Reducing School Dropout Rates Through Early Identification of Students at Risk

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Students who drop out of school may face a host of poor outcomes in life. Literature shows that dropping out of school is evident in the middle and elementary school years through many indicators. Some of these warning signs including poor attendance, engagement in learning, and behavior have been widely studied. Statistical data-driven systems used in some school jurisdictions show only the presence of indicators; they do not reveal the impact on learning, nor do they explore the reasons for the presence of the indicator(s). This paper is a call to action to implement identification of students in middle school at risk of dropping out. The use of individualized holistic identification approaches may more accurately identify students at risk as well as inform interventions.

Keywords: School dropout, early identification, at risk, middle school

Society views high school completion as an essential achievement in order to succeed in work and life in North America. Research shows that individuals who drop out of school are at higher risk of poor outcomes including unemployment (Bowlby, 2008), developing mental health disorders (Breslau, Lane, Sampson, & Kessler, 2008; Freeman & Simonsen, 2015), incarceration (Dynarski et al., 2008), early pregnancy, reduced marital stability (Hankivsky, 2008), reduced life expectancy (Rumberger, 2011) and significantly lower earning potential (Dynarski et al., 2008; Uppal, 2017) compared to those who complete school with qualifications. Staggeringly, families headed by a high school dropout accumulate only one tenth of the wealth of families headed by a high school graduate (Lemon & Watson, 2011). The lifelong negative impact on the individual and their families as well as the implicit cost to society constitutes a public health problem (Freeman & Simonsen, 2015; Lansford, Dodge, Pettit, & Bates, 2016).

Dropping out, defined in many Canadian studies and published statistics as failing to gain the high school diploma within five years of commencing high school, is a recognized problem in Canada. One study published a decade ago found the tangible costs of school dropout to be high, and estimated that the cost savings in 2008, if graduation rates were to improve by just 1%, to be $7.7 billion (Hankivsky, 2008). The problem is particularly concerning in Alberta, with 69% of students reported to have graduated in 2011, compared to 85% nationally (Statistics Canada, 2015). The Alberta government acknowledges the significance of the problem. In 2006 the Government of Alberta launched the *Your Future Starts Here* initiative which included a symposium to hear the voices of students. The report from this symposium demonstrated that the process of dropping out begins long before high school but it did not explore the possibility of

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early identification of students at risk (Alberta Education, 2006). In 2008 a report of the Alberta Commission on Learning stated that improving graduation rates should be a priority and set a goal to achieve 90% graduation within four years of commencing high school (Gunn, Chourney & Poulson, 2009). Schools in Alberta had already been working on this and were using funding through the Alberta Initiative for School Improvement (AISI) to support projects aimed at improving graduation rates. Gunn, Chourney, and Poulson (2009) analyzed 18 such action research projects in Alberta schools identifying five common themes in promising interventions, however the work being done at that time was limited to high schools. The authors pointed out the need for this work to be extended to elementary and middle schools, however there is no evidence in the literature that this has been addressed. The current government initiative, the Alberta Education High School Completion Framework, has identified what it referred to as five 'STARting points' to improve graduation rates (Alberta Education, 2016) but an emphasis on early identification of students at risk is missing.

Research has demonstrated that dropping out is not sudden, but rather years of accumulative factors might impact a student's decision to drop out (Statistics Canada, 2008). This establishes the importance of learning how to identify younger students at risk. Although there is empirical evidence that indicators of risk are present in younger students, there is a lack of research showing effective application of this knowledge in the middle school years. It is possible that identifying at-risk middle school students will drive the development and implementation of interventions for this age group aiming at reducing school dropout rates. The purpose of this article is to conduct a comprehensive literature review to identify indicators for high school dropouts among elementary and middle school aged students. Furthermore, the author intends to use these empirical findings to put forward recommendations for an individualized holistic approach for schools to employ monitoring and intervening, thus possibly reducing the rate of school dropout.

Analytical Approach

This literature review is an independent qualitative inquiry involving the interpretation of findings in relation to knowledge about the developmental stage of adolescents, and a synthesis of ideas to form recommendations. The search was carried out within the ERIC, PsychINFO and Educational Research Complete online databases using combinations of the following search terms in the title and then in the text: dropout, identification, early warning signs, intervention, and middle school. The initial search was limited to peer reviewed publications in English, published within the last 15 years. Older publications were considered in an effort to include Canadian data. I searched the 12 issues of the *International Journal on School Disaffection*. I read 27 abstracts, from which 20 studies and reports were selected for a full read. Some studies that fit the search criteria were excluded.

As the purpose of this article was to review literature about general school dropout rates, it was not applicable or feasible to examine indicators associated with specific child and youth populations whose unique experiences may have unique influences on their decisions to drop out. Therefore, I excluded articles examining only specific visible minority or marginal groups, or otherwise deemed too narrow to be relevant to the general population of middle school students in Alberta. Research that fell within my date criteria but was deemed to be outdated, for example on the topic of digital literacy, was excluded due to the rapidly changing nature of the field. I evaluated the validity of non-peer reviewed publications from the scholarly careers of authors, absence of conflict of interest, and the research processes described within the

documents themselves. The articles selected for a full read were critically analyzed and evaluated for relevance, credibility, and similarity according to guidelines in Hendricks (2017). To arrive at my findings, I evaluated the data through the lenses of applicability to the developmental stage of students age 10-14, and relevance in the context of urban and suburban Alberta. I analyzed the literature by generating a table of common themes. Through the methods summarized here, I synthesized new meaning that is relevant to the age group and population of interest, resulting in pragmatic recommendations for improvement.

Middle School Indicators for School Drop Out

Dropping out of school is described as a process wherein social, behavioral, demographic and family factors combine to negatively impact academic engagement resulting in declining achievement, which can ultimately lead to dropping out (Abraham, 2015). Pathways to dropping out are diverse and causes may be multidimensional (Orpinas, Raczynski, Wetherington Peters, Colman, & Bandalos, 2015) however, it is well established that early warning signs, such as disengagement, can indeed be evident before high school (Abraham, 2015; Janosz, Archambault, Morizot, & Pagani, 2008; Lee & Breen, 2007; Orpinas et al., 2015; Schoenberger, 2012; Wood et al., 2017). Multiple interrelated reasons for disengagement such as bullying, anxiety, and poor attendance create a snowball effect in the process of disengagement which can start early in the school career (Abraham, 2015; Schoenberger, 2012). Research, including a large scale longitudinal quantitative study, a qualitative study hearing the voices of older students and an analysis of Grade 3 engagement data, provided evidence that the identification of middle school age students who are at risk of dropping out is not only feasible, but recommended. Baltimore Education Research Consortium (2011) carried out a logistic regression analysis of longitudinal records of more than 7000 students in the 2000-2001 Grade 6 cohort in Baltimore providing strong evidence that early warning indicators in Grade 6 predict dropout in high school: 70% of students with an indicator did not graduate within one year of expected graduation. While 30% of dropouts displayed no indicator in Grade 6, the majority of these did by Grade 9.

In another study, Abraham (2015) interviewed 20 participants from ages 18-21, attending a dropout recovery program in Illinois, most of whom identified the onset of disengagement to be in middle school. Some of these individuals wished they had received interventions early on. In other research, Barry and Reschley (2012) analyzed data covering a range of facets of school engagement in Grade 3 students, finding models indicating the risk of dropping out. While the psychometric measurement instruments they used are not suitable for use as teacher screening tools, this study nevertheless points to the presence of early warning indicators even in primary school. These studies have provided strong evidence of the presence of early warning signs in students at risk of dropping out.

Early warning indicators of risk of dropping out have been widely studied and many authors have agreed that the key indicators are attendance, behavior, and course grades (Balfanz, 2011; Baltimore Education Research Consortium, 2011; Barry & Reschly, 2012; Kennelly & Monrad, 2007; Rumberger et al., 2017; Ryan, 2011; West, 2013). In addition, some studies have highlighted being over-age for the grade (Baltimore Education Research Consortium, 2011; Kennelly & Monrad, 2007; Ryan, 2011; Wood et al., 2015) or being retained in a grade (Kennelly & Monrad, 2007) as critical risk factors. While low or failing grades in all core subjects have been found to be a significant warning sign in a number of studies, McKee and Calderella (2016) specifically identified scores in math to be a relevant indicator of risk. This finding is based on standardized testing, and, as McKee and Calderella pointed out, other studies have shown standardized test scores to be a weaker indication of risk of dropping out than

teacher-assigned grades. Furthermore, the presence of multiple indicators greatly reduces the chance of graduating, as shown in the study by Baltimore Education Research Consortium, (2011), where only 26% of students with two indicators graduated, and for students with four indicators this figure was a mere 8%. Social and academic risk factors are interrelated and accumulate to reach a critical mass at which the individual can no longer cope with being in school (McKee & Calderella, 2016). Several studies have focused on specific early warning indicators. The impact of attendance, engagement in learning, and externalizing and internalizing challenges are examined in the next part of this literature review.

Attendance

Chronic absence is considered to be one of the strongest single indicators of risk of dropping out (Baltimore Education Research Consortium, 2011). Although somewhat dated, a Canadian study in Toronto corroborated the connection between poor attendance in Grade 9 and increased risk of dropping out, demonstrating the relevance of this issue in Canada (Brown, 1999). In a study in Philadelphia 78% of students who attended less than 80% in eighth grade later dropped out of school (Kennelly & Monrad, 2007). In another study, Wood et al. (2017) suggested that low academic achievement is the primary individual factor in risk of dropping out. Arguably, poor attendance results in missed opportunities for learning, which could then lead to poor academic achievement among students. Poor attendance may indicate disinterest, other desires or demands outside of school, lack of family support needed to attend school, decreased confidence, increased depression or aggression leading to avoidance (Schoenberger, 2012) or poor physical health, and a lack of resources or transportation to attend school. Attendance patterns can predict risk of dropping out (Schoenberger, 2012) thus reasons for absence should be thoroughly explored.

Attendance data is appealing to use in an early warning system as it provides an objective measure which is collected in a consistent way over time and across schools and is easily accessed through online data systems (Schoenberger, 2012). Attendance data alone is of dubious use in identifying students at risk of dropping out, however, well-adapted students could be absent from school yet still be able to maintain acceptable academic achievement, and conversely, disengaged students with low or falling achievement may or may not have poor attendance. Rumberger's (2011) description of students who are engaged in the social system of school but not the academic system is corroborated by a study of over 11000 students in Grades 1-9 in Montgomery County Public Schools, which found that students who were at risk of dropping out did not tend to be absent or truant, rather they were present, but failing academically (West, 2013). Further complicating this issue, researchers do not agree on a rate of absenteeism that is a definitive indicator of risk of dropping out. In fact, in the Schoenberger (2012) study the statistical attendance threshold had to be changed from 80% to 90% to obtain meaningful results, illustrating this point nicely. Poor attendance is recognized as a problem in schools in Alberta with 2000 students per year in Alberta referred to the attendance board to address issues related to truancy (Alberta Education, 2014).

In 2011-2013 the government of Alberta carried out a study into improving school attendance, including surveys and focus groups across 16 school authorities involving 2700 educators, superintendents, attendance board members, 150 students with poor attendance, and 100 parents and guardians. The result of the study was a comprehensive list of recommendations including proactively improving attendance through protocols to monitor attendance and act on poor attendance as soon as it becomes evident, creating individual support plans including appropriate learning pathways, and providing professional development on strategies to improve

attendance and engagement such as building a positive learning environment and safe and caring school initiatives (Alberta Education, 2014). The specific recommended supports included silent mentoring (a subtle approach to relationship-building and improving school engagement with an individual at risk), assigning specialized personnel to support indigenous families, solving transportation issues, and fostering goal setting, career awareness, and support for transitions (Alberta Education, 2014). Further recommendations included a focus on wellness by including social-emotional learning across all grades and by providing specific health and wellness information and supports to students and families (Alberta Education, 2014).

Taken together, the review of the literature suggests that while poor attendance might be an important risk factor, student absence is indeed a complex factor. Specifically, studying individual rates of student absence alone may not provide guidance as to what interventions may be needed to support the student. It is important to explore the reasons for absence as well as the impact the absence is having on the academic progress of the individual, which points us towards an individualized identification system.

Engagement in Learning

Engagement in learning directly impacts progress in school, and poor engagement is an indicator of the risk of dropping out. Many theories explaining school dropout are based on the notion of school engagement, encompassing the idea of individual compatibility with the school environment (Janosz et al., 2008, Rumberger, 2011). Janosz et al. (2008) carried out an accelerated longitudinal study, using multiple single cohorts starting at different ages, with 13300 students, age 12-16 to analyze changes in engagement over several years. The authors measured students' school attendance, behavioral and learning challenges, enjoyment and interest in schools using self-reports to track engagement. In cases where engagement in learning was either consistently low from the beginning of adolescence, or declined rapidly, the risk of later dropping out was higher. Students showing a rapid decrease in engagement and those who began adolescence with low engagement were at greatest risk of dropping out (Janosz et al., 2008). Additionally, with respect to school engagement and early drop out, Schoenberger (2012) predicted that children who do not feel accommodated in the environment of school due to their behavioral, cognitive, or emotional challenges may feel frustration or incompetence resulting in disengagement (Schoenberger, 2012). The complex interplay of disengagement with other characteristics or circumstances creates the snowball effect and thus disengagement is a significant risk factor.

Overt academic or social engagement is relatively easy to observe and measure (Barry & Reschley, 2012; Janosz et al., 2008; Kennelly & Monrad, 2007). For example, academically engaged students tend to have the materials needed for class, contribute to discussions, complete and submit work, and help one another out. Socially engaged students are connected to others, contribute to the school community, and participate in formal or informal extracurricular activities. Cognitive engagement, such as motivation and self-determination, or affective engagement such as peer and teacher relationships, however, cannot be observed so readily (Barry & Reschley, 2012). This indicates the need for diligence in teachers to identify students who might be struggling to concentrate or are unhappy at school, prompting support and interventions, be it from the teacher, district specialists, or the school psychologist. Student engagement is an alterable state, however (Barry & Reschley, 2012), and interventions can be effective. Low or unstable engagement in school is a significant risk factor for dropping out.

Externalizing and Internalizing Challenges

Externalizing and internalizing challenges contribute to school functioning of students, including disengagement, and thus are also risk factors for school dropout (Balfanz, 2011; Baltimore Education Research Consortium, 2011; Barry & Reschly, 2012; Kennelly & Monrad, 2007; Orpinas et al., 2015; Rumberger et al., 2017; Ryan, 2011; West, 2013). Externalizing behavior problems include physical and emotional aggression, alcohol or drug use, participation in a peer subculture of excessive partying, truancy, and engagement in at-risk and impulsive behaviors such as having precocious sexual intercourse (Orpinas et al., 2015). Internalizing concerns include anxiety, depression, neuroticism, and somatization, all of which could elicit maladaptive behaviors in students such as social withdrawal and school avoidance (Orpinas et al., 2015). To enhance school's effectiveness in identifying, monitoring, and supporting students with externalizing and internalizing concerns I recommend teacher training, consultation with psychology and mental health specialists in schools, as well as incorporation of school mental health strategies in classrooms. Suspension data is often used as a measure of compliance with school behavior expectations, however, behavior ratings by teachers were found to be more effective indicators of risk of dropping out than suspension data for sixth graders (Kennelly & Monrad, 2007) and may provide more consistent data as they nullify inconsistencies in school suspension policies. Students with formerly identified internalizing or externalizing challenges, such as anxiety disorders, should receive clinically proven specific accommodations and supports through an individual plan, and could show improvements in engagement in learning, emphasizing a need for the involvement of school based mental health staff in planning those supports (Green et al., 2017). Problem behavior is often symptomatic of other wellness issues that need to be identified and supported (Auger, 2014), and is a notable indicator of the risk of dropping out. If students with internalizing or externalizing behavior problems are supported with appropriate classroom accommodations and mental health interventions, rather than focusing on punitive consequences such as suspensions, then perhaps the risk of later dropping out would be reduced.

Identification Systems: Data Analysis and Holistic Approaches

Digital data analysis and individualized holistic ecological methods represent contrasting approaches to identification of students at risk. Data analysis systems are in place in several school jurisdictions in the USA to monitor and identify students at risk of dropping out (Ryan, 2011; West, 2013). Of the five systems described by Ryan (2011) all included threshold measurements for attendance and achievement, three included discipline data such as suspensions, two included being retained in a grade or over-age for the grade, and one included other detail such as school mobility (moving schools in addition to the expected transitions) and homelessness. These jurisdictions used digital data systems to generate scores for individual students, thus identifying those who meet the criteria for intervention. Threshold benchmarks indicative of risk vary between studies (Kennelly & Monrad, 2007; Ryan, 2011) and some authors encourage schools to review local historical data to establish thresholds relevant to their community (Rumberger et al., 2017; Wood et al., 2017); a time-consuming task of dubious effectiveness. Factors such as attendance, behavior and course grades are interdependent in the way they influence engagement in learning and Janosz et al., (2008) suggested that we avoid limiting identification strategies to readily measurable data such as attendance. No evidence was found of use of such statistical data systems to identify students at risk in Canada (Alberta Education, 2001), which may reflect a long-held view, supported by research from the 1990s,

that dropping out is a complex process involving many interrelated factors. While data systems may be useful to identify institutional trends and highlight clusters of students at risk, these values do not consider ecological factors involved in the student's life, and they are crucial for schools to consider planning interventions for school dropouts.

Ecological Theory

Proposed in the late 1970s, Bronfenbrenner's ecological theory explains how environmental factors influence development, identity and life choices at the micro-, meso-, exo- and macro-system levels (Bronfenbrenner, 1977), which supports a holistic ecological approach to identification (Wood et al., 2017). More than 40 factors have been linked to risk of dropping out encompassing attributes of community, family, school and the individual (Dockery, 2012). Physical and emotional changes of adolescence coupled with new school and life demands, cause difficulties for some but not others, supporting a holistic wellness approach to the identification of students at risk of dropping out (Lemon & Watson, 2011). A few researchers have addressed aspects of the wellness of individuals, including physical and mental health, ethnic identity, acculturation and sense of belonging in relation to risk of dropping out (Lemon & Watson, 2011; Orpinas et al., 2015; Wood et al., 2015). Family factors such as low socio-economic status (McKee & Calderella, 2016; Wood et al., 2017), family turmoil, authoritarian or neglectful parenting (Orpinas et al., 2015), or homelessness (Ryan, 2011) contribute to the risk of dropping out and an individualized holistic approach seeks to identify such diverse factors.

Classification of Groups of Students Who Drop Out

Attempts have been made to classify students at risk of dropping out into groups to aid identification and streamline interventions, however two such studies discussed here also demonstrate the diversity of routes to dropping out, supporting an individualized approach to identification. Orpinas et al. (2015) carried out a study of 657 students in Grade 6 in Georgia and developed a classification system of social adaptive skills through a combination of teacher ratings and self-reporting, and the longitudinal correlation to dropping out. As anticipated the groups with externalizing and internalizing problems were found to have a higher risk of dropping out. Less expectedly, the group of students found to be average in all scales except social skills also had a higher dropout rate and, because of a lack of significant externalizing or internalizing problems, these students are more difficult to identify. They tend to have a lower sense of mattering (meaning a feeling of belonging and being appreciated) fewer positive peer connections, and are more vulnerable to bullying or exclusion (Orpinas et al., 2015). In another study of 1582 students in Montreal, 507 had not graduated by age 22, and were classified into four groups (Janosz et al., 2008). The groups at greatest risk of dropping out were the quiet dropouts (those who report being previously highly engaged in school) and the maladjusted dropouts (those with severe difficulties). Two other groups were the disengaged dropouts (severely unmotivated but without other significant difficulties) and lower achievers (school failure but without any externalizing behavior) (Janosz et al., 2008). This demonstrates that school dropouts follow a variety of trajectories, of differing severity, some of which may not be immediately obvious to school staff, indicating the need for an individualized approach to identification.

Unexpected Outcomes

Some students displaying no clear early warning signs will still drop out of school. A data-driven early warning system would miss these students at risk. Janosz et al., (2008) found

that in the normative group with stable trajectories of engagement, which had the lowest number of eventual dropouts, some students still dropped out, the majority of whom were girls. Factors contributing to unexpected dropping out can be situational factors such as pregnancy, marriage, entry into the workforce, or personal factors such as the onset of depression or anxiety (Jansoz et al., 2008) or a traumatic life event. Unexpected events, such as receiving an attractive job offer, could cause a student to suddenly adjust the value they place on education, influencing the decision to drop out (Rumberger, 2011). Pregnancy has been shown in one study to be the primary reason for unexpected dropout amongst girls, (Meeker, Edmonson & Fisher, 2008) however Rumberger, (2011) points out that the pregnancy is often not the root cause of dropping out, but rather the underlying factors such as poverty and poor engagement in school which combine to result in the pregnancy. This author proposes that an individualized, holistic approach provides an opportunity to identify those students whose pathway towards dropping out is more subtle or sudden.

In conclusion, we need to take early warning signs of dropping out in middle school seriously so that we can implement effective interventions (Orpinas et al., 2015). Identification through an individualized, holistic approach provides a more accurate means of identification than a data-driven system. Furthermore, by revealing the personal strengths and challenges of the individual, this approach informs appropriate interventions.

Discussion

Students who drop out of school can be identified and supported in middle school. Poor attendance in this age group is of particular concern because, as well as academic interruption, the social disconnectedness of school absence creates an additional challenge for adolescents and results in a snowball effect. Early intervention is critical in the light of this snowball effect.

As expected, the issues surrounding disengagement and risk of dropping out are complex and a tiered approach, such as Response to Intervention (RTI), which includes both monitoring and interventions at the universal, group and individual level (Brown-Chidsey & Steege, 2010) could be effective. The three tiers begin at the classroom level, where teachers observe and assess student achievement and wellbeing, and implement universal interventions. For those students who do not respond, schools provide second-tier interventions, typically in small groups. Finally, students who need yet more support receive intensive individualized interventions. In this way, RTI may provide a structured process to improve engagement and reduce the risk of dropping out of school. The key indicators of risk found in the literature, which form a basis for triage within the RTI model and inform intervention strategies are poor attendance, internalizing or externalizing behavior concerns, academic difficulties, low or falling academic achievement, poor engagement in learning, emotional concerns, low sense of mattering, poor social integration, familial factors, being overage for the grade or retained in a grade.

Although statistical data-driven analysis programs might serve well to identify local or systemic trends, on an individual level, schools must assess the degree of risk through a more thorough, holistic, ecological approach in which all risk factors are examined to evaluate the direction and degree of impact on the individual. Problematic thresholds, for example in attendance rate, vary between individuals depending on achievement motivation; a long-established theory, the origins of which are credited to John W. Atkinson (Weiner, 2010), explaining the differences between the effort individuals will put in to achieve their goals. Family factors are complex, for example, school mobility forms a risk factor for some yet a

protective factor for others (Kennelly & Monrad, 2007). An individualized assessment of risk, involving analysis of all the factors listed in the paragraph above, is therefore essential.

While the RTI model serves to support all students, it can also be used to provide feedback to administrators to identify and respond to localized challenges and trends, informing policy changes and funding strategies. One example of a specific problem in Alberta is the low graduation rate of Indigenous students. The response in one large urban school board was to place trained learning coaches in schools across all age groups where this need was recognized, to mentor and support Indigenous students towards success. A similar approach could be taken if other clusters of students showing signs of being at high risk of dropping out are found.

Further Research

Noticeable gaps in the literature on early warning signs include social media, birth order, unexpected success and the aforementioned school mobility. Social media opens up a new realm of wellness-related issues for adolescents today, and up to date research is needed in this area (Lemon & Watson, 2011). Increased usage of cellular and digital devices may elicit risks for excessive internet use and school avoidance, and students with mental health concerns are at greater risk of such issues. Therefore, further empirical examination of these issues and its relationship with school dropout is warranted. Birth order is an as-yet unexplored factor in dropout risk (Lemon & Watson, 2011). Birth order could influence the type of family responsibilities students have, such as caring for younger siblings or supporting the family financially, which could potentially be a barrier to daily participation and attendance in school. Furthermore, younger children who have observed an older sibling drop out may be influenced to follow suit. Cultural sensitivity towards family expectations comes into play here, and further research is needed in this area. Some students with serious risk factors go on to successfully graduate (Orpinas et al., 2015) and more research is needed to discover what distinguishes this group who achieve unexpected success. While we know that school mobility impacts students differently (Kennelly & Monrad, 2007), greater understanding of the reasons for these differences is needed.

Stigma associated with school dropout is an important topic and the influence of stigma on the decision to drop out, as well as the impact of stigma on the individual who has dropped out, is missing from current research. Lee and Breen (2007) claim to have provided a "normative narrative" on dropping out (p. 342) by presenting 10 out of 12 cases of students who had dropped out of school yet found satisfying full time work. While the selection of participants through the author's own social network leaves open the possibility of bias in this study, it does illustrate the point that early school leaving is not always a personal disaster. A small number of students showing no early warning signs still drop out (Janosz et al., 2008) and presumably face the associated stigma, as well as pressure to return to school. Could a normative narrative around leaving school early be helpful or would complacency become instilled among potential dropouts and educators? Further research into the impact of stigma surrounding leaving school early would be illuminating.

Conclusion

"When students drop out of high school, it's a failure of the education system, plain and simple" (Alberta Commission on Learning, 2003, p.61). Students at risk of dropping out can be identified early, and middle school staff should use the findings of this research, namely an

individualized holistic tiered approach, to illuminate a host of complex and interrelated early warning signs to identify students at risk. Interventions can be applied, reducing the dropout rate and improving outcomes for individuals and society. Identification of students at risk has been well researched, with notable exceptions where more work is needed: social media use, birth order, unexpected success, school mobility and stigma. Nonetheless, students at risk can be identified in the middle school years and by providing support to effectively re-engage youth we can reduce the risk of later dropping out. It is imperative that we act to apply pragmatic monitoring in middle schools.

In the wider society, the lack of prospects and damaging stigma of leaving school early is a social construct which can be changed. For those who do not successfully fit the current school profile we need to provide valued choices that offer genuine opportunities for a happy, healthy and rewarding life. This change can start in schools with the identification of those at risk of dropping out and by offering educational pathways on which they can thrive. If successful alternative educational routes become commonplace, over time such routes will become accepted as a part of the mainstream educational profile and stigma will dissipate.

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