boys was reported in a study (due to multiple included samples; varied by effect size), all the percentages were displayed, separated by a '/'

there were too many risk factors to examine individually. For valid and intelligible analyses, each individual risk factor was classified into risk domains, which can be defined as categories of risk factors that are (more or less) similar in nature. According to the interdisciplinary model of school absenteeism of Kearney (2008a) and the ecological model of Bronfenbrenner (1979; 1986; see Introduction), these risk domains are related to (1) characteristics of the child; (2) characteristics of parents or caretakers, and the family; (3) characteristics of the school; or (4) characteristics of peer relationships and interactions with peers. For each extracted risk factor, it was first determined whether the factor was related to the child, the family, the school, or the peers. Next, a risk factor was further classified into more specific risk domains, and this procedure was done separately for school absenteeism and dropout. The online Appendix A shows an overview of the risk domains that were examined in this review. In the end, all risk factors for school absenteeism were classified into one of 44 mutually exclusive risk domains, of which 24 were related to child characteristics, 11 to family characteristics, 6 to school characteristics, and 3 to peer and peer-interaction characteristics. Risk factors for school dropout were classified into 42 mutually exclusive risk domains, of which 23 were related to child characteristics, 12 to family characteristics, 4 to school characteristics, and 3 to peer and peer interaction characteristics.

For descriptive purposes, several sample and study characteristics were coded. However, it was decided to only examine the moderating effect of one sample characteristic, namely the percentage of boys within the sample. This variable was tested as a moderator, as it is known that there can be large gender differences in motives for school absenteeism and dropout (e.g., De Baat and Foolen 2012; Teasley 2004). In coding studies for meta-analytic research, it is common practice to retrieve a large amount of information from primary studies (see for instance, Cooper 2010; Lipsey and Wilson 2001), after which the moderating effect of a variety of study, sample, and research design descriptors is tested. However, since the problem of multiple testing often dealt with in primary studies (e.g., Tabachnik and Fidell 2013) is equally present in meta-analytic research, it was decided to only test the variable that seemed most relevant in light of the aims of the present review. Further, in order to gain sufficient statistical power in the moderator analyses, the variable percentage of boys in the sample was only tested as a moderator when this variable was based on at least five studies. The other coded variables did not meet this criterion, which was also reason not to test any other variable as a moderator within the risk domains.

In coding all included studies, two coding rounds were completed. First, 10 studies that were eligible for inclusion

(7 school absenteeism studies and 3 dropout studies, reporting on a total of 282 risk factors) were randomly selected and coded by the first author and an and an independent assistant researcher. Next, the independent codings were compared and percentages of agreement were calculated. A perfect agreement (100%) was found for the percentage of boys in the sample, and the number of extracted effect sizes from each primary study. The agreement for the double-coded effect sizes was calculated by dividing the number of matching codings (268) by the total number of double-coded effect sizes (282), which was 95%. All discrepancies in the 5% non-matching effect size codings were discussed by the two coders until full consensus was reached. In the second coding round, the first author coded the remaining 65 studies. Finally, the classification of every extracted (potential) risk factor into risk domains was discussed by the first, second, and third author of this study. Therefore, the interrater agreement for the risk domain variable was perfect (100%).

Calculation of Effect Sizes and Statistical Analyses

In this review, the correlation coefficient (r) was chosen as common effect size for risk factor effects, meaning that a correlation was calculated for each extracted (potential) risk factor. The correlations were directly obtained from the included studies, or calculated using information that was reported in the studies (such as proportions, means and standard deviations, odds-ratio's, or F or t values). In these calculations, the formulas of Ferguson (1966), Rosenthal (1994), and Lipsey and Wilson (2001) were used. A positive r value was assigned to a factor that was *more* present in youth showing school absenteeism or dropout than in youth not showing these problems, whereas a negative r value was assigned to a factor that was *less* present in youth showing school absenteeism or dropout. If a risk factor effect was reported as non-significant in primary studies without further statistical information to calculate the actual effect size, an effect size of zero was assigned to the factor (see also Durlak and Lipsey 1991). This procedure was applied to one study, in which two factors were described as non-significant. After all correlation coefficients were obtained, the r values were transformed into Fisher's z values, as correlations are non-normally distributed (see, for instance, Lipsey and Wilson 2001).

Because most studies reported on more than one risk factor for school absenteeism or dropout, a traditional random effects (two-level) model was extended to a three-level random effects model (Cheung 2014; Houben et al. 2015; Van den Noortgate et al. 2013, 2014). A major advantage of this three-level approach to meta-analysis is that all relevant effects reported in each primary study can be included,

implying that all relevant information is preserved. As a result, there no information is lost and (moderator) effects can be estimated more precisely and with maximum power in the statistical analyses (Assink and Wibbelink 2016). In a three-level random effects meta-analytic model, three sources of variance are taken into account: sampling variance of the observed effect sizes (Level 1), variance between effect sizes extracted from the same study (Level 2), and variance between studies (Level 3). In an intercept-only model, the intercept represents the estimate of the overall or mean effect of a single risk domain. If variation in effect sizes extracted from the same study (i.e., level 2 variance) and/or variation in effect sizes extracted from different studies (i.e., level 3 variance) was significant, the model was extended with the potential moderating variable percentage of boys to determine whether this variable can explain any significant variance. In a number of included studies, variables were examined as risk factors using the same sample. As this induces dependency in effect sizes that are extracted from these studies, the same study identification number was given to these studies, so that effect size dependency is accounted for.

In the statistical environment R (version 3.5.1; R Core Team 2015), the function "rma.mv" of the metafor-package (Viechtbauer 2010) was used to conduct the statistical analyses. The R syntaxes were written so that the three sources of variance were modeled (Assink and Wibbelink 2016). In testing individual regression coefficients and calculating corresponding confidence intervals, a t-distribution was used (Knapp and Hartung 2003). To determine the significance of the level 2 and level 3 variance, the full model was compared to a model excluding one of these variance parameters in two separate log-likelihood ratio tests. If significant level-2 and/or level-3 variance was detected, the distribution of effect sizes was considered to be heterogeneous. This indicated that effect sizes could not be treated as estimates of one common effect size, meaning that moderator analyses could be performed. All model parameters were estimated using the restricted maximum likelihood estimation method. Prior to the analyses, a dichotomous dummy variable was created for each category of a discrete variable and continuous variables were centered around their mean. The log-likelihood-ratio-tests were performed one-tailed and all other tests were performed two-tailed. A p-value < 0.05 was considered as statistically significant. Finally, it should be noted that all significant and non-significant results of all performed analyses are reported. No significant or non-significant result of any analysis was left out.

Assessment of Bias

Despite an extensive search for studies on risk factors for school absenteeism and dropout, it is possible that relevant studies were missed due to limitations in the search strategy or different forms of bias, such as publication bias or subjective reporting bias. To examine whether (a form of) bias was present in the estimated overall effects of risk domains, three analyses were conducted that are all three based on the association between effect size and sample size that is expected when bias is present in the effect sizes that are to be synthesized. First, a funnel-plot-based trim and fill method was conducted (Duval and Tweedie 2000a, 2000b). This means that in case of an asymmetrical distribution of effect sizes (i.e., an asymmetrical funnel plot), the symmetry of the distribution is restored by imputing effect size estimates from "missing" studies. Effect sizes imputed to the left of the estimated mean effect imply that below average effect sizes were underrepresented and that the estimated mean effect may be an overestimation of the true effect. On the other hand, imputation of effect sizes to the right of the estimated mean effect indicates that above average effect sizes were underrepresented and that the estimated mean effect may be an underestimation of the true effect. Second, a three-level funnel plot test was conducted in which effect sizes were regressed on the sample sizes in a 3-level meta-analytic model, in which effect size dependency is accounted for. In this model, a significant slope is an indication of bias. Third, an adapted Egger"s test was conducted in which effect sizes were regressed on standard errors in a 3-level meta-analytic model. In this test, effect size dependency was also accounted for and a significant slope is once again an indication of bias. These bias assessment analyses were also performed in the R environment (Version 3.5.1; R Core Team 2015) with the functions "trimfill" and "rma.mv" of the metafor package (Viechtbauer 2010).

Results

In total, $k = 75$ studies published between 1978 and 2019 were included with $k = 43$ studies reporting on factors for school absenteeism and $k = 33$ studies reporting on factors for dropout. For specifically school absenteeism, 43 studies with 41 non-overlapping samples ($N = 243,296$ pupils) were included, from which 781 effect sizes were extracted. The average percentage of boys in the samples of these studies was 47.9%. All included studies together reported on at least $n = 26,230$ absentees and at least $n = 189,437$ non-absentees. Exact numbers of these groups could not be given, as in some studies the specific number of absentees and non-absentees was not reported. The included studies were conducted in the USA ($k = 21$), Canada ($k = 3$), Australia ($k = 1$), and Europe ($k = 16$).

The 33 studies on school dropout used 31 non-overlapping samples with a total sample size (N) of 136,392 pupils. These studies examined at least $n =$

21,625 school dropouts and at least $n = 95,813$ non-dropout (again, some of the dropout studies did not report on the specific number of dropouts and non-dropouts), and reported on 635 effect sizes. The average percentage of boys in the samples of these studies was 51.8%. The dropout studies were conducted in USA ($k = 21$), Canada ($k = 5$), and Europe ($k = 6$).

Overall Effects of Risk Domains for School Absenteeism

Table 2 presents an estimated overall effect for each of the 44 risk domains for school absenteeism in descending order, separately for child-, family-, school- and peer related risk domains. The overall effects of 28 domains were significant and positive in direction (including 16 child-related risk domains, 9 family-related risk domains, and 3 school-related risk domains), implying that these domains can be regarded as true risk domains for school absenteeism. The magnitude of the effects of these risk domains ranged from small (i.e., $r = 0.099$ for "low IQ/learning difficulties") to large (i.e., $r = 0.553$ for "having a negative school attitude") based on the criteria of Rice and Harris (2005) for interpreting effect sizes. Significant large overall effects ($r \geq 0.252$) were found for 11 risk domains (indicated in Table 2 with "a"), including the child related risk domains "having a negative school attitude", "anti-social behavior/cognitions", "smoking", "drug abuse", "alcohol abuse", "other internalizing problems", "psychiatric symptoms or disorders", and "being a sexual minority"; the family related risk domains "low parental school involvement" and "history of child abuse victimization"; and the school risk domain "poor pupil-teacher relationship". Further, various risk domains with a significant medium overall effect ($0.160 < r < 0.252$) or a significant small effect ($r < 0.160$) were found (indicated in Table 2 with "b" and "c", respectively).

For 15 domains, the estimated overall effect did not significantly deviate from zero implying that these domains cannot be regarded as *risk* domains given the present results. Of these 15 domains, three had as trend significant overall effect. Table 2 also shows the effects of 4 single factors (presented in *italics*) that could not be classified in any of the created risk domains, due to their unique nature. The effect of the factors "history of grade retention", "low attachment to parents", and "no subculture affiliation" were significant and medium to small in size. The effect of "parental absenteeism in past" was not significant, implying that this variable was not identified as a risk factor for school absenteeism.

Overall Effects of Risk Domains for Dropout

Table 3 shows the overall effects of the 42 risk domains for school dropout. A significant effect in a positive direction

was found for 23 risk domains, including 13 child-related domains, 7 family-related domains, 1 school-related domain, and 2 peer-related domains. Based on the criteria of Rice and Harris (2005), the magnitude of the significant overall effects ranged from small (i.e., $r = 0.062$ for "ethnicity") to large (i.e., $r = 0.365$ for "history of grade retention"). Three child related risk domains with a large significant effect were found ($r \geq 0.299$; indicated in Table 3 with "a"), including "history of grade retention", "low IQ/learning difficulties", and "low academic achievement". Table 3 also lists several risk domains with a significant medium overall effect ($0.192 < r < 0.299$) or a significant small overall effect ($r < 0.192$) (indicated with "b" and "c", respectively).

The estimated overall effect did not significantly deviate from zero for 19 risk domains. This implies that these domains cannot be regarded as risk domains for dropout. Three of these 19 risk domains showed a trend significant effect. Table 3 also shows the overall effects of 6 single risk factors (presented in *italics*). The factors "poor general well-being", "adverse childhood experiences", "age of mother (being younger)", "large classes/schools" and "multicultural peer group" showed a significant medium to small overall effect size. The effect of the factor "sibling at school" was not significant, and could therefore not be identified as a risk factor for school dropout.

Assessment of Bias

Table 4 presents the results of the three analyses that were conducted to assess bias in the estimated mean effect of each of the 43 risk domains for school absenteeism. There was no indication of bias in 13 estimated risk domain effects (i.e., 0 out of 3 methods indicated bias), some indication of bias in 22 risk domain effects (i.e., 1 out of 3 methods indicated bias), and moderate to strong indications of bias in 9 risk domain effects (i.e., 2 or 3 out of 3 methods indicated bias). These results show indications of bias in most of the estimated risk domains. For school dropout, no indication of bias was found in 14 estimated risk domain effects, some indication of bias in 20 risk domain effects, and moderate to strong indications of bias in 8 risk domain effects (see Table 5). Again, an indication of bias was found in most risk domains. For brevity, the funnel plots that were produced in the trim-and-fill analyses are not presented here, but are available upon request from the first author.

The Moderating Effect of Gender

Table 2 shows the results of the likelihood-ratio tests that were performed to examine heterogeneity in effect sizes in the school absenteeism risk domains. In 37 risk domains, there was significant level-2 and/or level-3 variance. In the

Table 2 Overall effect sizes of all risk domains for school absenteeism

Domain of risk factors	# Studies	# ES	Mean z (SE)	95% CI	Sig. mean z (p)	% Var. at level 1	Level 2 variance	% Var. at level 2	Level 3 variance	% Var. at level 3	Mean r
Child domains (#24)											
Having a negative school attitude	11	72	0.553 (0.222)	(0.110, 0.996)	<0.001***	0.0	0.003***	0.6	0.536***	99.4	0.503[a]
Anti-social behavior/cognitions	19	53	0.457 (0.180)	(0.096, 0.818)	0.014*	0.0	0.018***	3.0	0.604***	97.0	0.428[a]
Low academic self-concept	3	5	0.418 (0.189)	(−0.105, 0.942)	0.091[+]	1.9	0.033***	28.6	0.079	69.6	0.395
Smoking	2	9	0.350 (0.048)	(0.239, 0.461)	<0.001***	1.4	0.021***	98.6	0.000	0.0	0.336[a]
Drug abuse	7	24	0.340 (0.069)	(0.196, 0.483)	<0.001***	0.5	0.011***	27.7	0.028*	71.8	0.327[a]
Alcohol abuse	7	35	0.322 (0.026)	(0.270, 0.375)	<0.001***	1.1	0.023***	98.9	0.000	0.0	0.311[a]
Other internalizing problems	11	33	0.317 (0.122)	(0.068, 0.565)	0.014*	0.9	0.008***	5.0	0.156***	94.0	0.307[a]
Psychiatric symptoms/disorders	5	7	0.313 (0.047)	(0.198, 0.428)	<0.001***	20.4	0.003	29.2	0.005	50.5	0.303[a]
Being a sexual minority	2	7	0.280 (0.079)	(0.086, 0.474)	0.012*	0.3	0.005***	36.9	0.008	62.8	0.273[a]
Delinquent behavior	7	20	0.258 (0.139)	(−0.032, 0.549)	0.079[+]	0.1	0.019***	13.4	0.123**	86.5	0.252
Depression	8	13	0.242 (0.032)	(0.173, 0.311)	<0.001***	5.8	0.008***	94.2	0.000	0.0	0.237[b]
Low academic achievement	11	22	0.236 (0.049)	(0.135, 0.337)	<0.001***	1.0	0.024***	72.4	0.009	26.5	0.232[b]
High sexual involvement	2	8	0.233 (0.064)	(0.081, 0.384)	0.008**	1.2	0.032***	98.8	0.000	0.0	0.229[b]
Showing risky behavior	2	8	0.230 (0.067)	(0.073, 0.388)	0.011*	0.9	0.003***	28.1	0.008*	71.0	0.226[b]
Poor physical health	10	57	0.180 (0.042)	(0.097, 0.264)	<0.001***	0.8	0.010***	42.5	0.013***	56.7	0.178[b]
Risky coping/personality profile	7	34	0.159 (0.020)	(0.117, 0.200)	<0.001***	28.9	0.010***	71.1	0.000	0.0	0.158[c]
Not being religious	2	3	0.142 (0.040)	(−0.031, 0.316)	0.072[+]	7.4	0.004***	92.6	0.000	0.0	0.141
Age (being older)	12	17	0.127 (0.029)	(0.065, 0.189)	<0.001***	4.5	0.003***	26.8	0.006	68.7	0.126[c]
Anxiety	9	25	0.116 (0.047)	(0.018, 0.214)	0.022*	3.5	0.007***	33.8	0.013***	62.7	0.115[c]
High impact/negative life events	4	8	0.112 (0.062)	(−0.033, 0.258)	0.111	0.9	0.026***	99.1	0.000	0.0	0.112
History of grade retention	1	1	0.100 (0.017)	(0.068, 0.132)	<0.001***	100.0	–	–	–	–	0.100[c]
Low IQ/learning difficulties	5	6	0.099 (0.033)	(0.014, 0.184)	<0.001***	5.0	0.005	95.0	0.000	0.0	0.099[c]
Negative or no leisure activities	4	10	0.081 (0.084)	(−0.110, 0.271)	0.364	7.0	0.005*	16.2	0.024*	76.8	0.081
Having a job	2	6	0.071 (0.096)	(−0.177, 0.319)	0.494	0.5	0.005***	21.2	0.017*	78.3	0.071
Ethnicity (being non-white)	15	36	0.024 (0.030)	(−0.037, 0.086)	0.431	0.6	0.006***	43.4	0.008[+]	56.0	0.024
Family domains (#11)											
Low parental school involvement	4	12	0.279 (0.108)	(0.042, 0.516)	0.025*	0.3	0.001***	1.2	0.045***	98.5	0.272[a]
History of child abuse victimization	4	19	0.263 (0.023)	(0.214, 0.312)	<0.001***	8.6	0.009***	91.4	0.000	0.0	0.257[a]
Low attachment to parent	1	1	0.224 (0.024)	(0.175, 0.264)	<0.001***	100.0	–	–	–	–	0.220[b]
Large family size	2	2	0.197 (0.120)	(−1.323, 1.717)	0.348	35.6	0.010	32.2	0.010	32.2	0.194
Family structure (no nuclear family)	11	24	0.189 (0.046)	(0.093, 0.285)	<0.001***	0.5	0.050***	99.5	0.000	0.0	0.187[b]
Parental mental/physical problems	1	3	0.188 (0.040)	(0.017, 0.360)	0.042*	4.0	0.005***	96.0	0.000	0.0	0.186[b]
Low parental support/acceptance	4	12	0.184 (0.027)	(0.124, 0.245)	<0.001***	10.1	0.005***	89.9	0.000	0.0	0.182[b]
Low parental education	6	17	0.156 (0.041)	(0.068, 0.243)	0.002**	2.2	0.011***	74.6	0.004	23.2	0.155[c]
Ineffective family systems	6	15	0.154 (0.071)	(0.001, 0.306)	0.049*	7.1	0.002	6.7	0.024**	86.3	0.153[c]
Low family SES	20	50	0.135 (0.047)	(0.042, 0.229)	0.005**	0.8	0.010***	23.7	0.033***	75.4	0.134[c]
Low parental control	6	16	0.124 (0.028)	(0.064, 0.184)	<0.001***	3.1	0.004***	61.8	0.002	35.1	0.123[c]
Sibling at school	1	2	0.065 (0.035)	(−0.382, 0.512)	0.315	53.8	0.001	46.2	0.000	0.0	0.065
Parental absenteeism in past	1	1	0.000 (0.200)	(−0.373, 0.373)	1.000	100.0	–	–	–	–	0.000
School domains (#6)											
Distance to school (short)	1	3	0.518 (0.228)	(−0.464, 1.500)	0.151	71.1	0.045	28.9	0.000	0.0	0.476
Poor pupil-teacher relationship	6	9	0.294 (0.057)	(0.163, 0.425)	<0.001***	1.6	0.007***	33.9	0.013	64.5	0.286[a]

Table 2 (continued)

Domain of risk factors	# Studies	# ES	Mean z (SE)	95% CI	Sig. mean z (p)	% Var. at level 1	Level 2 variance	% Var. at level 2	Level 3 variance	% Var. at level 3	Mean r
education/education	6	21	0.233 (0.094)	(0.037, 0.429)	0.022*	1.6	0.007***	13.2	0.047***	85.2	0.229[b]
Negative school/class climate	8	26	0.185 (0.028)	(0.128, 0.242)	<0.001***	3.6	0.018***	96.4	0.000	0.0	0.183[b]
Public school (vs. private)	1	2	0.098 (0.062)	(−0.688, 0.885)	0.358	9.9	0.007**	90.1	0.000	0.0	0.098
Large classes/schools	3	6	0.044 (0.110)	(−0.240, 0.328)	0.709	10.3	0.000	0.0	0.027*	89.7	0.044
Peer domains (#3)											
Having many friends	2	3	0.204 (0.149)	(−0.437, 0.846)	0.304	18.0	0.000	0.0	0.038	82.0	0.201
Poor social competence	7	10	0.106 (0.062)	(−0.034, 0.247)	0.120	9.1	0.032***	90.9	0.000	0.0	0.106
No subculture affiliation	1	1	0.060 (0.027)	(0.008, 0.112)	0.013*	100.0	–	–	–	–	0.060[c]
Being bullied	5	7	0.011 (0.105)	(−0.246, 0.269)	0.919	3.5	0.001	2.9	0.048*	93.6	0.011

 # studies number of studies, *# ES* number of effect sizes, *SE* standard error, *CI* confidence interval, *Sig* significance, *Mean z* mean effect size (Fisher's z), *% Var* percentage of variance explained, *Level 2 variance* variance between effect sizes from the same study, *Level 3 variance* variance between studies, *Mean r* the correlation coefficient corresponding to the mean effect size z

Risk factors that could not be classified into one of the 44 created risk domains for school absenteeism are presented in *italics*

$+p < 0.10$; $*p < 0.05$; $**p < 0.01$; $***p < 0.001$

[a]Significant large effect (according to the guidelines of Rice and Harris 2005)

[b]Significant medium effect (according to the guidelines of Rice and Harris 2005)

[c]Significant small effect (according to the guidelines of Rice and Harris 2005)

risk domains "psychiatric symptoms/disorders", "low IQ/learning difficulties", "large family size", "sibling at school", "distance to school (short)", and "having many of friends", there was no indication for heterogeneity in effect sizes. Therefore, no moderator analyses were performed in these domains. Further, and as mentioned in the Method section, the percentage of boys was only tested as a moderator when this variable was based on at least five studies. In the end, moderator analyses were performed for 20 risk domains for school absenteeism, and the results are presented in Table 6. A significant moderating effect was only found in the risk domain "drug abuse", showing that the effect of this domain decreased as the percentage of boys in samples increased.

Table 3 shows the results of the likelihood-ratio tests for the school dropout risk domains. Significant level-2 and/or level-3 variance was found in 32 risk domains. There was no indication for heterogeneity in effect sizes in the risk domains "delinquent behavior", "not being religious", "having a job", "anxiety", "large family size", "parental alcohol use", "history of child abuse victimization", "negative school/class climate", "often changed schools", and "involvement with truant/deviant peers". Also taking into account the lower bound that was set to five studies (see Method section), the percentage of boys was tested as a moderator in 15 risk domains for school dropout. The results are presented in Table 7, and reveal that only the overall effect of "having a negative school attitude" was moderated by gender. This finding implied that the effect of this risk domain for dropout decreased as the percentage of boys in samples increased.

Discussion

A great amount of literature has reported on potential risk factors for school absenteeism and/or school dropout, but a systematic review summarizing effects of risk factors for school absenteeism and risk factors for dropout was not yet available. Therefore, the aim of the present study was to estimate a mean effect of various risk domains (i.e., groups of more or less similar risk factors) for school absenteeism and various risk domains for school dropout. Both these constructs were examined in this meta-analytic review, as youths with excessive absenteeism are at high risk for permanent dropout from school (i.e., Kearney 2008a) and therefore, the constructs may share various risk factors. However, it is also relevant to examine whether and how risk factors for school absenteeism differ from risk factors for school dropout. The second aim of this study was to examine whether the percentage of boys in samples moderates the overall strength of individual risk domains for school absenteeism or dropout.

Table 3 Overall effect sizes of all risk domains for school dropout

Domain of risk factors	# Studies	# ES	Mean z (SE)	95% CI	Sig. mean z (p)	% Var. at level 1	Level 2 variance	% Var. at level 2	Level 3 variance	% Var. at level 3	Mean r
Child domains (#23)											
History of grade retention	10	18	0.363 (0.051)	(0.257, 0.470)	<0.001***	0.3	0.020***	63.9	0.011+	35.8	0.348[a]
Low IQ/learning difficulties	8	12	0.338 (0.070)	(0.184, 0.491)	<0.001***	1.7	0.053***	98.3	0.000	0.0	0.326[a]
Low academic achievement	21	92	0.327 (0.033)	(0.260, 0.393)	<0.001***	2.7	0.022***	60.5	0.013**	36.8	0.316[a]
Psychiatric symptoms/disorders	2	4	0.276 (0.042)	(0.142, 0.411)	0.007**	1.1	0.001***	30.9	0.003	68.0	0.269[b]
Drug abuse	5	9	0.252 (0.054)	(0.128, 0.376)	0.002**	10.7	0.016***	78.2	0.002	11.1	0.247[b]
Anti-social behavior/cognitions	14	35	0.241 (0.038)	(0.163, 0.319)	<0.001***	3.0	0.008***	32.5	0.015***	64.5	0.236[b]
Delinquent behavior	3	10	0.227 (0.027)	(0.167, 0.287)	<0.001***	50.1	0.000	12.2	0.001	37.8	0.223[b]
Low academic self-concept	4	8	0.221 (0.101)	(−0.018, 0.461)	0.056+	0.8	0.003+	7.4	0.038*	91.8	0.217
Poor general well-being	1	1	0.214 (0.020)	(0.173, 0.247)	<0.001***	100.0	–	–	–	–	0.210[b]
Having a negative school attitude	11	50	0.213 (0.028)	(0.157, 0.269)	<0.001***	1.0	0.021***	85.9	0.003	13.1	0.210[b]
Age (Being older)	4	7	0.198 (0.044)	(0.091, 0.304)	0.004**	12.9	0.010**	87.1	0.000	0.0	0.195[b]
Adverse childhood experiences	1	1	0.187 (0.037)	(0.116, 0.256)	<0.001***	100.0	–	–	–	–	0.185[c]
High sexual involvement	3	6	0.172 (0.098)	(−0.079, 0.423)	0.139	2.3	0.056***	97.7	0.000	0.0	0.170
Poor physical health	4	7	0.158 (0.045)	(0.048, 0.268)	0.013*	1.2	0.014***	98.8	0.000	0.0	0.157[c]
Other internalizing problems	4	10	0.141 (0.039)	(0.052, 0.230)	0.006**	12.3	0.004***	41.7	0.004+	45.9	0.140[c]
Smoking	2	3	0.126 (0.295)	(−1.143, 1.394)	0.712	0.4	0.018***	10.4	0.159	89.2	0.125
Not being religious	1	2	0.113 (0.025)	(−0.207, 0.433)	0.140	100.0	0.000	0.0	0.000	0.0	0.113
Showing risky behavior	1	14	0.109 (0.040)	(0.023, 0.195)	0.017*	11.4	0.020***	88.6	0.000	0.0	0.109[c]
Alcohol abuse	2	5	0.101 (0.214)	(−0.495, 0.696)	0.664	3.0	0.001	0.8	0.089**	96.3	0.101
Having a job	1	2	0.088 (0.025)	(−0.232, 0.408)	0.178	100.0	0.000	0.0	0.000	0.0	0.088
Negative or no leisure activities	5	11	0.084 (0.047)	(−0.020, 0.188)	0.101	2.6	0.004***	35.6	0.007	61.8	0.084
Depression	2	4	0.069 (0.055)	(−0.105, 0.244)	0.296	34.2	0.008*	65.8	0.000	0.0	0.069
Ethnicity (being non-white)	13	56	0.062 (0.025)	(0.012, 0.112)	0.017*	0.4	0.018***	87.2	0.003	12.3	0.062[c]
Risky coping/personality profile	5	20	0.057 (0.034)	(−0.014, 0.129)	0.110	3.7	0.021***	96.3	0.000	0.0	0.057
Anxiety	2	3	0.009 (0.022)	(−0.086, 0.105)	0.719	100.0	0.000	0.0	0.000	0.0	0.009
Family domains (#12)											
Low family SES	16	34	0.226 (0.044)	(0.137, 0.316)	<0.001***	1.1	0.010***	28.0	0.024***	70.9	0.222[b]
Low parental education	10	20	0.203 (0.040)	(0.120, 0.286)	<0.001***	1.0	0.003***	17.7	0.013***	81.4	0.200[b]
Large family size	3	4	0.197 (0.042)	(0.065, 0.329)	0.018*	18.9	0.000	0.0	0.004+	81.1	0.194[b]
Ineffective family systems	3	6	0.182 (0.101)	(−0.078, 0.442)	0.131	3.7	0.024***	56.6	0.017	39.6	0.180
Family structure (no nuclear family)	8	18	0.180 (0.024)	(0.130, 0.230)	<0.001***	5.1	0.008***	94.9	0.000	0.0	0.178[c]
Low parental support/acceptance	8	16	0.178 (0.051)	(0.068, 0.288)	0.004**	2.3	0.012***	47.8	0.013+	49.9	0.176[c]

Table 3 (continued)

Domain of risk factors	# Studies	# ES	Mean z (SE)	95% CI	Sig. mean z (p)	% Var. at level 1	Level 2 variance	% Var. at level 2	Level 3 variance	% Var. at level 3	Mean r
Poor parent-child relationship	4	9	0.165 (0.116)	(−0.102 0.432)	0.191	5.3	0.002	3.1	0.047**	91.6	0.164
Age of mother (being younger)	1	1	0.164 (0.043)	(0.081, 0.243)	<0.001***	100.0	−	−	−	−	0.163[c]
Low parental school involvement	7	25	0.150 (0.040)	(0.069, 0.232)	<0.001***	1.6	0.010***	56.8	0.007*	41.6	0.149[c]
Low parental control	8	21	0.135 (0.059)	(0.013, 0.258)	0.032*	3.2	0.004***	13.6	0.023***	83.1	0.134[c]
Sibling dropped out	1	2	0.122 (0.054)	(−0.560, 0.804)	0.264	6.7	0.005***	93.3	0.000	0.0	0.121
Parental alcohol use	1	2	0.071 (0.025)	(−0.249, 0.391)	0.216	100.0	0.000	0.0	0.000	0.0	0.071
History of child abuse victimization	2	4	0.035 (0.041)	(−0.094, 0.164)	0.453	26.8	0.005+	73.2	0.000	0.0	0.035
Sibling at school	1	1	0.028 (0.020)	(−0.010, 0.067)	0.077	100.0	−	−	−	−	0.028
School domains (#4)											
Low quality of school/education	3	11	0.162 (0.089)	(−0.031, 0.354)	0.091+	9.4	0.018***	51.7	0.013	38.9	0.161
Negative school/class climate	3	15	0.148 (0.051)	(0.038, 0.259)	0.012*	37.2	0.000	0.1	0.007+	62.7	0.147[c]
Large classes/schools	1	1	0.145 (0.080)	(−0.011, 0.292)	0.035*	100.0	−	−	−	−	0.144[c]
Poor pupil-teacher relationship	4	10	0.128 (0.062)	(−0.013, 0.269)	0.071+	5.1	0.034***	94.9	0.000	0.0	0.127
Often changed schools	4	5	0.078 (0.063)	(−0.099, 0.254)	0.288	0.8	0.000	0.0	0.016+	99.2	0.078
Peer domains (#3)											
Involvement with truant/deviant peers	6	13	0.232 (0.015)	(0.200, 0.264)	<0.001***	42.7	0.002+	57.3	0.000	0.0	0.228[b]
Poor social competence	5	16	0.171 (0.085)	(−0.010. 0.351)	0.062+	5.1	0.009*	21.6	0.030*	73.3	0.169
Having many friends/being popular	2	10	0.096 (0.040)	(0.006, 0.186)	0.039*	2.3	0.015***	97.7	0.000	0.0	0.096[c]
Multicultural peer group	1	1	0.089 (0.020)	(0.050, 0.126)	<0.001***	100.0	−	−	−	−	0.088[c]

studies number of studies, # *ES* number of effect sizes, *SE* standard error, *CI* confidence interval, *Sig* significance, *Mean z* mean effect size (Fisher's z), *% Var* percentage of variance explained, *Level 2 variance* variance between effect sizes from the same study, *Level 3 variance* variance between studies, *Mean r* the correlation coefficient corresponding to the mean effect size z

Risk factors that could not be classified into one of the 42 created risk domains for dropout are presented in italics

+ p <0.10; *p <0.05; **p <0.01; ***p <0.001

[a]Significant large effect (according to the guidelines of Rice and Harris 2005)

[b]Significant medium effect (according to the guidelines of Rice and Harris 2005)

[c]Significant small effect (according to the guidelines of Rice and Harris 2005)

Table 4 Results of three methods for the assessment of bias in the estimated mean effects of the risk domains for school absenteeism

Domain of risk factors	r	Trim-and-fill analysis	Three-level Funnel Plot test	Three-level Egger''s regression test	Number of methods indicating bias (out of 3)
Child domains (#24)					
Age (being older)	0.126	–	$\beta_1 = -0.000, p = 0.699$	$\beta_1 = 0.362, p = 0.675$	0
Alcohol abuse	0.311	Overestimation (6 ES missing)	$\beta_1 = -0.000, p = 0.288$	$\beta_1 = -5.162, p < 0.001$***	2
Anti-social behavior/cognitions	0.428	Underestimation (23 ES missing)	$\beta_1 = -0.000, p = 0.080$+	$\beta_1 = 1.539, p = 0.423$	1
Anxiety	0.115	Overestimation (6 ES missing)	$\beta_1 = 0.000, p = 0.469$	$\beta_1 = 0.443, p = 0.630$	1
Being a sexual minority	0.273	Overestimation (1 ES missing)	$\beta_1 = -0.000, p = 0.102$	$\beta_1 = 1.928, p = 0.177$	1
Delinquent behavior	0.252	Overestimation (4 ES missing)	$\beta_1 = -0.000, p = 0.473$	$\beta_1 = 4.497, p = 0.158$	1
Depression	0.237	Overestimation (1 ES missing)	$\beta_1 = 0.000, p = 0.632$	$\beta_1 = 0.359, p = 0.659$	1
Drug abuse	0.327	Overestimation (6 ES missing)	$\beta_1 = -0.000, p = 0.770$	$\beta_1 = 2.557, p = 0.291$	1
Ethnicity (being non-white)	0.024	Overestimation (3 ES missing)	$\beta_1 = -0.000, p = 0.887$	$\beta_1 = -0.544, p = 0.354$	1
Having a job	0.071	–	$\beta_1 = -0.000, p < 0.001$***	$\beta_1 = -34.826, p = 0.734$	1
Having a negative school attitude	0.503	Underestimation (22 ES missing)	$\beta_1 = -0.000, p = 0.041$*	$\beta_1 = -1.637, p = 0.669$	2
High impact/negative life events	0.112	–	$\beta_1 = -0.000, p = 0.951$	$\beta_1 = -0.571, p = 0.719$	0
High sexual involvement	0.229	Overestimation (1 ES missing)	$\beta_1 = 0.000, p = 0.778$	$\beta_1 = -12.814, p = 0.778$	1
Low academic achievement	0.232	–	$\beta_1 = 0.000, p = 0.599$	$\beta_1 = 1.471, p = 0.036$*	1
Low academic self-concept	0.395	–	$\beta_1 = -0.000, p = 0.239$	$\beta_1 = 2.604, p = 0.570$	0
Low IQ/learning difficulties	0.099	Overestimation (1 ES missing)	$\beta_1 = -0.000, p = 0.895$	$\beta_1 = 0.472, p = 0.659$	1
Negative or no leisure activities	0.081	–	$\beta_1 = -0.000, p = 0.366$	$\beta_1 = 2.769, p = 0.548$	0
Not being religious	0.141	–	$\beta_1 = 0.000, p = 0.862$	$\beta_1 = -0.417, p = 0.896$	0
Other internalizing problems	0.307	Underestimation (11 ES missing)	$\beta_1 = 0.000, p = 0.032$*	$\beta_1 = -1.286, p = 0.360$	2
Poor physical health	0.178	–	$\beta_1 = -0.000, p = 0.781$	$\beta_1 = 1.296, p = 0.110$	0
Psychiatric symptoms/disorders	0.303	Overestimation (3 ES missing)	$\beta_1 = -0.000, p < 0.001$***	$\beta_1 = 1.111, p = 0.184$	2
Risky coping/personality profile	0.158	Overestimation (5 ES missing)	$\beta_1 = 0.000, p = 0.968$	$\beta_1 = 0.094, p = 0.940$	1
Showing risky behavior	0.226	–	$\beta_1 = -0.000, p < 0.001$***	$\beta_1 = 11.517, p = 0.001$**	2
Smoking	0.336	Overestimation (2 ES missing)	$\beta_1 = 0.000, p = 0.311$	$\beta_1 = -20.214, p = 0.320$	1
Family domains (#11)					
Family structure (no nuclear family)	0.187	Underestimation (7 ES missing)	$\beta_1 = -0.000, p = 0.474$	$\beta_1 = 1.368, p = 0.466$	1
History of child abuse victimization	0.257	–	$\beta_1 = -0.000, p = 0.863$	$\beta_1 = 1.492, p = 0.342$	0
Ineffective family systems	0.153	–	$\beta_1 = -0.000, p = 0.270$	$\beta_1 = 0.534, p = 0.673$	0
Large family size	0.194	Overestimation (1 ES missing)	$\beta_1 = -0.000, p = 0.094$+	$\beta_1 = 2.304, p = 0.094$+	1
Low family SES	0.134	Overestimation (5 ES missing)	$\beta_1 = -0.000, p = 0.119$	$\beta_1 = 1.305, p = 0.019$*	2
Low parental control	0.123	–	$\beta_1 = 0.000, p = 0.371$	$\beta_1 = -0.980, p = 0.105$	0
Low parental education	0.155	Underestimation (6 ES missing)	$\beta_1 = -0.000, p = 0.063$+	$\beta_1 = 0.676, p = 0.569$	1
Low parental school involvement	0.272	Underestimation (5 ES missing)	$\beta_1 = -0.000, p = 0.008$**	$\beta_1 = 2.189, p = 0.156$	2

Table 4 (continued)

Domain of risk factors	r	Trim-and-fill analysis	Three-level Funnel Plot test	Three-level Egger's regression test	Number of methods indicating bias (out of 3)
Low parental support/acceptance	0.182	Underestimation (1 ES missing)	$\beta_1 = 0.000, p = 0.571$	$\beta_1 = -0.480, p = 0.502$	1
Parental mental/physical problems	0.186	–	NA	NA	0
Sibling at school	0.065	Overestimation (1 ES missing)	NA	NA	1
School domains (#6)					
Distance to school (short)	0.476	–	NA	NA	0
Large classes/schools	0.044	Underestimation (2 ES missing)	$\beta_1 = 0.000, p = 0.903$	$\beta_1 = -0.739, p = 0.432$	1
Low quality of school/education	0.229	Underestimation (2 ES missing)	$\beta_1 = -0.000, p = 0.111$	$\beta_1 = 2.955, p = 0.024^*$	2
Negative school/class climate	0.183	Underestimation (5 ES missing)	$\beta_1 = -0.000, p = 0.435$	$\beta_1 = -0.263, p = 0.827$	1
Poor pupil-teacher relationship	0.286	Underestimation (2 ES missing)	$\beta_1 = -0.000, p = 0.207$	$\beta_1 = 0.319, p = 0.875$	1
Public school (vs. private)	0.098	Overestimation (1 ES missing)	$\beta_1 = -0.000, p = 0.002^{**}$	$\beta_1 = 6.808, p = 0.002^{**}$	3
Peer domains (#3)	0.056				
Being bullied	0.011	Overestimation (2 ES missing)	$\beta_1 = 0.000, p = 0.891$	$\beta_1 = -0.883, p = 0.709$	1
Having many friends	0.201	–	$\beta_1 = -0.001, p = .208$	$\beta_1 = 4.279, p = 0.234$	0
Poor social competence	0.106	–	$\beta_1 = -0.001, p = 0.789$	$\beta_1 = 1.352, p = 0.491$	0

r mean effect size (Pearson's correlation; see also Table 2), *Underestimation* effect sizes were imputed to the right of the mean effect, implying that above average effect sizes were underrepresented and that the mean effect may be an underestimation of the true effect, *Overestimation* effect sizes were imputed to the left of the mean effect, implying that below average effect sizes were underrepresented and that the mean effect may be an overestimation of the true effect, *NA* not available, as only two or three effect sizes were classified in the risk domain

Dashes indicate that trimming and filling of effect sizes were not necessary according to the trim-and-fill algorithm

$^+ p < 0.10$; $^* p < 0.05$; $^{**} p < 0.01$; $^{***} p < 0.001$

Table 5 Results of three methods for the assessment of bias in the estimated mean effects of the risk domains for school dropout

Domain of risk factors	r	Trim-and-fill analysis	Three-level Funnel Plot test	Three-level Egger's regression test	Number of methods indicating bias (out of 3)
Child domains (#23)					
Age (Being older)	0.195	Underestimation (2 ES missing)	$\beta_1 = 0.000, p = 0.308$	$\beta_1 = -2.688, p = 0.043^*$	2
Alcohol abuse	0.101	Underestimation (1 ES missing)	$\beta_1 = -0.003, p < 0.001^{***}$	$\beta_1 = 32.531, p < 0.001^{***}$	3
Anti-social behavior/cognition	0.236	–	$\beta_1 = -0.000, p = 0.065^+$	$\beta_1 = 1.293, p = 0.330$	0
Anxiety	0.009	–	$\beta_1 = -0.000, p = 0.449$	$\beta_1 = 4.580, p = 0.449$	0
Delinquent behavior	0.223	Overestimation (3 ES missing)	$\beta_1 = -0.000, p = 0.568$	$\beta_1 = 0.791, p = 0.592$	1
Depression	0.069	–	$\beta_1 = 0.000, p = 0.772$	$\beta_1 = -0.977, p = 0.731$	0
Drug abuse	0.247	Overestimation (2 ES missing)	$\beta_1 = -0.000, p = 0.283$	$\beta_1 = 2.162, p = 0.098^+$	1
Ethnicity (being non-white)	0.062	Overestimation (11 ES missing)	$\beta_1 = -0.000, p = 0.668$	$\beta_1 = -0.163, p = 0.847$	1
Having a job	0.088	Underestimation (1 ES missing)	NA	NA	1
Having a negative school attitude	0.210	Underestimation (9 ES missing)	$\beta_1 = 0.000, p = 0.118$	$\beta_1 = -1.260, p = 0.411$	1
High sexual involvement	0.170	–	$\beta_1 = 0.000, p = 0.662$	$\beta_1 = -6.660, p = 0.465$	0
History of grade retention	0.348	Underestimation (1 ES missing)	$\beta_1 = 0.000, p = 0.109$	$\beta_1 = 1.169, p = 0.617$	1
Low academic achievement	0.316	Underestimation (20 ES missing)	$\beta_1 = -0.000, p = 0.949$	$\beta_1 = 1.247, p = 0.202$	1
Low academic self-concept	0.217	Underestimation (2 ES missing)	$\beta_1 = 0.000, p = 0.004^{**}$	$\beta_1 = -6.891, p = 0.060^+$	2
Low IQ/learning difficulties	0.326	–	$\beta_1 = -0.000, p = 0.509$	$\beta_1 = 3.641, p = 0.011^*$	1
Negative or no leisure activities	0.084	–	$\beta_1 = 0.000, p = 0.031^*$	$\beta_1 = -3.170, p = 0.422$	1
Not being religious	0.113	Underestimation (1 ES missing)	NA	NA	1
Other internalizing problems	0.140	Underestimation (1 ES missing)	$\beta_1 = -0.000, p = 0.720$	$\beta_1 = 0.338, p = 0.937$	1
Poor physical health	0.157	Underestimation (1 ES missing)	$\beta_1 = -0.000, p = 0.726$	$\beta_1 = 3.336, p = 0.399$	1
Psychiatric symptoms/disorders	0.269	–	$\beta_1 = 0.000, p = 0.171$	$\beta_1 = -2.673, p = 0.171$	0
Risky coping/personality profile	0.057	–	$\beta_1 = -0.000, p = 0.158$	$\beta_1 = 0.216, p = 0.887$	0
Showing risky behavior	0.109	–	NA	NA	0
Smoking	0.125	–	$\beta_1 = 0.000, p = 0.002^{**}$	$\beta_1 = -20.443, p = 0.002^{**}$	2
Family domains (#12)					
Family structure (no nuclear family)	0.178	–	$\beta_1 = 0.000, p = 0.760$	$\beta_1 = -1.078, p = 0.192$	0
History of child abuse victimization	0.035	Underestimation (1 ES missing)	$\beta_1 = -0.000, p = 0.547$	$\beta_1 = 4.289, p = 0.547$	1
Ineffective family systems	0.180	–	$\beta_1 = 0.001, p = 0.161$	$\beta_1 = -40.624, p = 0.117$	0
Large family size	0.194	–	$\beta_1 = -0.000, p = 0.295$	$\beta_1 = 3.813, p = 0.446$	0
Low family SES	0.222	–	$\beta_1 = 0.000, p = 0.305$	$\beta_1 = 2.197, p = 0.044^*$	1
Low parental control	0.134	–	$\beta_1 = -0.000, p = 0.123$	$\beta_1 = 3.240, p = 0.149$	0
Low parental education	0.200	–	$\beta_1 = 0.000, p = 0.320$	$\beta_1 = -3.383, p = 0.136$	0
Low parental school involvement	0.149	Underestimation (2 ES missing)	$\beta_1 = -0.000, p = 0.262$	$\beta_1 = -1.702, p = 0.284$	1
Low parental support/acceptance	0.176	Underestimation (2 ES missing)	$\beta_1 = 0.000, p = 0.032^*$	$\beta_1 = -2.108, p = 0.216$	2

Table 5 (continued)

Domain of risk factors	r	Trim-and-fill analysis	Three-level Funnel Plot test	Three-level Egger's regression test	Number of methods indicating bias (out of 3)
Parental alcohol use	0.071	Underestimation (1 ES missing)	NA	NA	1
Poor parent-child relationship	0.164	–	$\beta_1 = -0.000, p = 0.390$	$\beta_1 = 3.133, p = 0.097^+$	0
Sibling dropped out	0.121	Underestimation (1 ES missing)	NA	NA	1
School domains (#4)					
Low quality of school/education	0.161	–	$\beta_1 = -0.000, p = 0.568$	$\beta_1 = 2.238, p = 0.464$	0
Negative school/class climate	0.147	–	$\beta_1 = 0.000, p < 0.001^{***}$	$\beta_1 = -1.834, p < 0.001^{***}$	2
Often changed schools	0.127	–	$\beta_1 = 0.000, p = 0.002^{**}$	$\beta_1 = -5.973, p = 0.022^*$	2
Poor pupil-teacher relationship	0.286	Underestimation (1 ES missing)	$\beta_1 = 0.000, p = 0.612$	$\beta_1 = -0.429, p = 0.840$	1
Peer domains (#3)	0.056				
Having many friends	0.096	Underestimation (2 ES missing)	$\beta_1 = -0.000, p = 0.781$	$\beta_1 = 1.345, p = 0.781$	1
Involvement with truant/deviant peers	0.228	Underestimation (3 ES missing)	$\beta_1 = 0.000, p = 0.247$	$\beta_1 = -2.817, p = 0.247$	1
Poor social competence	0.169	Overestimation (3 ES missing)	$\beta_1 = -0.000, p = 0.225$	$\beta_1 = 4.967, p = 0.029^*$	2

r mean effect size (Pearson's correlation; see also Table 3), *Underestimation* effect sizes were imputed to the right of the mean effect, implying that above average effect sizes were underrepresented and that the mean effect may be an underestimation of the true effect, *Overestimation* effect sizes were imputed to the left of the mean effect, implying that below average effect sizes were underrepresented and that the mean effect may be an overestimation of the true effect, *NA* not available, because only two effect sizes were classified in the corresponding risk domain, or because all effect sizes classified in the risk domain originated from one study

Dashes indicate that trimming and filling of effect sizes were not necessary according to the trim-and-fill algorithm

$^+p < 0.10$; $^*p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 6 Results of testing gender as a potential moderator in various risk domains for school absenteeism

Moderator variable: Percentage of boys in the sample	# Studies	# ES	Intercept (95% CI)/ Mean z (95% CI)	β_1 (95% CI)	F (df1, df2)[a]	p[b]	Level 2 variance	Level 3 variance
Child domains								
Age (Being older)	11	15	0.127 (0.058, 0.196)**	−0.588 (−2.143, 0.967)	0.667 (1, 13)	0.429	0.002***	0.008
Alcohol abuse	7	35	0.277 (0.097, 0.458)**	0.463 (−4.403, 5.329)	0.038 (1, 33)	0.848	0.020***	0.032
Anti-social behavior/cognitions	14	38	0.249 (0.183, 0.316)***	0.500 (−0.654, 1.654)	0.771 (1, 36)	0.386	0.019***	0.006
Anxiety	9	25	0.106 (0.010, 0.202)*	−0.674 (−1.905, 0.557)	1.282 (1, 23)	0.269	0.007***	0.012**
Delinquent behavior	5	16	0.101 (−0.223, 0.425)	−0.747 (−5.342, 3.848)	0.221 (1, 14)	0.732	0.015***	0.103***
Depression	8	13	0.239 (0.168, 0.311)***	0.278 (−0.861, 1.417)	0.288 (1, 11)	0.602	0.009***	0.000
Drug abuse	7	24	0.401 (0.291, 0.512)***	−2.229 (−3.907, −0.551)*	7.587 (1, 22)	0.012*	0.010***	0.012**
Ethnicity (Being non-white)	12	29	0.038 (−0.027, 0.103)	0.038 (−0.086, 0.162)	0.397 (1.27)	0.534	0.007***	0.007
Having a negative school attitude	8	50	0.304 (0.180, 0.427)***	0.987 (−0.949, 2.923)	1.050 (1, 48)	0.311	0.002***	0.020***
Low academic achievement	9	19	0.225 (0.104, 0.347)**	−0.114 (−0.851, 0.622)	0.107 (1, 17)	0.748	0.021***	0.014
Low IQ/learning difficulties	5	6	0.107 (0.003, 0.211)*	−0.267 (−1.482, 0.947)	0.374 (1, 4)	0.574	0.006	0.000
Other internalizing problems	8	18	0.172 (0.071, 0.274)*	−0.709 (−2.334, 0.915)	0.856 (1, 16)	0.369	0.011***	0.009
Poor physical health	10	57	0.179 (0.087, 0.272)***	0.056 (−1.292, 1.403)	0.007 (1, 55)	0.934	0.010***	0.015***
Risky coping/personality profile	5	30	0.158 (0.111, 0.204)***	0.085 (−1.239, 1.408)	0.017 (1, 28)	0.897	0.011***	0.000
Family domains								
Family structure	10	23	0.179 (0.081, 0.278)**	0.959 (−1.474, 3.393)	0.672 (1, 21)	0.421	0.050***	0.000
Low family SES	15	35	0.088 (−0.007, 0.182)+	0.398 (−1.170, 1.966)	0.267 (1, 33)	0.609	0.008***	0.024***
Low parental control	5	12	0.110 (0.010, 0.210)*	0.137 (−0.985, 1.259)	0.074 (1, 10)	0.791	0.005***	0.006
Low parental education	6	17	0.156 (0.063, 0.249)**	−0.457 (−2.055, 1.141)	0.372 (1, 15)	0.551	0.012***	0.004
School domains								
Negative school/class climate	6	22	0.184 (0.108, 0.260)***	−2.642 (−7.892, 2.608)	1.102 (1, 20)	0.306	0.019***	0.001
Peer domains								
Poor social competence	5	7	0.171 (−0.036, 0.378)+	−1.523 (−4.805, 1.759)	1.423 (1, 5)	0.286	0.038***	0.000

Studies number of studies, # ES number of effect sizes, Mean z mean effect size (z), CI confidence interval, β_1 estimated regression coefficient, Level 2 variance residual variance between effect sizes from the same study, Level 3 variance residual variance between studies

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

[a] Omnibus test of all regression coefficients in the model

[b] p-Value of the omnibus test

Table 7 Results of testing gender as a potential moderator in various risk domains for school dropout

Moderator variable: Percentage of boys in the sample	# Studies	# ES	Intercept (95% CI)/ Mean z (95% CI)	β_1 (95% CI)	F (df1, df2)[a]	p[b]	Level 2 variance	Level 3 variance
Child domains								
Anti-social behavior/cognitions	13	33	0.233 (0.153, 0.313)***	0.148 (−0.080, 0.376)	1.745 (1, 31)	0.196	0.007***	0.015**
Drug abuse	5	9	0.272 (0.166, 0.378)***	0.616 (−0.064, 1.295)+	4.593 (1, 7)	0.069+	0.012***	0.000
Ethnicity (Being non-white)	11	50	0.043 (−0.003, 0.089)+	0.575 (−2.313, 3.462)	0.160 (1, 48)	0.691	0.019***	0.001
Having a negative school attitude	9	44	0.208 (0.161, 0.255)***	−1.521 (−3.023, −0.019)*	4.175 (1, 42)	0.047*	0.023***	0.000
History of grade retention	10	18	0.362 (0.255, 0.470)***	−0.031 (−0.493, 0.431)	0.020 (1, 16)	0.890	0.023***	0.010
Low academic achievement	19	87	0.341 (0.270, 0.412)***	0.017 (−0.111, 0.144)	0.068 (1. 85)	0.795	0.024***	0.013*
Low IQ/learning difficulties	7	11	0.362 (0.195, 0.529)***	0.390 (−0.243, 1.024)	1.942 (1, 9)	0.197	0.054***	0.000
Risky coping/personality profile	5	20	0.058 (−0.015, 0.131)	−0.067 (−0.427, 0.292)	0.156 (1, 18)	0.698	0.022***	0.000
Family domains								
Family structure	7	17	0.173 (0.120, 0.226)***	−0.061 (−0.222, 0.099)	0.660 (1, 15)	0.429	0.008***	0.000
Low family SES	14	30	0.233 (0.131, 0.335)***	0.095 (−0.206, 0.396)	0.418 (1, 28)	0.523	0.011***	0.027***
Low parental control	8	21	0.124 (0.004, 0.244)*	0.168 (−0.118, 0.454)	1.516 (1, 19)	0.233	0.004***	0.022***
Low parental education	10	20	0.203 (0.120, 0.287)***	−0.027 (−0.166, 0.113)	0.162 (1, 18)	0.692	0.003***	0.013**
Low parental school involvement	6	24	0.151 (0.058, 0.245)**	0.141 (−0.086, 0.368)	1.655 (1, 22)	0.212	0.010***	0.009**
Low parental support/acceptance	8	16	0.177 (0.064, 0.289)**	0.029 (−0.262, 0.320)	0.045 (1, 14)	0.834	0.014***	0.013
Peer domains								
Involvement with truant/deviant peers	5	12	0.226 (0.195, 0.258)***	0.181 (−0.037, 0.399)	3.433 (1, 10)	0.094+	0.001+	0.000

Studies number of studies, # ES number of effect sizes, Mean z mean effect size (z), CI confidence interval, β_1 estimated regression coefficient, Level 2 variance residual variance between effect sizes from the same study, Level 3 variance residual variance between studies

+ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

[a] Omnibus test of all regression coefficients in the model

[b] p-Value of the omnibus test

Overall Effect of Risk Domains

The results revealed that multiple child-, family-, school- and peer-related risk factors contribute to the risk for both school absenteeism and school dropout. This is in line with the interdisciplinary model of school absenteeism formulated by Kearney (2008a), in which several types of school absenteeism are influenced by various factors, including child, parent, family, peer, school, and community variables.

For school absenteeism, a significant overall effect was found for 28 out of 44 examined risk domains, ranging from $r = 0.099$ for having a low IQ or experiencing learning difficulties to $r = 0.553$ for having a negative school attitude. Large effects were found for 11 risk domains, including risks related to having a negative attitude towards school, substance abuse, externalizing and internalizing problem behavior of the child, and a low involvement of parents in school. For ease of interpretation, a number of "risk themes" were formulated that capture all significant risk domains (see also Assink et al. 2019 who applied this procedure in their review on risk factors for victimization of child sexual abuse). Given the current results, seven themes could be identified. First, the results indicate that moderate to large effects were found for multiple risk domains related to *physical and mental problems* of the child, which were: showing problematic internalizing behavior (other than being depressed and having anxieties; $r = 0.307$), having psychiatric symptoms or disorders ($r = 0.303$), being depressed ($r = 0.237$), having a poor physical health ($r = 0.178$), and suffering from anxieties ($r = 0.115$). Related to this theme, it was secondly found that risks referring to *substance abuse* had large effects, including smoking ($r = 0.336$), drug abuse ($r = 0.327$), and alcohol abuse ($r = 0.311$). Third, several *antisocial or risky behaviors* of the child were identified as risk factors, including showing anti-social behavior or having anti-social cognitions ($r = 0.428$), a high sexual involvement ($r = 0.229$), showing risky behavior (such as risky behavior in traffic; $r = 0.226$), and showing ineffective coping or having a risky personality profile ($r = 0.158$). Fourth, it was found that multiple risk domains relate to different sorts of *problems at or with school*, including having a negative school attitude ($r = 0.503$), a poor teacher-pupil relationship ($r = 0.286$), low levels of academic achievement ($r = 0.232$), a history of grade retention ($r = 0.100$), and a low IQ or learning difficulties ($r = 0.099$). Related to this theme are different *characteristics of the school* that pose a risk for absenteeism, including a low quality of the school or education ($r = 0.229$) and a negative school or class climate ($r = 0.183$). Sixth, *parenting problems and difficulties* are also important risk factors for school absenteeism, as significant effects were found of parents showing low levels of school

involvement ($r = 0.272$), a low parental attachment ($r = 0.220$), parental mental or physical problems ($r = 0.186$), low levels of parental support or acceptance ($r = 0.182$), and low levels of parental control ($r = 0.123$). Finally, *family (structure) problems* could also be designated as significant risks, including a history of child abuse victimization in the family ($r = 0.257$), a non-nuclear family structure ($r = 0.187$), a low level of parental education ($r = 0.155$), an ineffective family system ($r = 0.154$), and a low family SES ($r = 0.134$).

For school dropout, a significant overall effect in a positive direction was found for 23 out of 42 risk domains. Large effects were found for the risk factors having a history of grade retention ($r = 0.348$), having a low IQ or experiencing learning difficulties ($r = 0.326$) and showing low levels of academic achievement ($r = 0.316$). For the dropout risk domains and the significant individual risk factors seven risk themes could be identified, with six themes being similar to those formulated for school absenteeism. First, *problems at or with school* were important risks for dropout. Medium to large effects were found for the risk domains having a history of grade retention ($r = 0.348$), having a low IQ or learning difficulties ($r = 0.326$), low levels of academic achievement ($r = 0.316$), and having a negative school attitude ($r = 0.210$). The second risk theme consist of *physical and mental problems* of the child, such as: having psychiatric problems or disorders ($r = 0.269$), abusing drugs ($r = 0.247$), poor general well-being ($r = 0.210$), having adverse childhood experiences ($r = 0.185$), poor physical health ($r = 0.157$), and internalizing behavior problems (other than being depressed or having anxieties; $r = 0.140$). Third, several *anti-social behaviors* were identified as risk factors for school dropout, including showing anti-social behavior or having anti-social cognitions ($r = 0.236$), engaging in delinquent behavior ($r = 0.223$), showing risky behaviors ($r = 0.109$), and being involved with truant or deviant peers ($r = 0.228$). Fourth, *parenting problems and difficulties* were found to be important risk factors for school dropout, including low levels of parental support or acceptance ($r = 0.176$), low levels of parental involvement in school ($r = 0.149$), and low levels of parental control ($r = 0.134$) Fifth, other *family (structure) problems* could be designated as significant risks, as significant effects were found for a low family SES ($r = 0.222$), a low educational level of parents ($r = 0.200$), large families ($r = 0.194$), and a non-nuclear family structure ($r = 0.178$). Sixth, school dropout was related to *characteristics of the school* such as a negative climate in school or class ($r = 0.147$) and large schools or classes ($r = 0.145$). Finally, the results showed that *peer group characteristics or social status within a peer group* had small significant effects on school dropout, including having many friends or being popular ($r = 0.096$) and being

involved in a multicultural peer group ($r = 0.088$). This final risk theme is unique for school dropout. Naturally, the involvement with truant or deviant peers, which is was previously mentioned as part of the risk theme related to the anti-social behaviors of the child, can also be regarded as part of this final risk theme.

The abovementioned risk themes for school absenteeism and dropout are largely similar in nature, suggesting that both school absenteeism and dropout are related to similar risk factors. This was in line with what could be expected, because young people showing excessive absenteeism are at high risk for permanent school dropout. In his interdisciplinary model, Kearney (2008a) suggests that several factors influence problematic school absenteeism, which could deteriorate over time from an acute, to a chronic, to a permanent state (dropout) of absenteeism. Moreover, since school drop-out is a more serious form of school absenteeism, it is possible that dropping out of school mainly results from an accumulation of multiple (different) risk factors, whereas the presence of a single (strong) risk factor may already lead to school absenteeism. This is also in line with the findings of Suh et al. (2007) indicating that as risk factors accumulate, students are more likely to drop out of school.

Moderating Effect of Gender

The variable percentage of boys in samples of primary studies was examined as a potential moderator of the overall strength of risk domains in which heterogeneity in effect sizes was identified. For school absenteeism, the effect of abusing drugs increased as the percentage of boys in samples decreased. This means that abusing drugs is a stronger risk factor for school absenteeism in girls than in boys. Previous research indicates that drug abuse rates are higher in men than in women (e.g., Becker and Hu 2008; Center for Behavioral Health Statistics and Quality 2017). Therefore, it is possible that drug abuse in boys is perceived as "more normal" or less deviant than in girls. This may imply that drug abuse contributes more to the risk of school absenteeism in girls than in boys.

For school dropout, it was found that only the effect of having a negative school attitude was moderated by the percentage of boys in primary study samples. The effect of this risk domain decreased as the percentage of boys increased, which means that having a negative school attitude is a stronger predictor of school dropout in girls than in boys. Prior research has revealed that boys have a more negative attitude towards school than girls (e.g., Harvey 1985; Logan and Johnston 2009). This negative attitude may stem from the fact that most school environments are centered around group and team work, whereas school environments in which autonomy is fostered (e.g., authority, aggression, and technical competence; Daniels et al.

2001) would better fit a masculine orientation to learning. As girls are generally less negative about school, it may be that girls with a negative school attitude may have to deal with other risk factors that are related to this negative attitude. Therefore, a negative school attitude might contribute more to the risk of school dropout in girls than in boys. It must be noted that most risk domains were not moderated by gender, indicating that the effect of most risk domains for school absenteeism and dropout seem similar for boys and girls.

Limitations

Several limitations of the present study should be mentioned. First, despite an extensive search procedure, it cannot be assured that the current sample of included studies is representative of all studies on (putative) risk factors for school absenteeism and dropout. A large amount of literature is available on the effect of risk factors for school absenteeism and dropout, and therefore it is possible that primary studies were missed. However, given the current extensive data set (a total of 69 studies and 1384 effect sizes), it may be assumed that the included studies were sufficiently representative of all primary studies available on risk factors for school absenteeism and dropout. Furthermore, the study inclusion was restricted to published studies and dissertations, there was a risk for overestimating effects of risk domains due to publication bias. The three tests for bias assessment indicated that bias may have been present in multiple estimated effects of risk domains. However, trim-and-fill analyses showed that an underestimation rather than an overestimation of risk domain effects was a problem (see Tables 4 and 5). Therefore, bias in the analyzes data may not be due to specifically publication bias.

Second, the present study does not permit conclusions about causality between the presence of a risk factor and school absenteeism or dropout, because of the non-experimental nature of the included studies. In addition, in extracting effects of (putative) risk factors from primary studies, there was a focus on antecedents of school absenteeism and dropout (see also the inclusion criteria mentioned in the Method section), but as many included studies were retrospective in nature, it cannot be assured that all factors classified into the risk domains were true antecedents rather than outcomes. Further, it has been acknowledged that risk factors for school absenteeism and dropout are not present in isolation, but coexist and interact with other risk factors (e.g., Berends and Diest 2014; Ingul et al. 2012; Kearney 2008a, 2008b). However, in the main focus of the present study was the mean effect of individual risk domains, and each risk factor was therefore classified into one of mutually exclusive risk domains. This allowed conducting a separate meta-analysis for each risk domain in

order to estimate the mean effect of groups of (more or less) similar risk factors for school absenteeism and dropout. However, this did not allow us to examine what combinations of risk domains (or risk factors) may especially be predictive for school absenteeism and dropout. This may be a focus in future youth and adolescence research.

Finally, in the analytic strategy used this study, it was decided to only examine the variable percentage of boys in samples of primary studies as a potential moderator of risk domain effects. This decision was made as performing a large number of moderator analyses is not only impractical, but also statistically unwise, as insufficient data and capitalization on chance pose important problems. Furthermore, it was decided to only perform moderator analyses for variables that were based on at least five studies. Most coded variables did not meet this criterion, as some risk domains consisted of a small number of studies and effect sizes. As it was decided to only examine one potential moderator, the current study does not elaborate on the potential differences in overall effects of risk domains across different study designs or children with different background characteristics (e.g., age). Therefore, future youth and adolescence research should focus on examining effects of specific risk factors in different groups and under different circumstances.

Implications of the Study

The current study has a number of important implications. First, the current findings contribute to the fundamental knowledge of the etiology of school absenteeism and dropout, which in turn contributes to a better understanding of the problematic development of adolescents. Based on earlier research, it was already known that school absenteeism and dropout are caused by multiple child, parent, family, peer, and school factors. This study adds knowledge about which factors are most important in the etiology of both school absenteeism and dropout. This is important knowledge, for example for school professionals, that can be used in detecting risks of school absenteeism and dropout at an early stage, and in providing adequate prevention.

Furthermore, proper risk and needs assessment is essential in answering which children are at risk for school absenteeism or dropout and may therefore benefit from an (preventive) intervention. Risk and needs assessment may also indicate what factors should be targeted in an intervention so that the risk for school absenteeism or dropout could be reduced. So far, only measures have been developed to assess child factors among youth with specific types of school absenteeism, such as school refusal behavior (Kearney 2002; Kearney and Silverman 1993) and truancy (Kim and Barthelemy 2010). It was found that various child-, family-, school-, and peer-related risks are related to school absenteeism and dropout.

Therefore, the results of this review show that the risk for school absenteeism and dropout can best be assessed from a multifactorial perspective in future risk- and need assessment instruments. This is in line with the suggestion of a multiaxial assessment of risk factors by Kearney (2008a). Practitioners should focus on the assessment of factors related to the abovementioned risk themes, as it was found that these themes describe the risks that are predictive for school absenteeism and dropout. Furthermore, the risk domains with high overall effects on school absenteeism, including risks related to substance abuse and externalizing behavior, were most predictive and therefore deserve specific attention within risk- and need assessment instrument. Assessment instruments for school dropout should specifically focus on the child's IQ, learning difficulties of the child, and a history of grade retention. As permanent dropout is often the consequence of excessive school absenteeism (Kearney 2008a), it can be argued to assess both school absenteeism and dropout in a single instrument, while taking into account the differences in impact between school absenteeism risk factors and dropout risk factors. Furthermore, the findings of this review can be used to improve the validity of risk and needs assessment tools, as these findings indicate which risk factors are most strongly related to school absenteeism and dropout and should therefore be assessed by these tools. Assessing more relevant risk factors increases the validity of risk and needs assessment instruments.

As for the broad and multifactorial perspective that is needed in risk and needs assessment, (preventive) interventions should also be based on the notion that school absenteeism and dropout results from the presence of multiple child-, family-, school-, and peer-related factors. This means that all these factors should be taken into account in order to effectively reduce or prevent school absenteeism and dropout. Further, previous review studies indicate an insufficient effect of currently available intervention and preventions programs (Maynard et al. 2013; Wilson and Tanner-Smith 2013). This indicates a need for more effective interventions, for which the current findings may serve as a foundation.

Conclusion

School absenteeism and dropout are associated with many different life-course problems. To reduce the risk for these problems it is important to gain insight into risk factors for both school absenteeism and permanent school dropout. Until now, no quantitative overview of these risk factors and their effects was available. Therefore, this study was aimed at meta-analytically synthesizing the available evidence on risk factors for school absenteeism and dropout. The results of this study revealed that a substantial number

of risks contribute to school absenteeism and dropout. For school absenteeism, significant and substantial effects were found for risks that refer to: physical and mental problems of the child (e.g., having psychiatric symptoms or disorders), substance abuse (e.g., drug abuse), antisocial or risky behavior (e.g., showing anti-social behavior or having anti-social cognitions), problems at or with school (e.g., having a negative school attitude), characteristics of the school (e.g., low quality of the school or education), parenting problems and difficulties (e.g., low parental school involvement), and family problems (e.g., an ineffective family system). As for school dropout, similar risks were identified next to risks related to peer group characteristics or social status in a peer group. The results imply that a multifactorial approach is needed in risk and needs assessment, and in interventions aimed at reducing or preventing school absenteeism and dropout. This review provides valuable insights for the development and improvement of both assessment and (preventive) intervention strategies.

Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Ethical Approval Because the research is a literature review, obtaining approval of an ethical committee was not necessary.

Informed Consent This research is a literature review, so these statements are not applicable.

Research Involving Human Participants and/or Animals This research is a literature review, so these statements are not applicable.

Appendix A

Examples of risk factors classified in each risk domain

Child domains

Age (Being older; A + D)

Age of child (older = more risk); Grade level of child (higher grade = more risk)

Alcohol abuse (A + D)

Child's lifetime alcohol use; Child had ever used alcohol; Child is a heavy drinker; Child is often drunk; Child started drinking alcohol early in life; Child has problems because of alcohol use

Anti-social behavior/cognitions (A + D)

Child is aggressive; Child is anti-social (but not delinquent); Child has anti-social orientation; Child has attention problems; Child has behavioral problems; Child has attitudinal problems; Child shows disruptive behavior; Child is violent; Child has conduct problems; Child has disciplinary referrals at school; Child is a bully; Child is hyperactive; Child is irresponsible; Child is prone to mischief; Child shows a lot of anger or irritability Child shows rule breaking behavior; Child has low self-control

Anxiety (A + D)

Child shows generalized anxiety/anxiety symptoms/separation anxiety/simple phobia/social anxiety

Being a sexual minority (A)

Being bisexual, lesbian, gay or unsure about sexual identity

Delinquent behavior (A + D)

Child has committing school crime; Child shows vandalism; Child was arrested; Child carries a gun or weapon; Child has a criminal history; Child is delinquent; Child committed a violent offense; Child sells drugs; Child was in jail; Child steals; Child showed weapon violence; Child was in juvenile probation

Depression (A + D)

Child has as history of depression or is currently depressed

Drug abuse (A + D)

Child is using or used methamphetamine/marijuana/ecstasy/cocaine/steroid/illicit drugs/inhalant drugs/other narcotics

Ethnicity (Being non-White; A + D)

Child is Asian/African American/Native American/Hispanic/non-white/non-Western/multiracial/a minority/an immigrant; English is child's second language (in studies from English-speaking countries); Dutch is child's second language (in studies from the Netherlands)

Table (continued)

Child domains

Having a job (A + D)

Child is employed; Child is working for money; Child worked in past year

Having a negative school attitude (A + D)

Child dislikes school; Child had s academic disinterest; Child does little homework; Child does not understand the purpose of schooling; Child perceives school grades as unimportant; Child had a history of dropping out; Child doesn't feel a part of the school community; Child is often late in class; Child show low levels of school engagement; Child shows low attachment to school; Child is not committed to school; Child has low educational goals; Child shows a low motivation; Child has a negative attitude towards school; Child is not sure of high school graduation

High impact/negative life events (A)

Number of negative life events; Impact of negative life events; Child witnessed a traumatic event; Child was a victim of a traumatic event

High sexual involvement (A + D)

Child had sexual intercourse multiple times with different persons; Child has an early sexual onset; Child doesn't use birth control; Child is far in pubertal development; Child has children; Child has ever been pregnant or gotten someone pregnant

History of grade retention (D)

Child had a history of grade retention; Child is too old for grade level; Child repeated a grade

Low academic achievement (A + D)

Child had poor grades; Child has poor academic back-ground; Child had a low Grade Point Average (GPA); Child is in a vocational high school program

Low academic self-concept (A + D)

Child expects upcoming grades to be bad; Child has a poor academic self-image

Low IQ; learning difficulties (A + D)

Child had low levels of general cognitive functioning; Child is in special education; Child had low scores on intelligence tests; Child has learning difficulties

Negative or no leisure activities (A + D)

Child is not participating in leisure time activities; Child is often loitering; Child doesn't participate in any extracurricular activities; Child participated in passive activities, like watching TV

Not being religious (A + D)

Child is not, or only to a small extend, religious

Other internalizing behavior (A + D)

Child shows alienation; Child has internalizing problems; Child attempted or considered suicide; Child has a low self-esteem; Child has negative thoughts; Child has a panic disorder or symptoms; Child had somatic problems; Child is often tearful; Child is often withdrawn

Poor physical health (A + D)

Child is obese or overweight; Child is underweight; Child has a bad health; Child has a chronic illness; Child does not (or insufficiently) participate in physical exercise; Child has headaches; Child has migraine; Child has history of organic diseases; Child is impaired; Child has insomnia; Child has bad sleeping habits; Child has bad eating habits; Child has premenstrual symptoms; Child shows exhaustion

Psychiatric symptoms; disorders(A + D)

Child has a high total problem score on YRS; Child is autistic; Child is severely disables; Child is emotionally or behaviorally disabled; Child had psychiatric symptoms (in general)

Risky coping/personality profile (A + D)

Child is emotional instable; Child has an external locus of control; Child is extravert; Child is neurotic; Child is psychotic; Child is highly self-aware; Child is tough-minded; Child is closed; Child is pessimistic; Child is not agreeable; Child is not conscientious; Child shows low levels of self-efficacy; Child does not have a work drive; Child has personality problems; Child is repressive; Child uses non-problem solving coping, like avoidance and denial

Showing risky behavior (A + D)

Child drives without a license; Child drives when drinking alcohol; Child was involved in a traffic accident; Child drives in a not roadworthy vehicle; Child gets a real kick out of doing dangerous things; Child goes out at night beyond the neighborhood; Child does not wear a seatbelt; Child rides a motorbike; Child drives without a helmet; Child rode with a driver who had been drinking alcohol

Smoking (A + D)

Child is a (heavy) smoker; Child bought cigarettes; Child smokes cigars; Child started smoking early in life

Table (continued)

Child domains

Family domains

Family structure (other than a nuclear family; A + D)

Family breakup; Parental divorce; Child lives with a single parent/stepparents/in an institution/without parents;

Having a history of child abuse victimization (A + D)

Child is/was a victim of: child maltreatment/physical abuse/ emotional abuse/physical neglect/sexual abuse; Child is/was a witness of domestic violence; Conflict within family; Spousal physical abuse

Ineffective family systems and/or organization (e.g. low cohesion; A + D)

Family disruptions or adversity; Low levels of cohesion/ organization/expressiveness/intellectual-cultural orientation/moral-religious emphasis/achievement orientation within family/active-recreational orientation within the family; High levels of independency within the family

Large family size (A + D)

Large family size; High number of siblings within the family

Low family SES (A + D)

Low income of family members; Family lives in poverty; Child is homeless; Child receives free or reduced priced lunches at school; Child gets a low allowance from parents; Parents are unemployed; Child shared a room with siblings

Low parental control and/or ineffective discipline (A + D)

Low levels of monitoring, control or supervision by parents; There are no rules at home; Parents don't offer structure; Parents punish children a lot; Parents use negative punishment; Lax or inconsistent parental discipline

Low parental education (A + D)

Low levels of parental education; Parents received no education; Parents were high school dropouts

Low parental school involvement (A + D)

Parents don't help child with homework or other school stuff; Parents show low levels of communication with teachers or school; Parents have low expectations of a child's school achievement; Parents don't read with their child; Parents don't support children with school related activities

Low parental support/acceptance (A + D)

Parents show high levels of rejection towards child; Parents don't (or only to a small extent) encourage autonomy of

Table (continued)

Child domains

child; Parent show low levels of acceptance towards child; Parents show low levels of involvement with child; Parents show low levels of affective support towards child; Parents show low levels of positive reinforcement towards child.

Parental alcohol use (D)

High levels of parental alcohol use

Poor parent-child relationship (D)

Low levels of parent-child communication/parent-child contact/parental sensitivity/attachment to parents/identification with parents

Sibling at school (A)

Sibling goes (used to go) to the same school

Sibling dropped out (D)

Sibling has dropped out of school

School domains

Distance to school (short; A)

Percentage of students living less than 1 mile from school

Large classes; schools (A)

Large classes; Large schools

Low quality of school/education (A + D)

Teacher doesn't make it possible to participate in class; School has less advances math courses in school; Low achievement standards in school; Inadequate workload given to children by teacher; Poor quality of teachers (as perceived by children); Poor school management; Rapid instructional pace of teacher; Non-fair or non-effective school discipline methods; Poor school facilities; Low levels of commitment of school staff to school

Negative school/class climate (A + D)

Child feels unsafe at school; High levels of classroom competition; High levels of innovation in classroom; Child experiences ethnic, personal or sexual harassment in school; Rules within classroom are not clear; Low levels of order and organization within classroom; Low levels of task orientation within classroom; Low levels of school spirit

Often changed schools (D)

Family moved; Child attended different schools between kindergarten and 1th grade; Number of school changes; School moves

Poor pupil-teacher relationship (A + D)

Low levels of attachment to teacher; Low levels of commitment to teacher; High levels of control by teacher;

Table (continued)

Child domains

Low teacher support; Negative attitudes toward teachers; Negative teacher attitudes towards student; Student-teacher conflict

Public school (vs. private; A)

School type (public = more risk)

Peer domains

Being bullied (A)

Child is victim of bullying; There is bullying within school; Child worries a lot about bullying

Having a lot of friends/being popular (A + D)

Child is accepted by peers; Child had a lot of friends; Child spends a lot of time with friends; High levels of identification with friends; Child is treated with respect by peers; Child is considered popular by peers

Involvement with truant/deviant peers (D)

Peers show low levels of school engagement; Deviant or dropped out peers; Child bonds with antisocial peers; Peers are truant

Poor social competence (A + D)

Child show poor social skills; Child shows low levels of social functioning; Child spends little time with friends; Child shows relational problems; Child shows poor social adjustment; Child is unpopular

Note. The risk domains are in boldface; A = School absenteeism; D = School dropout

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Jeanne Gubbels is a PhD candidate at the Research Institute of Child Development and Education of the University of Amsterdam. Her research is mainly focused on risk assessment and prevention of child maltreatment and juvenile delinquency.

Claudia van der Put is an assistant professor at the Research Institute of Child Development and Education of the University of Amsterdam. Her research interest is risk assessment and prevention of adverse developmental outcomes such as juvenile delinquency and problematic child-rearing situations.

Mark Assink is a postdoctoral researcher at the Research Institute of Child Development and Education of the University of Amsterdam. His research is mainly focused on developing and validating risk assessment instruments for child maltreatment and delinquency, determining risk factors for different negative developmental outcomes and examining the effectiveness of (preventive) psychosocial interventions.

The relationship between family processes and school absenteeism and dropout: a meta-analysis

Sallyanne A. Marlow & Neelofar Rehman

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The relationship between family processes and school absenteeism and dropout: a meta-analysis

Sallyanne A. Marlow [ID][a] and Neelofar Rehman[b]

[a]School of Psychology, Australian Catholic University, Melbourne, Australia; [b]Saltwater Clinic Mercy Mental Health, Mercy Mental Health, Footscray, Australia

ABSTRACT

School absenteeism and dropout can have long-term detrimental consequences for young people. It is empirically established that children exposed to positive family processes (PFP) such as parental involvement, support, and high educational expectations have a reduced likelihood of being absent and dropping out of school. In contrast, negative family processes (NFP) such as conflict, maltreatment, low supervision, and harsh punishment have been shown to increase the likelihood of absenteeism and dropout. Using meta-analytic review, the present study aimed to investigate the relationship between PFP and NFP and school absenteeism and dropout among primary and secondary school students. Studies were identified through five electronic databases and the reference lists of included and key articles. The relationship between family process and school absenteeism or dropout in primary or secondary school children was analyzed across 33 studies. Effect sizes were used to conduct meta-analyses on overall relationships and multiple outcome analyses. The findings indicated a significant negative relationship between PFP and school absenteeism and dropout and a significant positive relationship between school absenteeism and dropout and NFP. The relationship between PFP and school absenteeism and dropout was strongest for primary school, whereas the correlation between NFP and absenteeism and dropout was strongest for secondary school students. The present findings support a systemic focus in understanding school absenteeism and dropout by highlighting the need for further research into the association between family processes and school attendance. In addition, the findings strengthen the need to view school attendance with a developmental lens and take into consideration family processes critical to lifespan development when designing psychological intervention.

School absenteeism and dropout are critical public health problems for educators and mental health professionals. The issues are pervasive and systemic, affecting many schools around the world. Research shows that missing even a few days of school negatively impacts academic performance (Australian Bureau of Statistics, 2007). School absenteeism has been linked to significant and long-term issues such as risky sexual behaviour, suicide attempt, psychiatric disorders, externalizing behaviour problems, delinquency, violence, and substance abuse (Chou et al., 2006; Egger et al., 2003; Jaafar et al., 2013). Furthermore, absenteeism has been shown to place students at an increased risk of dropout. School dropout leads to disconnection from all school-based health and mental health programs and is highly detrimental to the emotional and developmental wellbeing of young people. Dropout has been related to adverse life outcomes including financial and relationship difficulties as well as unemployment and homelessness (Kearney, 2008a; Kogan et al., 2005).

School dropout refers to a permanent absence in which the child has left school (Kearney, 2008a). Various concepts and definitions have been used within the literature to describe school absenteeism. One commonly used definition of school absenteeism is excused or unexcused absences from school (Kearney, 2001). Excused absences are unproblematic and due to accepted causes such as medical illness or injury, religious holidays, or funerals. In contrast, unexcused absences are problematic and have adverse consequences. Unexcused and problematic absenteeism may be due to environmental, social, psychiatric, or other reasons and includes concepts such as school withdrawal, school refusal, school phobia, and truancy (Ingul et al., 2012).

Problematic absenteeism is one of the most prevalent mental health problems affecting children. Rates of

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absenteeism exceed that of other major childhood issues such as depression and conduct, oppositional defiant, and attention-deficit hyperactivity disorder (Kearney, 2008a). The typical Australian student is absent 16 days of the year in primary school, and 24 days in secondary school (Zubrick, 2014). Furthermore, 1 in 5 students leave school early (Clarke, 2015). Overall, attendance issues are most common during changes and transitions, for example, when starting or moving school and the transition from primary to secondary school. The longer that a child stays out of school the more difficult it is for them to return, highlighting the need for early intervention (King & Bernstein, 2001). Indeed Kearney (2008a) argued that school absenteeism can deteriorate over time to become more chronic and may even lead to school dropout. School absenteeism is largely unrelated to gender, but dropout rates are slightly higher for males than females. School absenteeism and dropout are more common among students who are ethnically diverse, have a disability, or are from remote or lower socioeconomic areas (Kearney, 2008b).

Various perspectives for understanding school absenteeism and dropout have been proposed. Bronfenbrenner's (1995, 1996) *ecological systems theory* suggests that a child's development occurs through processes of interaction. Bronfenbrenner and Ceci (1994) identified five social-ecological systems in which these interactions take place. The microsystem is most proximal to the child and comprised of individuals with whom the child has direct contact, such as the family, teachers, and peers. Processes within the microsystem have a direct influence on the child and are considered the most important predictors of development (Bronfenbrenner & Ceci, 1994). Surrounding these proximal processes are distal circles that comprise other contexts in which the individual and family interact, such as socioeconomic status, culture, and religion (Bronfenbrenner, 1995). Based on this perspective, factors associated with school absenteeism or dropout exist within each social system, with factors in more proximal systems having the most significant impact (Bronfenbrenner, 1995). Therefore, much research on school absenteeism has focussed on risk and protective factors within the microsystem, such as those related to the school, peers, and family.

A number of reviews of school absenteeism (Heyne et al., 2001; Kearney, 2001, 2008b; King & Bernstein, 2001), provide qualitative analyses of the literature. These reviews have focussed on school refusal (Heyne et al., 2001; Kearney, 2001; King & Bernstein, 2001) as well as school absenteeism more broadly (Kearney, 2008b). Reviews have highlighted the importance of

problematic family functioning in contributing to and maintaining school-based absenteeism. Gubbels et al. (2019) was the first study to examine the risk factors for school absenteeism and dropout through meta-analysis. The authors reported that family-related variables such as parenting problems and difficulties were amongst the most prominent risk factors for school-based absenteeism and dropout.

Reviews of absenteeism and dropout have called for a developmental model that considers the complexity of attendance problems and changes to influences over time. For example, family related risk factors may be present in primary school-age children, yet dropout may not occur until much later (Kearney, 2008b). Reviews have also highlighted that terminology for school absenteeism varies between studies and no single standardized measure of absenteeism exists. In addition, measures of family processes vary and predominantly rely on parent, child, and teacher reports, which have been shown to be discrepant (Kearney, 2008b). Measures typically involve interviews or questionnaires designed by the individual study, with few standardized measures of family processes available. Greater coordination and synthesis of research information is needed to fully understand the complex issues of school attendance and family processes.

Despite the evidenced importance of the family system in school absenteeism and dropout, little research has been conducted (Kearney, 2008b). Furthermore, most studies that have investigated family influences have focussed on the descriptive and structural characteristics of families (Rumberger, 1995). Descriptive and structural characteristics include variables such as socioeconomic status, parental education, family composition, and family income. These factors, although important, tell us little about the underlying processes through which family background influences attendance (Rumberger, 1995).

In contrast, family processes reflect the functioning of the family and include variables such as attachment style, educational expectations, parenting involvement, and parenting style (Kearney, 2008b). These processes indicate the overall family environment and have a direct impact on the members within it (Bronfenbrenner, 1995). Family processes may be separated into positive family processes (PFP) and negative family processes (NFP) depending on their impact. PFP can be viewed as factors that contribute towards the positive or effective functioning of the family unit and individuals within it. In contrast, NFP includes variables that have an adverse impact on the functioning of the family and its members (Kearney, 2008b). According to these concepts, children exposed to PFP have an increased likelihood of healthy emotional wellbeing

and development. However, children who grow up in an environment characterized by NFP are at risk for lower emotional and developmental wellbeing.

The majority of research conducted thus far has focused on the impact of PFP, with many studies focusing on parental involvement in the child's education (Kearney, 2008b). For example, McNeal (2014) found that children of parents who were more involved and supportive were less likely to be absent. Steinhausen et al. (2008) reported that children who experienced parental acceptance, as well as control and discipline involving clear boundaries, were less likely to be truant. A similar result was reported by, Fernandez-Suarez et al. (2016) who found that parental monitoring increased the likelihood of high-school students finishing school, even after controlling for socioeconomic status. Blondal and Adalbjarnardottir (2009) reported that children with parents, who had higher levels of acceptance, supervision, and autonomy granting, were less likely to drop out of school. Processes such as family cohesion and a positive parent–child relationship, have also been found to be negatively correlated with attendance issues (Hunt & Hopko, 2009; Reed et al., 2017; Truong, 2010; Veenstra et al., 2010).

Less research has investigated NFP, with studies focussing on low levels of processes that have been found to reduce school attendance issues. For example, low levels of parental involvement, educational expectations, supervision, and connection have been found to increase the likelihood of truancy and dropout (Battin-Pearson et al., 2000; Bedrossian, 2017; Vaughn et al., 2013). Intrusive and constraining parental control, as well as harsh and corporal punishment, have been positively related to absenteeism and dropout (Corville-Smith et al., 1998; Janosz et al., 1997). School refusal has been associated with family conflict, enmeshment, isolation, and attachment issues (Chapman, 2007; Lagana, 2004). In addition, McShane et al. (2001) reported conflict, separation, and parental psychiatric illness in families of adolescents who presented with school refusal. Increased absenteeism and risk of dropout have been linked to parental alcoholism (Casas-Gil & Navarro-Guzman, 2002). Lastly, poor

adult supervision and child self-care as well as child maltreatment have been associated with absenteeism (Henry, 2007; Reid, 2005).

Despite studies reporting significant associations between PFP and NFP and school attendance issues, little research has been conducted. Furthermore, no study to date has systematically and quantitatively explored the relationship between family processes and school absenteeism and dropout. An investigation into the association between PFP and NFP and school attendance issues in primary and secondary school populations is needed. Such research would contribute towards theoretical understandings of childhood development and school attendance problems. The detrimental and long-lasting impacts of school absenteeism and dropout provide further support for the importance of the current study. Findings would have direct relevance for educational and mental health professionals assisting students in resolving problems pertaining to school attendance.

Using meta-analytic review, the present study aimed to investigate the relationship between PFP and NFP and school absenteeism and dropout. The study aimed to examine these relationships in primary and secondary school populations separately. It was hypothesized that school absenteeism and dropout would be negatively related to PFP, and positively related to NFP.

Method
Search strategy

A systematic search was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Guidelines (PRISMA; Moher et al., 2009). Five electronic databases, PsychINFO, FAMILY, ERIC (EBSCO Host), Social Science Premium Collection, and Scopus were searched, with the last search run on 3 July 2019. Search terms were connected using or. The search elements of school absenteeism and school dropout were connected using or and connected with family processes using and. The terms included in the search are presented in Table 1, with each term required

Table 1. Search Terms Used Corresponding to Each Search Element.

Search element	Search terms
Family processes	family function*, family process* family relation*, parentbehav*, parent* practices, parent* style, parent* involvement, parent child relation*, parent* role, parent* expectations, parent* attitudes
School absenteeism	school refusal, school attendance, school phobia, truancy, school tardiness, school dropout*, school absen*, missed class*, school non-attendance, student attrition, school retention
School dropout	school dropout*, student attrition, school retention

Note. The asterisk (*) is used to include terms with any alternative endings.

to be present in the abstract or title of studies. No publication date limits were applied. Further searches were conducted by reviewing the reference list of each included article and studies that contained family-related variables in Gubbels et al. (2019) meta-analysis.

Eligibility criteria

A single reviewer screened all the titles and abstracts to assess eligibility according to the inclusion and exclusion criteria. A second reviewer was consulted regarding any confusion around the eligibility of the studies and mutual agreement was used to arrive at conclusions.

Studies that were included met the following criteria: (a) was a dissertation or published in a peer-reviewed scientific journal, (b) included a measure of family processes, (c) included a measure of school absenteeism or dropout, (d) included a relationship between at least one family process and school absenteeism or dropout, (e) examined absenteeism or dropout in primary or secondary school, and (f) results permitted the calculation of at least one effect size.

Studies were excluded if they: (a) were not in the English language, (b) were a review paper, case study, or qualitative study, (c) did not include a measure of both variables, (d) included a family variable relating to structure rather than process, or (e) the full text was not available and could not be obtained.

Data extraction and coding of variables

Data was extracted from each study into a standardized template by a single reviewer. A second reviewer was consulted to discuss the coding of the variables and clarify confusions. Data not presented in the studies was obtained by contacting the authors of the study. For each included study, data was collected on: (a) year of publication; (b) country of study setting; (c) participant details (N, student's age, grade level, gender); (d) family process variable(s), measure, and source; (e) school absenteeism or dropout variable, measure, and source; and (f) effect size (see Appendix A and B). Study variables were coded into either PFP or NFP according to whether they were expected to have a positive or negative relationship with school absenteeism and dropout.

Risk of bias in individual studies

Risk of bias assessment was conducted on each individual study using the Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies

from the National Heart, Lung, and Blood Institute (NHLBI; National Institutes of Health, 2014). This tool was chosen because it focuses on specific domains and reflects the overall quality of individual studies. Each study was provided with an overall rating of *good, fair*, or *poor* based on their risk of bias (see Appendix C).

Meta-analytic procedures

Meta-analyses were conducted on the overall effect between (a) PFP and school absenteeism or dropout, and (b) NFP and school absenteeism or dropout. In addition, a multiple outcome analysis was run to determine the individual relationship between PFP and NFP and absenteeism or dropout among primary school and secondary school students.

Effect size computations

Pearson product-moment correlation (r) was obtained by extracting the correlation coefficient and sample size from each study and employing Comprehensive Meta-Analysis Version 3 (CMA; Borenstein et al., 2013). Where correlations were not reported r was computed using data provided by the study (e.g., means, standard deviations, sample sizes, and significance tests). Studies that contributed more than one effect size raised the issue of non-independence among sampling units. Therefore, the correlation coefficient was averaged so that each study contributed no more than one effect size for each analysis. For studies that used data from a separate longitudinal study, the baseline or first wave of data was used.

A pooled effect size was calculated and Cohen's (1992) criteria was used to assess the strength of the relationship. An r value of 0.10 indicates a small effect, 0.30 indicates a medium effect, and 0.50 a large effect. Positive values indicated a positive relationship between the family process and school absenteeism or dropout, while negative values indicated a negative relationship between the variables.

Assessment of heterogeneity

Due to variability between studies (i.e., research designs, definitions, and measures), a random-effects model was employed. Study heterogeneity was assessed using the chi-square (Q) and I^2 statistic. The Q statistic describes variation in study outcomes, and the I^2 statistic refers to the percentage of variation across studies that is due to heterogeneity rather than chance. An I^2 value of 0% indicates no heterogeneity, 25% low, 50% moderate, and 75% high heterogeneity (Higgins & Thompson, 2002).

Assessment of publication bias

Publication bias was assessed using funnel plots of each analysis. Asymmetric funnel plots indicate potential publication bias and since examination of funnel plots is subjective, each analysis was examined and corrected, where required, using the *trim and fill* method (Duval & Tweedie, 2000). Results of the trim and fill method indicate whether influential studies may be overestimating or understating the overall analysis.

Additional analyses

As substantial heterogeneity was expected, for each analysis an additional multiple outcome analysis was conducted in which school absenteeism or dropout was separated into that which occurred in primary or secondary school. As multiple analyses were conducted on the same dependent variable, to address

Type I error, Bonferroni correction was employed to obtain a more stringent *p* value. The *p* value of .05 was divided by the number of analyses run to provide a new *p* value of .025.

Results

Study selection

The search strategy is presented in Figure 1. The initial search produced 810 articles that were screened for inclusion. Search results were imported into Endnote Version 8 and 280 duplicates were removed. Titles and abstracts were then screened for inclusion or exclusion according to the eligibility criteria. Next, the full texts of 128 studies were assessed for eligibility using the same criteria. After full-text review, 33 articles met the criteria to be included in the meta-analysis.
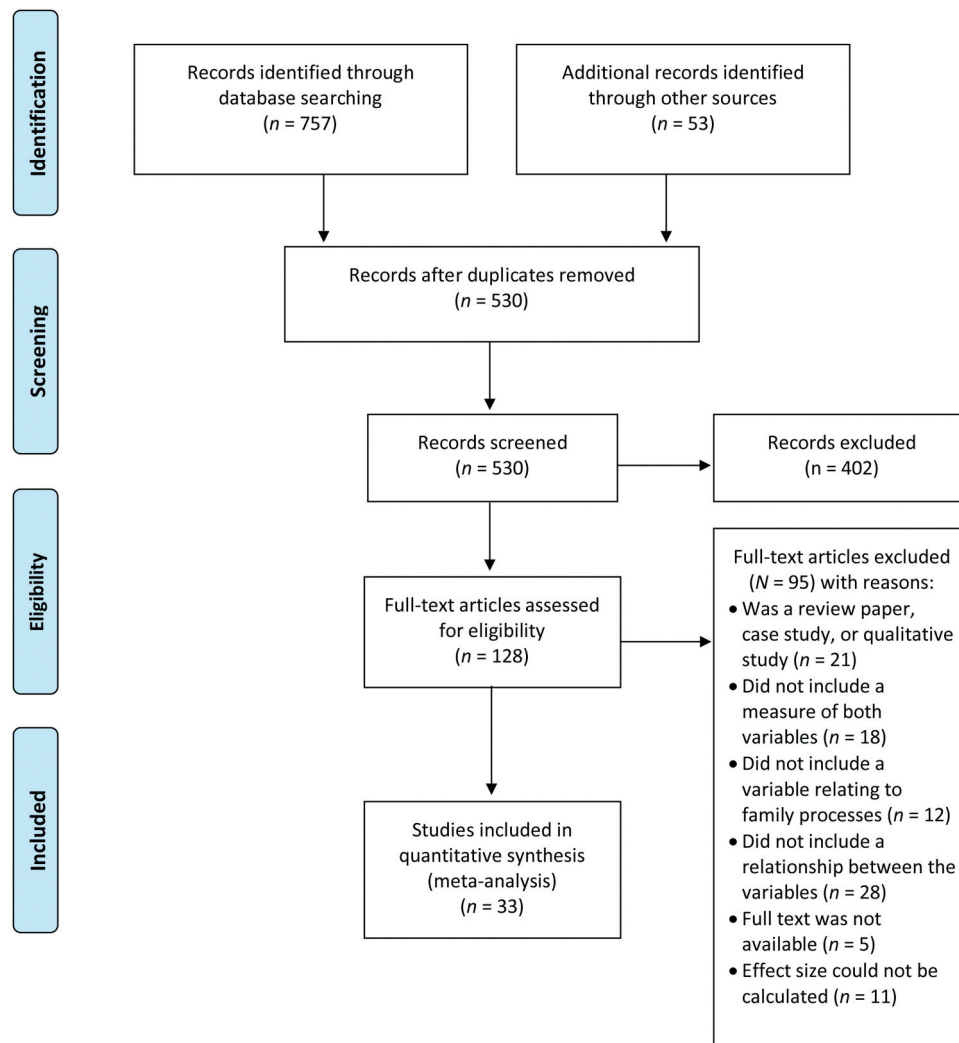
Figure 1. PRISMA flowchart for the process of study selection. Adapted from "Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement", by D. Moher, A. Liberati, J. Tetzlaff, D. G., Altman, and PRISMA Group, 2009, *PLoS Medicine, 6*, p. 3. Copyright 2009 by Moher et al.

Study characteristics

Of the 33 studies, 12 were cohort and 21 were cross-sectional design, with a total sample size of 121,964 to 124,717. Studies were conducted from 1989 to 2019 and the majority were conducted in the United States ($n = 19$). The outcome variable of interest was dropout for $n = 17$ studies and absenteeism for $n = 16$ studies. Most studies investigated absenteeism or dropout in secondary school $n = 26$, while $n = 7$ focussed on primary school (see Appendix A and B).

Risk of bias in individual studies

As depicted in Appendix C, 70% of the studies were rated as good, 24% as fair, and 6% as poor. All studies clearly stated the research question and study population. Most studies had a participation rate of at least 50% and provided adequate information about the variables. Only a small number of studies blinded participants to measures as participants were mainly children or parents who completed self-report measures. Many studies did not control for confounding variables and did not assess the exposure variable prior to the outcome variable or at multiple time points.

Synthesis of results

Mean effect sizes were calculated for each analysis. The number of studies included in each analysis, mean effect size, 95% Confidence Interval, and Q statistic are reported in Table 2.

Positive family processes and school absenteeism and dropout

Mean effect size

There were 30 effect sizes from 30 studies ($n = 87,769$). Effect sizes ranged from −.01 to −.45. The overall mean weighted effect size (r) between PFP and school absenteeism and dropout was −.15. This effect size indicated a small negative association between PFP and school absenteeism and dropout. The forest plot is presented in Figure 2.

Assessment of heterogeneity and publication bias

Heterogeneity analyses indicated that the 30 effect sizes were highly heterogeneous, $Q_{(29)} = 632.04$, $p < .001$, $I^2 = 95.42$. An examination of the funnel plot revealed slight asymmetry, with a bias to the right of the mean. The trim and fill method was applied to correct for asymmetry and a random-effects model was assumed. Trimming and filling one study resulted in an estimated effect size of $r = −.13$, 95% CI [−0.14, −0.13]. The funnel plot and trim and filled plot is shown in Figure 3.

Multiple outcome analysis

From the 30 studies, there were 23 effect sizes for secondary school and 7 for primary school. Bonferroni correction ($p < .025$) was employed and results indicated that the association between PFP and absenteeism and dropout was strongest for primary school $r = −.17$, 95% CI [−0.24, −0.10]; $p < .001$; $Q_{(6)} = 24.85$; $p < .001$, $I^2 = 75.85$, compared to secondary school $r = −.14$; 95% CI [−0.18, −0.10]; $p < .001$; $Q_{(22)} = 606.85$; $p < .001$, $I^2 = 96.38$.

Negative family processes and school absenteeism and dropout

Mean effect size

There were 14 effect sizes from 14 studies ($n = 5,559$). Effect sizes ranged from −.02 to .53 and the overall mean weighted r between NFP and school absenteeism and dropout was .12. This indicated a small positive association between NFP and school absenteeism and dropout. The forest plot is displayed in Figure 4.

Assessment of heterogeneity and publication bias

Heterogeneity analyses indicated that the 14 effect sizes were highly heterogeneous, $Q_{(13)} = 60.49$, $p < .001$, $I^2 = 78.51$. As shown in Figure 5, an examination of the funnel plot indicated a mostly symmetric distribution. The trim and fill method was applied and it was determined that no study needed to be adjusted.

Table 2. Summary of Mean Effect Sizes for Random Effects Analyses.

Analysis	No. studies	r	95% CI	Q
PFP and school absenteeism and dropout	30	−.15	[−0.18, −0.11]	632.04
NFP and school absenteeism and dropout	14	.12	[0.07, 0.17]	60.49

Note. The 95% confidence intervals did not include zero, indicating that the mean effect sizes were significantly different from zero. PFP = positive family processes; NFP = negative family processes.

Meta Analysis

Study name	Outcome			Statistics for each study				Correlation and 95% CI
		Correlation	Lower limit	Upper limit	Z-Value	p-Value		
Alexander, 1997	Secondary	-0.079	-0.159	0.003	-1.889	0.059		
Al-Garni, 2000	Secondary	-0.220	-0.318	-0.117	-4.142	0.000		
Arteaga, 2010	Secondary	-0.140	-0.195	-0.084	-4.892	0.000		
Bedrossian, 2017	Secondary	-0.105	-0.182	-0.027	-2.630	0.009		
Bouffard, 2006	Secondary	-0.100	-0.116	-0.084	-12.034	0.000		
Carless, 2015	Secondary	-0.450	-0.632	-0.221	-3.659	0.000		
Claes, 2009	Secondary	-0.060	-0.102	-0.018	-2.777	0.005		
Cochran, 1989	Secondary	-0.440	-0.592	-0.258	-4.455	0.000		
Corville-Smith, 1998	Secondary	-0.364	-0.654	0.019	-1.869	0.062		
Cota, 1997	Secondary	-0.168	-0.286	-0.045	-2.660	0.008		
Doren, 2014	Secondary	-0.061	-0.133	0.012	-1.643	0.100		
Fall, 2012	Secondary	-0.290	-0.305	-0.275	-36.295	0.000		
Fernandez-Suarez, 2016	Secondary	-0.348	-0.492	-0.186	-4.061	0.000		
Grover, 2016	Secondary	-0.112	-0.174	-0.049	-3.459	0.001		
Hunt, 2009	Secondary	-0.043	-0.145	0.060	-0.821	0.412		
Janosz, 1997	Secondary	-0.008	-0.078	0.061	-0.239	0.811		
Jenkins, 1995	Secondary	-0.030	-0.101	0.041	-0.822	0.411		
Jung, 1999	Secondary	-0.120	-0.135	-0.105	-15.862	0.000		
Maggs, 2008	Secondary	-0.115	-0.130	-0.100	-14.614	0.000		
McNeal, 2014	Secondary	-0.045	-0.063	-0.027	-4.953	0.000		
Pengpid, 2018	Secondary	-0.079	-0.112	-0.046	-4.686	0.000		
Vaughn, 2013	Secondary	-0.222	-0.310	-0.130	-4.640	0.000		
Whannell, 2011	Secondary	-0.333	-0.562	-0.057	-2.347	0.019		
Barnard, 2001	Primary	-0.110	-0.163	-0.056	-3.970	0.000		
Barnard, 2004	Primary	-0.096	-0.153	-0.039	-3.283	0.001		
Mikisa, 2019	Primary	-0.335	-0.434	-0.227	-5.843	0.000		
Reed, 2017	Primary	-0.144	-0.236	-0.049	-2.971	0.003		
Reynolds, 1992	Primary	-0.165	-0.237	-0.091	-4.342	0.000		
Steinhausen, 2008	Primary	-0.057	-0.216	0.104	-0.693	0.488		
Veenstra, 2010	Primary	-0.390	-0.539	-0.218	-4.239	0.000		
		-0.146	-0.181	-0.111	-7.980	0.000		

Meta Analysis

Figure 2. Forest plot for the association between positive family processes and school absenteeism and dropout.

Multiple outcome analysis

From the 14 studies, there were 12 effect sizes for secondary school and 2 for primary school. Bonferroni correction ($p < .025$) was employed and the association between NFP and absenteeism and dropout was strongest for secondary school $r = .13$; 95% CI [0.06, 0.19]; $p < .001$; $Q_{(11)} = 60.32$; $p < .001$, $I^2 = 81.76$, compared to primary school $r = .10$; 95% CI [0.02, 0.19]; $p = .013$; $Q_{(1)} = 0.00$; $p = .994$, $I^2 = 0$.

Discussion

Research has shown significant associations between PFP and NFP and school absenteeism and dropout. However, few studies have been conducted and no study to date has systematically and quantitatively investigated the relationship between family processes and absenteeism and dropout in school-age children. Research into this topic is critical given the prevalence of problematic school attendance and its long-term detrimental consequences. Some evidenced negative associations include mental health disorders, externalizing behavioural difficulties, poor relationships, unemployment, and homelessness (Egger et al., 2003; Jaafar et al., 2013; Kearney, 2008a; Kogan et al., 2005). Further research investigating school absenteeism and dropout in relation to family processes would contribute towards theoretical understandings and guide educational and mental health professionals in assessment and intervention for school absence.
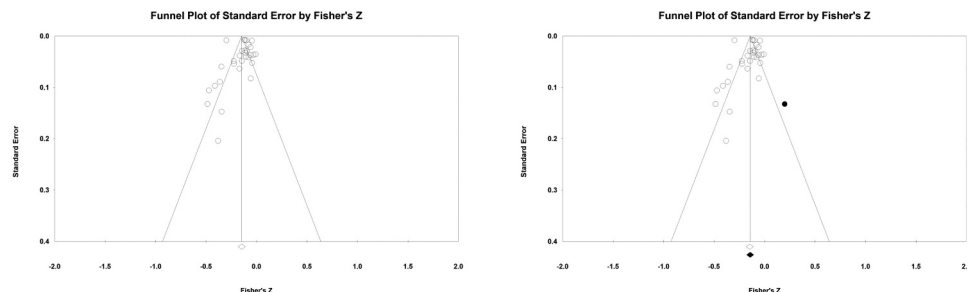
Figure 3. Funnel plot for positive family processes and school absenteeism and dropout. The trim and filled plot is presented on the right with values filled in black.
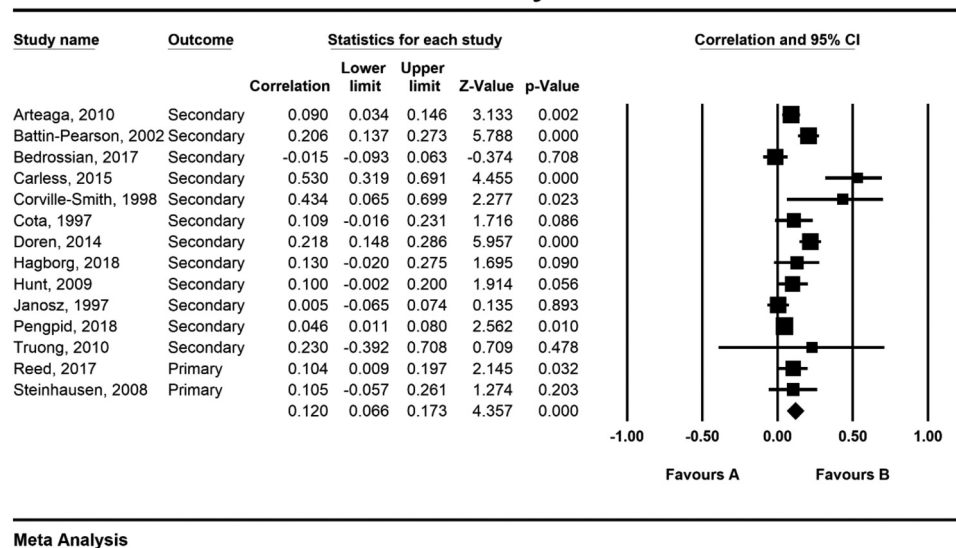
Figure 4. Forest plot for the association between negative family processes and school absenteeism and dropout.

The present meta-analytic review aimed to investigate the relationship between PFP and NFP and school absenteeism and dropout. The results indicated a significant negative correlation between PFP and school absenteeism and dropout. This finding confirmed the hypothesis that PFP and school attendance issues would be negatively related. In addition, the findings indicated a significant positive correlation between NFP and school absenteeism and dropout. The hypothesis of a positive relationship between NFP and school absenteeism and dropout was confirmed by these findings.

The present meta-analysis further aimed to examine the relationship between PFP and NFP, and school absenteeism and dropout in primary and secondary school populations, respectively. Results indicated that the correlation between PFP and school absenteeism and dropout was strongest for primary school students compared to secondary school students. In contrast, the correlation between NFP and absenteeism and dropout was strongest for students in secondary school compared to primary school.

The research findings highlight the importance of the association between school attendance problems and
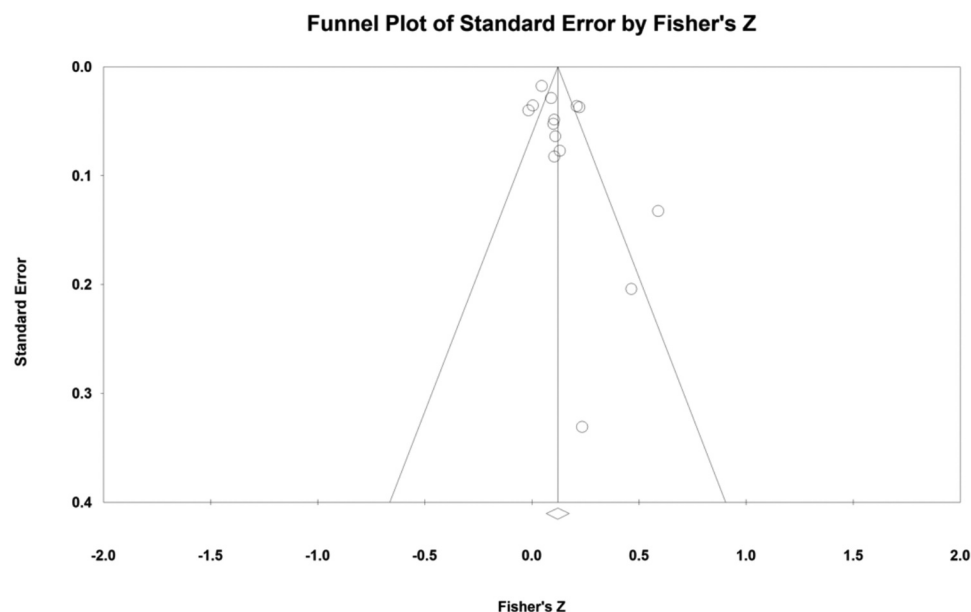

Figure 5. Funnel plot for negative family processes and school absenteeism and dropout.

family processes and reinforce theoretical assertions from Ecological Systems Theory (Bronfenbrenner, 1995, 1996). The present study supports a developmental approach to understanding school attendance by investigating absenteeism and dropout in primary and secondary school populations separately. This is consistent with previous reviews of the topic, which have called for a developmental model that considers the complexity of attendance problems and changes to family influences over time (Kearney, 2008b).

The findings of the present meta-analysis are consistent with previous studies that have reported significant negative associations between school absenteeism and dropout and PFP such as parental support and monitoring, acceptance, clear boundaries, autonomy granting, family cohesion, and positive parent-child relationships (Blondal & Adalbjarnardottir, 2009; Fernandez-Suarez et al., 2016; Pengpid & Peltzer, 2018; Steinhausen et al., 2008; Veenstra et al., 2010). The present findings are also consistent with previous research into NFP and school absenteeism and dropout. Past studies reported positive relationships between school attendance issues and NFP such as intrusive and constraining parental control, harsh and corporal punishment, attachment difficulties, abuse, and family conflict (Chapman, 2007; Corville-Smith et al., 1998; Kearney, 2008a).

The findings are consistent with and build upon qualitative reviews of the literature (Heyne et al., 2001; Kearney, 2001, 2008b; King & Bernstein, 2001) and Gubbels et al. (2019) meta-analysis. Previous research has indicated the importance of family-related variables for school-based absenteeism and dropout. The present meta-analytic review builds upon previous research by investigating in further depth the family processes found to have a significant relationship with absenteeism and dropout.

The current review strengthens the case for further research into family processes associated with school attendance and dropout in school-age children. In particular, further investigation into the relationship between problematic school absenteeism and dropout and NFP is needed. The majority of research to date has focussed on the connection between PFP and school attendance (e.g., Bouffard, 2006; Claes et al., 2009; Grover, 2016; Jenkins, 1995). However, the current study reported a significant association between NFP and school absenteeism and dropout. Therefore, further research into the relationship is needed and may have important practical and theoretical implications for both primary and secondary school-aged children.

Furthermore, the systematic search revealed that very few studies have explored the relationship between family processes and school attendance in primary school populations. Such research is critical given the significant association between school attendance issues and PFP and NFP, with a larger association for PFP in primary school. Further research into this relationship would have important practical implications for treatment and prevention, as research suggests that early intervention is critical (King & Bernstein, 2001).

The present study provides several key practical implications for the assessment and treatment of school absenteeism and dropout. Findings suggest that there is a need to understand school attendance in relation to the whole family system. An assessment of family processes may be beneficial when assisting children and adolescents presenting with school absenteeism and dropout. Consistent with previous reviews (Kearney, 2008b; King & Bernstein, 2001), findings support the use of family therapy and working with the whole family, for example to increase parental involvement or improve dynamic difficulties. School-based professionals could assist families in coordinating educational services and encourage parent involvement at school, parental monitoring and supervision of homework, and parent-teacher communication (Kearney, 2008b).

It may be beneficial to focus on increasing PFP in primary school populations to assist with the prevention and treatment of school absenteeism and dropout. This implication is supported by early intervention research that highlights the importance of supporting the child to return to school as soon as possible (King & Bernstein, 2001). Furthermore, developmental models of school attendance posit that family processes at a younger age play a vital role in absenteeism and dropout at a later stage (Kearney, 2008b). Therefore, targeting PFP in primary school may be helpful in reducing long-term difficulties and attendance issues in secondary school (Kearney, 2008b). In contrast, results highlighted that NFP may be crucial for secondary school populations. This finding indicates that for older children and adolescents, interventions aimed at reducing NFP may be beneficial in reducing attendance issues.

A key strength of the current study is that it is the first to investigate the relationship between PFP and NFP and absenteeism and dropout, in primary and secondary school populations through meta-analysis. In doing so, the study is a step towards designing and conducting research with a systemic and developmental focus, to investigate family-related variables that have a bearing on school attendance. Another strength is that the studies included in the meta-analysis were limited to dissertations and peer-reviewed journal articles. Indeed, the quality

assessment indicated that most studies were of a higher methodological standard and only one study indicated possible publication bias. It is noted that some studies had large sample sizes as data was taken from a previous, larger longitudinal study. These strengths increase the generalisability of the present findings.

There are however some limitations to the current study. It must be noted that despite the correlation between both PFP and NFP and school absenteeism and dropout in primary and secondary schools being significant, they were small in effect size. Furthermore, the difference in effect sizes between the relationships in primary and secondary school was small. Further research is needed given that this study is the first to date that has examined the relationships through meta-analysis. The current analysis reviewed correlational data and therefore we cannot draw firm conclusions about the causality of PFP and NFP in relation to school absenteeism and dropout. Nevertheless, previous studies (e.g., Bedrossian, 2017; Fernandez-Suarez et al., 2016; Gubbels et al., 2019; Janosz et al., 1997; Lagana, 2004; McNeal, 2014) have reported causal relationships, which are consistent with our findings. Further, the current study was limited in that moderators and mediators of the relationship between PFP and NFP and school absenteeism and dropout were not investigated. Future research into the nature of the relationship between family processes and school attendance issues as well as potential moderating and mediating variables is warranted.

A further limitation of this meta-analysis is that there was a high level of heterogeneity among the studies included. High heterogeneity is an indication that other variables may account for the variability between the observed effect sizes within a meta-analysis. This heterogeneity may have been due to differences in variable definitions, measures, and research designs between the analysed studies. Indeed, there is no consistent definition of school absenteeism, and concepts such as truancy, school refusal, and school phobia are used interchangeably within the literature (Ingul et al., 2012). Further research to determine consistent definitions and develop standardized measures of the variables is needed.

In addition, there are limited standardized measures for absenteeism, dropout, and family processes, with most studies relying on child, teacher, and parent reports. The different participant samples in the studies may have held varying perceptions of the same variables, which could have impacted the findings. Indeed, Veenstra et al. (2010) reported little agreement between ratings by children, parents, and teachers when investigating the impact of attachment to parents on truancy. Future research should examine the differences in parent, child, and teacher reports to better understand children's behaviour and the relationship with family processes. It may be beneficial for future meta-analyses to conduct additional analyses on the included studies to determine in what aspects they vary and to obtain a more homogenous sample.

In conclusion, previous research has highlighted the importance of PFP and NFP for school attendance issues. Yet limited research has investigated family processes in relation to school absenteeism and dropout, with no study to date focussing on the relationship through meta-analysis and comparing the relationship in primary and secondary school students. The current study is a step towards understanding the connection between different family processes and school absenteeism and dropout in primary and secondary school. Findings support a systemic and developmental approach to the assessment and intervention of school absence. In addition, the findings suggest that intervention aimed at increasing PFP in primary school and decreasing NFP in secondary school may be beneficial. Future research should continue to investigate the relationship with a focus on NFP and school attendance issues in primary school.

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ORCID

Sallyanne A. Marlow http://orcid.org/0000-0001-5911-7578

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Appendix A

Study Characteristics and Correlation Coefficients for Meta-Analysis

First author, year	Country	Participant characteristics *(sample size[ab], students' age/grade, gender)*	Family process variable(s) *(variable, measure/source)*	School absenteeism variable *(variable, measure/source)*	Analysis *(positive/negative, effect size)*
Alexander et al., 1997	United States	*Sample size*: 790 (222 dropout group, 349 graduate group completed measures of interest). *Age/grade*: Recruited in Grade 1 and monitored for 14 years. *Gender*: Male 45.58% Female 54.42%	*Variable*: Parent practices (reading time, summer activities). *Measure/source*: Time reading with child answered by parent when child in Grade 1 on a 5-point scale. Number of summer activities answered by student in Grade 2 on a 6-point scale. *Variable*: Parent attitudes (marks expected, educational level expected, evaluation of ability, parental responsibility, view of conduct). *Measure/source*: Answered by parent on a scale, when child in Grade 1.	*Variable*: Dropout *Measure/source*: Asked students a question about their attendance from Grade 9 to 2 years beyond high school. Students were separated into a dropout and graduate group.	Positive $r = -.079$
Al-Garni, 2000	Saudi Arabia	*Sample size*: 346 *Age/grade*: 15-23 years old, Grades 10-12. *Gender*: Male 100% Female 0%	*Variable*: Parent-child attachment *Measure/source*: PAQ	*Variable*: School truancy *Measure/source*: School attendance records.	Positive $r = -.220$
Arteaga et al., 2010	United States	*Sample size*: 1208 *Age/grade*: 8-24 years old. *Gender*: Male 69.8% Female 29.7%	*Variable*: Parent expectations of child's progress *Measure/source*: Teacher surveys completed when child aged 8-10 years. *Variable*: Frequent family conflict *Measure/source*: Student surveys completed when child aged 5-10 years.	*Variable*: School dropout (by age 16) *Measure/source*: School system records and participant surveys.	Positive $r = -.140$ Negative $r = .090$
Barnard, 2001	United States	*Sample size*: 1,295 *Age/grade*: 7-12 years old, Grade 1-6. *Gender*: Male 49% Female 51%	*Variable*: Parent involvement (home and school involvement from the perception of the parent and teacher). *Measure/source*: CLS	*Variable*: School dropout *Measure/source*: Chicago school information (or tracking information) when students aged 19 years.	Positive $r = -.110$
Barnard, 2004	United States	*Sample size*: 1,165 *Age/grade*: Approximately 20 years old (answered retrospectively for Grades 1-6). *Gender*: Male 49% Female 51%	*Variable*: Parent involvement at school (parent ratings and teacher ratings). *Measure/source*: Parents completed surveys. Teachers reported on variable each year.	*Variable*: School dropout (by age 20). *Measure/source*: Measured at age 19 years and 9 months, dropout rates were based on Chicago school information (or tracking information).	Positive $r = -.096$

(Continued)

First author, year	Country	Participant characteristics (sample size[ab], students' age/ grade, gender)	Family process variable(s) (variable, measure/source)	School absenteeism variable (variable, measure/source)	Analysis (positive/ negative, effect size)
Battin-Pearson et al., 2000	United States	*Sample size*: 770 *Age/grade*: 14-16 years old, Grades 5 to 7. *Gender*: Male 50.99% Female 49.01%	*Variable*: Low parental education expectations *Measure/source*: Parents were asked questions when child was aged 14 years (Grade 8).	*Variable*: Dropout *Measure/source*: Students were asked questions about dropout at age 16 years (Grade 10).	Negative $r = .206$
Bedrossian, 2017	United States	*Sample size*: 626 *Age/grade*: Sophomore (secondary school). *Gender*: Male 56.4% Female 43.6%	*Variable*: Parenting practices (proactive involvement, proactive communication, reactive involvement, reactive communication). *Measure/source*: Adapted version of the ELS:2002-2004.	*Variable*: High school dropout *Measure/source*: BYSQ created by researchers, content taken from ELS:2002-2004.	Positive $r = -.100$ Negative $r = -.015$
Bouffard, 2006	United States	*Sample size*: 14,387 *Age/grade*: Grades 10 and 12. *Gender*: Male 50.42% Female 49.58%	*Variable*: Parent involvement in education (internet-based parent-school communication, general parent-school communication, parent involvement in homework, parent-child discussion about education). *Measure/source*: Adapted version of the NELS:88.	*Variable*: Dropout *Measure/source*: Time 2 school records.	Positive $r = -.042$
Carless et al., 2015	Australia	*Sample size*: 106 (60 school refusal group, 46 school attending group). *Age/grade*: 12-17 years old *Gender*: Male 47% Female 53%	*Variable*: Parenting self-efficacy *Measure/source*: Efficacy subscale of the PSCS. *Variable*: Family dysfunction *Measure/source*: FAD-GF	*Variable*: School refusal *Measure/source*: The school refusal group was drawn from an intervention study conducted at a school refusal clinic. The comparison group was a sample of school-attending adolescents.	Positive $r = -.450$ Negative $r = .530$
Claes et al., 2009	Data collected in 28 countries (Australia, Belgium, Bulgaria, Chile, Colombia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Germany, Greece, Hong Kong, Hungary, Italy, Latvia, Lithuania, Norway, Poland, Portugal Romania, Russia, Slovak Republic, Slovenia, Sweden, Switzerland, United Kingdom, and United States).	*Sample size*: 810-3,470 (2,140 completed measure of interest). *Age/grade*: 14 years old *Gender*: Male 48.4% Female 51.6%	*Variable*: Parenting involvement in education (helping with homework and learning problems, helping with school fundraising). *Measure/source*: School principals completed an adapted questionnaire from the IEA CES.	*Variable*: Truancy (often) *Measure/source*: School principals completed a questionnaire.	Positive $r = -.060$

(Continued).

First author, year	Country	Participant characteristics (sample size[ab], students' age/ grade, gender)	Family process variable(s) (variable, measure/source)	School absenteeism variable (variable, measure/source)	Analysis (positive/ negative, effect size)
Cochran & Bø, 1989	Norway	*Sample size*: 92 *Age/grade*: 16 years old, Grade 9 *Gender*: Male 100% Female 0%	*Variable*: Time with parents *Measure/source*: BAB	*Variable*: School truancy *Measure/source*: Reported by the school.	Positive $r = -.440$
Corville-Smith et al., 1998	Canada	*Sample size*: 54 (27 absentee group, 27 regular attenders group). *Age/grade*: 15-19 years old. *Gender*: Male 29.63% Female 70.37%	*Variable*: Family relations (parent's acceptance, parent's discipline, parent's control, family cohesion, family conflict). *Measure/source*: Students completed the CRPBI-Revised and FES (1).	*Variable*: Absenteeism *Measure/source*: Attendance records. Children were separated into an absentee and regular attenders group.	Positive $r = -.364$ Negative $r = .434$
Cota, 1997	United States	*Sample size*: 262 (113 dropout group, 130 remainer group). *Age/grade*: 14-21 years old, Grades 9-12. *Gender*: Male 50.4% Female 49.6%	*Variable*: Family processes (cohesion, expressiveness, conflict, independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, moral-religious emphasis, organization, control). *Measure/source*: FES (2)	*Variable*: Dropout *Measure/source*: KCASTS. Students were separated into a dropout and remainer group.	Positive $r = -.168$ Negative: $r = .109$
Doren et al., 2014	United States	*Sample size*: 725 *Age/grade*: 14-18 years old. *Gender*: Male 66.9% Female 33.1%	*Variable*: Family predictors (home-based support for schooling, parent involvement in school, parent involvement in IEP, negative parent expectations). *Measure/source*: NLTS2	*Variable*: Dropout *Measure/source*: The participant and/or parents were asked whether or not the participant dropped out of high school.	Positive $r = -.061$ Negative $r = .218$
Fall & Roberts, 2012	United States	*Sample size*: 14,781 *Age/grade*: Grades 10-12 *Gender*: Male 49.4% Female 50.6%	*Variable*: Parent support *Measure/source*: Students completed a questionnaire in Grade 10.	*Variable*: Dropout *Measure/source*: ELS:2002-2004	Positive $r = -.290$
Fernandez-Suarez et al., 2016	Spain	*Sample size*: 264 (128 school dropout group, 136 non-dropout group). *Age/grade*: 14-18 years old. *Gender*: Male 80.74% Female 19.26%	*Variable*: Parental monitoring *Measure/source*: The presence of clear limits and rules about the behaviour of students at home was assessed by a team of psychologists and counsellors.	*Variable*: Dropout *Measure/source*: Children were divided into a dropout and non-dropout group based on whether or not they had remained in school.	Positive $r = .176$
Grover, 2016	United States	*Sample size*: 1,684 (949 completed measure of interest). *Age/grade*: Grade 10 *Gender*: Not stated.	*Variable*: Family involvement (family rules, parent-student communication, spending time together, school and sports-related time together, involvement at school). *Measure/source*: Adapted version of the ELS:2002-2004 and PISA was completed by students and parents.	*Variable*: Dropout *Measure/source*: Students completed a questionnaire.	Positive $r = -.112$

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First author, year	Country	Participant characteristics (sample size[ab], students' age/ grade, gender)	Family process variable(s) (variable, measure/source)	School absenteeism variable (variable, measure/source)	Analysis (positive/ negative, effect size)
Hagborg et al., 2018	Sweden	*Sample size*: 1,285 (1,108 no absenteeism group, 132 moderate absenteeism group, 39 excessive absenteeism group). *Age/grade*: Grades 8 and 9. *Gender*: Male 47.9% Female 52.1%	*Variable*: Child maltreatment (sexual abuse, physical abuse, emotional abuse, emotional neglect, witnessing domestic violence). *Measure/source*: Students completed the Swedish version of the CTQ-SF. Witnessing domestic violence was added to the questionnaire as an extra item.	*Variable*: Moderate and excessive absenteeism *Measure/source*: Students answered a question about their absenteeism. Based on answers students were separated into a no absenteeism, moderate absenteeism, and excessive absenteeism group.	Negative $r = .130$
Hunt & Hopko, 2009	United States	*Sample size*: 367 *Age/grade*: Grades 9-12 *Gender*: Male 42% Female 58%	*Variable*: Adolescent perceptions of family functioning (cohesion, expressiveness, conflict, independence, achievement orientation, intellectual-cultural orientation, active recreational orientation, moral-religious emphasis, organization, control). *Measure/source*: Students completed the FES Form R.	*Variable*: Truancy *Measure/source*: School records	Positive $r = -.043$ Negative $r = .100$
Janosz et al., 1997	Canada	*Sample size*: 791 (172 dropout group, 619 graduate group). *Age/grade*: 12-17 years old, mean age 14.3 years. Grades 7-11. *Gender*: Male 55.37% Female 44.62%	*Variable*: Family process variables (parental supervision, punishment used by parents, family rules, communication, parental acceptance, identification of child, marital discord). *Measure/source*: Students completed the SPI.	*Variable*: Dropout *Measure/source*: Data was obtained from the Department of Education of Quebec. Students were categorized as dropouts or graduates.	Positive $r = -.008$ Negative $r = .005$
Jenkins, 1995	United States	*Sample size*: 754 *Age/grade*: 11-15 years old, Grades 7 and 8. *Gender*: Male 50% Female 50%	*Variable*: Family involvement in schooling (parent involvement, having a sibling at the same school, used to have sibling at the school). *Measure/source*: Students completed an anonymous questionnaire and interviews were conducted with students and teachers.	*Variable*: School non-attendance *Measure/source*: Attendance records	Positive $r = -.030$
Jung, 1999	United States	*Sample size*: 17,307 *Age/grade*: Grades 8 to 12 *Gender*: Male 49.6% Female 50.4%	*Variable*: Family system (communication with parents regarding school, adult supervision, parent educational aspiration for their child). *Measure/source*: Survey conducted at base-year and first follow-up.	*Variable*: Dropout *Measure/source*: Survey conducted at first and second follow-up.	Positive $r = -.120$
Maggs et al., 2008	United Kingdom	*Sample size*: 16,009 *Age/grade*: 7-46 years old *Gender*: Male 50.76% Female 49.24%	*Variable*: Reading with child *Measure/source*: Questionnaire was completed by parents (mother and father individually) when child aged 7 years. *Variable*: Relations with parents *Measure/source*: Questionnaire was completed by participant, when aged 16 years.	*Variable*: Truancy (at age 16 years). *Measure/source*: Questionnaire completed by participant.	Positive $r = -.115$

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First author, year	Country	Participant characteristics (sample size[ab], students' age/grade, gender)	Family process variable(s) (variable, measure/source)	School absenteeism variable (variable, measure/source)	Analysis (positive/negative, effect size)
McNeal, 2014	United States	*Sample size*: 12,101 *Age/grade*: Grades 8 and 10 *Gender*: Male 49% Female 51%	*Variable*: Parent involvement (parent-child discussion, PTO involvement, monitoring, educational support strategies). *Measure/source*: NELS:88	*Variable*: Absenteeism *Measure/source*: NELS:88	Positive $r = -.045$
Mikisa, 2019	Uganda	*Sample size*: 285 *Age/grade*: 7-22 years old (some answered retrospectively). *Gender*: Male 0% Female 100%	*Variable*: Perceived parental expectation of child's performance *Measure/source*: Questionnaire developed by the researcher and conducted in an interview with participants.	*Variable*: Dropout *Measure/source*: Questionnaire developed by the researcher and conducted in an interview with participants.	Positive $r = -.335$
Pengpid & Peltzer, 2018	Pacific Island countries (including Cook Islands, Kiribati, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu).	*Sample size*: 10,968 *Age/grade*: 14.1 years old (mean age of all countries). *Gender*: Male 51.3% Female: 48.7%	*Variable*: Parental involvement (parental supervision, parental connectedness, parental bonding, parental respect for privacy). *Measure/source*: Adapted version of the GSHS completed by student.	*Variable*: School truancy *Measure/source*: Adapted version of the GSHS completed by student.	Positive $r = -.079$ Negative $r = .046$
Reed et al., 2017	United States and Canada	*Sample size*: 425-437 (425 completed parent-child relationship measure). *Age/grade*: 7-9 years old *Gender*: Male 78.4% Female 21.6%	*Variable*: Parent-child relationship (parental knowledge of behavioural principles, low monitoring/supervision). *Measure/source*: Parents completed the PRQ and APQ.	*Variable*: Truancy *Measure/source*: Questionnaire completed by student at baseline.	Positive $r = -.144$ Negative $r = .104$
Reynolds et al., 1992	United States	*Sample size*: 683 *Age/grade*: Grade 1 (wave 1). *Gender*: Male 51% Female 49%	*Variable*: Parent involvement in school (parent participation in school activities, perceived quality of parent involvement). *Measure/source*: Data was collected from teacher survey responses.	*Variable*: Absences *Measure/source*: Data was obtained from school records when child was in Grade 1 and 2.	Positive $r = -.165$
Steinhausen et al., 2008	Switzerland	*Sample size*: 403 (57 school fear group, 41 truant group, 48 control group at wave 1). *Age/grade*: 11-17 years old, mean age 13.6 years (wave 1). *Gender*: Male 38% Female 62% (wave 1)	*Variable*: Perceived parental behaviour (acceptance, rejection, control). *Measure/source*: Students completed a measure developed by the authors.	*Variable*: School fear and truancy *Measure/source*: Students completed the problem behaviour section of the YSR and its Swiss adaptation. Students were separated into a school fear or truancy group. A control group was also used.	Positive $r = -.061$ Negative $r = .113$

(*Continued*)

First author, year	Country	Participant characteristics (sample size[a][b], students' age/grade, gender)	Family process variable(s) (variable, measure/source)	School absenteeism variable (variable, measure/source)	Analysis (positive/negative, effect size)
Truong, 2010	United States	*Sample size*: 109 *Age/grade*: Adults (answered retrospectively). *Gender*: Male 69.7% Female 30.3%	*Variable*: Parent-child relationship *Measure/source*: Adults completed the GRAD-PS1 and a Personal Data Sheet.	*Variable*: School dropout *Measure/source*: Adults completed the GRAD-PS1.	Negative $r = .230$
Vaughn et al., 2013	United States	*Sample size*: 18,819 (13,436 moderate and high truancy groups). *Age/grade*: 12-17 years old, mean age 14.6 years. *Gender*: Male 51.0% Female 49.0%	*Variable*: Parental involvement- always/sometimes (check homework, help with homework, give positive reinforcement, limit television, limit time out at night). *Measure/source*: Students were interviewed, and their answers were separated into always/sometimes and seldom/never.	*Variable*: Truancy (moderate and high). *Measure/source*: During interviews students were asked how many days they skipped school in the past 30 days. Answers were coded as non-school skipping, moderate skipping, and high skipping.	Positive $r = -.222$
Veenstra et al., 2010	Netherlands	*Sample size*: 2,149-2,230 (109 truant group, 1,566 non-truant group completed measure of interest at wave 1). *Age/grade*: 10-12 years old, mean age 11.09 years (wave 1). *Gender*: Male 49.2% Female 50.8% (wave 1)	*Variable*: Attachment to parents *Measure/source*: Children completed two self-report scales based on SPF Theory.	*Variable*: Truancy *Measure/source*: Children, teachers, and parents were asked a question about the child's truancy. Children were separated into a truant and non-truant group.	Positive $r = -.108$
Whannell & Allen, 2011	Australia	*Sample size*: 144 (49 dropout group, 90 graduate group completed measure of interest). *Age/grade*: 18-22 years old (answered retrospectively). *Gender*: Not stated.	*Variable*: Family relationships *Measure/source*: Students completed a questionnaire developed by the authors.	*Variable*: Dropout *Measure/source*: Based on student's questionnaire answers, participants were separated into a dropout and graduate group.	Positive $r = -.199$

Note. Please see Appendix B for the full title of all abbreviated measures.
[a]If more than one sample size was reported (i.e., varied by effect size), the range was displayed.
[b]Where a different sample size is reported in parentheses, the sample pertaining to the variable or group of interest was used.

Appendix B

Full Titles of Measures to be used with Appendix A

- APQ = Alabama Parenting Questionnaire (Essau, Sasagawa, & Frick, 2006);
- BAB = The Background, Attitudes and Behaviours Questionnaire, adapted from Fredriksen and Sorensen (1977);
- CLS = Chicago Longitudinal Study (Reynolds, Bezruczko, Mavrogenes, & Hagemann, 1997);
- CRPBI-Revised = Shortened version of the Children's Report of Parental Behaviour Inventory (Kawash & Clewes, 1988);
- CTQ-SF = Childhood Trauma Questionnaire-Short Form (Bernstein et al., 2003; Gerdner & Allgulander, 2009);
- ELS:2002-2004 = Educational Longitudinal Study of 2002 to 2004 (Ingels, Pratt, Rogers, Siegel, & Stutts, 2004);
- FAD-GF = General Functioning subscale (Byles, Byrne, Boyle, & Offord, 1988) of the Family Assessment Device (Epstein, Baldwin, & Bishop, 1983);
- FES (1) = Family Environment Scale (Moos & Moos, 1986);
- FES (2) = Family Environment Scale (Moos & Moos, 1994);
- FES Form R = Family Environment Scale Real Form (Moos & Moos, 2002);
- GRAD-PS1 = Global Risk Assessment Device PS1 (Gavazzi et al., 2003);
- GSHS = Global School-based Student Health Survey (Centers for Disease Control and Prevention, 2018);
- IEA CES = International Association for the Evaluation of Educational Achievement Civic Education Study (Torney-Purta, Lehmann, Oswald, & Schultz, 2001);
- KCASTS = K-12 Computerised Accounting and Student Terminal System;
- NELS:88 = National Education Longitudinal Study of 1988;
- NLTS2 = National Longitudinal Transition Study-2;
- PAQ = Parental Attachment Questionnaire (Kenny, 1985);
- PISA = Program for International Student Assessment;
- PRQ = Parent-Child Relationship Questionnaire (Furman & Gierson, 1995);
- PSCS = Parenting Sense of Competence Scale (Gibaud-Wallston & Wandersman, 1978);
- SPF = Social Production Function (Nieboer, Lindenberg, Boomsma, & Van Bruggen, 2005);
- SPI = Social and Personal Inventory (LeBlanc, 1994; Tremblay, LeBlanc, & Schwartzmann, 1986); and
- YSR = Youth Self Report (Achenbach, 1991) and Swiss adaptation (Steinhausen & Metzke, 1998).

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Appendix C

Individual Study Quality Assessment Tool for Studies

Study	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Overall
Alexander et al., 1997	√	√	√	√	NS	√	√	√	√	NS	√	NS	√	√	Good
Al-Garni, 2000	√	NS	√	√	NS	√	√	√	√	NS	√	NS	√	√	Fair
Arteaga et al., 2010	√	√	√	√	√	√	√	√	√	NS	√	NS	√	√	Good
Barnard, 2001	√	√	√	√	√	√	√	√	√	NS	√	NS	√	√	Good
Barnard, 2004	√	√	√	√	√	√	√	√	√	√	√	NS	√	√	Good
Battin-Pearson et al., 2000	√	√	√	√		√	√	√	√	NS	√	NS	√	√	Good
Bedrossian, 2017	√	NS	√	√		√	√	√	√	NS	√	NS	√	√	Fair
Bouffard, 2006	√	√	√	√		√	√	√	√	NS	√	NS	√	√	Good
Carless et al., 2015	√	√	√	√		√	√	√	√	NS	√	√	√	√	Good
Claes et al., 2009	√	√	√	√		√	√	√	√	NS	√	NS	√	√	Good
Cochran & Bø, 1989	√	√	√	√	n/a	n/a	√	√	√	NS	√	NS	√	√	Fair
Corville-Smith et al., 1998	√	√	√	√		√	√	√	√	NS	√	NS	√	√	Fair
Cota, 1997	√	√	√	√	√	√	√	√	√	NS	√	NS	√	√	Good
Doren et al., 2014	√	√	√	√		√	√	√	√	√	√	NS	√	√	Good
Fall & Roberts, 2012	√	√	NS	√		√	√	√	√	NS	√	NS	√	√	Good
Fernandez-Suarez et al., 2016	√	√	√	√	NS	NS	√	√	√	√	√	√	√	√	Fair
Grover, 2016	√	√	√	√		√	√	√	√	√	√	NS	√	√	Fair
Hagborg et al., 2018	√	√	√	√		√	√	√	√	NS	√	NS	√	√	Poor
Hunt & Hopko, 2009	√	√	√	√		√	√	√	√	NS	√	NS	√	√	Good
Janosz et al., 1997	√	√	√	√		√	√	√	√	√	√	NS	√	√	Good
Jenkins, 1995	√	√	√	√		√	√	√	√	NS	√	NS	√	√	Good
Jung, 1999	√	√	√	√		√	√	√	√	√	√	NS	√	√	Good
Maggs et al., 2008	√	√	√	√		√	√	√	√	√	√	NS	√	√	Good
McNeal, 2014	√	NS	√	√	√	√	√	√	√	√	√	√	√	√	Fair
Mikisa, 2019	√	NS	√	√		√	√	√	√	√	√	√	√	√	Good
Pengpid & Peltzer, 2018	√	NS	√	√		√	√	√	√	√	√	√	√	√	Good
Reed et al., 2017	√	NS	√	√		√	√	√	√	√	√	√	√	√	Good
Reynolds et al., 1992	√	√	√	√		√	√	√	√	√	√	√	√	√	Fair
Steinhausen et al., 2008	√	NS	√	√		√	√	√	√	√	√	NS	√	√	Good
Truong, 2010	√	√	√	√	√	√	√	√	√	√	√	NS	√	√	Good
Vaughn et al., 2013	√	√	√	√	√	√	√	√	√	√	√	NS	√	√	Good
Veenstra et al., 2010	√	√	√	√	√	√	√	√	√	√	√	NS	√	√	Good
Whannell & Allen, 2011	NS	NS	√	√		√	√	√	√	NS	√	NS	√	√	Poor

Note. 1 = Was the research question or objective in this paper clearly stated? 2 = Was the study population clearly specified and defined? 3 = Was the participation rate of eligible persons at least 50%? 4 = Were all the subjects selected or recruited from the same or similar populations (including the same time period)? Were inclusion and exclusion criteria for being in the study prespecified and applied uniformly to all participants? 5 = Was a sample size justification, power description, or variance and effect estimates provided? 6 = For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured? 7 = Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed? 8 = For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)? 9 = Were the exposure measures (independent variables) clearly defined, valid, reliable, and implemented consistently across all study participants? 10 = Was the exposure(s) assessed more than once over time? 11 = Were the outcome measures (dependent variables) clearly defined, valid, reliable, and implemented consistently across all study participants? 12 = Were the outcome assessors blinded to the exposure status of participants? 13 = Was loss to follow-up after baseline 20% or less? 14 = Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)? 15 = Overall quality rating (good, fair, or poor); √ = yes, ˣ = no, √ˣ = partially met criteria, NS = not stated.