Dyslexia: Investigating Self-Harm and Suicidal Thoughts/Attempts as a Coping Strategy
Neil Alexander-Passe*
Middlesex University, London, UK

Abstract

Purpose: This study aims to investigate the emotional perspective of having Dyslexia, a specific learning difficulty that not only affects literacy but many aspects of an individual's life, from childhood into adulthood. This paper investigates negative emotional coping which took place, which included self-harming with: alcohol, food, body injury, suicide thoughts and suicidal attempts.

Method: The sample of N=29 diagnosed developmental dyslexics (N=22 with prior diagnosis of depression) were interviewed with a semi-structured script with a wide ranging script spanning childhood and adulthood experience. Interpretative Phenomenological Analysis (IPA) was used to analyse the data into themes.

Results: Self-harm was greater in the depressive to non-depressive sample; however, the type of self-harm varied. Males and non-depressives tended to predominantly self-harm with alcohol, followed by food and then rarely with bodily harm, whereas females in general, tended to predominantly self-harm with food, then bodily harm and lastly alcohol. Overall depressives self-harmed predominantly with food and then equally between alcohol and bodily-harm.

Conclusion: Each group had their own profile and suggests that self-harm is a complex issue, with self-harm activities happening both in child and adulthood.

Keywords: Dyslexia, Self-harm; Depression; Suicide; Coping

Introduction

Dyslexia

'Dyslexia' was first coined by Berlin [1] described word blindness, defined through Greek roots: 'Dys' difficulty and 'Lexia' with words. Morgan in 1886 first documented the term and condition in the British Medical Journal [2]. Since then numerous medical and educational professionals have sought to understand the condition, its origins, its cause or causes, and its treatment.

Whilst the origins of the condition concerns difficulty with words, modern definitions are broader however disagreements in the field exist regarding probable causes. Symptoms include difficulties in: reading/use of phonetics, writing, spelling, short-term memory, rapid naming, balance, motor skills, and organisation.

Such disagreement are reflected in the drafting revisions to the 5th version of the American Psychiatric Association's 'Diagnostic and Statistical Manual (DSM-5)' suggesting the term 'learning disorder' to be replaced with 'dyslexia' to 'render APA terminology consistent with international use', describing 'difficulties in reading accuracy or fluency that are not consistent with the person's chronological age, educational opportunities, or intellectual abilities' [3]. However its final published version (APA, 2013) uses 'Specific Learning Disorder' based on reasoning that the international conceptions and understandings of dyslexia (and other conditions) exist but disagree on its definition [4]. Elliot and Grigorenko argue that attempts to find a single definition have been hampered by factors of inclusivity, some criticised as being too inclusive and others too exclusive. Rice and Brooks [5] and Fitzgibbon and O'Connor agree that a universally agreed definition and explanation remains elusive, and that definition to date have been subjective and too broad, and serve self-obsessive purposes.

Rose's [6] review for the UK government, defines Dyslexia (specific reading disability) as a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling. Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed. Occurring across the range of intellectual abilities, it is best thought of as a continuum, not a distinct category, and there are no clear cut-off points. Co-occurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation. It is argued that a good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to well-founded intervention.

It is argued that the lack of a single agreed definition and assessment route has meant that dyslexia is generally misunderstood, leading to low identification rates, with many only being diagnosed in adulthood. It is argued that the majority of dyslexics leave school without diagnosis, and suffer at school through unsuitable and discriminatory teaching methods by teachers lacking special educational needs (SEN) training to identify children with learning difficulties [6-8]. Whilst current UK education policy states that all classroom teachers are 'teacher of all pupils including SEN', the lack of SEN training of teachers remains a concern to how they can deliver such a pledge [8,9].

Emotional coping in dyslexics

Whilst dyslexia affects both children and adults, children are seen
to be less able to hide their difficulties or differences (e.g., being made to reading aloud, and having their writing regularly critically assessed, etc.), compared to adulthood where assisted adults or technology can be utilized. Scott [10] and Riddick [11], Alexander-Passe [12,13] and Willcutt and Pennington [14] note the frustration and anger that can build up inside dyslexics when faced with tasks that highlight their inabilities, causing stress and anxiety (the fear of an already experienced negative event or task). Figure 1 for Alexander-Passe [15] details a hypothesized ‘Dyslexia Defence Mechanisms’ to understand the manifestations from the dyslexia experience.

Scott [10], McNutty [16], and Alexander-Passe [13] agree that dyslexics generally camouflage their difficulties, with advanced coping strategies, so a sense of normality can be projected. Dyslexics are very conscious of their differences, so create a secondary persona to operate in the wider community [10]. However when cracks occur in this persona, it can be highly embarrassing, demonstrating how vulnerable they can be, and confirming their otherness compared to their peers. Alexander-Passe [17] has investigated disclosure, labelling, discrimination, and stigma resulting in the sense of difference that adult dyslexics experience due to their dyslexia in the workplace and wider society. This highlights the depth that having dyslexia can affect individuals in our wider society and community.

Leonova [18] in her review of dyslexia and depression notes that different measure and samples are commonly used and many ignore the importance of gender and educational establishment factors. Three studies were seen as robust [12,14,19]. Alexander-Passe found raised levels compared to norm teenage data, with females showing moderate depression, a view supported by Wilcutt and Pennington. But Miller et al found no raised depression levels, however the sample ranged from 6-16 yrs. old and used non-standardised measures.

Scott [10] and Alexander-Passe [20] argue that dyslexics commonly experience school-based trauma and this can lead to Post-Traumatic Stress Disorder as adults, when they return to school for their own children, and begin to relive their own negative and traumatic childhood school experience. This can be triggered through smelling industrial cleaners, seeing and being made to sit on small chairs, seeing drawings and words displayed on walls, being frustrated at the lack of support for their own children, and being made to wait outside head teacher’s office.

There is a shortage of research concerning dyslexia and self-harm, especially with adults, and this paper aims to shed light on this rarely investigated subject.

Self-harming and depression

Greydanus and Apple [21] argue that deliberate self-harm (DSH) is a common though often hidden condition in children and adolescents that may result in suicide. Deliberate self-harm (DSH) refers to an act of purposefully harming oneself physically that may or may not reflect a real suicidal intent [22]. DSH is commonly seen in: overdosing, self-poisoning, and self-cutting. Greydanus and Apple conclude that: (1)

![Figure 1: Hypothetical model of ‘dyslexia defence mechanisms’](image)
DSH is a common and yet often clandestine phenomenon in children and adolescents that may become a repetitive pattern and may tragically lead to overt suicide. (2) Whilst most children and adolescents with DSH are not at high risk for completion of suicide, it is usually not possible to predict who will eventually kill themselves [23].

**Self-harm**

Non-suicidal self-injury (NSSI) refers to any premeditated, self-directed actions that lead to direct damage of body tissues [24]. This often manifests in hitting or punching an object to inflict injury to self, cutting, extreme scratching, skin carving, and interference with wound healing and burning. It is frequently correlated with physical and psychiatric, and may result in severe medical complications. Kerr, Muehlenkamp, and Turner argue that NSSI is normally used by individuals to handle worrying negative affective emotional states, in particular anger and depression, as well as mixed forms. It is argued to have a lifetime prevalence rates of 13.9 to 21.4% [25,26], and have an average of 13 incidents of NSSI occurring in the same 12-months [27].

The DSM-5 (APA, 2013) uses the following diagnostic criteria for NSSI:

- Over the past year, the person has for at least 5 days engaged in self-injury, with the anticipation that the injury will result in some bodily harm. No suicidal intent.
- The act is not socially acceptable.
- The act or its consequence can cause significant distress to the individual's daily life.
- The act is not taking place during psychotic episodes, delirium, substance intoxication, or substance withdrawal. It also cannot be explained by another medical condition.

The individual engages in self-injury expecting to (APA, 2013):

- Get relief from a negative emotion
- To deal with a personal issue
- To create a positive feeling
- The self-injury is associated with one of the following:
- The individual experienced negative feelings right before committing the act.
- Right before self-injury, the individual was preoccupied with the planned act
- The individual thinks a lot about self-injury even if act does not take place.

Evidence indicates a strong association that exists between suicidality and self-injury. Research states that as high as 40 percent of those NSSI patients have dealt with suicidal thoughts while inflicting the injury. Additionally as high as about 50 to 85 percent of NSSI patients have a previous history of at least one suicidal attempt. The association also indicates that as the type of self-injury increases, the severity of suicide also increases (Figure 2).

According to Kerr, Muehlenkamp, and Turner [24] most any NSSI patients use at least 2 different ways to perform self-injury, as high as 69 percent. One should also pay close attention regarding when NSSI greatly increases the risk for suicide. While much concrete research has not been conducted in this area, it is argued to be important to gauge how the patient perceives suicide, and life, since this can indicate when self-injury increases the risk for suicidality.

Mind [28] the UK’s leading mental health charity defines self-harm as including:

- cutting yourself
- poisoning yourself
- over-eating or under-eating
- burning your skin
- inserting objects into your body
- hitting yourself or walls
- drug overdosing
- exercising excessively
- scratching and hair pulling.

It is postulated that Paracetamol overdosing and cutting are the two most common forms of self-harm reported for children and young people, and self-harm is often not a singular occurrence, is commonly repeated, and can go on for many years [29,30]. Whilst eating disorders have been correlated with psychiatric disorders, self-harm and suicide correlations are a relatively new area of investigation and has been included in this study [31,32].

Bywater and Rolfe [33] argues that although some young people want help to find alternative means of coping with emotional pain and distress, the use of self-harm is used as a means of communicating the
severity of their anguish, trauma and pain to others. They add that
children and adolescents who self-harmed may not see their actions as
a problem - due in part to perceptions that their actions were non-fatal
and affected no-one but themselves.

With a UK community sample, Hawton, Rodham, Evans and
Weatherrall [34] found 6.9% of a school N=4000 population (15-16
year olds) had engaged in acts of deliberate self-harm in the previous
year, with only 12.6% such episodes leading to a hospital visitation.
Concurring with the Centers for Disease Control [35] a US sample into
attempted suicide among high school students.

Whilst there is little dyslexia data to use to investigate self-harming
in children and young people. Edwards [36] noted children who got
into fights to avoid going to school, as a few days off with a hurt/broken
arm was worth it to avoid having to take tests, complete writing tasks or
submit homework. The need to avoid reading aloud in class meant they
took extreme means of avoidance. Scott [10] based on her experiences
as a counsellor to dyslexics, noted that dyslexics (young and old) use
self-harming strategies to cope with the emotional effects of constant
failure in educational settings, and the direct and indirect bullying they
experienced from both teachers and their peers.

It is argued that alcohol abuse is the commonest type of substance
dependence worldwide [37] and is known to commonly lead to self-
harming activities, as a state of intoxication may trigger self-inflicted
injuries, increasing impulsivity, promoting depressive thoughts and
feelings of hopelessness, and simultaneously removing inhibiting
barriers to hurting one. Although indirect mechanisms, including
alcohol consumption, may form of self-medication for depression, and
it is also seen that alcohol is also a marker for other high-risk behaviours
[38,39].

Whilst there is very little empirical evidence investigating drug
abuse amongst dyslexics. Scott [10] suggests that in general 60% of
dyslexic alcoholics, mainly men, start drinking due to anxiety. Scott, a
counsellor, found high frequencies of drug and alcohol-related
anxieties amongst dyslexic child and adult clients. Postulating that
dyslexics are more likely than non-dyslexics to use drink and drugs to
cope with anxiety, with a significant proportion of dyslexic children, as
young as 13 years wishing to beat their addiction to tobacco, cocaine,
marijuana, ecstasy, drink and anti-depressants. Drug, alcohol and food
abuse is argued to be a means to reduce anxiety amongst children and
adolescents with dyslexia. In girls, anorexia and bulimia were common,
representing a need to exert personal control for the sufferer, in a world
they are unable to control other segments (e.g., school and home
life). This may also be used as a cry for help, as having such disorders
gain the attention of parents and health officials, but in similar ways
to truancy and behaviour manifestations, health and educational
professionals will commonly treat the manifestation without looking
for the root cause. It was argued by Scott that dyslexics who use drugs as
an emotional defence mechanism look to escape their feelings of being
abnormal, but their drug use sabotages their means to gain help.

Alcohol like food is a legal substance. Haw, Hawton, Houston and
Townsend [40] argue that food self-harm has many dimensions: (1)
used as comfort eating as a result of a stressful situation, e.g., a poor
mark in an examination or getting things wrong; (2) taken to extreme,
binge eating is a conscious attempt to change body size, to put
off people from getting close to them, along with a conscious attempt
to reject society and society's values. Lastly, (4) Food acts as a means of
control, in the form of anorexia.

Swales [41] argues that the intense pain from cutting can lead to the
release of endorphins and so deliberate self-harm may become a means
of pleasure seeking, although in many cases self-injury abuse becomes
a means to manage pain experienced in everyday living.

Why is self-harm attractive to dyslexics?

To understand why self-harm is attractive to dyslexics; one must
first understand the benefits of self-harm. SANE [42] a leading UK
mental health charity, and Gilbert et al. [43] describes self-harm as
being often:

- a secretive form of behaviour, with motivating factors for those
  who use it
- a means to deal with feelings and emotions
- those who use it are anxious about others knowing about it
- allowing them to keep their real feelings under wraps, to stop
  their anger or sadness spilling out
- a ‘secret-self’, that was separate from their externa; ‘social-self’
- used most by those who felt their inner self was most unacceptable
- a means to give their distress a physical form, and for self-
  loathing to be punished (displaced anger)
- a means to expressing and repressing feelings at the same time
- having feelings of guilt, shame, embarrassment and frustration
  (25% of the SANE N=946 sample)
- a means to releasing anger, lifting depression, and alleviating
  anxiety for some
- a mean to regain control of their lives (33% of the SANE N=946
  sample), ‘it helps me to regain a sense of control and so enables
  me to get on with everyday things again’ (p.4)
- a means to prevent suicide (10% of the the SANE N=946
  sample)
- a release of tension

In summary self-harm offers a secretive way of coping with
emotions, especially where individuals believe themselves to be
abnormal, a view shared by Hawton, James and Viner [44].

In the case of dyslexia, a learning difficulty that is hidden and
camouflaged until individuals begin to write to use most forms of
communications. As noted earlier, Scott [10], McNutty [16], and
Alexander-Passe [13] have indicated that dyslexics camouflage their
difficulties to promote a sense of normality to those around them.
Alexander [17] indicated high levels of shame and stigma attached
to having dyslexia, especially in the workplace, with many believing
they are unable to show their true-self to their family, friends and
colleagues for fear of ridicule. Adults with dyslexia would prefer to not
claim welfare benefits as it would require competing a form, they would
find every strategy to avoid reading and writing (e.g., saying they had
forgotten their glasses, or getting others to even break their writing arms so not to have to write/take school tests [36]. Easton, Entwistle and Williams [45] notes that those with low literacy have poorer health as they are less likely to access health services as these might highlight their literacy inabilities, they note ‘a significant negative impact’ (p.1) due to their inabilities to read prescription information, complete claim forms, avoid reading appointment letters, and their various strategies to cover up their literacy mislead health professional to health concerns.

The author argues that both self-harm and dyslexia describe ‘secret-selves’, ones that they do not share with others, not even partners and family. Each condition causes stigma and emotional trauma.

**Suicidal behaviour**

Suicidal Behaviour Disorder is newly introduced in the DSM-5 (APA, 2013); diagnosis is made to individuals who have made a suicide attempt within the past two years. A suicide attempt is defined as a self-destructive act deliberately carried out where there is a clear expectation of death. With the DSM-5 now considering suicidal behaviour as a condition independent of depression or other mental disorders, this marks a paradigm shift, as suicidal ideation, attempts, and successful attempts were previously defined as behaviours associated with mood disorders, and other mental disorders.

Reardon [46] argues that ‘most people’ (90%) who have depression or another mood disorder do not attempt suicide, however this view is challenged by many, as it could be argued that many individuals are not properly diagnosed, or that a potential mental illness are not self-reported [47].

Schrijvers, Bollen and Sabbe [48] argue that men tend to commit suicide at a higher rate than women, as it has long been established that men are likely to use more lethal and reliable means, such as a firearm or jumping for a height, while women are more likely to use unreliable, less lethal means such as cutting or taking an overdose of medication.

Hawton, James, and Viner [44] report that 25-50% of adolescents committing suicide have previously either engaged in self-harm or attempted suicide, and Zahl and Hawton [49] indicate there is an increased suicide risk has for those who self-harm repeatedly.

**Suicidal thoughts and attempts**

It is argued that correlations between bullying, school failure, pressure to achieve academically, peer rejection, feelings of frustration, depression, guilt and hostility have been made to childhood suicide [50,51]. Thompson and Rudolph [50] noted that children with ‘learning disabilities or other learning difficulties that cause constant frustration are more likely to attempt suicide…gifted children may attempt suicide because their advanced intellectual ability makes relating to children their own age difficult’. Winkley [52] argues that attempts of suicide increasing during school term and decreasing during school holiday and that the attempts also increase in May and June to correspond with GCSE examinations.

Peer [53] found that in six cases researched, the children were fragile, vulnerable and felt the ramifications for failure were enormous. Riddick [11] describes how the problems encountered because of dyslexia were enough for dyslexic children to want to kill themselves, noting one mother comment ‘he wanted to be dead, there was nothing for him. He wanted his tie so that he could hang himself’: Scott [10] notes that many cases of dyslexia-led suicide are not recorded as such children are unable to write suicide notes [54-56].

**Aims of his study**

The empirical study has identified that whilst many dyslexics cope with negative emotional coping strategies, there is little direct evidence to indicate if such coping leads to self-harming activities. This paper aims to fill part of this void, by investigating with an interview study a sample of dyslexic adults, looking at their childhood and adult experiences, for evidence of self-harming, and specifically what type of self-harming is used, and does this differ according to gender.

Adults were chosen as being better able to reflect of their lives, and being more able to articulate their emotions through a data rich investigative methodology.

Why is this investigation important? (1) It aims to highlight the longevity of school-based trauma, and how some dyslexics cope with such long-term trauma that can lead to Post-Traumatic Stress Disorder from school-based trauma, as identified by Alexander-Passe [15,20]. Self-harm has been argued to be a cry for help in individuals that lack support system (parents, teachers, local services) and is gives a voice through actions to their anxiety and despair. (2) There is a void in research into how adults with dyslexia cope, as the manifestations of dyslexia do not subside in adulthood; and adults may develop coping strategies to overcome/camouflage their difficulties. This study aims to uncover such coping strategies to understand the adult dyslexia experience better.

**Methodology**

**Sample**

The participants of the study were recruited three ways: (1) emails to UK dyslexia newsgroups, (2) adverts on dyslexia web-forums, (3) adverts on dyslexia associations’ websites. Four dyslexic sample groups were sought (with/without depression, degree/non-degree educated). Dyslexic adults with depression were the largest group replying. Both male and female adults were recruited to investigate gender coping differences (Tables 1 and 2).

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean age (years)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>29</td>
<td>40.56</td>
<td>12.67</td>
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<tr>
<td>Depression diagnosis</td>
<td>22</td>
<td>42.32</td>
<td>13.0</td>
</tr>
<tr>
<td>No depression diagnosis</td>
<td>7</td>
<td>35.14</td>
<td>10.89</td>
</tr>
<tr>
<td>Depressed - females</td>
<td>15</td>
<td>38.8</td>
<td>11.71</td>
</tr>
<tr>
<td>Depressed - males</td>
<td>7</td>
<td>49.86</td>
<td>11.32</td>
</tr>
<tr>
<td>Non-depressed - females</td>
<td>3</td>
<td>18.0</td>
<td>1.63</td>
</tr>
<tr>
<td>Non-depressed - males</td>
<td>4</td>
<td>43.5</td>
<td>6.54</td>
</tr>
<tr>
<td>Depressed - dyslexia diagnosis</td>
<td>22</td>
<td>28.09</td>
<td>11.83</td>
</tr>
<tr>
<td>Non-depressed dyslexia diagnosis</td>
<td>7</td>
<td>22.28</td>
<td>14.77</td>
</tr>
</tbody>
</table>

Table 1: Sample data: size, mean age and standard deviations.
All participants provided evidence of: (1) formal diagnosis of dyslexia evidence (e.g., educational psychologist reports), (2) depression (e.g., a clinical depression diagnosis or at least one course of physician/GP prescribed anti-depressants). Whilst mild depression is common in society, only severe cases tend to be referred for clinical diagnosis.

The mean age of dyslexia diagnosis indicating that the non-depressives tended to be diagnosed earlier, however in both groups they were mainly diagnosed post-school and after leaving university (Table 1).

**Apparatus**

An investigative semi-structured interview script was used with N=24 items (Table 3). Interviews lasted between one hour and three hours.

**The interview process, confidentiality, informed consent and personal disclosure**

Participants were sent details of the study before the interview, and all verbally confirmed participation before the start of each recorded interview. Participants were advised that they could avoid any questions that were emotional difficult to answer, and to halt the interview/their participation in the study without reason; fortunately, no participants took this option. As avoidance was noted in several interviews, further investigative questions were required.

Confidentiality was assured at several points: (1) the original study advert; (2) email confirmation/requests for basic details (name, age, education etc.); (3) the start of each interview, (4) advising participants that pseudonyms names could be used if so wished; (5) records to be kept in a secure, locked location.

As the interviews concerned participants disclosing emotionally painful or frustrating events it was felt best that the interviewer (the author) disclosed, where required, that he was diagnosed dyslexic and understood/had experienced many of the difficulties at school that they may have encountered.

Each interview was recorded, transcribed, spell-checked with minimal grammar changes; lastly a readability check was made. Transcripts were then emailed to each volunteer for them to check and amend if required, with opportunities for them to add additional notes or post interview revelations, as interviews can commonly trigger post-interview thoughts. Interviews were then subjected to IPA analysis.

**Analysis - interpretative phenomenological analysis (IPA)**

Whilst IPA is a relatively recent analysis model, its historical origins
fit pre-defined categories. Such intuition in the researcher is perceived to allow ‘outside the box’ thinking. The researcher is an interpretative element in understanding the resulting themes and body language, compared to Discourse Analysis [63] which relies on precise analysis of the words used.

IPA has been used in become more popular with researchers [64-67].

It is argued that IPA is suitable for this sample due to: (1) based upon the ‘social model of disability’ and inclusion friendly, aiding understanding in special need samples; (2) flexibility and the ability for themes from initial participants to inform an investigative interview script; and lastly (3) being Dyslexic friendly as it does not rely solely on written discourse?

IPA methodology was used in this study in the analysis of data; however the results from the transformations (themes) were then used to create quantitative data, thus mixing qualitative and quantitative methodologies. Nineteen main themes were identified from transformations from the third stage of IPA and two-hundred feelings or aspects were identified for these nineteen themes, and are displayed as quantitative percentages. The quantitative data then created tables along with interview evidence in the form of quotes (from mean units from the second IPA stage) are used to form each argument/topic for the results.

Results
Profiles
See Table 4 for supporting quantitative data. Overall the vast majority (85%) of this group (N=29) self-harmed to cope with their difficulties, with more than half feeling worthless (65%) and helpless at times (61.5%). Whilst 30.8% used alcohol to self-harm/cope with stress, coping with food was the highest strategy (34.6%), followed by bodily harm. 50% of this group had thought about suicide with 42.3% having attempted such a strategy.

Breaking down the data by gender, more females (N=18) than males (N=11) self-harmed (83.3 to 63.6%). Females had significantly higher scores for feeling unworthy (72.7%) and helpless (66.7%) Whilst males predominately self-harmed with alcohol (45.5%), females used food (38.9%). Interestingly whilst 36.4% of the men thought about suicide only 9.1% had attempted it. Compared to the females where 50% had thought about it and 55.6% had actually attempted it.

Of the depressed male sample (N=7), 71.4% self-harmed and this was highest with alcohol (42.9%). Unworthiness was higher than feeling helpless (42.9% to 28.6%). Whilst 42.9% of the males thought about suicide only 14.30% had actually attempted it.

Table 3: Book interview script N=24 items.

Table 4: Self-harm amongst depressive dyslexics.

<table>
<thead>
<tr>
<th></th>
<th>All %</th>
<th>All males %</th>
<th>All females %</th>
<th>All Depressed %</th>
<th>All Non-Depressed %</th>
<th>Depressed with degree %</th>
<th>Depressed without degree %</th>
<th>Depressed males %</th>
<th>Depressed females %</th>
<th>Non-Depressed males %</th>
<th>Non-Depressed females %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-harming</td>
<td>N=29</td>
<td>N=11</td>
<td>N=18</td>
<td>N=22</td>
<td>N=7</td>
<td>N=11</td>
<td>N=11</td>
<td>N=7</td>
<td>N=15</td>
<td>N=4</td>
<td>N=3</td>
</tr>
<tr>
<td></td>
<td>84.60%</td>
<td>63.60%</td>
<td>83.30%</td>
<td>81.80%</td>
<td>57.10%</td>
<td>90.90%</td>
<td>72.70%</td>
<td>71.40%</td>
<td>86.70%</td>
<td>50.00%</td>
<td>66.70%</td>
</tr>
<tr>
<td>Self-harm via alcohol</td>
<td>30.80%</td>
<td>45.50%</td>
<td>16.70%</td>
<td>22.70%</td>
<td>42.90%</td>
<td>18.20%</td>
<td>27.30%</td>
<td>42.90%</td>
<td>13.30%</td>
<td>50.00%</td>
<td>33.30%</td>
</tr>
<tr>
<td>Self-harm via food</td>
<td>34.60%</td>
<td>18.20%</td>
<td>38.90%</td>
<td>31.80%</td>
<td>28.60%</td>
<td>45.50%</td>
<td>0.00%</td>
<td>14.30%</td>
<td>40.00%</td>
<td>25.00%</td>
<td>33.30%</td>
</tr>
<tr>
<td>Self-harm via bodily harm</td>
<td>23.10%</td>
<td>9.10%</td>
<td>27.80%</td>
<td>22.70%</td>
<td>14.30%</td>
<td>9.10%</td>
<td>36.40%</td>
<td>14.30%</td>
<td>26.70%</td>
<td>0.00%</td>
<td>33.30%</td>
</tr>
<tr>
<td>Thinking about attempting suicide</td>
<td>50.00%</td>
<td>36.40%</td>
<td>50.00%</td>
<td>50.00%</td>
<td>28.60%</td>
<td>63.60%</td>
<td>36.40%</td>
<td>42.90%</td>
<td>53.30%</td>
<td>25.00%</td>
<td>33.30%</td>
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<tr>
<td>Feelings of being unworthy</td>
<td>65.40%</td>
<td>36.40%</td>
<td>72.20%</td>
<td>59.10%</td>
<td>57.10%</td>
<td>63.60%</td>
<td>54.50%</td>
<td>42.90%</td>
<td>66.70%</td>
<td>25.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Feeling helpless</td>
<td>61.50%</td>
<td>36.40%</td>
<td>66.70%</td>
<td>50.00%</td>
<td>71.40%</td>
<td>36.40%</td>
<td>63.60%</td>
<td>28.60%</td>
<td>60.00%</td>
<td>50.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Have attempted suicide</td>
<td>42.30%</td>
<td>9.10%</td>
<td>55.60%</td>
<td>45.50%</td>
<td>14.30%</td>
<td>36.40%</td>
<td>54.50%</td>
<td>14.30%</td>
<td>60.00%</td>
<td>0.00%</td>
<td>33.30%</td>
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</table>
In the larger depressed female sample (N=15) the vast majority (86.7%) self-harmed, with food and bodily harm being the main forms. A large 66.7% felt worthless and 60% felt helpless. 53.7% thought about suicide and 60% had attempted it at some point.

Interestingly looking at degree and non-degree educated data, those with a degree self-harmed more than those without (90.9% to 72.7%). Whilst a higher frequency with a degree felt worthless (63.6%), a higher frequency without a degree felt helpless (63.6%). Participants with a degree tended to self-harm with food, those without a degree self-harmed with bodily harm and then alcohol.

The profiles aid the reader in understanding how this sample group of adult dyslexics coped with life, which includes social stigma from their difficulties and feeling abnormal compared to their peers.

**Interview evidence**

Due to space, only a few quotes from interview evidence are provided for each theme (more evidence can be found in Alexander-Passe [13,15]).

**Alcohol**

*Have you ever self-harmed due to the frustrations that dyslexia brings? I do drink too much. Is it to drown-out the pain? Yes, it gets me out of, out of it all really. It is like...it helps you sleep so you are not up all night worrying, going over things sixty times. Slowing down or numbing your brain, allowing you to sleep? Yes. (Rachel).*

*Have you ever self-harmed due to the frustrations that dyslexia brings? It certainly seems like that way in the last 6 months. I left myself to die when I was 25 yrs old. Did you drink then? Yes. Was it serious drinking then? Yes. Do you know why? No. I just didn't want to exist. So it was a form of self-harm then? Yes. As you felt you didn't fit in and didn't want to exist, to use your words? Yes. (Ronnie).*

Like cigarettes, alcohol is a legal drug for anyone over the age of 16 year old. Interview evidence suggests that alcohol begins as a social activity, but can turn into a coping strategy to deal with work stress and in excess can form a vehicle for attempting suicide. Rachel notes that it can slow down her brain and Ronnie noted that when he drinks he doesn't feel dyslexic anymore. Are the two things related? Participants commonly mentioned that they thought much faster than their ability to communicate and write down. Does alcohol slow down the brain or relax the individual to such a degree that they lose their inhibitions or cares about the world around them? Alcohol serves as a central nervous system depressant which can cause relaxation and cheerfulness effects. Gorenstein suggests that alcohol affects the frontal lobes, which is where dyslexics are known to have unique neuron architecture [68], thus the ability of alcohol to numb the effects of dyslexia cannot be ruled out, however no research has been conducted in this area.

**Food**

*How about with food, self-harm can be comfort eating? Yes, I over-eat [laugh]. Was this also used when you were a child? Yes, I always have. As a form of control? [Pause] Yes, I think I have put on quite a lot of weight as I did not want to get into another relationship. It was my control that way. So it was a protection by putting people off your! Yes. (Rachel).*

*Have you ever self-harmed from your frustrations? Yes, if you feel crap you might want to go for the chocolate. I'm unsure if that is a dyslexic thing or a stress thing. (Phoebe).*

According to the evidence in this study, food can be a means to control their body shape/appearance. Was this to punish their body, as many dyslexics view their brains as having faulty wiring? One participant used to bang his head against walls, and another participant with anorexia said it was not to get attention as she would wear layers to disguise her weight loss, so was it therefore self-punishment and bodily control? She admitted that she avoided being noticed in class to avoid reading out aloud, to be invisible, so an alternative hypothesis could be that she was trying to reduce her size to be even more invisible or wither away? Lastly food can be used as an excuse to avoid sport and social interactions.

Jordan began with food as a comfort but later it became an excuse to not interact with others. Being large was also a reason to cover up his lack of co-ordination and ability on the playing field, as he had very active and sporty siblings. His continued use of food as a means to avoid can be translated into self-harming strategy.

**Bodily harm (Cutting)**

*Have you ever self-harmed yourself because of your difficulties? Yes. I used to self-harm, I slashed my wrists open and stuff. I used to eat loads of food and [do] all sorts [of things] really. Did you ever attempt suicide? Not as such. So when you slashed your wrists, how old were you? About 13yrs old. Do you know what triggered that episode? It was depression. Could it be linked to anything from school, like tests? No. School bullying? I suppose you could link it with the bullying. Do you still have those thoughts? Yes. What triggers these thoughts? Just a lot of stress, which is pretty much my big trigger. (Jearn).*

Do/Did you self-harm? Yes. I do still self-harm and have done since about the age of four. What are the triggers? My triggers are anger and frustration. I cut my arms and belly. As a kid I would scratch my hands or bang parts of my body like my head. I am currently having therapy which is addressing this issue. Have you ever thought about or tried to commit suicide? Yes. What were the triggers? I get very low sometimes and this is what triggers my negative thoughts. (Susan).

*I used to slap my head if I got really frustrated with life, I would hit my head very hard, and I would hit my head against a wall. (Trixie).*

Interview evidence suggests bodily harm can include hitting oneself in frustration (e.g., fists), banging oneself (e.g., hitting your head against walls) and cutting oneself. Whereas the hitting and banging one-self could be related to self-perception of one's body being faulty and the hitting and banging is in frustration, the cutting is a different factor. Cutting comes from damaging one's own body as revenge for it causing pain and aggression, and is likely to come from the need to control. Cutting can also be called self-mutilation based on hyper-stress or dissociation.

Interview evidence suggests that causing self-bodily harm is related to depression and forms part of feeling helpless and frustration with their inability to control their situation. Bodily-harm or self-mutilation came as a means to regain control, in a world they felt they had no control in; and to bleed themselves was a release of hyper-stress from their daily life, especially from school. Evidence also points to alternative forms of self-harm; this can include taking drugs to taking illogical risks, e.g., looking for fights in the playground.

In a world where dyslexics are unable to control many aspects of their lives (more so in young dyslexics), self-harm through anorexia, bulimia or cutting oneself is a common means to gain control over their bodies, as noted in Alexander-Passe [13,15] and Scott [10].
Suicidal thoughts

Have you ever thought about or tried to commit suicide? Yes, but I don’t like blood. I am really, really, really not brave…so I do not know if I could have gone through with it. There are loads of times when you think about it, when you plan it, but I do not know if I could go through with it. How young do you think you were when these thoughts first came into your mind? Probably quite young, although I wouldn’t see death as a way out, because I didn’t have that concept, I just wanted this to stop, the inability to do everyday things and you just think ‘I want to be like everybody else, I want to be normal and I’m not allowed to be normal’, so you want it to stop, to fall into a hole and not be there anymore. (Kirsty).

During my school years, I would quite often wish I had never been born, but actually I do remember as an early teenager kind of not waiting to wait until I could drive, because I couldn’t wait to get into a car and just drive it into a brick wall. Why the car? Unsure but I wanted to do that so it would all be over, not dealing with it all. (Emma).

Have you ever thought about or tried to commit suicide? Yes. How early was that, the first time? When I was about fourteen or fifteen years old, I was going through depression and things. (Rachel).

The interview evidence includes different suicide concepts. Some thought ‘wouldn’t it have been easier if I had not have been born,’ to ‘I wish I could fall into a black hole.’ Many school-aged dyslexics are naive to all the implications of suicide, but just want all their pain and suffering to end. Thoughts of unworthiness surface with Alexander-Passe [15] noting several dyslexics thought they were adopted or tried to run away from home, which is similar to thinking about suicide in childhood, with intense feelings of exclusion trauma/emotional distress.

Suicidal attempts

Please describe your time at school? Was it enjoyable? I quite enjoyed school until I went to secondary school, then I found it really difficult, I wasn’t diagnosed dyslexic till I was 17yrs old. I used to hate school because I couldn’t understand why I couldn’t do things that others could do. My primary school was fine, it was just secondary school that things weren’t good; I took an overdose when I was 14yrs as I just couldn’t cope with the school work. It was an academic school I was made to take 13 GCSEs which was far too much work. A lot of coursework.

I just felt there was too much pressure, I just can’t work under so much pressure, sometimes I can, and yes I can work under deadlines now, but I can’t do it if I have too many things on and doing 13 GCSEs, well I just couldn’t do it back then. There was always too much to do and it takes me so much longer to do things [due to my unidentified dyslexia]. The school expected me to go in during my holiday to catch-up! My overdose was due to school, I didn’t know what to do, and I couldn’t tell anyone I couldn’t cope with the workload. (Kirsty).

How early do you think you did those sorts of things? I think quite young. Not smoking or drinking, but hitting myself, yes. Have you ever attempted suicide? Yes. How young were you? I was, I’m just trying to remember when the first time was, I thought about it when I was at school, the first time I sort of got the equipment out to do it, was when I was at university. Do you know what the triggers were for that? I was very suddenly depressed. Did you feel abnormal there, struggling, problems learning? Yes, it was frustrations at university, when I first started my course and felt out of my depth with the workload. (Trixie).

It is interesting the frequency of non-depressives who had attempted suicide, which suggests that they might have been depressive after all, just without the label. Attempting suicide is not only a cry for help, but an admission that they are unable to cope and that suicide is the only option they see open to them. Suicide is not only seen by some as a means to rid them from this earth, but to stop their burden on others. They see suicide as the ultimate sacrifice as they feel shame, guilt, helpless, desperation, pain, anxiety. Interview evidence points to attempted suicide as a way of coping due to not fitting in, it come as a result of frustration and anxiety about their difficulties [69].

When a dyslexic attempts suicide, they are saying ‘enough is enough, I can’t take it anymore.’ Whilst other indirect factors are involved, it should not be underestimated how dyslexia affects relationships and the pressure that dyslexics feel as an outsider to even their own family. Many do not fit into their own family and unless a dyslexic finds a sympathetic life partner, their suffering continues in trying to fit into a world that many dyslexics find inhospitable. When children begin to withdraw, they are extremely quiet, or highly active and agitated. Suicide may be seen as an option as a result of excessive bullying and rejection [52]. Scott [10] suggests that problems related to dyslexia may cause suicide, whilst real numbers are unknown, numerous newspaper reports and anecdotes are the only current data [55,70,71].

Conclusion

The paper started with an empirical review of available studies, starting with: Dyslexia, Emotional Coping in Dyslexics, Self-Harming and Depression, Self-Harming, Suicidal Behaviour, and lastly Suicidal Thoughts and Attempts.

The review indicates that whilst dyslexia’s literacy deficits are recognised, but is still a matter of discussion about its actual causes, educational manifestations, labelling, and how it should be diagnosed. There is still a bias towards investigating it as a purely educational issue rather than one that affects individuals with a lifelong learning difference, resulting in possible psychological manifestations due to long-term educational failure. It is this long-term effect of educational failure over the course of a child’s ten years in mandatory education that is the basis for this paper, and investigations were made to see if such coping had gender differentials.

The true nature of the emotional suffering comes from words not numbers. Qualitative methodologies bring a richness that quantitative data cannot touch. The interview data included in this paper makes the suffering real and places it within our life world.

The main focus of this paper was to investigate self-harming as a reaction to long-term educational difficulties and as a by-product of depression, based on the data from Alexander-Passe [13,15,72]. Overall self-harm in many forms was used by the majority of the sample, with food and alcohol more commonly than bodily harm. Self-harm was used by individuals for regaining control in their life - where they felt they had no or little control in other aspects (e.g., school, relationships).

Food was an interesting form of self-harm; as it extended to binge eating as a comfort food, leading to obesity as another means to distance them from society (there is an illogical perception in society that fat people are abnormal and off-putting). Many self-harmers mentioned feeling unworthy, to explain why they resorted to punishing their bodies for causing them emotional pain due to humiliation.

With bodily harm, it was interesting to note that for those who hit their heads in frustration – it was to hurt themselves to gain a stimulus from feeling pain (a natural high), rather than for anger. As many in the study perceived dyslexia caused them to have a faulty brain, the idea of hitting something broken to get it to work cannot be discounted. In the
case of cutting, again there was a chemical and psychological release from spilling blood in a way of regaining control.

Not surprisingly self-harm was greater in the depressive to non-depressive sample; however, the type of self-harm varied. Males and non-depressives tended to predominantly self-harm with alcohol, followed by food and then rarely with bodily harm, whereas females in general, tended to predominantly self-harm with food, then bodily harm and lastly alcohol. Overall depressives self-harmed predominantly with food and then equally between alcohol and bodily-harm. Each group had their own profile and suggests that self-harm is a complex issue, with self-harm activities happening both in child and adulthood. In this study, children self-harmed as young as 5-10 years old in reaction to primary school work pressures, as well as feeling different to their peers.

Half the sample thought about suicide and less than half went on to actually attempt suicide. These thoughts, along with the high frequency of helplessness in the sample, suggest that suicide was viewed by many as an option to end their helplessness. Cases of suicide attempts as children were common in this study, as many felt there was no other option open to them to deal with the pressures from schoolwork and they perceived their parents misunderstood what they were going through. This suggests that parents and schools need to look out for children at risk and put policies in place to help them manage their workload. Drug overdoses, cutting wrists and alcohol poisoning (on purpose) were found in this study by both depressive and non-depressives, due to helplessness not just relating to literacy.

The long-term emotional effects of feeling alienated by your peers and frustrated by your difficulties, even for simple basic tasks, should not be underestimated. Such long-term effects come from: (1) Feelings of anger and resentment towards teachers from their childhood; (2) The humiliation and alienation as experienced by dyslexic adults comes from their own school days, being made to feel abnormal as Normal.

From the sample the vast majority still resented their childhood teachers and a large percentage also felt angry towards these teachers, with many asking ‘what could I have been?’ and questioning lost opportunities in life. Resentment and anger was greatest amongst non-depressed females, followed by non-degree educated depressives. Both groups one could hypothesise had not attained as per their childhood dreams.

In summary, the study looked at how dyslexic adults are still affected by their difficulties and how they are still affected by their childhood experiences of school. The longevity of school trauma and its effect on adult happiness and career progression means that school is an important period in a dyslexic’s life and educators need to focus on preventing further generations from experiencing negative and emotionally damaging school experiences, which can trigger lifelong mental illness.

Limitations

N=29 participants took part in the study (N=22 were diagnosed as depression and N=7 had no depression diagnosis). The author took the viewpoint that the vast majority of the participants (N=29) suffered one or more depressive symptoms, and that the study wouldn’t label any quotes as specifically coming from a depressive and others from a non-depressive, as this would be misleading and lead the reader to make assumptions.

References
