# Mental Health Literature Review

## Background

In October 2019, it was reported that 10 children per week of primary school age attend hospital for self-harm injuries in Newcastle NHS Trust (BBC Newcastle, 2019). This is the 'tip of the iceberg'; those children who are taken to hospital from exposed injury, not including those who hide their injuries, and not including Northumberland and North Tyneside Trusts. The reality is, that the 'real' number is much higher.

Mental health is a growing priority nationally, particularly for young populations as mental health difficulties often emerge during the primary school years (Howard, Burton, Levermore, & Barrell, 2017). Approximately 50% of adults with mental health difficulties report that they first encountered problems before age 15 (Kessler et al., 2005), and there are now increasing calls for school teachers to address children's mental health in schools, with the government announcing every secondary school teacher will be offered mental health training by 2020. With increasing focus on schools to address mental health concerns of children, the Fuzzy Subjects mental health awareness workshop is well-placed and well-timed to aid school staff in identifying and supporting children's mental health, whilst also providing children with the opportunity, knowledge and skills to self-manage their own mental health wellbeing.

## Aims

The aim of this literature review was to explore academic literature and wider publications relating to key factors associated with mental health difficulties in the primary school years. The findings of this review will inform a new Fuzzy Subjects workshop as regards to which risk and contributing factors may be addressed in a workshop for children's mental health, as well as current rates of mental health difficulties in children and effective strategies for intervention.

## Search Method

Primary outcomes were risk and contributing factors for mental health difficulties in children. Secondary outcomes were current rates of mental health difficulties and effective intervention.

### Inclusion criteria

Literature was included in the review if it met the following criteria:

- Published in the last 10 years
- Addresses primary school-age children or young adolescents
- Reports on key contributors whether these are environmental (for example how social media has affected rates, gaming) or intrapersonal traits (such as low self-esteem, resilience, metacognition); mutable and nonmutable
- Reports on rates of anxiety, depression and/or self-harm
- Reports on long-term impacts of early mental health difficulties
- Reports on strategies for intervention

## Exclusion criteria

Literature was specifically excluded if it met any of the following criteria:

- Case study
- Reported on adult population
- Reported on children from a significantly different culture/ethnic background to UK population
- Published >10 years ago

## Literature Sources

The following sources were searched for relevant literature:

- Newcastle University library

A range of online databases and Journals including:

- ProQuest Education Journals
- ERIC
- Medline
- SpringerLink
- Taylor and Francis
- Medline/PubMed
- Scopus
- BMJ Journals
- Social Sciences Citation Index

Web resources including:

- Department for Education
- Mind
- Mental Health Foundation
- News articles
- NHS Digital
- Office for National Statistics

## Analysis

A qualitative thematic approach to analysis was applied to included literature whereby literature was categorised as reporting on one of three themes pertaining to primary and secondary outcomes: 1) Risk and contributing factors 2) Rates of mental health difficulties in the primary years 3) Strategies for intervention. Risk and contributing factors were separated into literature reporting on mutable factors, and those reporting on nonmutable factors.

The results were then used to identify a set of key cognitive-behavioural characteristics that underpinned anxiety, depression and self-harm that would be integrated into a new Fuzzy Subjects workshop as targets for change, and to inform future lesson plans for long-term impact, and measurement tools to measure change in children's knowledge, beliefs and behaviours.

# Results

A total of 25 papers were included in the review that met the above criteria. 4 reported on current rates of mental health difficulties in children, 10 reported on mutable risk and contributing factors for mental health, 7 on nonmutable risk and contributing factors, and 4 reported on effective intervention. These papers are categorised and summarised below.

## Risk and contributing factors- Mutable

A risk factor for children's learning, development and overall wellbeing is sleep quantity and quality. Quach, Hiscock, Wake (2012) explored the relationship between sleep problems and mental health. They surveyed 1500 parents of children in the first 6 months in primary school and found 38.9% of children had sleep problems; moderate/severe sleep problems were associated with poorer child mental health, health-related quality of life and parent mental health.

Children's use of social media has increased significantly since the development of a number of social media platforms and smart phone technology. A wealth of anecdotal concerns about the relationship between social media and mental health have been supported quantitatively by Kelly, Zilanawala, Booker et al (2018) using Millennium Cohort data from 10,904 14-year olds. A significant association was found between social media use and depressive symptoms. The magnitude of association between social media use and depressive symptoms was larger for girls than for boys. Greater social media use related to online harassment, poor sleep, low self-esteem and poor body image; in turn these related to higher depressive symptom scores. Greater hours social media use was related to body weight dissatisfaction, which in turn linked to depressive symptom scores directly and indirectly via self-esteem.

Bayer, Mundy, Stokes (2018) 1221 children aged 8-9 years and found children who reported being victims of bullying self-reported higher levels of internalising problems than children who did not report being bullied. Amongst those children who reported being bullied, those with a group of friends had better emotional wellbeing. Therefore, indicating the presence of a support system mediating the effects of victimisation on children's mental health wellbeing.

Moore and Woodcock (2017) explored the characteristics of children who were victims of bullying. They surveyed 53 primary school children and 52 secondary school children about their resilience and experience of bullying. Participants who reported being victims of bullying exhibited less optimism, self-efficacy, adaptability, trust and tolerance than participants who did not report being victims of bullying. Fitzsimons (2018) using Millenium Cohort data has reported certain factors including being bullied, being overweight and not getting along with peers, as being associated with high depressive symptoms for boys and girls at age 14.

Turner, Chapman and Layden (2012) looked at 5 common functions of non-suicidal self-injury (NSSI) and the relationship between these and emotional and social vulnerabilities in females. Emotional Regulation (ER) functions of NSSI were associated with more intense affectivity, expressive suppression, and limited access to emotion regulation strategies. Feeling Generation (FG) functions of NSSI were associated with a lack of emotional clarity. Like ER functions, Self-Punishment (SP) functions were associated with greater affective intensity and expressive suppression. Interpersonal Influence (II) functions were negatively associated with expressive suppression and positively associated with domineering/controlling and intrusive/needy interpersonal styles. Interpersonal Control (IC) functions were negatively associated with expressive suppression and positively associated with a vindictive or self-centered interpersonal style. This research highlights the specific character traits of an individual that may render them more likely to engage in NSSI to achieve specific goals.

Rates of self-harm are higher in females than males and strongly linked to internalising difficulties. However Stanford, Jones and Hudson (2017) discovered 5 distinct psychological profiles in both males and females who self-harmed: 1) Psychologically 'normal'; 2) Anxiety symptoms (those who scored highly for anxiety symptoms); 3) Impulsive (those who scored highly for impulsivity, difficulties with attention and behaviour); 4) Pathological; and 5) Pathological-Impulsive (both include individuals who had co-occurring depression and anxiety and low self-esteem, but the latter having a higher score for impulsivity). The 'normal' profile had a significantly higher rate of single-episode self-harm and higher scores for family and peer support with lower scores on anxiety symptoms. Results indicate an intricate network of influences between characteristics for example high anxiety levels commonly identified as a risk factor for self-harm, may be offset by lower depressive symptoms, good support from friends and family and better coping skills, ultimately decreasing risk of self-harm.

Similarly to Moore and Woodcock exploring the differential characteristics of children, Goodman et al (2015) conducted a literature review exploring how different skills in childhood are related to development over the life course. Social and emotional skills in childhood were shown to be particularly important for mental health wellbeing, these included aspects relating to self-perceptions including locus of control, self-concept, self-esteem and aspects relating to self-regulation and control including cognitive ability, good conduct, conscientiousness. These factors are all important for healthy social relationships with peers and adults, so it is possible that difficulties in these mediate mental health wellbeing through poor social relationships and support.

Social and emotional skills encompass both internalising and externalising behaviours. Angelkovska, Houghton, and Hopkins (2012) profiled 125 clinic-referred primary school children (6-12 years) for risk of self-harm based on internalising and externalising behaviours. Based on scores on the Child Behaviour Check List, children were profiled as one of the following: Non-Clinical, Externalisers, Internalisers, Combined Internalisers/Externalisers. Individuals in the combined category, with both internalizing (anxiety/withdrawn, anxiety/depressed and somatic complaints) and externalizing (rule breaking behaviour and aggressive behaviour) characteristics were more at risk of self-harm. Therefore, risk is cumulative and increases with multiple difficulties.

Supporting the findings of Bayer, Mundy and Stokes (2018) about the importance of peer support, Van der Wal and George (2018) found that higher levels of social support predicted lower risk for adolescent self-harm in both males and females. Specifically, social support-oriented coping and resilience lowered the risk of self-harm by reducing tension and emotional reactivity.

## Risk and contributing factors-Nonmutable

Behavioural inhibition, a personality type that shows a tendency toward distress and nervousness in new situations and that which has a genetic risk for presentation, has been shown to be a risk factor for the development of anxiety disorders. Behaviourally inhibited children who display heightened orienting to threat, low attention shifting and high inhibitory control, as well as high error monitoring are at increased risk for anxiety (Lahat et al, 2011). Similarly, Chronis-Tuscano et al (2009) reported four-fold increased odds of a lifetime diagnosis of social anxiety disorder among adolescents with consistently high levels of behavioural inhibition from ages 1 to 7. There is also suggestion that behavioural inhibition may not only represent a specific predisposition to anxiety but a more general risk factor for internalising disorders (Schofield, Coles and Gibb, 2009).

Other temperamental styles such as bias towards positive and negative emotion have been linked to depression. Pre-school children who have particularly low positive emotion are shown to have higher levels of depressotypic cognitive styles at age 7, and depressive symptoms at age 10. (Dougherty, Klein, Durbin et al, 2009). Shepman, Fombone, Collishaw et al (2014) also found cognitive biases in clinically depressed children; these children had substantially higher rates of negative cognitive distortions, attributional biases, and ruminative responses (compulsively focussed attention and thoughts on feeling sad) than non-depressed children.

Beedso, Knappe and Pine (2009) reviewed evidence covering risk factors for anxiety disorders and phobias. They plotted normative anxiety and fears across the ages and psychopathological relevant symptoms. A range of factors were found to be associated with anxiety among children and adolescents. Specifically, females were reported to be twice as likely as males to develop each of the different types of anxiety disorders. Children of parents with at least one anxiety disorder have also been found to have a substantially increased risk of also having an anxiety disorder. Increased risk of anxiety in children was especially associated with maternal social phobia and generalised anxiety disorder, and with maternal diagnoses of early onset, greater number and more severe impairment. (Schreier, Wittchen, Hoffler et al, 2018).

Beyer, Postert, Muller et al (2012) tracked child mental health problems over 4 years from early primary school and explored the factors associated with mental health difficulties. They found parents' separation or divorce, and boys, as opposed to girls, were associated with a higher risk of child mental health problems.

However, Millennium Cohort Data (Gutman et al, 2015) showed gender differences in the type of mental health difficulties children had. Girls are found to have more internalising problems than externalising problems, and boys to have more externalising and peer problems than internalising problems. More boys compared to girls are also found to have conduct problems, hyperactivity/inattention and peer problems. Socio-demographic risk factors for poor mental health include ethnicity; white and mixed ethnic children have higher rates of hyperactivity and inattention and conduct problems than other groups.

To gain a Teacher perspective on children's mental health, primary school staff in the North of England were interviewed by Simm, Roen and Daiches (2010), specifically about self-harm and the emotional impact it had on school staff, as well as their understandings of why children self-harm and how this is managed. Teachers ascriptions as to why children self-harmed included a range of intrapersonal reasons such as 'to release negative feelings', 'low self-esteem', 'feeling frustrated, unhappy or unloved' and 'to take control'. Alongside these were interpersonal reasons, including 'a way of initiation into a group', 'attention' and 'copying another person'. Causes or triggers assigned to self-harm were 'negative experiences/events at home or at school', 'poor parenting' and 'family problems- financial, social, emotional'.

## Rates of mental health difficulties in the primary years

In England 1 in 8 children (12.8) aged 5-19 years old has at least one mental disorder, with emotional disorders being most prevalent at 8.1%. In the primary years, 1 in 10 5-10-year olds (9.5%) has a mental health disorder, with boys being twice as likely than girls to have a disorder. In this primary age group, behaviour disorders and emotional disorders are most prevalent; emotional disorder rates are similar for boys and girls, but hyperactivity is much higher in boys (NHS Digital, 2017).

Currently, in England there are around 108,979 primary school children (16.3%) classified as having Social, Emotional and Mental Health (SEMH) difficulties as their primary need (Department for Education [DfE], 2019).

The Millennium Cohort Study, a longitudinal study collecting data from a UK cohort of Millennium babies indicates that 1 in 3 children have severe difficulties in at least 1 Strength and Difficulties Questionnaire subscale, a scale which captures social-emotional and mental health difficulties, and 1 in 10 children have multiple problems. Boys are also more likely to have multiple problems than girls (Gutman et al, 2015).

Teachers are well placed to report on the wellbeing of children and changes over time that they may observe. More than eight out of 10 teachers say mental health among pupils in England has deteriorated in the past two years – with rising reports of anxiety, self-harm and even cases of suicide – against a backdrop of inadequate support in schools. In a survey of 8,600 school leaders, teachers and support workers, 83% said they had witnessed an increase in the number of children in their care with poor mental health (National Education Union, 2019).

## Interventions

Dray, Bowman, Campbell et al (2017) carried out a systematic review of 57 studies reporting on the impact of school-based resilience-focussed interventions on mental health problems in children and adolescents. For children aged 5-10 years, meta-analysis indicated a significant effect of intervention on anxiety symptoms and general psychological distress. The most commonly targeted resilience factors reported in interventions were cognitive competence, problem solving/decision making, cooperation and communication. The largest number of trials reported being based on CBT. All interventions included a curriculum component that ranged from one lesson per week up to daily lessons of 15-120 minutes, delivered over timescales from 5- 32 weeks.

The evidence for effective intervention for anxiety in children often involves the active engagement of caregivers to alter the trajectory of onset of anxiety following targeted prevention for at risk young children (Rapee et al, 2010). A review of childhood conduct problems (including a spectrum of anti-social, aggressive, dishonest,

delinquent, defiant and disruptive behaviours) found that the evidence for effective intervention is strongest for the three to seven years age group (New Zealand Advisory Group on Conduct Problems, 2009).

Kendall, Taylor, Bhatti et al (2013) summarised guidance for long term management of self-harm which included general principles of care for those working with people who self- harm. Principles included the following: Aim to develop a trusting, supportive, and engaging relationship. Be aware of stigma and discrimination sometimes associated with self-harm and be non- judgmental. Ensure that people are fully involved in decision making about their treatment and care. Aim to foster people's autonomy and independence whenever possible. Maintain continuity of therapeutic relationships whenever possible. Ensure that information about self-harm is communicated sensitively to other team members. In terms of intervention for self-harm, guideline suggest offering three to 12 sessions of a psychological intervention that is specifically structured for people who self-harm with the aim of reducing self-harm. The intervention should be tailored to individual need and could include cognitive behavioural, psychodynamic, or problem-solving elements. Therapists should be trained and supervised in the therapy they are offering and be able to work collaboratively with the person to identify the problems causing distress or leading to self-harm.

## Conclusions

This review has shed light on some of the current rates of mental health difficulties in children in the primary years, risk and contributing factors for mental health, specifically focusing on anxiety, depression and self-harm, as well as touched upon some key strategies for effective intervention for children's mental health wellbeing. As regards to risk and contributing factors, there is a clear distinction amongst the literature between those factors that may be considered mutable to some degree when considering the impact of a mental health workshop (e.g. social media use, self-esteem, peer support), and those that are nonmutable that a mental health workshop would be unable to change (e.g. parental divorce, SES, genetic factors). Nevertheless, it is important to build a holistic view of cumulative risk; considering a number of factors that may co-occur and place a child at increased risk. Furthermore, there are clear gender differences in the type of mental health difficulties children experience, with externalising difficulties more common in girls than boys, and externalising difficulties more common in boys than girls. Interestingly, a factor that appears to underpin anxiety, depression and self-harm is that of social support from peers and family. Having a good support system for coping appears to mediate the effects of risk factors for poor mental health. In addition, intrapersonal traits like resilience, self-perceptions and regulatory control are also related to anxiety, depression and self-harm. Unsurprisingly then, resilience and social support are found to be effective components of intervention and early intervention in the primary years is shown to be most effective.

From the research around self-harm, some core functions of the behaviour were identified, including emotional regulation and feeling generation; these two are interesting as they are essentially the opposite of each other at either ends of the spectrum but both culminating in self-harm. Punishment, interpersonal influence and interpersonal communication were also found to be functions of self-harm. Interestingly the interpersonal nature of these functions mimics the interpersonal difficulties found to be related to anxiety and depression. It is clear there is comorbidity not only between different types of mental health difficulties, but in their risk and contributing factors also.

## Recommendations

Analysing the results of this literature review through the lens of the positive psychology movement and standard Cognitive Behavioural Therapy frameworks we recommend addressing the below 5 areas in a new mental health workshop to pre-empt the above behaviours materialising.

1. *Improving metacognition* - The ability to think about thoughts. Especially negative automatic thoughts and negative core beliefs along with the common thought traps in CBT.

2. *Emotional regulation* - Exercises to maintain emotional balance.  Healthy exercises for both internalising and externalising emoters.

3. *Agency and resilience* - Exercises around control of outcomes, encouraging problem solving and decision making and asking for assistance when necessary.

4. *Mood control* - exercises around situational awareness, how to reengage the emotions and body in healthy ways, for both disassociated participants and those with high inhibition control.

5. *Interpersonal skills* - communication and collaboration around the issues and exercises.

We believe these 5 factors underpin internalising and externalising difficulties in children and are quantifiably measurable. Suggestions for measurement include social-emotional and mental health assessment based on the Strengths and Difficulties Questionnaire and cognitive processing assessment. It is possible that lesson plans for teachers can be created based on these 5 factors, to ensure long-term impact, teacher engagement, and allow for measurement of change over time.

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### *Background*

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